N60200.AR.000667
NAS CECIL FIELD, FL
5090.3a

FINAL REMEDIAL INVESTIGATION AT OPERABLE UNIT 7 (OU 7) SITE 16 VOLUME 2 OF 2
APPENDICES F THROUGH P NAS CECIL FIELD FL
7/1/1995
ABB ENVIRONMENTAL SERVICES INC

First 3
Single

REMEDIAL INVESTIGATION
OPERABLE UNIT 7

VOLUME II: APPENDICES F THROUGH P

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

UNIT IDENTIFICATION CODE: N60200
CONTRACT NO.: N62467-89-D-0317/090

JULY 1995

SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORTH CHARLESTON, SOUTH CAROLINA
29418

PRINTED ON RECYCLED PAPER

APPENDIX F

APPENDIX F

MONITORING WELL LOGS AND CONSTRUCTION DIAGRAMS

WELL AND PUMP DATA

Location of well: CEF16-1

County:

Township:

Township Number: N or S

Range Number: E or W

Section No.:

Fraction:

Address and City or Distance and Direction from Road Intersections

Property owner's name and address: NAS Cecil Field

Show exact location of well in section grid with an "X"

N

S

1 mile

Addition Name

Block Number

Lot Number

Sketch map of well location

Well depth: 50.0 ft.

Datum point from which all measurements are taken: Ground Surface

Method of Drilling: [ ] Cable tool [ ] Direct rotary [ ] Reverse rotary [ ] Hollow rod [ ] Air rotary [ ] Jetted [ ] Driven [ ] Bucket auger [ ] Flight auger [ ] Dug [■] Hollo Stem Auc

Use: [ ] Domestic [ ] Irrigation [ ] Test Well [ ] Public supply [ ] Municipal [ ] Heating or cooking [ ] Industrial [ ] Commercial [■] Monitoring [ ] ____

Casing Type: [ ] Steel [ ] Galv [■] PVC [ ] SS [■] Threaded [ ] Welded [ ] Solvent welded

Height above/below surface: 2.33

Drive shoe? Yes ___ No ✓

2 in to 10.17 ft Wgt ___ lb/ft Sch No 40

___ in to ___ ft Wgt ___ lb/ft Sch No ___

___ in to ___ ft Wgt ___ lb/ft Sch No ___

Hole diameter: 6-3/4 in to 50

___ in to ___

___ in to ___

Remarks, Elevation, Source of Data, etc.

Elevation T.O.C. 80.18

Elevation T.O.D. 78.35

Borehole data

Formation Log	Color	Hardness	From	To
Silty Sand	Brown	MedDnse	0	4'
Sandy Lean Clay	Brown/Gray	Stiff	4'	6'
Silty Sand	Lt. Brown	Dense	6'	34.8'
Clayey Sand	Gray	VryDnse	34.8'	50.0'

Intake Portion of Well

Screen type: Schedule 40 or open hole from ___ ft to ___

Manufacturer: Triloc

Material: PVC Dia: 2 inches

Fittings: Threaded Length: 20 ft.

Set between 10.17 ft and 40.17 ft Slot: 0.020 inches

___ ft and ___ ft Slot ___

___ ft and ___ ft Slot ___

Method of installation ___

Filter Pack

Source ___ Gradation: 6 - 20

Method of installation: Poured Composition: Silica

Volume used: 700 lbs. Depth to top of f.p.: 5 ft.

Grout

Used? [■] Yes [ ] No Volume used: 10 gal.

[ ] Neat Cement [ ] Bentonite [■] Cement-Bentonite

Method of installation: Poured

Depth from 0 ft to 4.5 ft

from ___ ft to ___ ft

Development

Method: Air Lift

Dates: 6/22/87 Duration: 50 min.

Chemicals used: None Sand content after 50 min.: 0

Static Water Level

7.15 ft [■] below [ ] above grade (9.45-2.3)

Date measured: 6/22/87

Pumping Water Level

Not Applicable ft [ ] below [ ] above grade Date ___

After ___ hrs pumping at ___ gpm

Specific Capacity

Not Applicable

Date ___ gpm/ft of drawdown at ___ hours

Pump

Date installed: Not Applicable Type ___

Manufacturer ___

H.P. ___ Volts ___ Model No. ___

Depth of pump intake setting ___ Capacity ___

[ ] Oil [ ] Water lubrication Power source ___ No. of stages ___

Material of drop pipe ___

Shafting ___ Impellers ___ Bowls ___

Column pipe dia ___ Length ___ Bowl dia ___

Modifications ___

Well Head Completion

Pitless adapter: Basement offset Distance above grade: 2.33 ft.

Nearest Sources of Possible Contamination

___ ft Direction ___ Type ___

Well disinfected upon completion? Yes No

Geophysical Logs Run

Not Applicable

Contractor Name and Address

Name of Driller: Southwestern Laboratories, Inc.

Driller's License Number ___

Water Quality

Samples taken? Yes ✓ No

Where analyzed: JTC Environmental Consultants 7/13/87

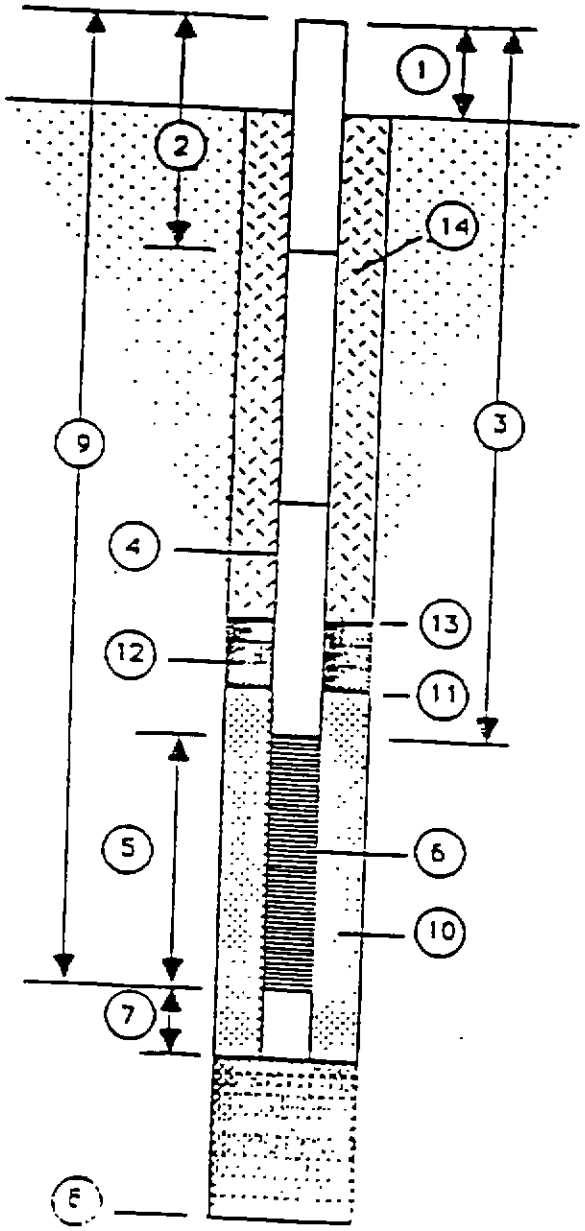
Date well completed: 6/22/87

DEPARTMENT OF THE NAVY
SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
2155 EAGLE DR. P O BOX 10068
CHARLESTON S C 29411-0068

WELL CONSTRUCTION DETAILS

WELL NUMBER CEF16-1

DATE OF INSTALLATION 6/19/87



1. Height of Casing above ground 2.33 feet
2. Depth to first Coupling 2.5 feet

   Coupling Interval Depths 12.5 feet, 22.5 fe
   32.5 feet
3. Total Length of Blank Pipe 12.5 feet
4. Type of Blank Pipe Schedule 40 PVC
5. Length of Screen 30 feet
6. Type of Screen Schedule 40 PVC, 0.020 in. s
7. Length of Sump 9.83 feet
8.* Total Depth of Boring 50 ft. Hole Diameter 6-3/4
9. Depth To Bottom of Screen 42.5 feet
10. Type of Screen Filter No. 1 Standard S

    Quantity Used 700 lbs. Size 6-20 U/C
11.* Depth To Top of Filter 6 feet
12. Type of Seal 1/2-inch Bentonite Pellets

    Quantity Used 40 lbs.
13.* Depth To Top of Seal 4.5 feet
14. Type of Grout Cement-Bentonite

    Grout Mixture 20:1

    Method of Placement Pouring

COMMENTS ON INSTALLATION

*From Ground Surface

WELL AND PUMP DATA

Location of Well: CEF16-2

County:

Township: Township Number N or S: Range Number E or W: Section No.: Fraction:

Address and City or Distance and Direction from Road Intersections

Property owner's name and address: NAS Cecil Field

Show exact location of well in section grid with an "X"

N

S

1 mile

Addition Name

Block Number

Lot Number

Sketch map of well location

Well depth: 50.0 ft.

Datum point from which all measurements are taken: Ground Surface

Method of Drilling

[ ] Cable tool [ ] Hollow rod [ ] Driven [ ] Dug
[ ] Direct rotary [ ] Air rotary [ ] Bucket auger [■] Hollow Stem Aug
[ ] Reverse rotary [ ] Jetted [ ] Flight auger

Use

[ ] Domestic [ ] Public supply [ ] Industrial [ ] _____
[ ] Irrigation [ ] Commercial
[ ] Test Well [ ] Heating or cooling [■] Monitoring

Casing Type

[ ] Steel [■] Threaded
[ ] Galv [ ] Welded
[■] PVC [ ] Solvent welded
[ ] SS

Height above/below surface 3.0 ft.

Drive shoe? Yes ___ No ✓

						Hole diameter
2 in	to 9.5 ft	Wgt ___ lb/ft	Sch No 40			6-3/4 in to ___
___ in	to ___ ft	Wgt ___ lb/ft	Sch No ___			___ in to ___
___ in	to ___ ft	Wgt ___ lb/ft	Sch No ___			___ in to ___

Remarks, Elevation, Source of Data, etc.

Elevation T.O.C. 81.57

Elevation T.O.D. 79.96

Borehole data

Formation Log	Color	Hardness	From	To
Silty Sand	Brown	MedDnse	0	4.2'
Sandy Lean Clay	Gray-Brown	Stiff	4.2'	6.8'
Clayey Sand	Gray	MedDnse	6.8'	8.9'
Silty Sand	Brown	MedDnse	8.9'	50.0'

Intake Portion of Well

Screen type: Schedule 40 or open hole from ___ ft to ___

Manufacturer: Triloc

Material: PVC Dia: 2 inches

Fittings: Threaded Length: 30 ft.

Set between 9.5 ft and 39.5 ft Slot: 0.020 inches

___ ft and ___ ft Slot ___

___ ft and ___ ft Slot ___

Method of installation ___

Filter Pack

Source ___ Gradation: 6 - 20

Method of installation: Poured Composition: Silica

Volume used: 300 lbs. Depth to top of fp: 6.5 ft.

Grout

Used? ■ Yes [ ] No Volume used: 10 gal.

[ ] Neat Cement [ ] Bentonite [■] Cement-Bentonite

Method of installation: Poured

Depth from 0 ft to 4.7 ft

from ___ ft to ___ ft

Development

Method: Air Lift Duration: 35 min.

Date: 6/22/87 Sand content after 35 min: 0

Chemicals used ___

Static Water Level

8.1 ft ■ below [ ] above grade (11.1-3.0)

Date measured: 6/22/87

Pumping Water Level

Not Applicable ft [ ] below [ ] above grade Date ___

After ___ hrs pumping at ___ gpm

Specific Capacity

Not Applicable

Date ___ gpm/ft of drawdown at ___ hours

Pump

Date installed: Not Applicable Type ___

Manufacturer ___ Model No ___

H.P. ___ Volts ___ Capacity ___

Depth of pump intake setting ___ No. of stages ___

[ ] Oil [ ] Water lubrication Power source ___

Material of drop pipe ___ bowls ___

shafting ___ impellers ___ Bowl dia ___

Column pipe dia ___ Length ___ Modifications ___

Well Head Completion

Pitless adapter Basement offset Distance above grade 3.0 ft.

Nearest Sources of Possible Contamination

___ ft Direction ___ Type ___

Well disinfected upon completion? Yes No

Geophysical Logs Run

Not Applicable

Name and Address

Name of Driller: Southwestern Laboratories, Inc.

State License Number ___

Water Quality

Sample taken: Yes ✓ No

Where analyzed: JTC Environmental Consultants 7/13/87

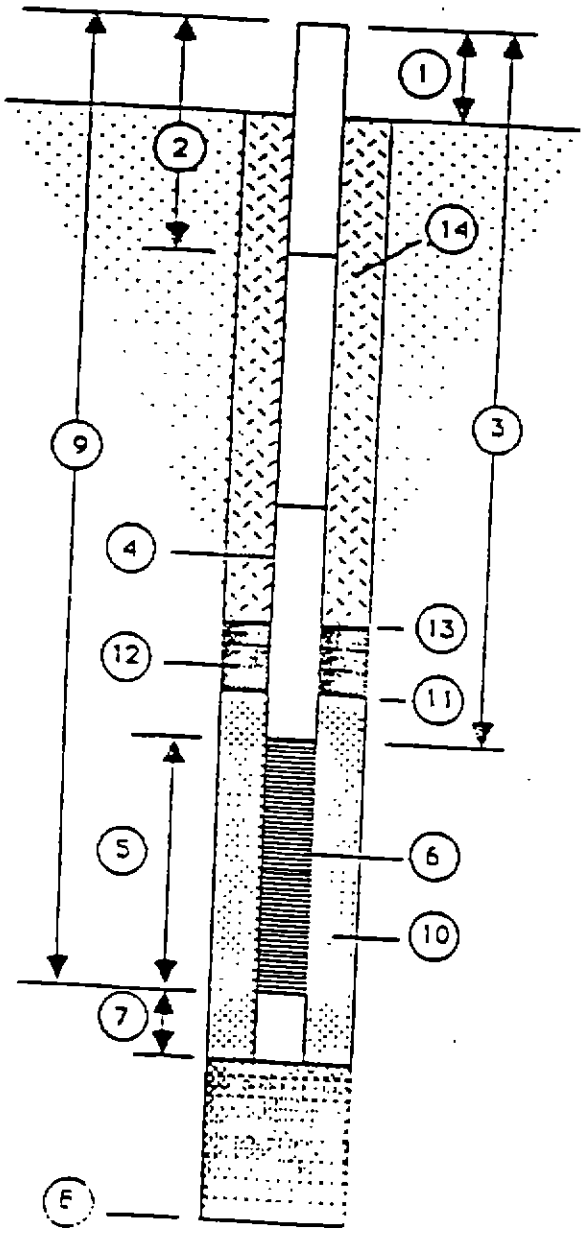
Date completed: 6/22/87

DEPARTMENT OF THE NAVY
SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
2155 EAGLE DR P O BOX 10068
CHARLESTON S C 29411-0068

WELL CONSTRUCTION DETAILS

WELL NUMBER CEF16-2

DATE OF INSTALLATION 6/18/87



1. Height of Casing above ground 3.0 feet
2. Depth to first Coupling 2.5 feet

   Coupling Interval Depths 12.5 feet, 22.5 fe
   32.5 feet
3. Total Length of Blank Pipe 12.5 feet
4. Type of Blank Pipe Schedule 40 PVC
5. Length of Screen 30 feet
6. Type of Screen Schedule 40 PVC, 0.020 in. s
7. Length of Sump 10.5 feet
8*. Total Depth of Boring 50 ft. Hole Diameter 6-3/4
9. Depth To Bottom of Screen 42.5 feet
10. Type of Screen Filter No. 1 Standard Silica

    Quantity Used 800 lbs. Size 6-20 U/C
11*. Depth To Top of Filter 6.5 feet
12. Type of Seal 1/2-inch Bentonite Pellets

    Quantity Used 30 lbs.
13*. Depth To Top of Seal 4.67 feet
14. Type of Grout Cement-Bentonite

    Grout Mixture 20:1

    Method of Placement Pouring

COMMENTS ON INSTALLATION

*From Ground Surface

WELL AND PUMP DATA

Location of Well: CEF16-3

County:

Township: Township Number N / S: Range Number E / W:

Section No.: Precision:

Address and City or Distance and Direction from Road Intersections

Property owner's name and address: NAS Cecil Field

Show exact location of well in section grid with an "X"

N

S

1 mile

Sketch map of well location

Addition Name

Block Number

Lot Number

Well depth: 46.5 ft.

Datum point from which all measurements are taken: Ground Surface

Method of Drilling: Cable tool; Direct rotary; Reverse rotary; Hollow rod; Air rotary; Jetted; Driven; Bucket auger; Flight auger; Dug; Hollow Stem Auger

Use: Domestic; Irrigation; Test Well; Public supply; Municipal; Heating or cooling; Industrial; Commercial; Monitoring

Remarks, Elevation, Source of Data, etc.

Elevation T.O.C. 81.02

Elevation T.O.D. 78.99

Casing Type: Steel; Galv; PVC; SS; Threaded; Welded; Solvent welded

Height above/below surface 2.5 ft.

Drive shoe? Yes ___ No ___

2 in to 10 ft Wgt ___ lb/ft Sch No 40 Hole diameter 6-3/4 in to 4

___ in to ___ ft Wgt ___ lb/ft Sch No ___ in to ___

___ in to ___ ft Wgt ___ lb/ft Sch No ___ in to ___

Borehole data

Formation Log	Color	Hardness	From	To
Sandy Silt	Brown	MedDnse	0	4'
Clayey Sand	Gray	MedDnse	4'	4.25'
Sandy Lean Clay	Brown/Gray	Stiff	4.25'	6.3'
Silty Sand	Gray	Dense	6.3'	46.5'

Intake Portion of Well

Screen type: Schedule 40 or open hole from ___ ft to ___

Manufacturer: Trilog

Material: PVC

Fittings: Threaded Dia: 2 inches

Set between 10 ft and 40 ft Length: 30 ft.

Slot: 0.020 inches

___ ft and ___ ft Slot ___

___ ft and ___ ft Slot ___

Method of installation ___

Filter Pack

Source ___ Gradation: 6 - 30

Method of installation: Poured Composition: silica

Volume used: 750 lbs Depth to top of f.p. 7 ft.

Grout

Used? Yes No Volume used: 10 gal.

Neat Cement; Bentonite; Cement-Bentonite

Method of installation: Poured

Depth from 0 ft to 5.5 ft

from ___ ft to ___ ft

Development

Method: Air Lift

Date: 6/22/87 Duration: 35 min.

Chemicals used: 0 Sand content after 35 min. 0

Static Water Level

8.05 ft below above grade 10.55 - 2.5

Date measured: 6/22/87

Pumping Water Level

Not Applicable ft below above grade Date ___

After ___ hrs pumping at ___ gpm

Specific Capacity

Not Applicable gpm/ft of drawdown at ___ hours

Date ___

Pump

Date installed: Not Applicable Type ___

Manufacturer ___

H.P. ___ Volts ___ Model No ___

Depth of pump intake setting ___ Capacity ___

Oil Water lubrication Power source ___ No of stages ___

Material of drop pipe ___

shafting ___ impellers ___ bowls ___

Column pipe dia ___ Length ___ Bowl dia ___

Modifications ___

Well Head Completion

Pitless adapter Basement offset Distance above grade 2.5 ft.

Nearest Sources of Possible Contamination

___ ft Direction ___ Type ___

Well disinfected upon completion? Yes No

Geophysical Logs Run

Not Applicable

Name and Address

Name of Driller: Southwestern Laboratories, Inc.

Driller License Number ___

Water Quality

Sample taken? Yes ✓ No

Where analyzed: JTC Environmental Consultants 7/13/87

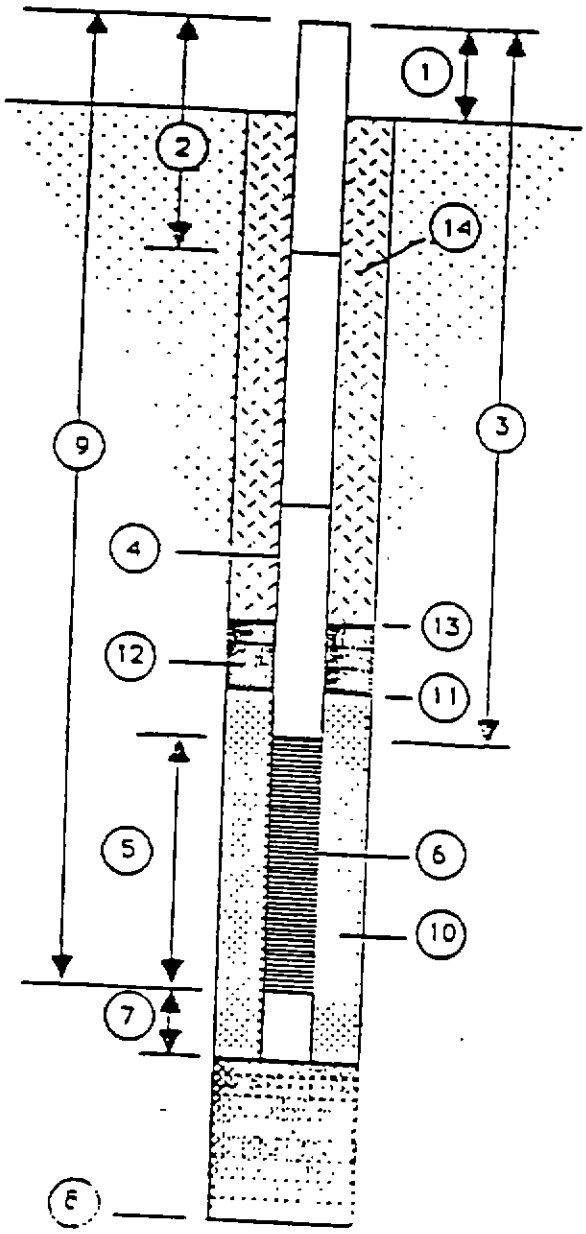
Date well completed: 6/22/87

DEPARTMENT OF THE NAVY
SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
2155 EAGLE DR P O BOX 10068
CHARLESTON S C 29411-0068

WELL CONSTRUCTION DETAILS

WELL NUMBER CEF16-3

DATE OF INSTALLATION 6/17/87



1. Height of Casing above ground 2.5 feet
2. Depth to first Coupling 2.5 feet

   Coupling Interval Depths 12.5 feet, 22.5 fe
   32.5 feet
3. Total Length of Blank Pipe 12.5 feet
4. Type of Blank Pipe Schedule 40 PVC
5. Length of Screen 30 feet
6. Type of Screen Schedule 40 PVC, 0.020 in. s
7. Length of Sump 6.5 feet
8*. Total Depth of Boring 46.5 ft. Hole Diameter 6-3/4
9. Depth To Bottom of Screen 42.5 feet
10. Type of Screen Filter No. 1 Standard S a

    Quantity Used 750 lbs. Size 6-20 U/C
11*. Depth To Top of Filter 7.0 feet
12. Type of Seal 1/2-inch Bentonite Pellets

    Quantity Used 25 lbs.
13*. Depth To Top of Seal 5.5 feet
14. Type of Grout Cement-Bentonite

    Grout Mixture 20:1

    Method of Placement Pouring

COMMENTS ON INSTALLATION

*From Ground Surface

TITLE: NAS Cecil Field, Jacksonville, Fl.		LOG of WELL: CEF-16-4	BORING NO. BOR-16-4
NT: SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7537-03
CONTRACTOR: GROUNDWATER PROTECTION, INC.		DATE STARTED: 10/24/91	COMPLTD: 10/24/91
METHOD: H.S.A.	CASE SIZE: 2"	SCREEN INT.: 4-14'	PROTECTION LEVEL: D
TOC ELEV.: FT.	MONITOR INST.:	TOT DPTH: 14FT.	DPTH TO ∇ 5.00 FT.
LOGGED BY: Creed King	WELL DEVELOPMENT DATE: 10/25/91		SITE: #16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
		4-1			brown to gray, organic sandy soil		OL	7,7,8,10	
					SAND-fine to silty, gray		SM		
5		4-2			SAND-clayey, brown to tan		SC	5,6,5,9	
					SAND-fine to silty w/ some clay, gray to brown		SM		
15		4-3			SAND-fine to silty w/ some clay, gray		SM	4,7,8,4	
20									
25									
30									

TITLE: NAS Cecil Field, Jacksonville, Fl.	LOG of WELL: CEF-16-5	BORING NO. BOR-16-2
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7537-03
CONTRACTOR: GROUNDWATER PROTECTION, INC.	DATE STARTED: 10/24/91	COMPLTD: 10/24/91
METHOD: H.S.A.	CASE SIZE: 2" / SCREEN INT.: 4-14'	PROTECTION LEVEL: D
TOC ELEV.: FT.	MONITOR INST.: / TOT DPTH: 14FT.	DPTH TO ∇ 5.00 FT.
LOGGED BY: Creed King	WELL DEVELOPMENT DATE: 10/25/91	SITE: #16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
		2-1			brown, sandy soil		SP	2,5,7,8	
					SAND-fine to silty, gray		SM		
5		2-2			SAND-clayey, brown to tan		SC	10,14,14,10	
					SAND-fine to silty w/ some clay, gray to lt. gray		SM		
10									
15		2-3			SAND-fine to silty w/ some clay, lt. gray			10,8,8,10	
20									
25									
30									

TITLE: NAS Cecil Field, Jacksonville, Fl.		LOG of WELL: CEF-16-6	BORING NO. BOR-16-3
:NT: SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7537-03
CONTRACTOR: GROUNDWATER PROTECTION, INC.		DATE STARTED: 10/25/91	COMPLTD: 10/25/91
METHOD: H.S.A.	CASE SIZE: 2"	SCREEN INT.: 4-14'	PROTECTION LEVEL: D
TOC ELEV.: FT.	MONITOR INST.:	TOT DPTH: 14FT.	DPTH TO ∇ 5.00 FT.
LOGGED BY: Creed King	WELL DEVELOPMENT DATE: 10/28/91		SITE: #16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
		3-1			dark gray, organic sandy soil		OL	1,2,4,4	
					SAND-fine, gray to lt. gray		SP		
5		3-2			SAND-clayey, lt. brown to tan		SC	5,4,5,5	
					SAND-fine to silty w/ trace clay, lt. gray		SM		
15		3-3			SAND-fine to silty w/ some clay, gray			7,7,8,7	
20									
25									
30									

TITLE: NAS Cecil Field, Jacksonville, Fl.	LOG of WELL: CEF-16-7	BORING NO. BOR-16-5
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7537-03
CONTRACTOR: GROUNDWATER PROTECTION, INC.	DATE STARTED: 10/25/91	COMPLTD: 10/25/91
METHOD: H.S.A.	CASE SIZE: 2" / SCREEN INT.: 4-14'	PROTECTION LEVEL: D
TOC ELEV.: FT.	MONITOR INST.: / TOT DPTH: 14FT.	DPTH TO ∇ 5.00 FT.
LOGGED BY: Creed King	WELL DEVELOPMENT DATE: 10/28/91	SITE: #16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN
		5-1			dark brown, sandy soil		SP	3,5,9,11
					SAND-fine to silty, dk. gray to gray		SM	
5		5-2			SAND-clayey, brown to tan		SC	4,4,6,7
					SAND-fine to silty w/ clay, brown		SM	
10					SAND-fine to silty w/ some clay, gray		SM	
15		5-3					SM	14,12,10,12
20								
25								
30								

WELL DATA

TITLE: NAS Cecil Field, Jacksonville, Fl.		LOG of WELL: CEF-16-BOD	BORING NO. BOR-16-BOD
IENT: SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7537-03
CONTRACTOR: GROUNDWATER PROTECTION, INC.		DATE STARTED: 10/31/91	COMPLTD: 11/4/91
METHOD: H.S.A..	CASE SIZE: 2"	SCREEN INT.: 105-115'	PROTECTION LEVEL: D
TOC ELEV.: FT.	MONITOR INST.:	TOT DPTH: 115FT.	DPTH TO ∇ 5.00 FT.
LOGGED BY: Tracie Vaught	WELL DEVELOPMENT DATE: 11/5/91		SITE: #16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
			20%		SAND-some dirt, brown, loose		SP	N/A	
5			100%		SAND-fine, gray, loose			3,4,4,5	
			100%		SAND-fine, gray, moist			2,3,2,2	
15			100%		SAND-fine, brown to gray			3,4,4,4	
20			100%		SAND-med. to fine, stained dk. brown			4,6,8,9	
25			100%		SAND-med. to fine, lt. brown, wet			7,6,4,6	
30									

TITLE: NAS Cecil Field, Jacksonville, Fl.		LOG of WELL: CEF-16-8DD	BORING NO. BOR-16-8DD
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7537-03
CONTRACTOR: GROUNDWATER PROTECTION, INC.		DATE STARTED: 10/31/91	COMPLTD: 11/4/91
METHOD: H.S.A.	CASE SIZE: 2"	SCREEN INT.: 105-115'	PROTECTION LEVEL: D
TOC ELEV.: FT.	MONITOR INST.:	TOT DPTH: 115FT.	DPTH TO ∇ 5.00 FT.
LOGGED BY: Tracie Vaught	WELL DEVELOPMENT DATE: 11/5/91		SITE: #16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1				
			100%		SAND-as above		SP	7,5,5,6	
35			80%		SAND-as above			8,10,12,14	
40			80%		SAND-as above			11,18,20,20	
45			40%		SAND-very fine, gray to brown, wet			30,30,50,-	
50			50%		SAND-as above			20,27,50,-	
55			50%		SAND-fine, lt. tan w/ gray stringer, wet			28,35,50,-	
60									

TITLE: NAS Cecil Field, Jacksonville, Fl.	LOG of WELL: CEF-16-8DD	BORING NO. BOR-16-8DD
IENT: SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7537-03
CONTRACTOR: GROUNDWATER PROTECTION, INC.	DATE STARTED: 10/31/91	COMPLTD: 11/4/91
METHOD: H.S.A.	CASE SIZE: 2" / SCREEN INT.: 105-115'	PROTECTION LEVEL: D
TOC ELEV.: FT.	MONITOR INST.: / TOT DPTH: 115FT.	DPTH TO ∇ 5.00 FT.
LOGGED BY: Tracie Vaught	WELL DEVELOPMENT DATE: 11/5/91	SITE: #16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 2				
			40%		SAND-as above		SP	35,42,30,50	
65			60%		SAND-fine w/ clay stringer, lt. tan, wet		CL SP	18,24,32,28	
			70%		SAND-med. to fine, tan, wet			22,42,50,-	
75			50%		SAND-as above			24,30,35,22	
80			50%		SAND-as above			N/A	
85			50%		SAND-med. to fine, gray			20,24,32,44	
90							CL		

TITLE: NAS Cecil Field, Jacksonville, Fl.		LOG of WELL: CEF-16-BDD	BORING NO. BOR-16-BDD
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7537-03
CONTRACTOR: GROUNDWATER PROTECTION, INC.		DATE STARTED: 10/31/91	COMPLTD: 11/4/91
METHOD: H.S.A.	CASE SIZE: 2"	SCREEN INT.: 105-115'	PROTECTION LEVEL: D
TOC ELEV.: FT.	MONITOR INST.:	TOT DPTH: 115FT.	DPTH TO ∇ 5.00 FT.
LOGGED BY: Tracie Vaught	WELL DEVELOPMENT DATE: 11/5/91		SITE: #16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 3				
			80%		SAND-clayey w/ 1/2" clay stringers, dk. gray to green, saturated		CL, SP, CL, SP, CL, SC	24,27,17,24	
95			70%		SAND-as above			24,27,17,24	
100			85%		SAND AND CLAY-stiff, dk. gray to green		CL	7,5,6,12	
105			100%		CLAY-sandy w/ shell fragments, angular, very loose			17,16,18,12	
110			100%		CLAY-silty, high plasticity		SW	27,18,19,25	
					SAND-w/ shell fragments, lt. brown				
115									
120									

TITLE: NAS Cecil Field, Jacksonville, Fl.	LOG of WELL: CEF-16-9D	BORING NO. BOR-16-9D
IENT: SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7537-03
CONTRACTOR: GROUNDWATER PROTECTION, INC.	DATE STARTED: 10/5/91	COMPLTD: 11/5/91
METHOD: H.S.A.	CASE SIZE: 2"	SCREEN INT.: 91-101'
TOC ELEV.: FT.	MONITOR INST.:	TOT DPTH: 101FT.
LOGGED BY: Tracie Vaught	WELL DEVELOPMENT DATE: 11/8/91	SITE: #16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					SAND-some dirt, brown, loose		SP		
5					SAND-gray, loose				
					SAND-fine, gray, moist				
15					SAND-fine, brown to gray				
20					SAND-med. to fine, stained dk. brown				
25					SAND-med. to fine, lt. brown, wet				
30									

TITLE: NAS Cecil Field, Jacksonville, Fl.		LOG of WELL: CEF-16-9D	BORING NO. BOR-16-9D
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7537-03
CONTRACTOR: GROUNDWATER PROTECTION, INC.		DATE STARTED: 10/5/91	CONPLTD: 11/5/91
METHOD: H.S.A.	CASE SIZE: 2"	SCREEN INT.: 91-101'	PROTECTION LEVEL: D
TOC ELEV.: FT.	MONITOR INST.:	TOT DPTH: 101FT.	DPTH TO ∇ 2.50 FT.
LOGGED BY: Tracie Vaught	WELL DEVELOPMENT DATE: 11/8/91		SITE: #16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1		SP		
35									
0									
45					SAND-very fine, gray to brown, wet				
50									
55					SAND-fine, lt. tan w/ gray stringer, wet				
60									

TITLE: NAS Cecil Field, Jacksonville, Fl.	LOG of WELL: CEF-16-9D	BORING NO. BOR-16-9D
IENT: SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7537-03
CONTRACTOR: GROUNDWATER PROTECTION, INC.	DATE STARTED: 10/5/91	COMPLTD: 11/5/91
METHOD: H.S.A.	CASE SIZE: 2"	SCREEN INT.: 91-101'
TOC ELEV.: FT.	MONITOR INST.:	TOT DPTH: 101FT.
LOGGED BY: Tracie Vaught	WELL DEVELOPMENT DATE: 11/6/91	SITE: #16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 2				
							SP		
65					SAND-fine w/ clay stringer, lt. tan, wet		CL SP		
					SAND-med. to fine, tan, wet				
75									
80									
85					SAND-med. to fine, gray				
90							CL		

TITLE: NAS Cecil Field, Jacksonville, Fl.		LOG of WELL: CEF-16-9D	BORING NO. BOR-16-9D
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM			PROJECT NO: 7537-03
CONTRACTOR: GROUNDWATER PROTECTION, INC.		DATE STARTED: 10/5/91	COMPLTD: 11/5/91
METHOD: H.S.A.	CASE SIZE: 2"	SCREEN INT.: 91-101'	PROTECTION LEVEL: D
TOC ELEV.: FT.	MONITOR INST.:	TOT DPTH: 101FT.	DPTH TO ∇ 2.50 FT.
LOGGED BY: Tracie Vaught	WELL DEVELOPMENT DATE: 11/8/91		SITE: #16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 3				
					SAND-clayey w/ 1/2" clay stringers, dk. gray to green, saturated		CL SP CL SP CL SC		
95									
100					SAND AND CLAY-stiff, dk. gray to green		CL		
105									
110									
115									
120									

TITLE: NAS Cecil Field, Jacksonville, Fl.	LOG of WELL: CEF-16-10	BORING NO. BOR-16-10
CLIENT: SOUTHERN DIVISION, NAVFACENGCOM		PROJECT NO: 7537-03
CONTRACTOR: GROUNDWATER PROTECTION, INC.	DATE STARTED: 11/5/91	COMPLTD: 11/5/91
METHOD: H.S.A.	CASE SIZE: 2"	SCREEN INT.: 4-14'
TOC ELEV.: FT.	MONITOR INST.:	TOT DPTH: 14FT.
LOGGED BY: Creed King	WELL DEVELOPMENT DATE: 11/6/91	SITE: #16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
		5-1			SAND-fine, lt. gray		SP		
5		5-2							
					SAND-clayey, gray to brown		SC		
15		5-3							
20									
25									
30									

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-11DD	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 06-27-94	**COMPLTD:** 07-01-94
METHOD: Mobil Drill B-80 w/6"ODEX	**CASE SIZE:** 2"IC/8"OC	**SCREEN INT.:** 108-118	**PROTECTION LEVEL:** D
TOC ELEV.: 78.03 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 118FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 07-01-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					0-102.0 *Sand (SP)*, 100%, medium to dark brown to tan to gray to dark gray, quartz, fine-to medium-grained, sub-angular to sub-rounded, moderately well sorted, loose, moist to saturated.		SP		
5									
10								groundwater encountered	
15									
20									
25								lenses of silt/clay thickness<2" to 102'bls	
30									
35									
40									

ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-11DD	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 08-27-94	**COMPLTD:** 07-01-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"IC/8"OC	**SCREEN INT.:** 108-118	**PROTECTION LEVEL:** D
TOC ELEV.: 78.03 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 119FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 07-01-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1				
					Sand continued.		SP		
45									
50									
55									
60									
65									
70									
75									
80									

 ABB ENVIRONMENTAL SERVICES, INC.

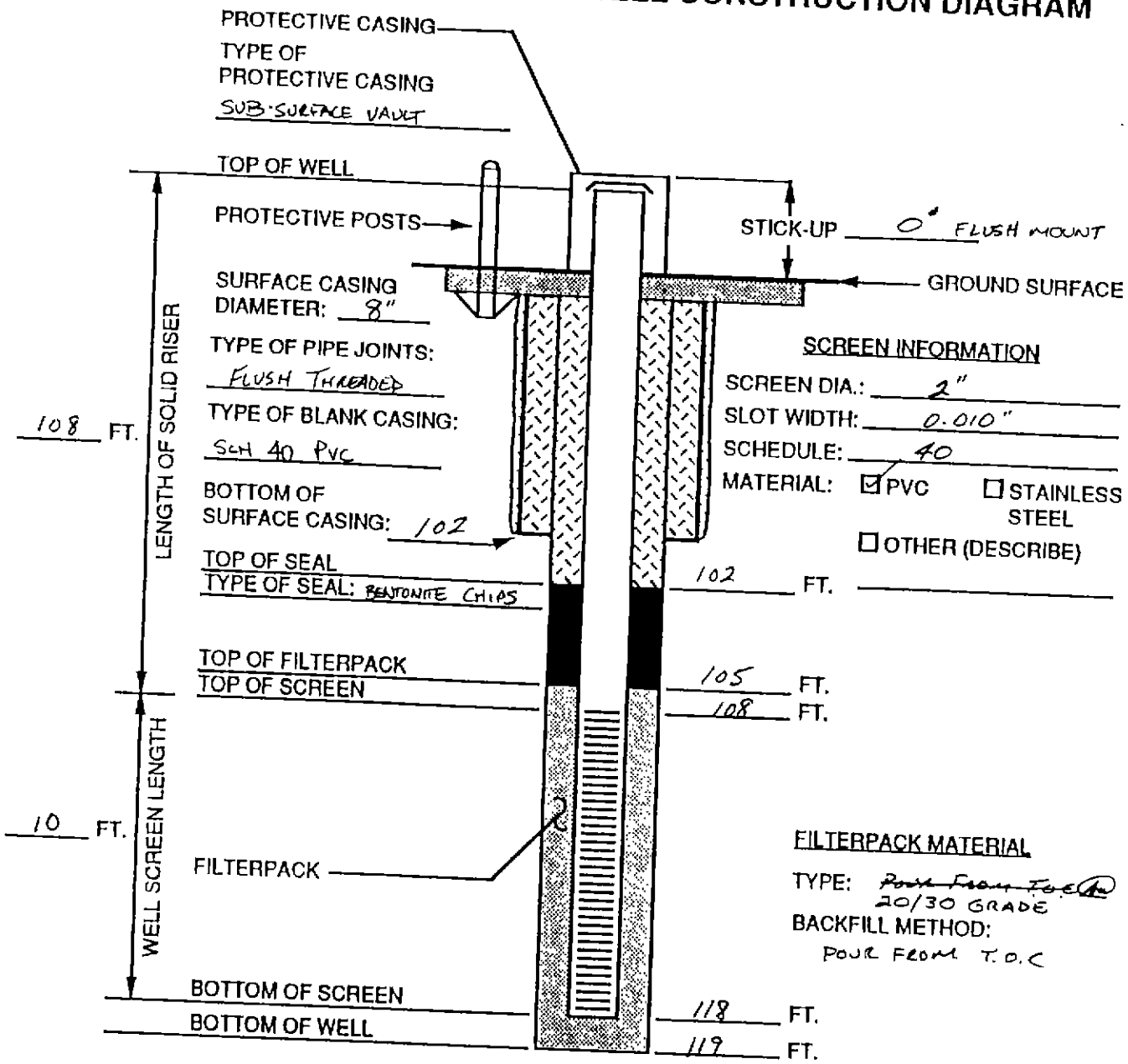
TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-110D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 06-27-94	**COMPLTD:** 07-01-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"IC/8"OC	**SCREEN INT.:** 108-118	**PROTECTION LEVEL:** D
TOC ELEV.: 78.03 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 119FT.	**DPTH TO ▽** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 07-01-94		**SITE:** 16

DEPTH FT.	ABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 2				
					Sand continued.		SP		
85									
90									
95									
100									
					102.0-108.0 *Dolomite with Clay*; Dolomite, 50%, medium to dark gray, microcrystalline, moderately hard to soft, shell replacement features visible; Clay (CH), 50%, medium to dark gray, soft, wet, plastic, dense.		DOLOMITE CH		
105					108.0-119.0 *Dolomite*, 100%, medium gray to moderate yellowish brown, microcrystalline, moderately hard to soft, shell replacement features visible.		DOLOMITE		
110									
115									
120					End of boring: 119'bls.				

 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER			PROJECT: RI OUS 1,2,7
DATE INSTALLED	STARTED: 6-27-94	COMPLETED: 7-1-94	LOCATION (Coordinates or Station): SITE 16
ELEVATION TOP OF HOLE			SIGNATURE OF INSPECTOR: [signature]
TOTAL DEPTH OF HOLE: 119			HOLE NO. (As shown on drawing title and file number): CEF-16-11DD

DOUBLE-CASED MONITORING WELL CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: 1" CENTRIFUGAL

TIME SPENT DEVELOPMENT: 1 hr / 3 hrs

VOLUME OF WATER REMOVED: 550 GAL / 265 gal

VOLUME OF WATER ADDED: <200 GAL

DESCRIPTION OF PREDEVELOPMENT WATER: CLEAR

DESCRIPTION OF POST DEVELOPMENT WATER: CLEAR 0.2 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 7/9/94 0700 ~10' bls

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-12I	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 08-20-94	**COMPLTD:** 08-21-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 71-81	**PROTECTION LEVEL:** D
TOC ELEV.: 77.98 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 82FT.	**DPTH TO ▽** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 08-21-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					0-82.0 *Sand (SP)*, 100%, medium to dark brown to tan to gray to dark gray, quartz, fine-to medium-grained, sub-angular to sub-rounded, moderately well sorted, loose, moist to saturated.		SP	groundwater encountered	
5									
10									
15									
20									
25									
30									
35									
40									
45									

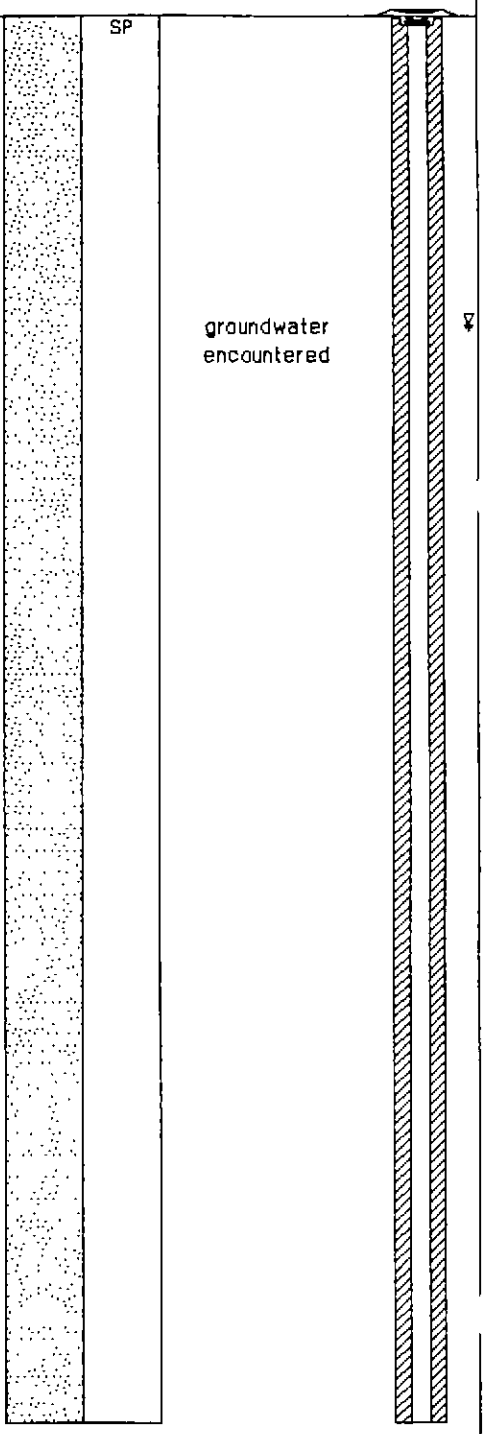


ABB ENVIRONMENTAL SERVICES, INC.

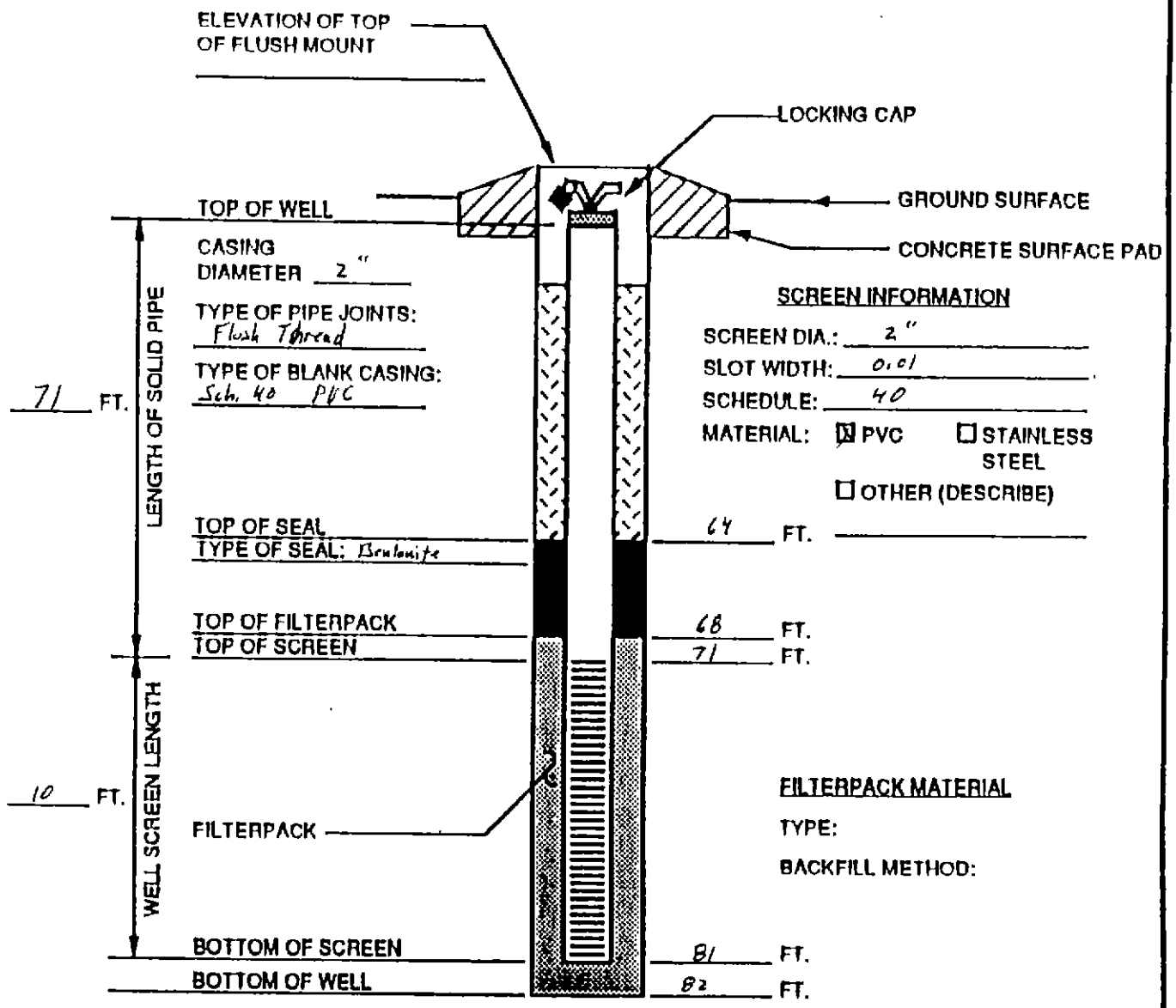
TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-12I	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 06-20-94	**COMPLTD:** 06-21-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 71-81	**PROTECTION LEVEL:** D
TOC ELEV.: 77.98 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 82FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 06-21-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1				
					Sand continued.		SP		
50									
55									
60									
65									
70									
75									
80									
					End of boring: 82'bls.				
85									
90									

 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER			PROJECT: IR OU 1,27
DATE INSTALLED	STARTED: 6 20 94	COMPLETED: 6 21 94	LOCATION (Coordinates or Station): Site 16
ELEVATION TOP OF HOLE: –			SIGNATURE OF INSPECTOR: C J Bl
TOTAL DEPTH OF HOLE: 82'			HOLE NO. (As shown on drawing title and file number): CEF-16-12 I

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: pumping

TIME SPENT DEVELOPMENT: 33 min / 14 1/2 hrs.

VOLUME OF WATER REMOVED: 360 gal / 2020 gal

VOLUME OF WATER ADDED: ~150 gal

DESCRIPTION OF PREDEVELOPMENT WATER: Brown/Gray

DESCRIPTION OF POST DEVELOPMENT WATER: Gray 44 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 6/21/94 1410 ~10' bls

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

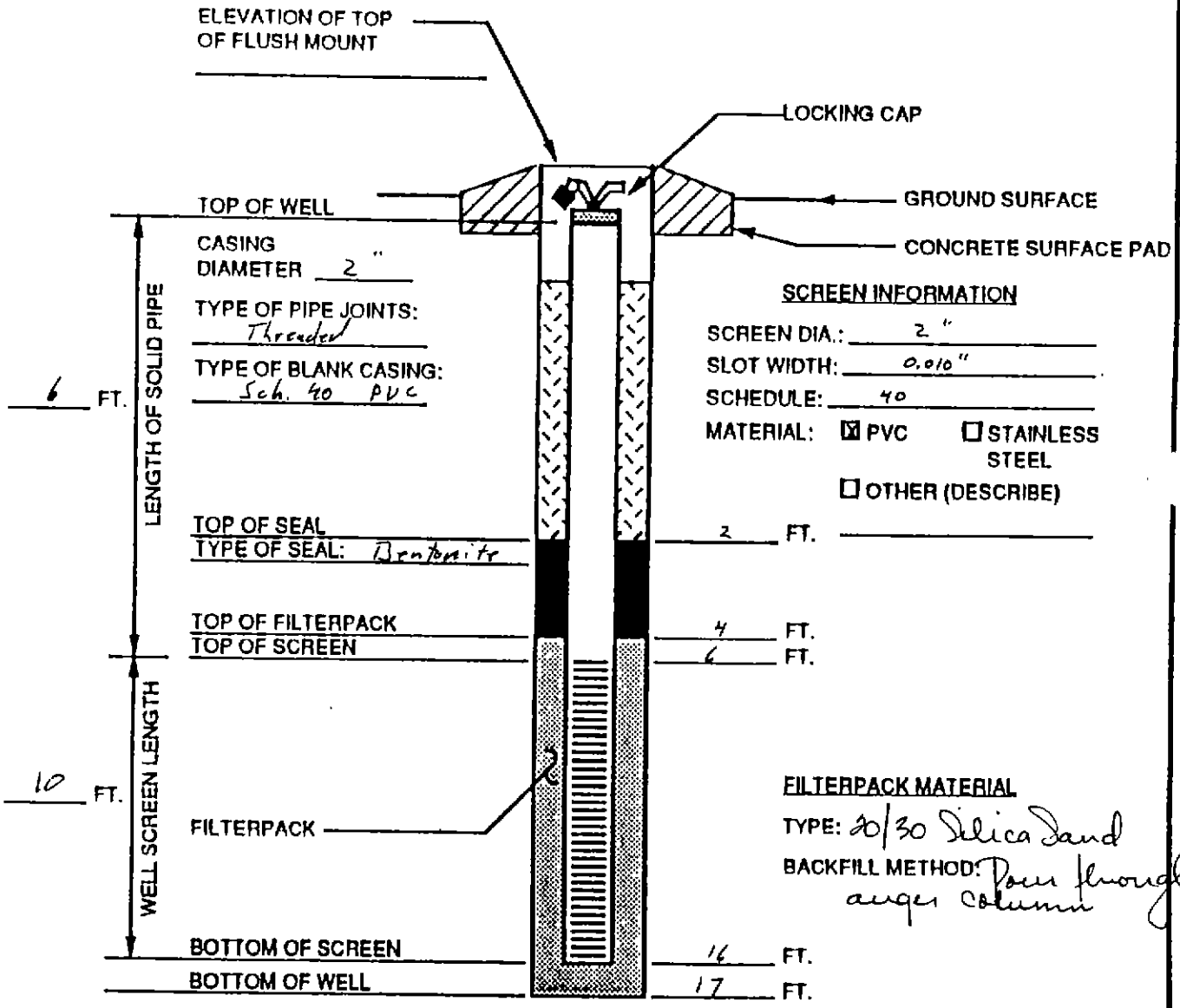
TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-13S	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 04-26-94	**COMPLTD:** 04-26-94
METHOD: Mobil Drill B-61 w/4.25"HSA	**CASE SIZE:** 2"	**SCREEN INT.:** 6-16	**PROTECTION LEVEL:** D
TOC ELEV.: 77.79 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 17FT.	**DPTH TO ▽** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 04-26-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					0-2.0 *Silty Sand (SM)*, 100%, dark gray, quartz, fine-grained, sub-rounded, moderately well sorted.		SM		
					2.0-10.0 color change; light gray.				
5									
10					10.0-17.0 color change; dark brown.			groundwater encountered	▽
15									
					End of boring: 17'bls.				
20									

ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER			PROJECT: IR OU 1,2,7
DATE INSTALLED	STARTED: 4-26-94	COMPLETED: 4-26-94	LOCATION (Coordinates or Station):
ELEVATION TOP OF HOLE			SIGNATURE OF INSPECTOR: CS Brad
TOTAL DEPTH OF HOLE: 17'			HOLE NO. (As shown on drawing title and file number): CEF-16-135

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: Pumped

TIME SPENT DEVELOPMENT: 70 min / 5 hrs.

VOLUME OF WATER REMOVED: 55 gal / 220 gal

VOLUME OF WATER ADDED: —

DESCRIPTION OF PREDEVELOPMENT WATER: Brown

DESCRIPTION OF POST DEVELOPMENT WATER: Cloudy / 8.5 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 4/26/94 1030 hrs ~8.0' btoc.

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7	**LOG of WELL:** CEF-16-14D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM		**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated	**DATE STARTED:** 05-08-94	**COMPLTD:** 05-08-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2" / **SCREEN INT.:** 91-101	**PROTECTION LEVEL:** D
TOC ELEV.: 77.53 FT.	**MONITOR INST.:** Microtip-PID / **TOT DPTH:** 102FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-08-94	**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					0-101.0 *Sand (SP)*, 100%, medium to dark brown to tan to gray to dark gray, quartz, fine-to medium-grained, sub-angular to sub-rounded, moderately well sorted, loose, moist to saturated.		SP		
5									
10								groundwater encountered	∇
15									
20									
25								lenses of silt/clay thickness<2" to 101'bls	
30									
35									
40									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-14D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-08-94	**COMPLTD:** 05-08-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 91-101	**PROTECTION LEVEL:** D
TOC ELEV.: 77.53 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 102FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-08-94		**SITE:** 16

DEPTH FT.	ABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1				
					Sand continued.		SP		
45									
50									
55									
60									
65									
70									
75									
80									

 ABB ENVIRONMENTAL SERVICES, INC.

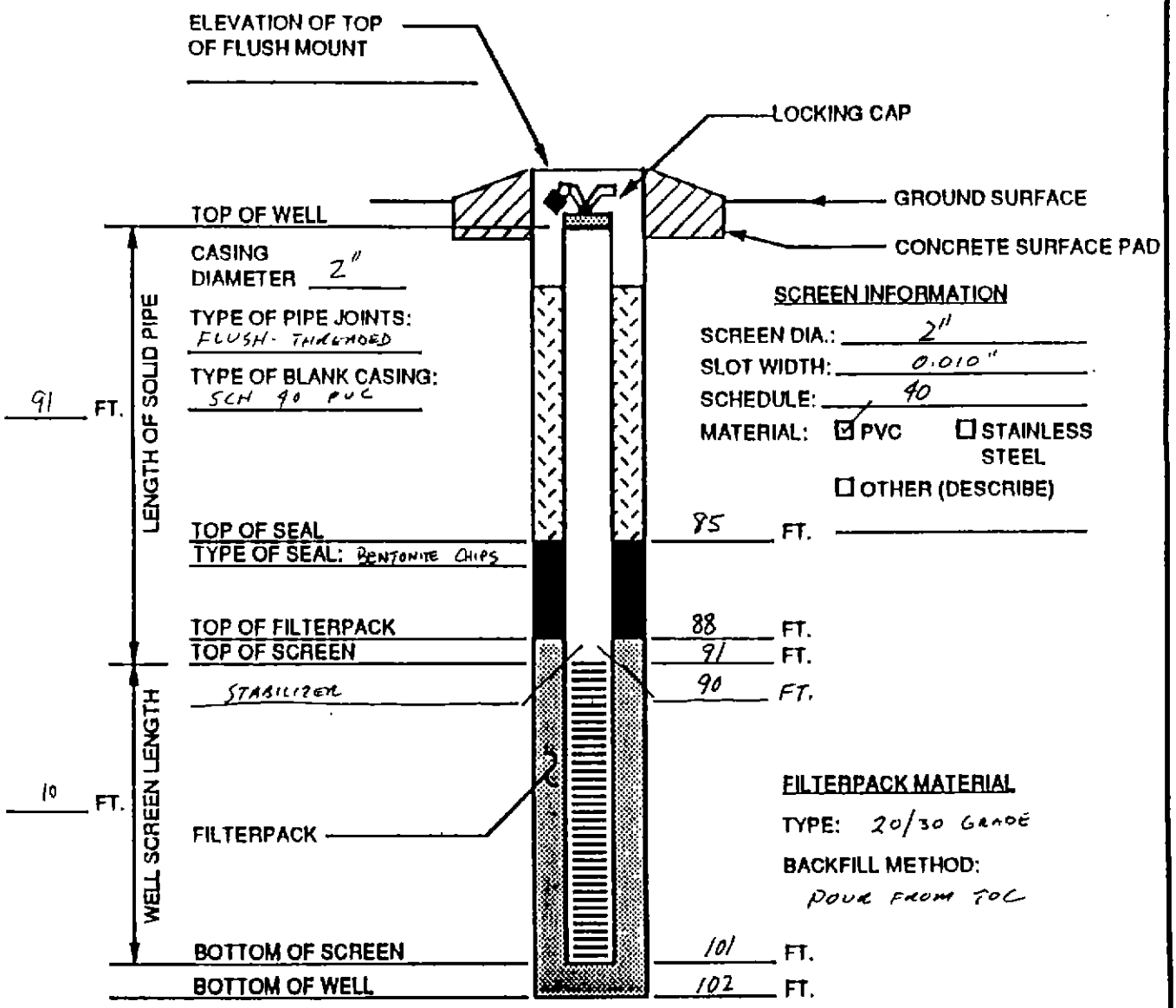
TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-18-14D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-08-94	**COMPLTD:** 05-08-94
METHOD: Mobil Drill B-80 w/6"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 91-101	**PROTECTION LEVEL:** D
TOC ELEV.: 77.53 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 102FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-08-94		**SITE:** 18

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 2				
					Sand continued.		SP		
85									
90									
95									
100					101.0-102.0 ***Dolomite with Clay***; Dolomite, 50%, medium to dark gray, microcrystalline, moderately hard to soft, shell replacement features visible, sucrosic; Clay (CH), 50%, medium to dark gray, soft, wet, plastic, dense.		DOLOMITE CH		
105					End of boring: 102'bls.				
110									
115									
120									

 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER			PROJECT: R1 OUS 1,2,7
DATE INSTALLED	STARTED: 5-6-94	COMPLETED: 5-8-94	LOCATION (Coordinates or Station): SITE 16
ELEVATION TOP OF HOLE			SIGNATURE OF INSPECTOR: [signature]
TOTAL DEPTH OF HOLE: 101			HOLE NO. (As shown on drawing title and file number): CEF-16-14D

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: 2" CENTRIFUGAL PUMP

TIME SPENT DEVELOPMENT: 1 hr | ~~3 hr~~ 18½ hrs.

VOLUME OF WATER REMOVED: 325 | ~~400~~ 2000 gal

VOLUME OF WATER ADDED: < 200

DESCRIPTION OF PREDEVELOPMENT WATER: CLOUDY

DESCRIPTION OF POST DEVELOPMENT WATER: CLOUDY | ~~CLOUDY~~ 12.2 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL ~~5/7/94 1355 hrs. ~7.0 btoc~~ NP

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-15S	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-09-94	**COMPLTD:** 05-09-94
METHOD: Mobil Drill B-61 w/4.25"HSA	**CASE SIZE:** 2"	**SCREEN INT.:** 6-16	**PROTECTION LEVEL:** D
TOC ELEV.: 77.04 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 17FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 05-10-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					0-17.0 *Silty Sand (SM)*, 100%, reddish brown, quartz, fine-grained, sub-rounded, moderately well sorted.		SM		
					4.0-8.5 color change; gray.				
5									
					8.5-17.0 color change; light brown.				
10								groundwater encountered	∇
15									
					End of boring: 17'bls.				
20									

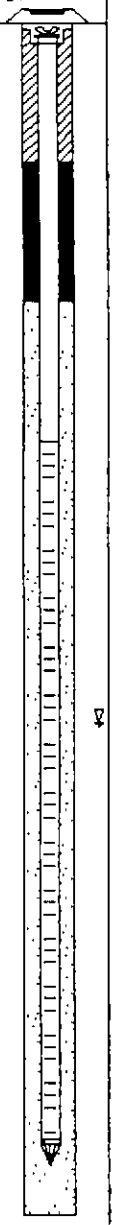
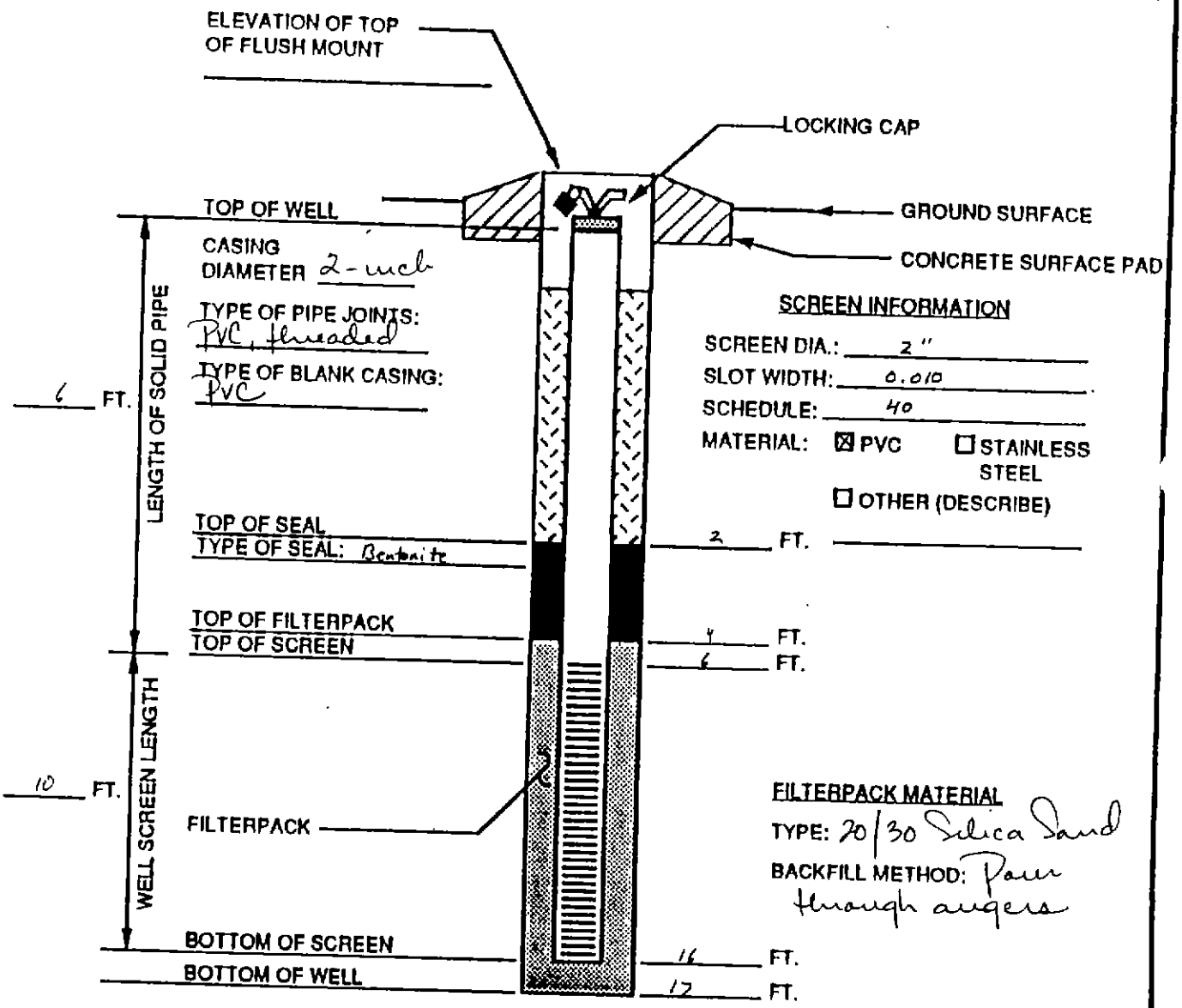


 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER: –	PROJECT: RI OU 1, 2, 7
DATE INSTALLED: STARTED 5-7-94 / COMPLETED 5-7-94	LOCATION (Coordinates or Station): Site 16
ELEVATION TOP OF HOLE: –	SIGNATURE OF INSPECTOR: [illegible]
TOTAL DEPTH OF HOLE: 17'	HOLE NO. (As shown on drawing title and file number): CEF-16-155

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



SCREEN INFORMATION

SCREEN DIA.: 2"
SLOT WIDTH: 0.010
SCHEDULE: 40
MATERIAL: ☒ PVC ☐ STAINLESS STEEL ☐ OTHER (DESCRIBE)

FILTERPACK MATERIAL

TYPE: 20/30 Silica Sand
BACKFILL METHOD: Pour through augers

WELL DEVELOPMENT

METHOD: pumping
TIME SPENT DEVELOPMENT: 74 min / ~~5 hrs~~ 3hrs
VOLUME OF WATER REMOVED: ~ 55 gal / ~~[illegible]~~ 16gal
VOLUME OF WATER ADDED: ~10 gal.
DESCRIPTION OF PREDEVELOPMENT WATER: Brown
DESCRIPTION OF POST DEVELOPMENT WATER: Cloudy / 3.0 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL
~~5/11/94 1030 hrs ~8.0' [illegible]~~
5/7/94 1355 hrs ~7.0' Hoc

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-16D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-09-94	**COMPLTD:** 05-11-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 91-101	**PROTECTION LEVEL:** D
TOC ELEV.: 77.08 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 102FT.	**DPTH TO ▼** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-11-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					0-101.0 *Sand (SP)*, 100%, medium to dark brown to medium yellowish orange to gray to dark gray, quartz, fine-to medium-grained, sub-angular to sub-rounded, moderately well to well sorted, loose, moist to saturated.		SP		
5									
10								groundwater encountered	▼
15									
20									
25								lenses of silt/clay thickness<2" to 101'bls	
30									
35									
40									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-18-16D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-09-94	**COMPLTD:** 05-11-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 91-101	**PROTECTION LEVEL:** D
TOC ELEV.: 77.08 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 102FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-11-94		**SITE:** 18

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1				
					Sand continued.		SP		
45									
50									
55									
60									
65									
70									
75									
80									

 ABB ENVIRONMENTAL SERVICES, INC.

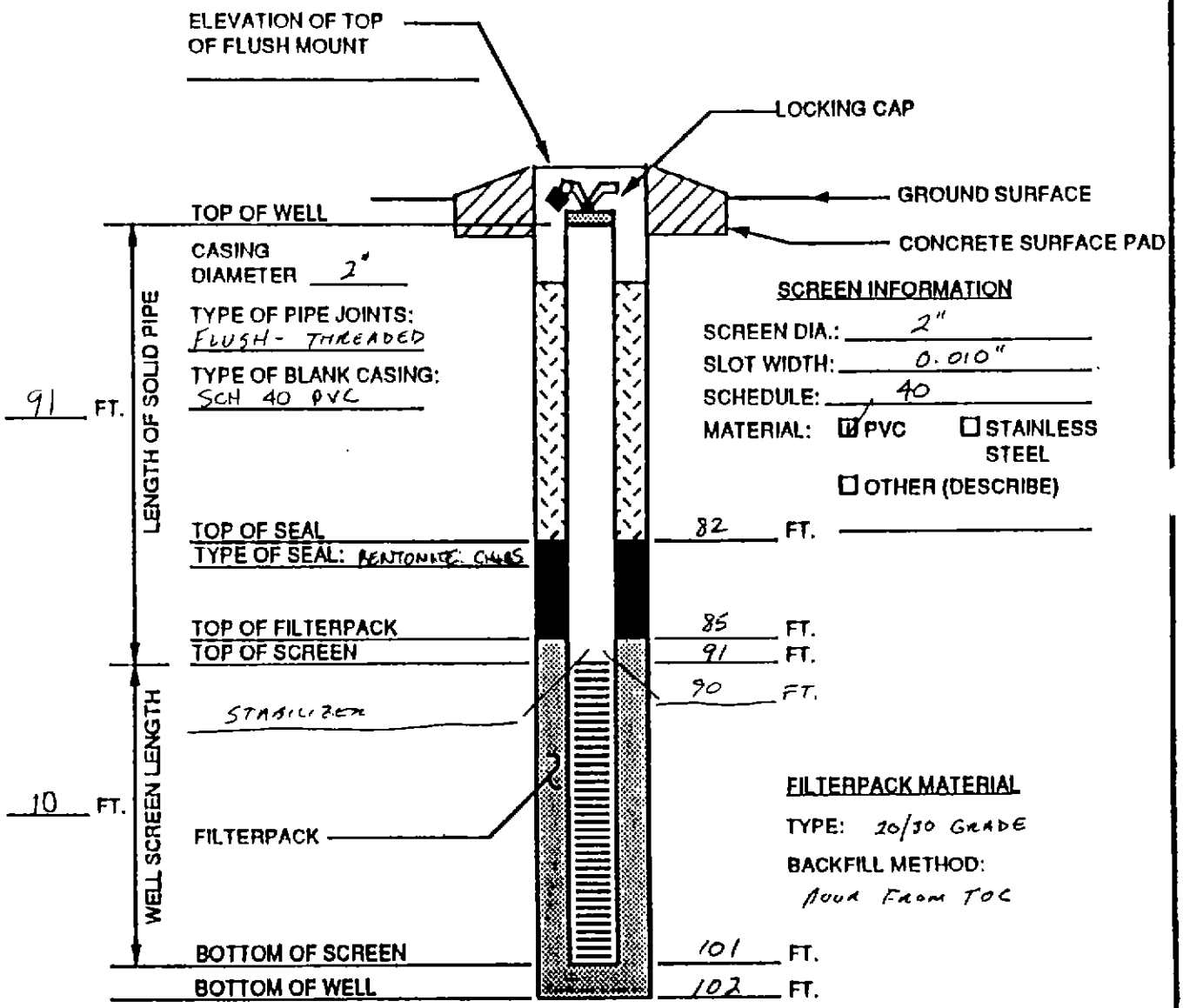
TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-16D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-09-94	**COMPLTD:** 05-11-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 91-101	**PROTECTION LEVEL:** D
TOC ELEV.: 77.08 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 102FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-11-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 2				
					Sand continued.		SP		
85									
90									
95									
100					101.0-102.0 *Dolomite with Clay*; Dolomite, 50%, medium to dark gray, microcrystalline, moderately well cemented, moderately hard to soft, shell replacement features visible, sucrosic; Clay (CH), 50%, medium to dark gray, soft, wet, plastic, tacky, dense.		DOLOMITE CH		
105					End of boring: 102'bls.				
110									
115									
120									

 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER			PROJECT: R1 OUS 1,2,7
DATE INSTALLED	STARTED: 5-9-94	COMPLETED: 5-11-94	LOCATION (Coordinates or Station): SITE 16
ELEVATION TOP OF HOLE			SIGNATURE OF INSPECTOR: Dan Workman
TOTAL DEPTH OF HOLE: 102'			HOLE NO. (As shown on drawing title and file number): CEF-16-16D

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: 2" CENTRIFUGAL PUMP

TIME SPENT DEVELOPMENT: 1 hr / 5 1/2 hrs

VOLUME OF WATER REMOVED: 325 / 45 gal

VOLUME OF WATER ADDED: <400

DESCRIPTION OF PREDEVELOPMENT WATER: CLOUDY

DESCRIPTION OF POST DEVELOPMENT WATER: CLOUDY / 7.2 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 5/11/94 1030 hrs. ~8.0' btoc

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7	**LOG of WELL:** CEF-16-17S	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM		**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated	**DATE STARTED:** 04-25-94	**COMPLTD:** 04-25-94
METHOD: Mobil Drill B-61 w/4.25"ID HSA	**CASE SIZE:** 2" / **SCREEN INT.:** 7-17	**PROTECTION LEVEL:** D
TOC ELEV.: 76.44 FT.	**MONITOR INST.:** Microtip-PID / **TOT DPTH:** 18FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 04-25-94	**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN
				0	0-18.0 *Silty Sand (SM)*, 100%, dark brown, quartz, fine-grained, sub-rounded to sub-angular, moderately well sorted.		SM	1-3-4-6
				0				6-8-13-4
				0	4.5-18.0 color change; brown.			8-6-8-7
5				0				11-18-18-15
				0				3-5-6-7
10				0				5-9-10-11 groundwater encountered
				0				3-9-11-11
				0				3-6-6-7
15				0				5-6-8-7
					End of boring: 18'bls.			
20								

WELL DATA

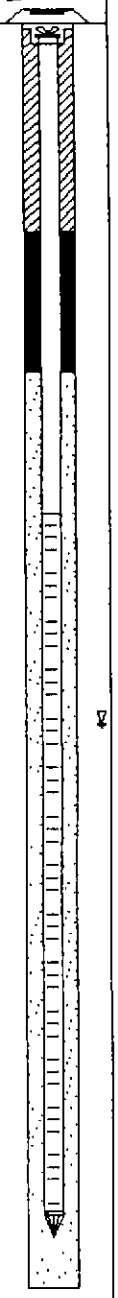
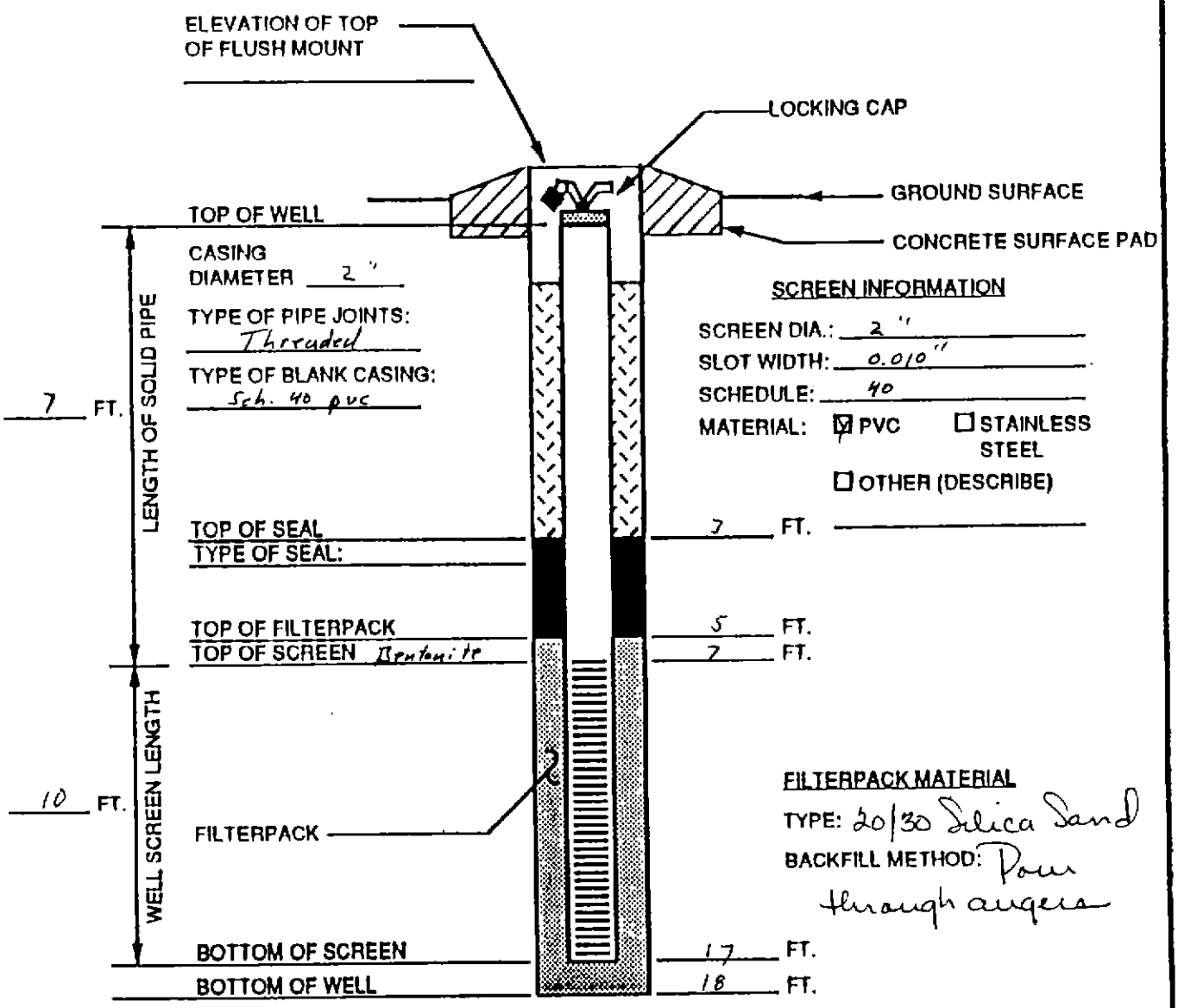


 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER			PROJECT: IR OU 1, 2, 7
DATE INSTALLED	STARTED: 4-25-94	COMPLETED: 4-25-94	LOCATION (Coordinates or Station):
ELEVATION TOP OF HOLE			SIGNATURE OF INSPECTOR: C. J. Bl
TOTAL DEPTH OF HOLE: 18'			HOLE NO. (As shown on drawing title and file number): CEF-16-17S

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: pumped

TIME SPENT DEVELOPMENT: 1 hr / 4 hrs

VOLUME OF WATER REMOVED: 175 gal / 145 gal

VOLUME OF WATER ADDED: –

DESCRIPTION OF PREDEVELOPMENT WATER: Cloudy Brown

DESCRIPTION OF POST DEVELOPMENT WATER: Cloudy white / 5.5 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 4/25/94 0855 hrs 8.52' btoc

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-18D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 04-23-94	**COMPLTD:** 04-24-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 90-100	**PROTECTION LEVEL:** D
TOC ELEV.: 78.35 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 101FT.	**DPTH TO ▽** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 04-24-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					0-100.0 *Sand (SP)*, 100%, medium to dark brown to gray to dark gray, quartz, fine-to medium-grained, sub-rounded to sub-angular, moderately well sorted, loose, damp to saturated.		SP		
5									
10								groundwater encountered	▽
15									
20									
25								lenses of silt/clay thickness<8" to 100'bls	
30									
35									
40									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-18D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 04-23-94	**COMPLTD:** 04-24-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 90-100	**PROTECTION LEVEL:** D
TOC ELEV.: 78.35 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 101FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 04-24-94		**SITE:** 16

DEPTH FT.	ABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1				
					Sand continued.		SP		
45									
50									
55									
60									
65									
70									
75									
80									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-18D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 04-23-94	**COMPLTD:** 04-24-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 90-100	**PROTECTION LEVEL:** D
TOC ELEV.: 76.35 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 101FT.	**DPTH TO ▽** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 04-24-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 2				
					Sand continued.		SP		
85									
90									
95									
100					100.0-101.0 *Dolomite with Clay*; Dolomite, 50%, medium to dark gray, microcrystalline, moderately cemented, moderately hard to soft, sucrosic, shell replacement features visible; Clay (CH), 50%, medium to dark gray, soft, tacky, wet, plastic, dense.		DOLOMITE CH		
105					End of boring: 102'bls.				
110									
115									
120									

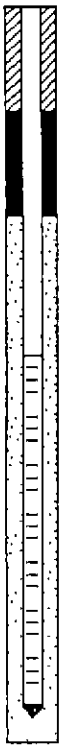
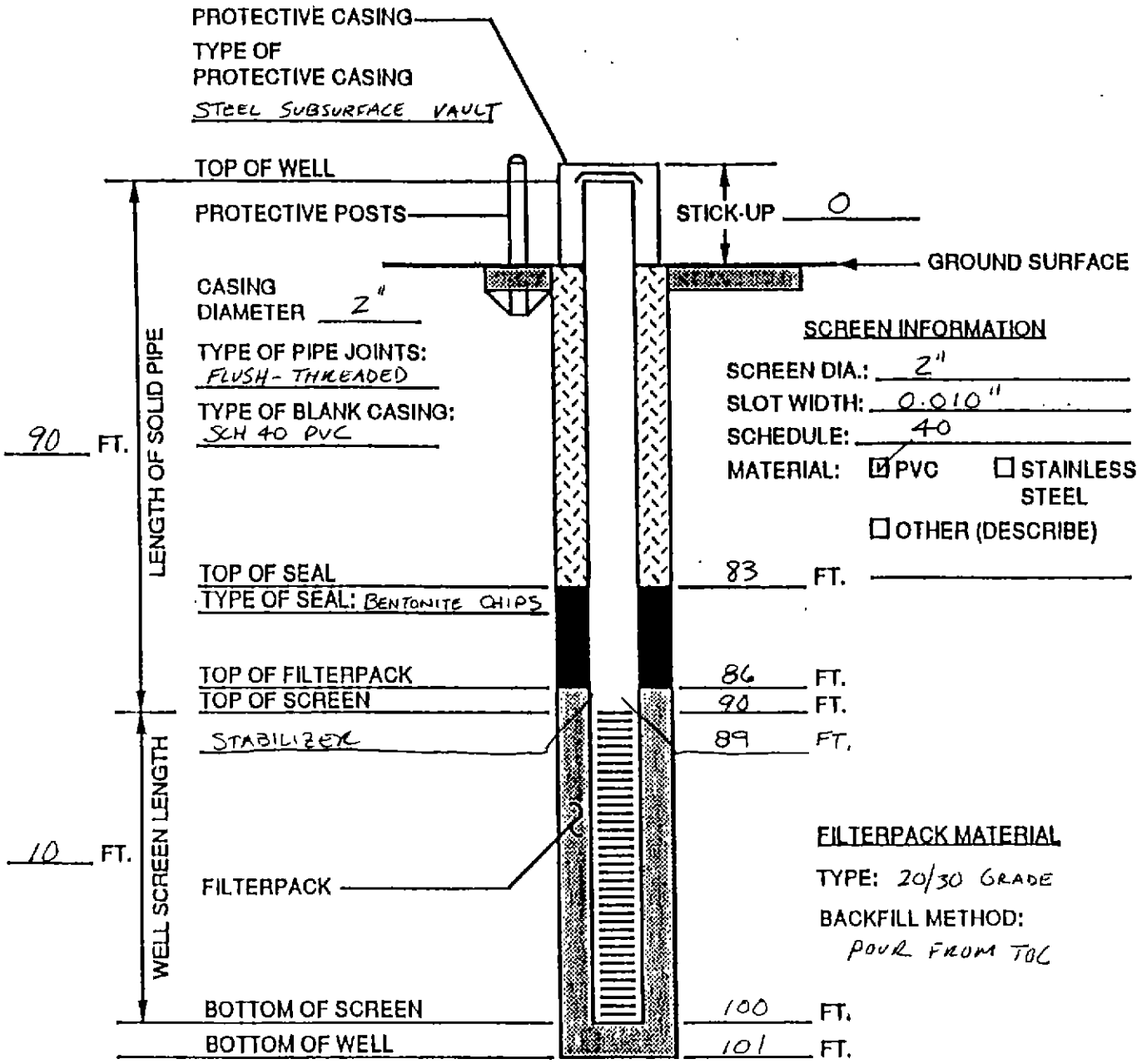


 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER			PROJECT: R1 OUS 1,2,7
DATE INSTALLED	STARTED: 4-23-94	COMPLETED: 4-24-94	LOCATION (Coordinates or Station): SITE 16
ELEVATION TOP OF HOLE			SIGNATURE OF INSPECTOR: Alan Workman
TOTAL DEPTH OF HOLE: 101'			HOLE NO. (As shown on drawing title and file number): CEF-16-18D

ABOVE GROUND MONITORING WELL CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: 2" CENTRIFUGAL

TIME SPENT DEVELOPMENT: 1 hr | 10 hrs

VOLUME OF WATER REMOVED: 485 GAL | 405 gal

VOLUME OF WATER ADDED: < 200 GAL

DESCRIPTION OF PREDEVELOPMENT WATER: VERY CLOUDY

DESCRIPTION OF POST DEVELOPMENT WATER: CLOUDY END DEVELOPMENT 2.3 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 4/25/94 0700 9.82' TOC

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7	**LOG of WELL:** CEF-16-19S	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM		**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated	**DATE STARTED:** 05-03-94	**COMPLTD:** 05-03-94
METHOD: Mobil Drill B-61 w/4.25"ID HSA	**CASE SIZE:** 2"	**SCREEN INT.:** 7-17	**PROTECTION LEVEL:** D
TOC ELEV.: 77.61 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 18FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 05-03-94	**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN
				0	0-18.0 *Silty Sand (SM)*, 100%, dark brown, quartz, fine-grained, sub-rounded to sub-angular, moderately well sorted.		SM	2-5-4-4
				0				3-3-7-11
					3.0-10.5 color change; light gray.			
				18.4				8-7-9-9
5								
				55.8				5-7-8-8
				5				3-3-3-3
10				0				4-4-4-4 groundwater encountered
					10.5-18.0 color change; light brown.			
				0				1-4-5-5
				0				1-3-5-8
15			80%					
				0				8-7-7-8
			75%					
					End of boring: 18'bls.			
20								

WELL DATA

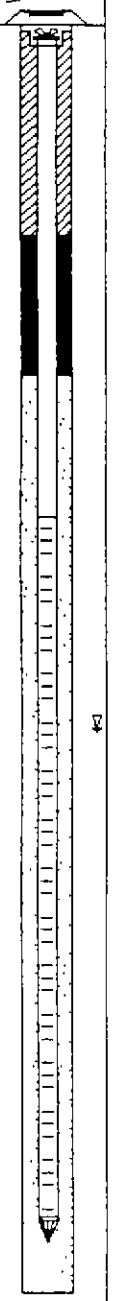
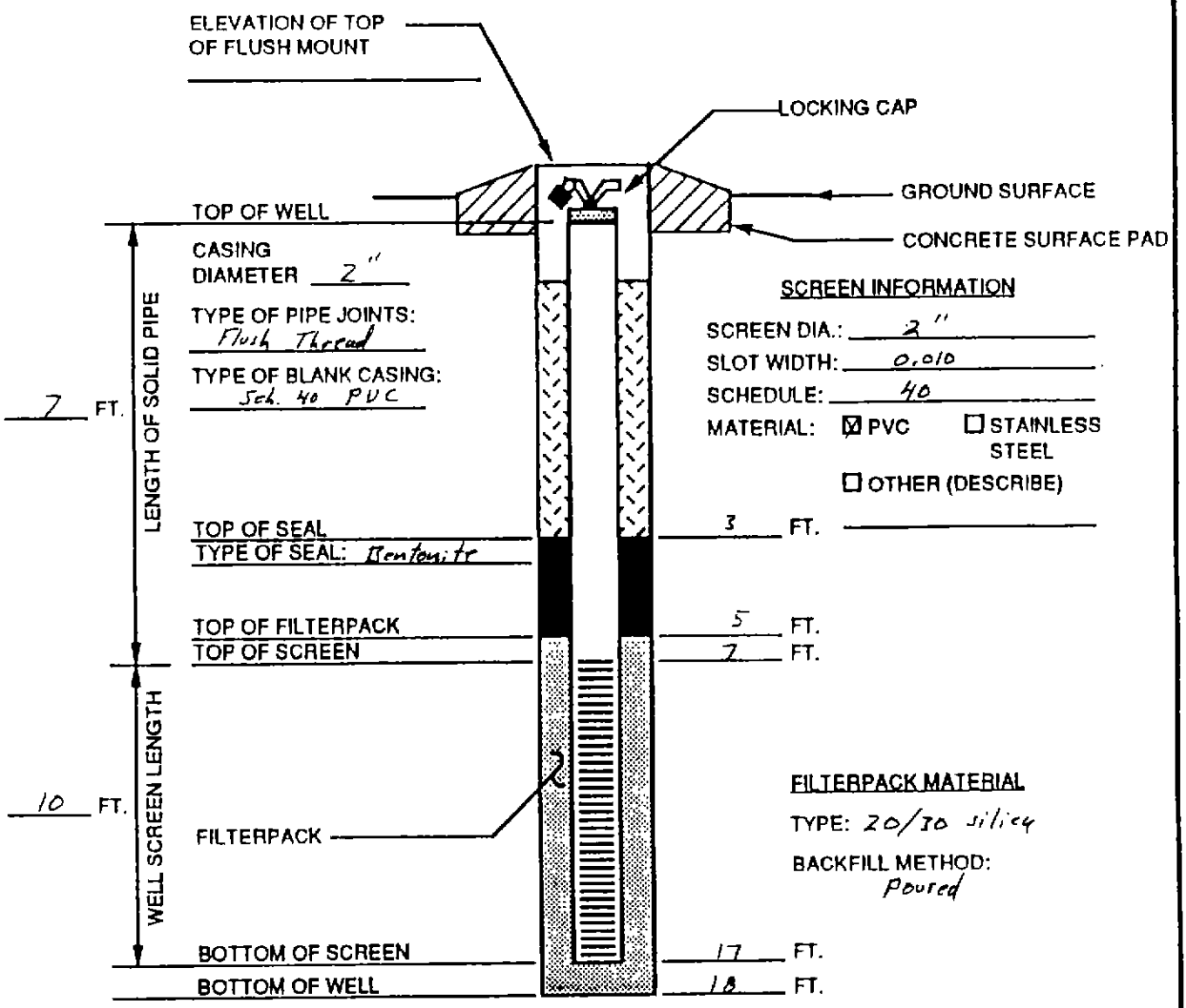


 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER			PROJECT: IR OU 1,2,7
DATE INSTALLED	STARTED: 5-3-94	COMPLETED: 5-3-94	LOCATION (Coordinates or Station): –
ELEVATION TOP OF HOLE: –			SIGNATURE OF INSPECTOR: C. B.
TOTAL DEPTH OF HOLE: 18'			HOLE NO. (As shown on drawing title and file number): CEF-16-195

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



SCREEN INFORMATION

SCREEN DIA.: 2"

SLOT WIDTH: 0.010

SCHEDULE: 40

MATERIAL: ☒ PVC ☐ STAINLESS STEEL ☐ OTHER (DESCRIBE)

FILTERPACK MATERIAL

TYPE: 20/30 silica

BACKFILL METHOD: Poured

WELL DEVELOPMENT

METHOD: pumped

TIME SPENT DEVELOPMENT: 1 hr. / 3 hrs

VOLUME OF WATER REMOVED: 180 / 35 gal

VOLUME OF WATER ADDED: –

DESCRIPTION OF PREDEVELOPMENT WATER: Brown cloudy

DESCRIPTION OF POST DEVELOPMENT WATER: Cloudy / 2.3 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 5/3/94 1350 hrs ~9.0' btoc

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-20D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-17-94	**COMPLTD:** 05-18-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 91-101	**PROTECTION LEVEL:** D
TOC ELEV.: 77.95 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 102FT.	**DPTH TO ▽** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-18-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					0-101.0 *Sand (SP)*, 100%, medium to dark brown to tan to gray to dark gray, quartz, fine-to medium-grained, sub-rounded to sub-angular, moderately well sorted, loose, damp to saturated.		SP		
5									
10								groundwater encountered	▽
15									
20									
25								lenses of silt/clay thickness<6" to 101'bls	
30									
35									
40									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field RI OUs 1,2,7	**LOG of WELL:** CEF-16-20D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM		**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated	**DATE STARTED:** 05-17-94	**COMPLTD:** 05-18-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2" / **SCREEN INT.:** 91-101	**PROTECTION LEVEL:** D
TOC ELEV.: 77.95 FT.	**MONITOR INST.:** Microtip-PID / **TOT DPTH:** 102FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-18-94	**SITE:** 16

DEPTH FT.	ABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1				
					Sand continued.		SP		
45									
50									
55									
60									
65									
70									
75									
80									

 ABB ENVIRONMENTAL SERVICES, INC.

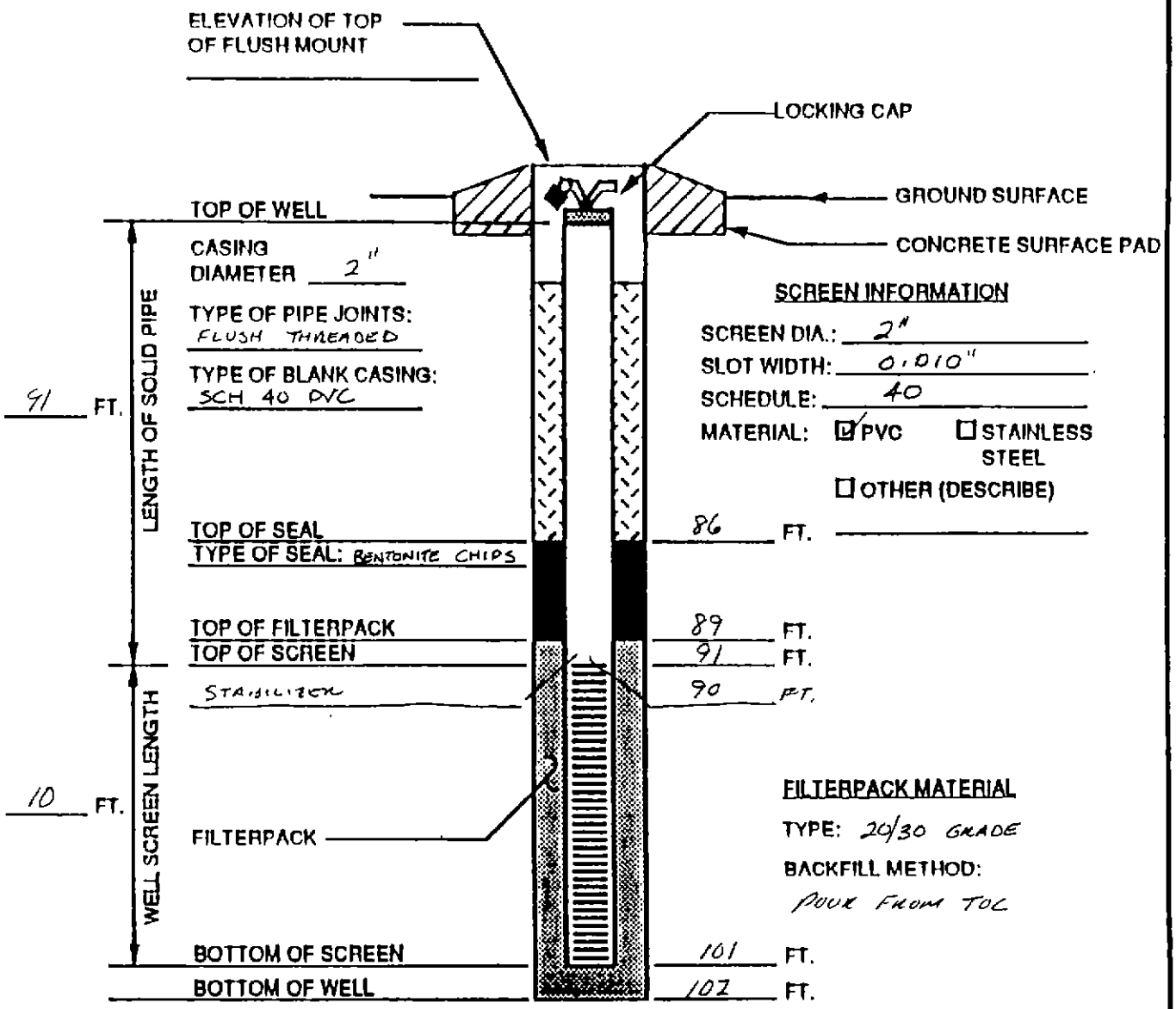
TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-20D	**BORING NO.**
LIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-17-94	**COMPLTD:** 05-18-94
METHOD: Mobil Drill B-80 w/6"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 91-101	**PROTECTION LEVEL:** D
TOC ELEV.: 77.95 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 102FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-18-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 2				
					Sand continued.		SP		
85									
90									
95									
100					101.0-102.0 *Dolomite with Clay*; Dolomite, 50%, medium to dark gray, microcrystalline, moderately well cemented, moderately hard to soft, shell replacement features visible; Clay (CH), 50%, medium to dark gray, soft, tacky, wet, plastic, dense.		DOLOMITE CH		
105					End of boring: 102'bls.				
110									
115									
120									

 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER			PROJECT: R1 OUS 1,2,7
DATE INSTALLED	STARTED: 5-17-94	COMPLETED: 5-18-94	LOCATION (Coordinates or Station): SITE 16
ELEVATION TOP OF HOLE			SIGNATURE OF INSPECTOR: Alan Workman
TOTAL DEPTH OF HOLE: 102			HOLE NO. (As shown on drawing title and file number): CEF-16-20D

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: 2" CENTRIFUGAL

TIME SPENT DEVELOPMENT: 1 hr / 19 hrs

VOLUME OF WATER REMOVED: 660 GAL / 1945 gal

VOLUME OF WATER ADDED: < 200 GAL

DESCRIPTION OF PREDEVELOPMENT WATER: CLOUDY

DESCRIPTION OF POST DEVELOPMENT WATER: CLOUDY 5.0 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 5/17/94 1645hrs ~8' bloc

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-21S	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 04-24-94	**COMPLTD:** 04-24-94
METHOD: Mobil Drill B-61 w/4.25"ID HSA	**CASE SIZE:** 2"	**SCREEN INT.:** 7-17	**PROTECTION LEVEL:** D
TOC ELEV.: 77.73 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 18FT.	**DPTH TO ▽** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 04-24-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN
				0	0-18.0 *Silty Sand (SM)*, 100%, dark gray, quartz, fine-grained, sub-rounded to sub-angular, moderately well sorted.		SM	1-1-1-1
				0				5-4-3-5
				0	4.0-18.0 color change; reddish brown.			3-4-3-4
5								
				0				6-8-8-10
				7.2				8-7-7-8
10				0				7-5-6-8 groundwater encountered
			75%					
				0				3-6-8-9
			75%					
				0				5-6-7-10
15								
					End of boring: 18'bls.			
20								

WELL DATA

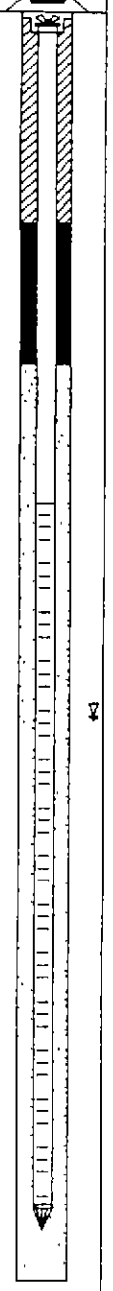
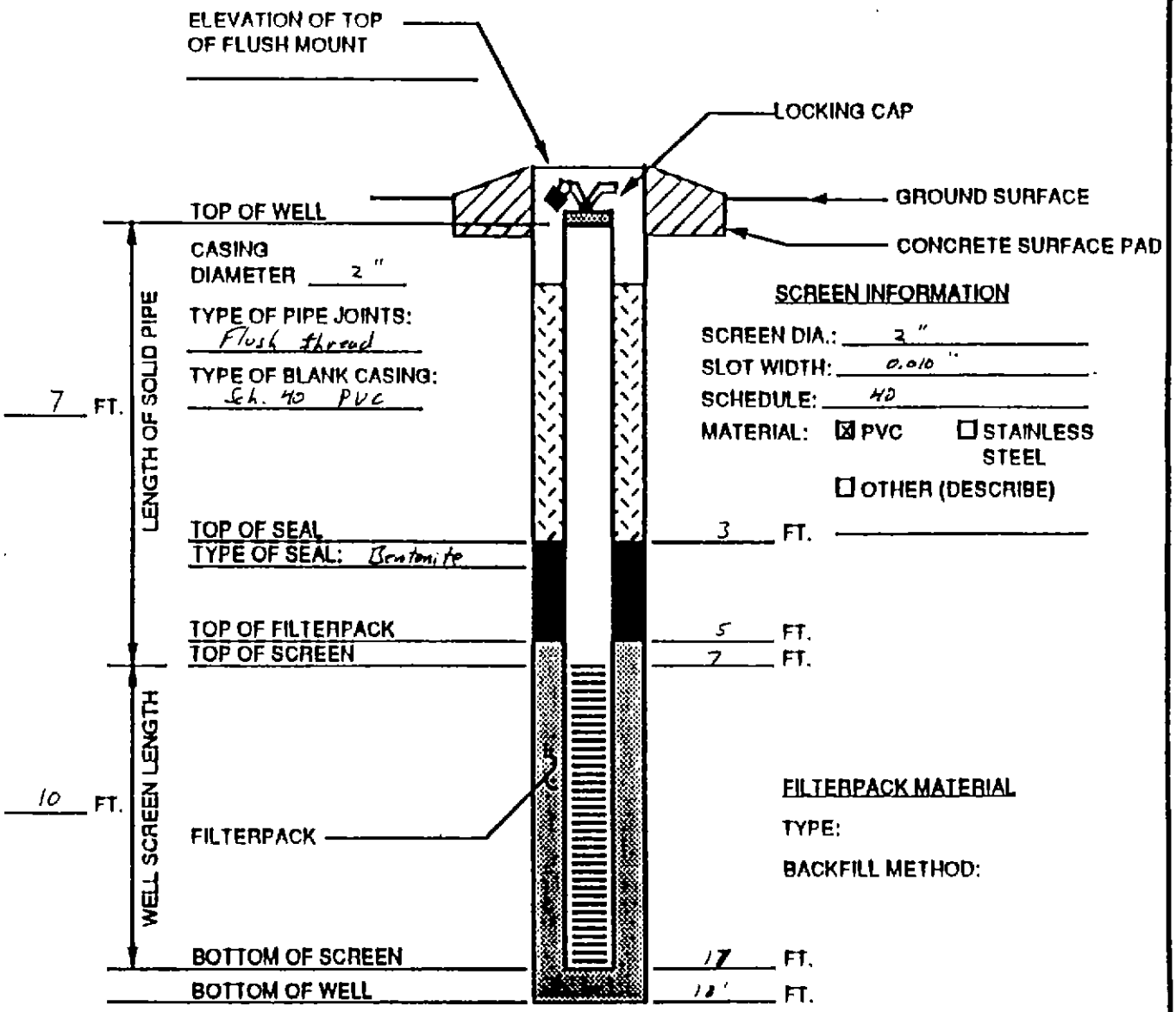


 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER			PROJECT: IR OU 1,2,7
DATE INSTALLED	STARTED: 4-24-94	COMPLETED: 4-24-94	LOCATION (Coordinates or Station):
ELEVATION TOP OF HOLE			SIGNATURE OF INSPECTOR: CJ Bd
TOTAL DEPTH OF HOLE: 18'			HOLE NO. (As shown on drawing title and file number): CEF-16-21 S

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



SCREEN INFORMATION

SCREEN DIA.: 2"

SLOT WIDTH: 0.010"

SCHEDULE: 40

MATERIAL: ☒ PVC ☐ STAINLESS STEEL ☐ OTHER (DESCRIBE)

FILTERPACK MATERIAL

TYPE:

BACKFILL METHOD:

WELL DEVELOPMENT

METHOD: pumped

TIME SPENT DEVELOPMENT: 4 1/4 hr

VOLUME OF WATER REMOVED: 260

VOLUME OF WATER ADDED: —

DESCRIPTION OF PREDEVELOPMENT WATER: Dark brown

DESCRIPTION OF POST DEVELOPMENT WATER: Clear 3.0 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 4/24/94 1440 hrs. 8.25' btoc

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

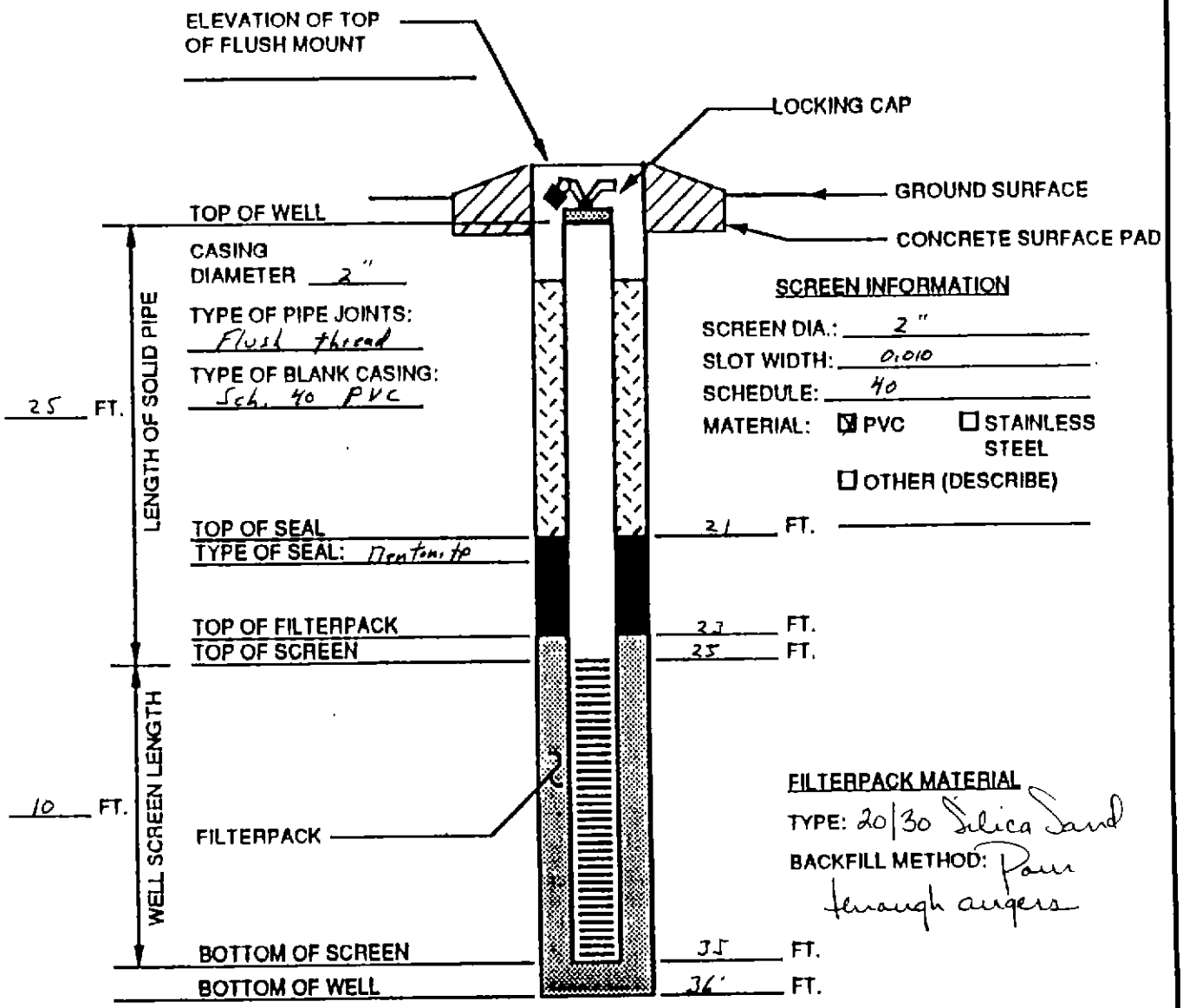
TITLE: Nas Cecil Field RI OUs 1,2,7	**LOG of WELL:** CEF-18-22I	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM		**PROJECT NO:** 8500-08
CONTRACTOR: Hardin Huber Incorporated	**DATE STARTED:** 04-24-94	**COMPLTD:** 04-24-94
METHOD: Mobil Drill B-61 w/4.25"ID HSA	**CASE SIZE:** 2" / **SCREEN INT.:** 25-35	**PROTECTION LEVEL:** D
TOC ELEV.: 77.89 FT.	**MONITOR INST.:** Microtip-PID / **TOT DPTH:** 38FT.	**DPTH TO ▽** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 04-24-94	**SITE:** 18

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	0-38.0 *Silty Sand (SM)*, 100%, dark gray, quartz, very fine-to fine-grained, sub-rounded, well sorted.		SM	1-1-1-1	
				0				5-4-3-5	
				0	4.0-38.0 color change; reddish brown.			3-4-3-4	
5				0				6-8-8-10	
				7.2				8-7-7-8	
10			75%	0				7-5-6-8	▽
								groundwater encountered	
			75%	0				3-6-8-9	
				0				5-6-7-10	
15				0				2-5-4-6	
			80%						
			75%	0				4-6-5-7	
20				0				3-4-3-4	
			70%	0				3-4-6-7	
				0				4-4-4-7	
25				0				3-7-6-5	
			50%	0				1-1-1-2	
30				0				5-6-8-8	
				0				5-5-7-10	
35			50%		End of boring: 38'bls.				
40									

 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER			PROJECT: IR OU 1,2,7
DATE INSTALLED	STARTED: 4-24-94	COMPLETED: 4-24-94	LOCATION (Coordinates or Station):
ELEVATION TOP OF HOLE			SIGNATURE OF INSPECTOR: C. J. D.
TOTAL DEPTH OF HOLE: 36'			HOLE NO. (As shown on drawing title and file number): CEF-16-22I

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: pumped

TIME SPENT DEVELOPMENT: 1 1/4 hr | 4 1/2 hrs

VOLUME OF WATER REMOVED: 300 gal | 165 gal

VOLUME OF WATER ADDED: —

DESCRIPTION OF PREDEVELOPMENT WATER: Cloudy

DESCRIPTION OF POST DEVELOPMENT WATER: Cloudy | 6.5 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 4/21/94 0755 hrs 9.24' btoc

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-23D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 04-21-94	**COMPLTD:** 04-22-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 89-99	**PROTECTION LEVEL:** D
TOC ELEV.: 77.98 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 100FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 04-22-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					0-99.0 *Sand (SP)*, 100%, medium to dark brown to gray to dark gray, quartz, fine-to medium-grained, sub-rounded to sub-angular, moderately well to well sorted, loose, damp to saturated.		SP		
5									
10								groundwater encountered	∇
15									
20									
25								lenses of silt/clay thickness<6" to 99'bls	
30									
35									
40									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-23D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 04-21-94	**COMPLTD:** 04-22-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 89-99	**PROTECTION LEVEL:** D
TOC ELEV.: 77.98 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 100FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 04-22-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1				
					Sand continued.		SP		
45									
50									
55									
60									
65									
70									
75									
80									

 ABB ENVIRONMENTAL SERVICES, INC.

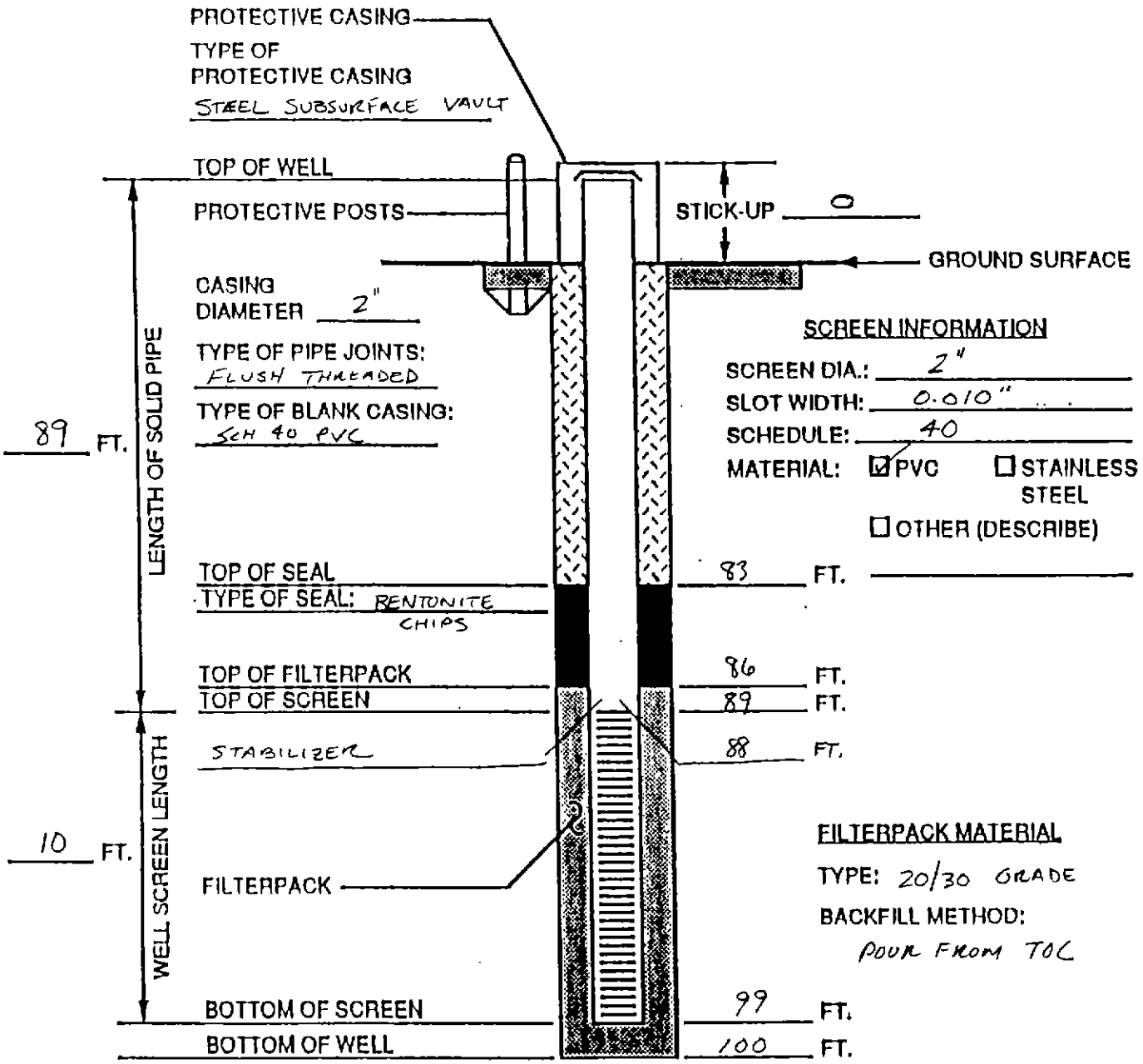
TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-23D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 04-21-94	**COMPLTD:** 04-22-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 89-99	**PROTECTION LEVEL:** D
TOC ELEV.: 77.98 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 100FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 04-22-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 2				
					Sand continued.		SP		
85									
90									
95									
					99.0-100.0 *Dolomite with Clay*; Dolomite, 50%, medium to dark gray, microcrystalline, moderately well cemented, moderately hard to soft, shell replacement features visible; Clay (CH), 50%, medium to dark gray, soft, tacky, wet, plastic, moderately dense.		DOLOMITE CH		
100					End of boring: 100'bls.				
105									
110									
115									
120									

 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER			PROJECT: R1 OUS. 1,2,7
DATE INSTALLED	STARTED: 4-21-94	COMPLETED: 4-22-94	LOCATION (Coordinates or Station): SITE 16
ELEVATION TOP OF HOLE			SIGNATURE OF INSPECTOR: [signature]
TOTAL DEPTH OF HOLE: 100'			HOLE NO. (As shown on drawing title and file number): CEF-16-23D

ABOVE GROUND MONITORING WELL CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: 2" CENTRIFUGAL

TIME SPENT DEVELOPMENT: 1 hr / 4 hrs

VOLUME OF WATER REMOVED: ≈ 385 GAL / 680 gal

VOLUME OF WATER ADDED: < 100 GAL

DESCRIPTION OF PREDEVELOPMENT WATER: VERY CLOUDY

DESCRIPTION OF POST DEVELOPMENT WATER:

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 4/24/94 1030 hrs. 9.51' (TOC)

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7	**LOG of WELL:** CEF-16-24S	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM		**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated	**DATE STARTED:** 04-23-94	**COMPLTD:** 04-24-94
METHOD: Mobil Drill B-61 w/4.25"ID HSA	**CASE SIZE:** 2" / **SCREEN INT.:** 7-17	**PROTECTION LEVEL:** D
TOC ELEV.: 77.33 FT.	**MONITOR INST.:** Microtip-PID / **TOT DPTH:** 20FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 04-24-94	**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN
				0	0-20.0 *Silty Sand (SM)*, 100%, dark brown, quartz, fine-grained, sub-rounded to sub-angular, moderately well sorted.		SM	2-4-3-3
				4.1				1-1-23-15
				39.7	4.0-8.0 color change; reddish brown.			4-6-6-6
5								
				31.8				4-6-5-6
				18.7	color change; light brown.			3-3-4-5
10				17.8				4-4-6-7 groundwater encountered
				21.3				3-5-7-8
				21.3				4-7-7-9
15								
				21.9				5-8-9-7
				21.3				3-5-6-8
20					End of boring: 20'bls.			

WELL DATA

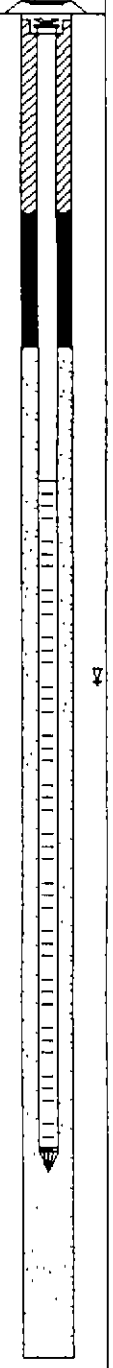
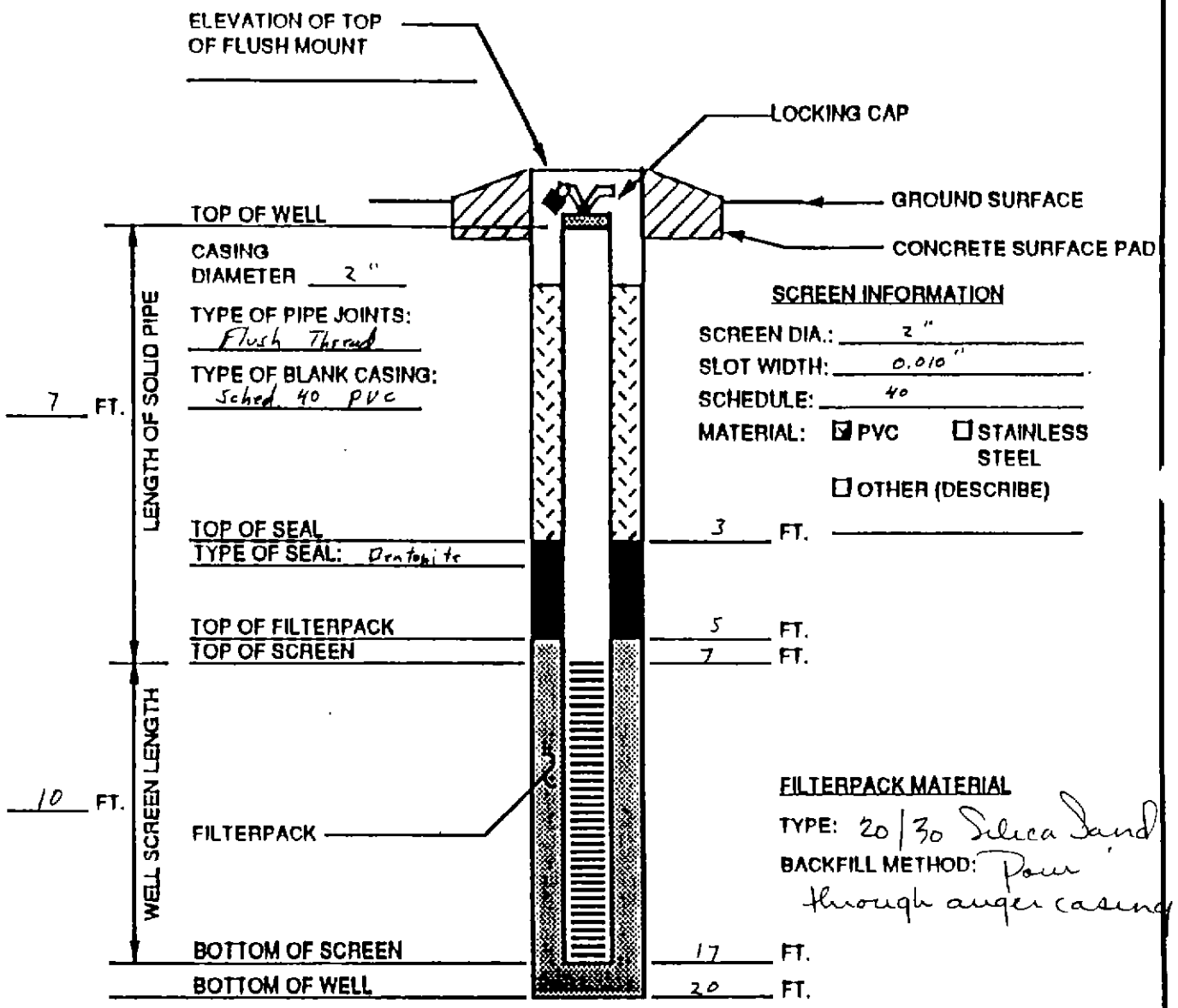


 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER			PROJECT: IR OU 1,2,7
DATE INSTALLED	STARTED: 4-23-94	COMPLETED: 4-24-94	LOCATION (Coordinates or Station)
ELEVATION TOP OF HOLE			SIGNATURE OF INSPECTOR: C. B.
TOTAL DEPTH OF HOLE: 20'			HOLE NO. (As shown on drawing title and file number): CEF-16-245

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: pumped

TIME SPENT DEVELOPMENT: 547 min / 4 hrs

VOLUME OF WATER REMOVED: 180 / 40 gal

VOLUME OF WATER ADDED: —

DESCRIPTION OF PREDEVELOPMENT WATER: Cloudy

DESCRIPTION OF POST DEVELOPMENT WATER: Cloudy / 1.1 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 4/24/94 0900 hrs -9.0' btoc

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-25D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-03-94	**COMPLTD:** 05-04-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 84-94	**PROTECTION LEVEL:** D
TOC ELEV.: 77.11 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 85FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-04-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					0-94.0 *Sand (SP)*, 100%, medium to dark brown to gray to tan to dark gray, quartz, fine-to medium-grained, sub-rounded to sub-angular, moderately well to well sorted, loose, damp to saturated.		SP		
5									
10								groundwater encountered	∇
15									
20									
25								lenses of silt/clay thickness<8" to 95'bls	
30									
35									
40									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-25D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-03-94	**COMPLTD:** 05-04-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 84-94	**PROTECTION LEVEL:** D
TOC ELEV.: 77.11 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 95FT.	**DPTH TO ▽** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-04-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1				
					Sand continued.		SP		
45									
50									
55									
60									
65									
70									
75									
80									

 ABB ENVIRONMENTAL SERVICES, INC.

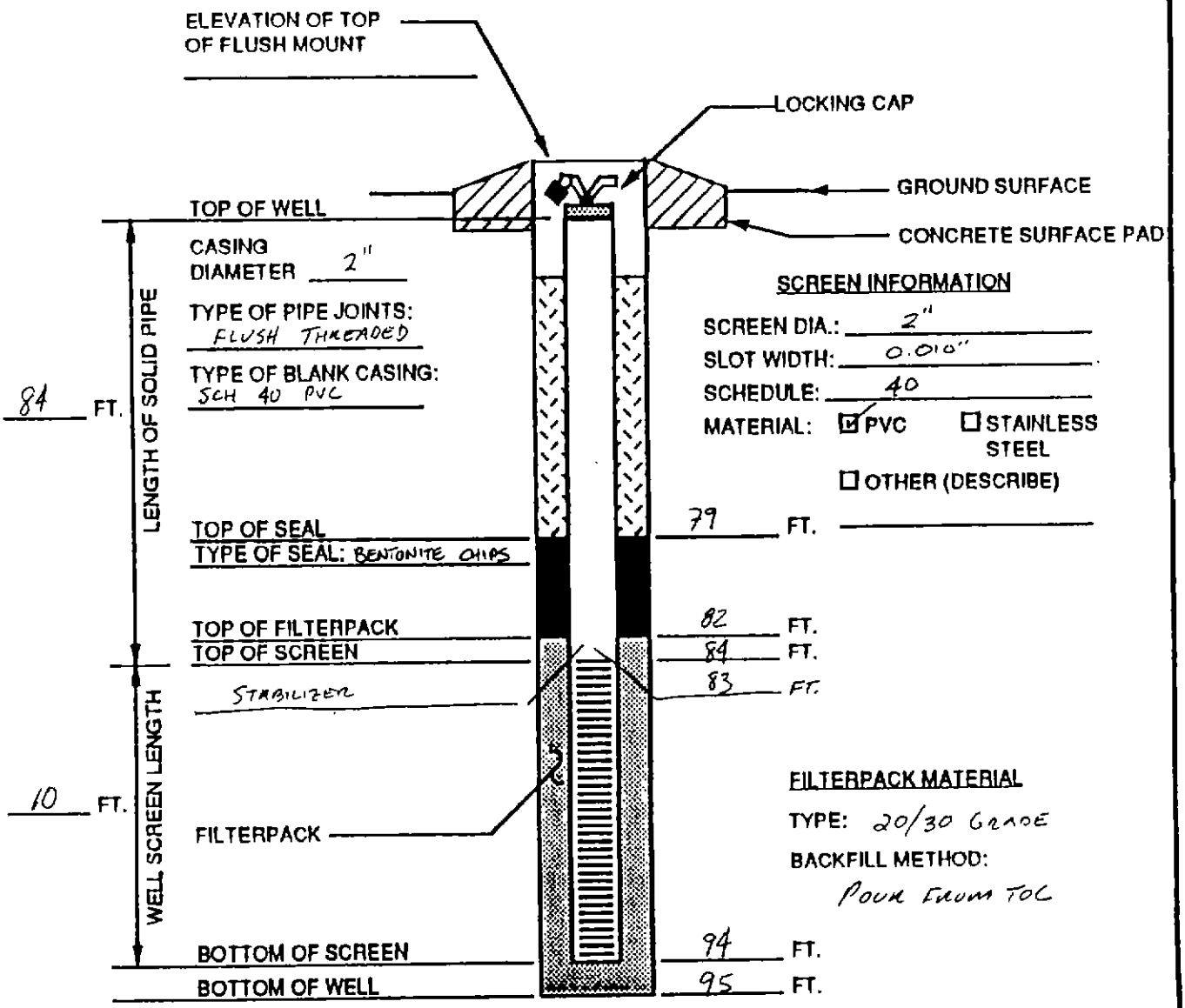
TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-25D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-03-94	**COMPLTD:** 05-04-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 84-94	**PROTECTION LEVEL:** D
TOC ELEV.: 77.11 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 95FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-04-94		**SITE:** 16

DEPTH FT.	ABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 2				
					Sand continued.		SP		
85									
90									
95					94.0-95.0 *Dolomite with Clay*; Dolomite, 50%, medium to dark gray, microcrystalline, moderately well cemented, moderately hard to soft, shell replacement features visible, sucrosic; Clay (CH), 50%, medium to dark gray, soft, tacky, wet, plastic, moderately dense.		DOLOMITE CH		
					End of boring: 95'bls.				
100									
105									
110									
115									
120									

 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER			PROJECT: R1 OUS 1,2,7
DATE INSTALLED	STARTED: 5-3-94	COMPLETED: 5-4-94	LOCATION (Coordinates or Station): SITE 16
ELEVATION TOP OF HOLE			SIGNATURE OF INSPECTOR: [signature]
TOTAL DEPTH OF HOLE: 94'			HOLE NO. (As shown on drawing title and file number): CEF-16-25D

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: 2" CENTRIFUGAL PUMP

TIME SPENT DEVELOPMENT: 1 hr / 4 hrs

VOLUME OF WATER REMOVED: 650 GAL / 240 gal

VOLUME OF WATER ADDED: < 200 GAL

DESCRIPTION OF PREDEVELOPMENT WATER: CLEAR

DESCRIPTION OF POST DEVELOPMENT WATER: CLEAR / 4.0 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 5/4/94 1555hrs ~ 8.0' btoc

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-18-26DD	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 04-25-94	**COMPLTD:** 05-03-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"IC/8"OC	**SCREEN INT.:** 108-118	**PROTECTION LEVEL:** D
TOC ELEV.: 77.31 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 118FT.	**DPTH TO ▽** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-03-94		**SITE:** 18

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					0-84.0 *Sand (SP)*, 100%, medium to dark brown to gray to tan to dark gray, quartz, fine-to medium-grained, sub-rounded to sub-angular, moderately well to well sorted, loose, damp to saturated.		SP		
5									
10								groundwater encountered	▽
15									
20									
25								lenses of silt/clay thickness<6" to 95'bls	
30									
35									
40									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-26DD	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 04-25-94	**COMPLTD:** 05-03-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"IC/8"OC	**SCREEN INT.:** 108-118	**PROTECTION LEVEL:** D
TOC ELEV.: 77.31 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 119FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-03-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1				
					Sand continued.		SP		
45									
50									
55									
60									
65									
70									
75									
80									

 ABB ENVIRONMENTAL SERVICES, INC.

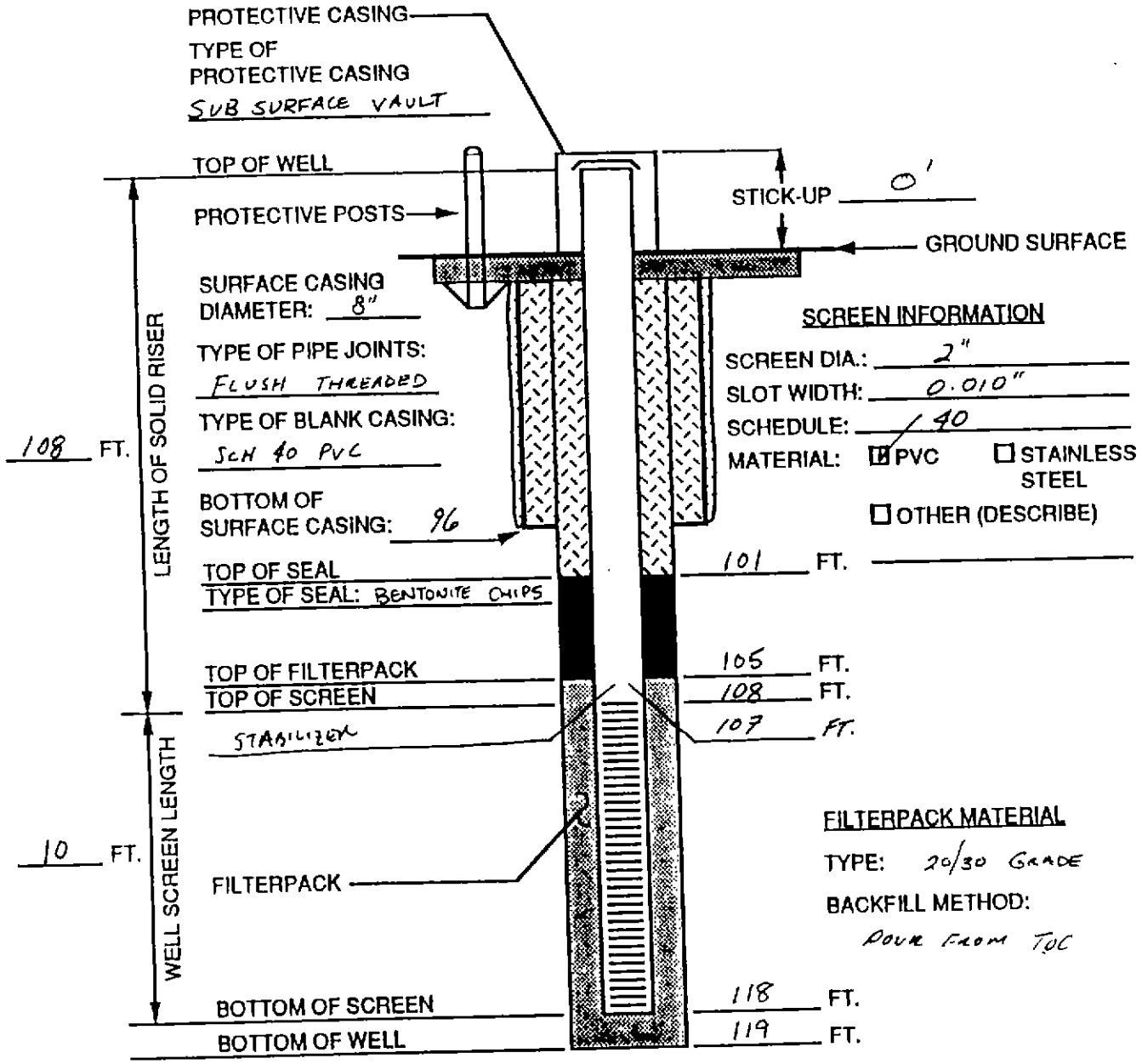
TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-26DD	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 04-25-94	**COMPLTD:** 05-03-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"IC/8"OC	**SCREEN INT.:** 108-118	**PROTECTION LEVEL:** D
TOC ELEV.: 77.31 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 119FT.	**DPTH TO ▽** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-03-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 2				
					Sand continued.		SP		
85									
90									
95					94.0-100.0 *Dolomite with Clay*; Dolomite, 50%, medium to dark gray, microcrystalline, moderately well cemented, moderately hard to soft, shell replacement features visible, sucrosic; Clay (CH), 50%, medium to dark gray, soft, tacky, wet, plastic, moderately dense.		DOLOMITE CH		
100					100.0-118.0 *Dolomite*, 100%, medium gray to moderate yellowish brown, microcrystalline, moderately well cemented, moderately hard to soft, shell replacement features visible.		DOLOMITE		
105									
110									
115									
120					End of boring: 119'bls.				

 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER			PROJECT: RI OU5 1,2,7
DATE INSTALLED	STARTED: 4-25-94	COMPLETED: 5-3-94	LOCATION (Coordinates or Station): ~~CEF-16-26DD~~ SITE 16
ELEVATION TOP OF HOLE			SIGNATURE OF INSPECTOR: Ray Workman
TOTAL DEPTH OF HOLE: 119'			HOLE NO. (As shown on drawing title and file number): CEF-16-26DD

DOUBLE-CASED MONITORING WELL CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: 2" CENTRIFUGAL PUMP

TIME SPENT DEVELOPMENT: 1 hr / 3½ hrs

VOLUME OF WATER REMOVED: 550 GAL / 210 gal

VOLUME OF WATER ADDED: < 100 GAL

DESCRIPTION OF PREDEVELOPMENT WATER: CLOUDY

DESCRIPTION OF POST DEVELOPMENT WATER: CLEAR / 0.5 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 5/3/94 0805 hrs. ~9.0' btoc

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

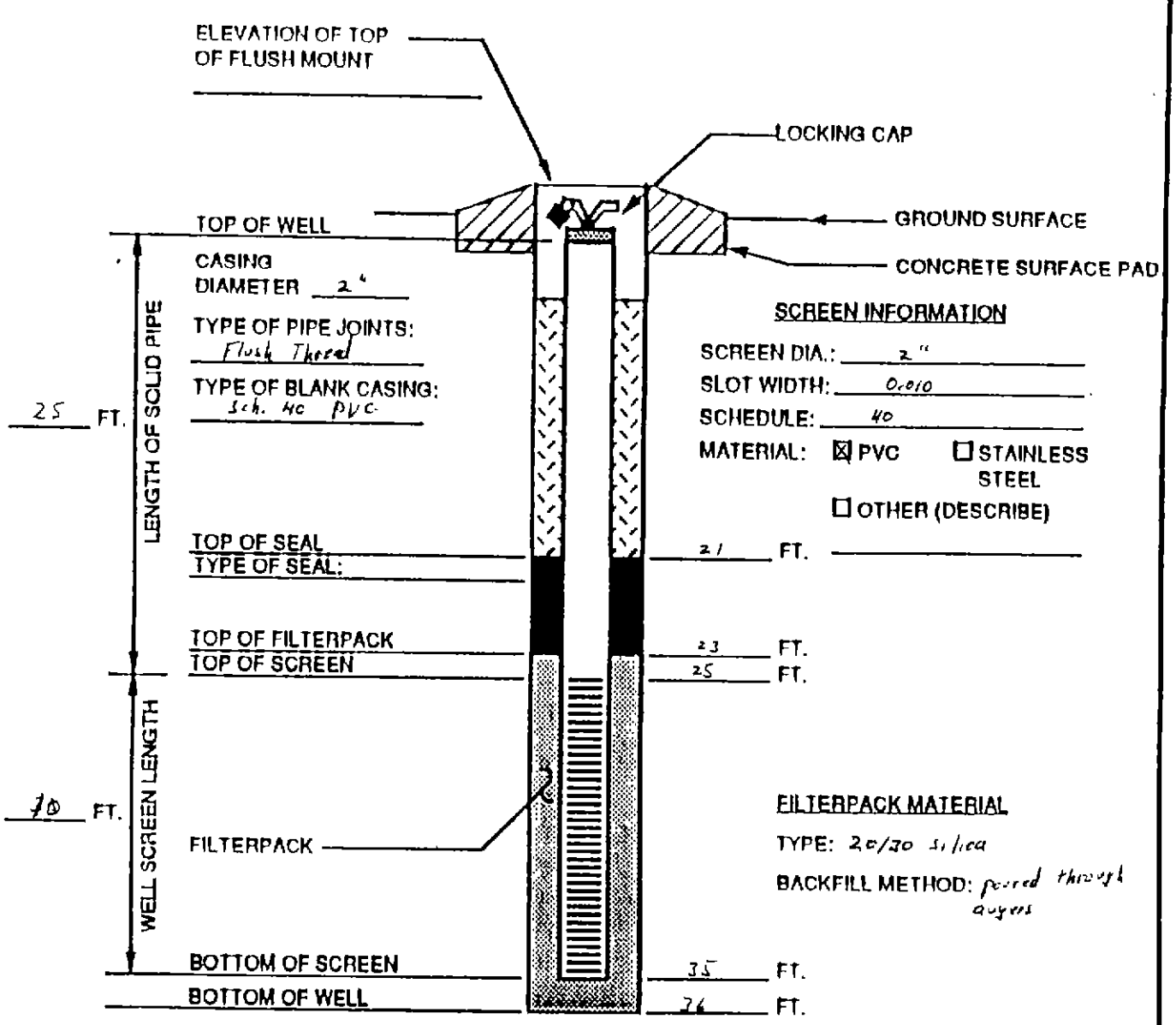
TITLE: Nas Cecil Field RI OUs 1,2,7	**LOG of WELL:** CEF-18-27I	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM		**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated	**DATE STARTED:** 05-20-94	**COMPLTD:** 05-21-94
METHOD: Mobil Drill B-61 w/4.25"ID HSA	**CASE SIZE:** 2" / **SCREEN INT.:** 25-35	**PROTECTION LEVEL:** D
TOC ELEV.: 77.12 FT.	**MONITOR INST.:** Microtip-PID / **TOT DPTH:** 38FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 05-21-94	**SITE:** 18

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
			75%	0	0-38.0 *Silty Sand (SM)*, 100%, dark brown, quartz, very fine-to fine-grained, sub-rounded, well sorted.		SM	6-9-13-18	
				20.3	2.0-18.0 color change; brown.			6-11-17-18	
			80%					7-9-5-17	
				25.5					
5			75%					15-40-28-23	
				34					
			75%					6-16-17-20	
				30					
10				28.2				7-20-17-18 groundwater encountered	∇
				7.6				6-6-8-11	
			75%					3-5-7-9	
				10.6					
15			75%					6-10-11-13	
				7.9					
				10.2	18.0-38.0 color change; light brown.			6-10-10-13	
20				7.1				3-3-4-6	
				5				2-5-4-4	
				0				4-4-6-10	
25				5.8				4-4-4-11	
				0				4-9-11-20	
30				0				7-11-14-20	
				0				3-4-5-8	
35					End of boring: 38'bls.				
40									

 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER: –			PROJECT: IR OU 1, 2, 7
DATE INSTALLED	STARTED: 5 20 94	COMPLETED: 5 21 94	LOCATION (Coordinates or Station): Site 16
ELEVATION TOP OF HOLE: –			SIGNATURE OF INSPECTOR: CG DL
TOTAL DEPTH OF HOLE: 36'			HOLE NO. (As shown on drawing title and file number): CEF-16-27I

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



SCREEN INFORMATION

SCREEN DIA.: 2"

SLOT WIDTH: 0.010

SCHEDULE: 40

MATERIAL: ☒ PVC ☐ STAINLESS STEEL ☐ OTHER (DESCRIBE)

FILTERPACK MATERIAL

TYPE: 20/30 silica

BACKFILL METHOD: poured through augers

WELL DEVELOPMENT

METHOD: pumping

TIME SPENT DEVELOPMENT: 40 min / 4 1/2 hrs

VOLUME OF WATER REMOVED: 300 gal / 270 gal

VOLUME OF WATER ADDED: –

DESCRIPTION OF PREDEVELOPMENT WATER: brown

DESCRIPTION OF POST DEVELOPMENT WATER: cloudy / 10.0 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 5/21/94 0840 ~9' bls

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7	**LOG of WELL:** CEF-16-28D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM		**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated	**DATE STARTED:** 05-23-94	**COMPLTD:** 05-24-94
METHOD: Mobil Drill B-61 w/4.25"ID HSA	**CASE SIZE:** 2" / **SCREEN INT.:** 89-99	**PROTECTION LEVEL:** D
TOC ELEV.: 77.30 FT.	**MONITOR INST.:** Microtip-PID / **TOT DPTH:** 100FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 05-24-94	**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN
			75%	0	0-38.0 *Silty Sand (SM)*, 100%, dark brown, quartz, very fine-to fine-grained, sub-rounded, well sorted.		SM	6-9-13-18
				20.3	2.0-18.0 color change; brown.			6-11-17-18
			80%	25.5				7-9-5-17
5			75%	34				15-40-28-23
			75%	30				6-16-17-20
10				28.2				7-20-17-18 groundwater encountered
			75%	7.6				6-6-8-11
				10.6				3-5-7-9
15			75%	7.9				6-10-11-13
				10.2	18.0-38.0 color change; light brown.			6-10-10-13
20				7.1	*Silty Sand* conitnued.			3-3-4-6
				5				2-5-4-4
				0				4-4-6-10
25				5.8				4-4-4-11
				0				4-9-11-20
30				0				7-11-14-20
				0				3-4-5-8
35				0	38.0-100.0 *Sand (SP)*, 100%, light brownish gray, quartz, fine-to medium-grained, sub-rounded to sub-angular, moderately well sorted, trace silt and phosphates.		SP	13-14-13-8
			50%					17-15-16-16
40				0				

WELL DATA

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-28D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-23-94	**COMPLTD:** 05-24-94
METHOD: Mobil Drill B-61 w/4.25"ID HSA	**CASE SIZE:** 2"	**SCREEN INT.:** 89-99	**PROTECTION LEVEL:** D
TOC ELEV.: 77.30 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 100FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 05-24-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1				
					Sand continued.		SP		
45				0				5-5-10-17	
50				0				8-4-11-15	
55				0				9-8-10-15	
60				0				10-4-5-10	
65				0				3-5-7-17	
70			70%	0				13-35-29-25	
75			0%	0				17-73-84-100	
80									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-28D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-23-94	**COMPLTD:** 05-24-94
METHOD: Mobil Drill B-61 w/4.25"ID HSA	**CASE SIZE:** 2"	**SCREEN INT.:** 89-99	**PROTECTION LEVEL:** D
TOC ELEV.: 77.30 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 100FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 05-24-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 2				
					Sand continued.		SP		
85									
90									
95									
100					End of boring: 100'bls.				
105									
110									
115									
120									

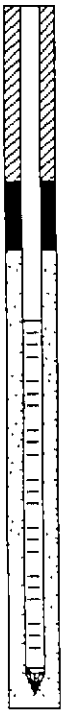
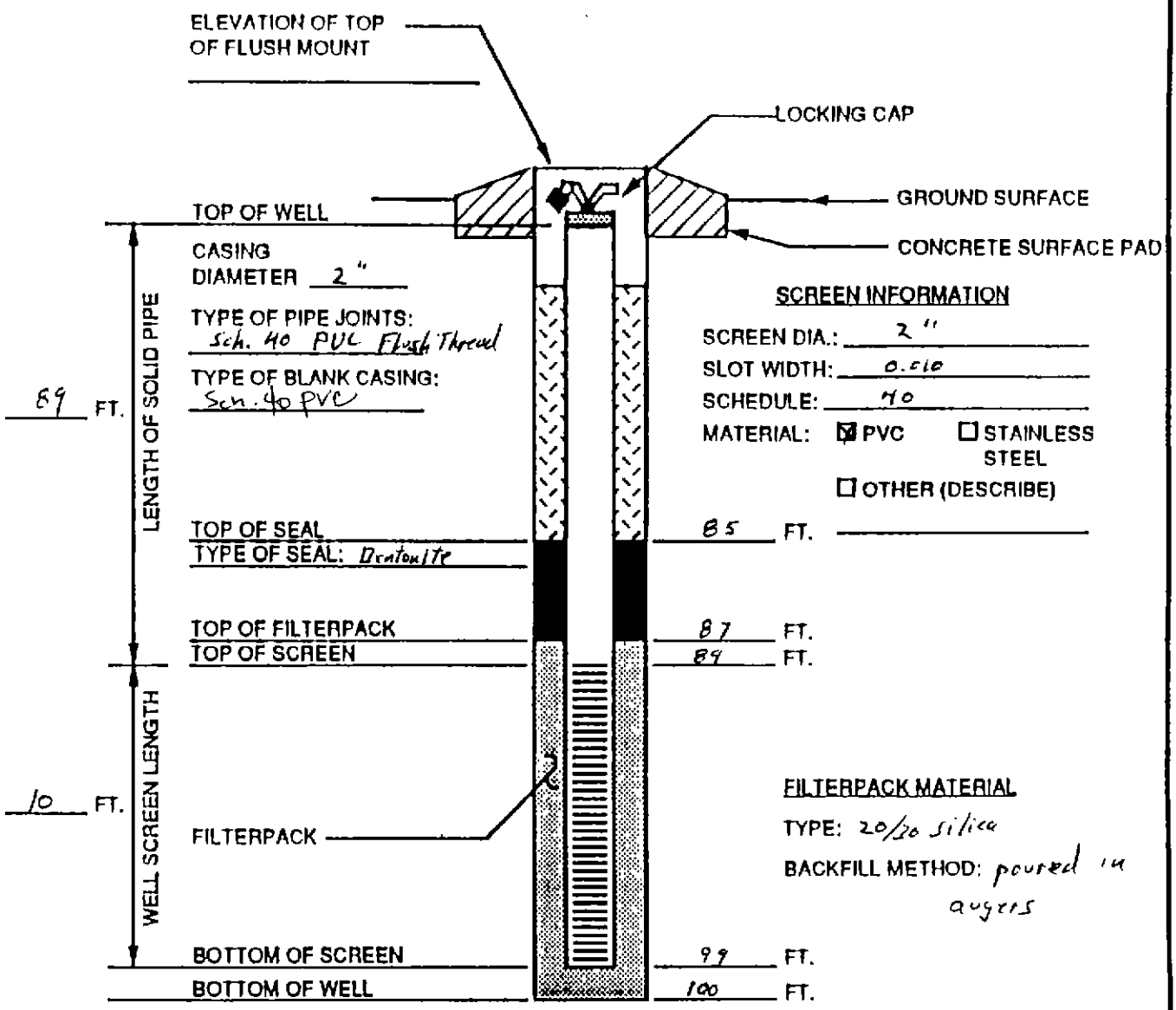


 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER —			PROJECT ER OU 127
DATE INSTALLED	STARTED 5 27 94	COMPLETED 5-24-94	LOCATION (Coordinates or Station) Site 16
ELEVATION TOP OF HOLE —			SIGNATURE OF INSPECTOR C-7 B-l
TOTAL DEPTH OF HOLE 100'			HOLE NO. (As shown on drawing title and file number) CEF-16 28D

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: Pumping

TIME SPENT DEVELOPMENT: 42 min / 4½ hrs

VOLUME OF WATER REMOVED: ~ 345 gal / 270 gal

VOLUME OF WATER ADDED: ~ 150 gal

DESCRIPTION OF PREDEVELOPMENT WATER: Dark gray

DESCRIPTION OF POST DEVELOPMENT WATER: Gray / 5.0 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 5/24/94 1130 hrs. ~9.0' btoc

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7	**LOG of WELL:** CEF-16-29S	**BORING NO.**
'LIENT: SOUTHDIVNAVFACENGCOM		**PROJECT NO:** 8500-08
CONTRACTOR: Hardin Huber Incorporated	**DATE STARTED:** 05-31-94	**CONPLTD:** 05-31-94
METHOD: Mobil Drill B-61 w/4.25"ID HSA	**CASE SIZE:** 2" / **SCREEN INT.:** 7-17	**PROTECTION LEVEL:** D
TOC ELEV.: 75.40 FT.	**MONITOR INST.:** Microtip-PID / **TOT DPTH:** 18FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 05-31-94	**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN
			50%	0	0-18.0 *Silty Sand (SM)*, 100%, light gray, quartz, fine-grained, sub-rounded to sub-angular, moderately well sorted.		SM	6-15-22-17
			75%	0	2.0-18.0 color change; brown.			3-8-5-4
				50.8				5-10-10-10
5				0				6-10-10-13
				51.9				4-6-6-8
10				0				6-7-8-9 groundwater encountered
				0				1-4-7-13
				0				3-5-8-8
15				0				6-4-16-14
					End of boring: 18'bls.			
20								

WELL DATA

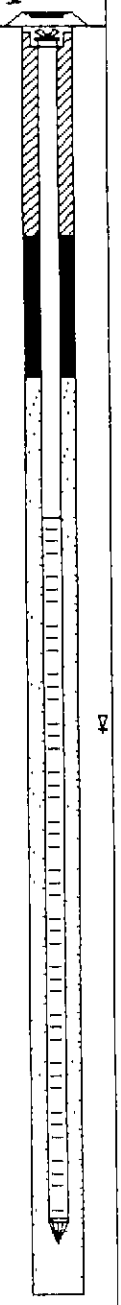
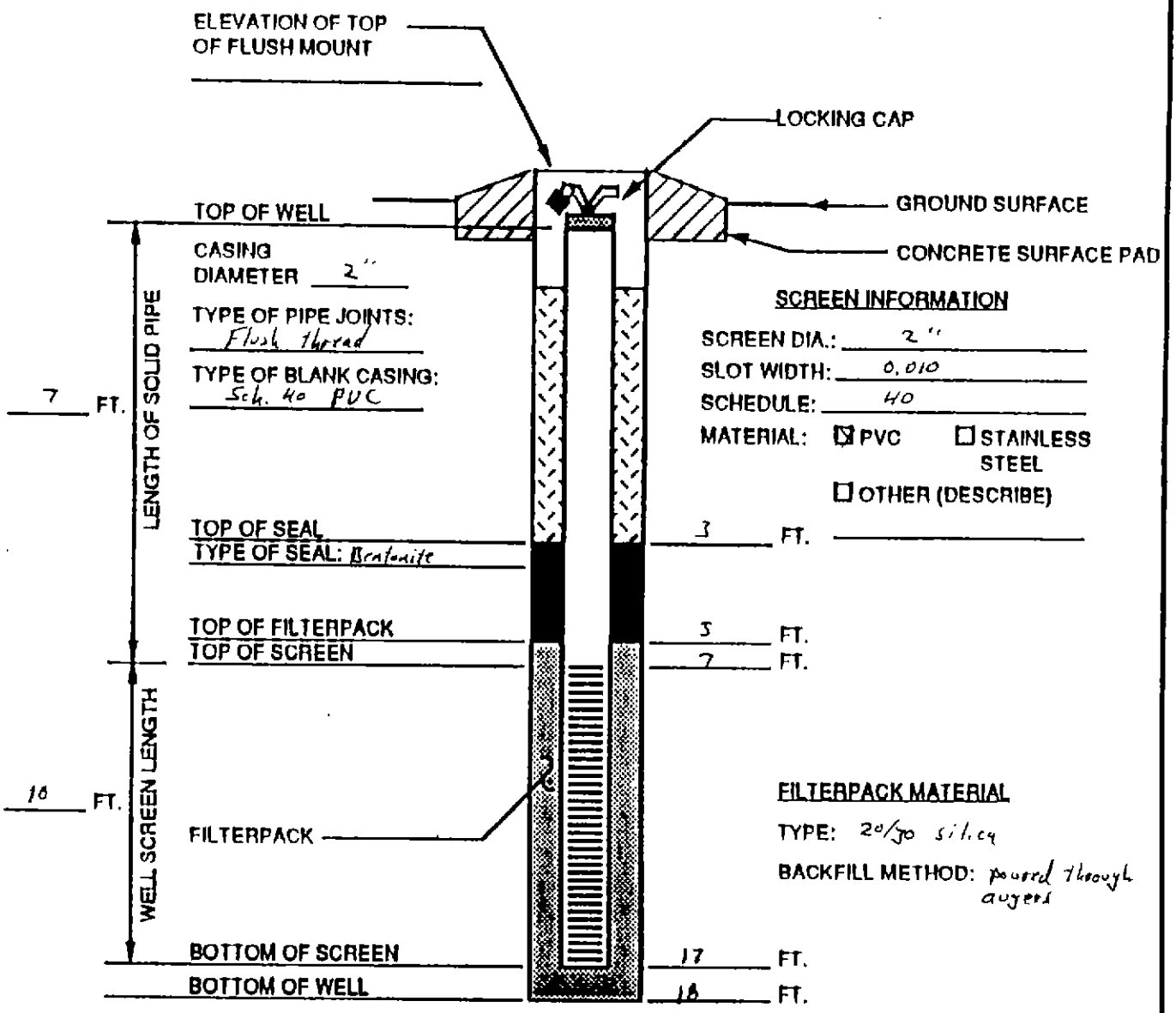


 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER: —			PROJECT: IR OU 127
DATE INSTALLED: 5.31.94	STARTED: 5 31 94	COMPLETED: 5-31-94	LOCATION (Coordinates or Station): Site 16
ELEVATION TOP OF HOLE: —			SIGNATURE OF INSPECTOR: CJ Dl
TOTAL DEPTH OF HOLE: 18' bls			HOLE NO. (As shown on drawing title and file number): CEF-16 295

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



SCREEN INFORMATION

SCREEN DIA.: 2"

SLOT WIDTH: 0.010

SCHEDULE: 40

MATERIAL: ☒ PVC ☐ STAINLESS STEEL ☐ OTHER (DESCRIBE)

FILTERPACK MATERIAL

TYPE: 20/30 silica

BACKFILL METHOD: poured through augers

WELL DEVELOPMENT

METHOD: pumping

TIME SPENT DEVELOPMENT: 22 min / 8 hrs.

VOLUME OF WATER REMOVED: ~ 45 gal / 245 gal

VOLUME OF WATER ADDED: —

DESCRIPTION OF PREDEVELOPMENT WATER: brown

DESCRIPTION OF POST DEVELOPMENT WATER: Light brown 15 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 7/6/94 0900 ~9' bls

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-30D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 06-18-94	**COMPLTD:** 06-19-94
METHOD: Mobil Drill B-80 w/6"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 82-92	**PROTECTION LEVEL:** D
TOC ELEV.: 75.34 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 93FT.	**DPTH TO ∇:** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 06-19-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					0-85.0 *Silty Sand (SM)*, 100%, brown, quartz, fine-grained, sub-rounded, moderately well sorted, trace phosphates.		SP		
5									
10								groundwater encountered	∇
15									
					18.5-85.0 color change; light gray.				
20									
25								lenses of silt/clay thickness<6" to 85'bls	
30									
35									
40									

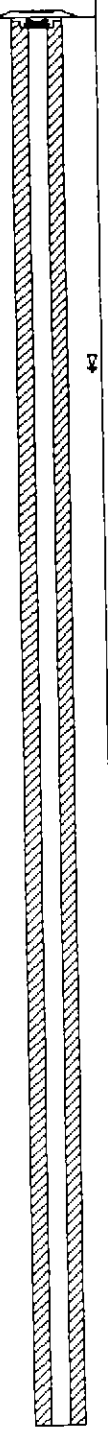


 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-30D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-08
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 06-18-94	**COMPLTD:** 06-19-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 82-92	**PROTECTION LEVEL:** D
TOC ELEV.: 75.34 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 93FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 06-19-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1				
					Silty Sand continued.		SP		
45									
50									
55									
60									
65									
70									
75									
80									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-30D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 06-18-94	**COMPLTD:** 06-19-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 82-92	**PROTECTION LEVEL:** D
TOC ELEV.: 75.34 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 93FT.	**DPTH TO ▽** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 06-19-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 2				
					Silty Sand continued.		SP		
85					85.0-93.0 *Clayey Sand (SC)*, 100%, dark gray, quartz, fine-grained, clayey.		SC		
90					End of boring: 93'bls.				
95									
100									
105									
110									
115									
120									

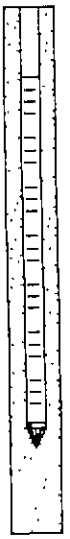
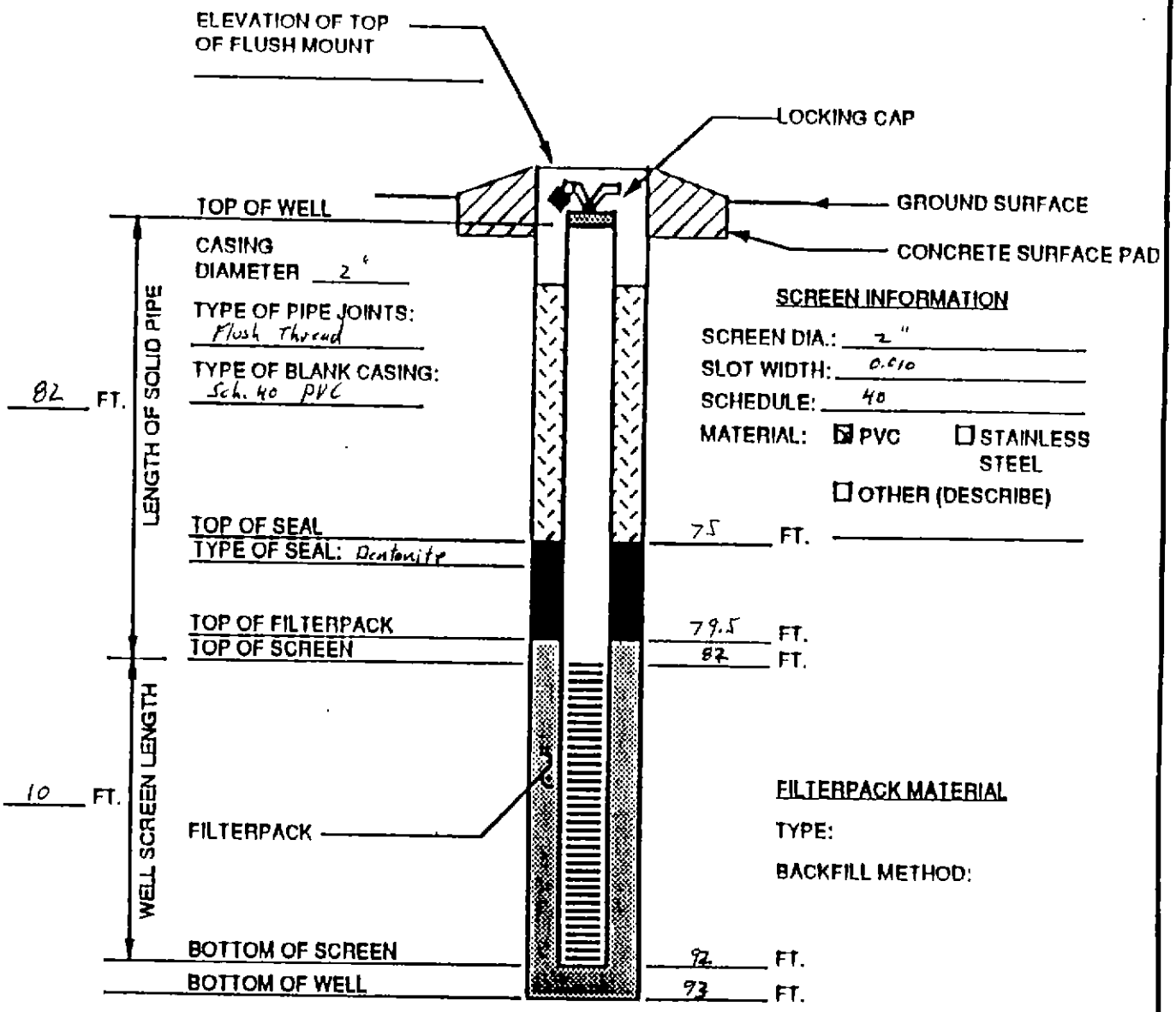


 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER			PROJECT: IR OU 27
DATE INSTALLED	STARTED: 6 18 94	COMPLETED: 6 19-94	LOCATION (Coordinates or Station): Site 16
ELEVATION TOP OF HOLE: -			SIGNATURE OF INSPECTOR: C J D-1
TOTAL DEPTH OF HOLE: 92'			HOLE NO. (As shown on drawing title and file number): CEF-16 30D

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: pumping

TIME SPENT DEVELOPMENT: 32 min | 5½ hrs

VOLUME OF WATER REMOVED: 360 gal | 395 gal

VOLUME OF WATER ADDED: ~200 gal

DESCRIPTION OF PREDEVELOPMENT WATER: Gray

DESCRIPTION OF POST DEVELOPMENT WATER: Gray 10.0 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 6/19/94 0952 ~9' bls

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7	**LOG of WELL:** CEF-18-310D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM		**PROJECT NO:** 8500-08
CONTRACTOR: Hardin Huber Incorporated	**DATE STARTED:** 08-13-94	**COMPLTD:** 08-16-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"IC/8"OC	**SCREEN INT.:** 97-107	**PROTECTION LEVEL:** D
TOC ELEV.: 75.18 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 108FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 08-18-94	**SITE:** 18

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					0-85.0 *Silty Sand (SM)*, 100%, brown, quartz, fine-grained, sub-rounded, moderately well sorted, trace phosphates.		SP		
5									
10								groundwater encountered	∇
15									
20					20.0-25.0 color change; light brown.				
25					25.0-85.0 color change; light brown.			lenses of silt/clay thickness<6" to 85'bls	
30									
35									
40									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-31DD	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 06-13-94	**COMPLTD:** 06-16-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"ID/8"OD	**SCREEN INT.:** 97-107	**PROTECTION LEVEL:** D
TOC ELEV.: 75.16 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 108FT.	**DPTH TO ▽** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 06-16-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1				
					Silty Sand continued.		SP		
45									
50									
55									
60									
65									
70									
75									
80									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-310D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 06-13-94	**COMPLTD:** 06-16-94
METHOD: Mobil Drill B-80 w/6"ODEX	**CASE SIZE:** 2"ID/8"OD	**SCREEN INT.:** 97-107	**PROTECTION LEVEL:** D
TOC ELEV.: 75.18 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 108FT.	**DPTH TO ▽** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 06-16-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 2				
					Silty Sand continued.		SP		
85					85.0-93.0 *Clayey Sand (SC)*, 100%, dark gray, quartz, fine-grained, clayey.		SC		
90									
					93.0-107.0 *Dolomite*, 100%, gray, microcrystalline, moderately cemented, moderately hard to soft, shell replacement features visible.		DOLOMITE		
95									
100									
105					End of boring: 107'bls.				
110									
115									
120									

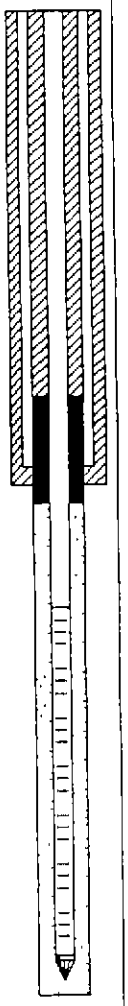
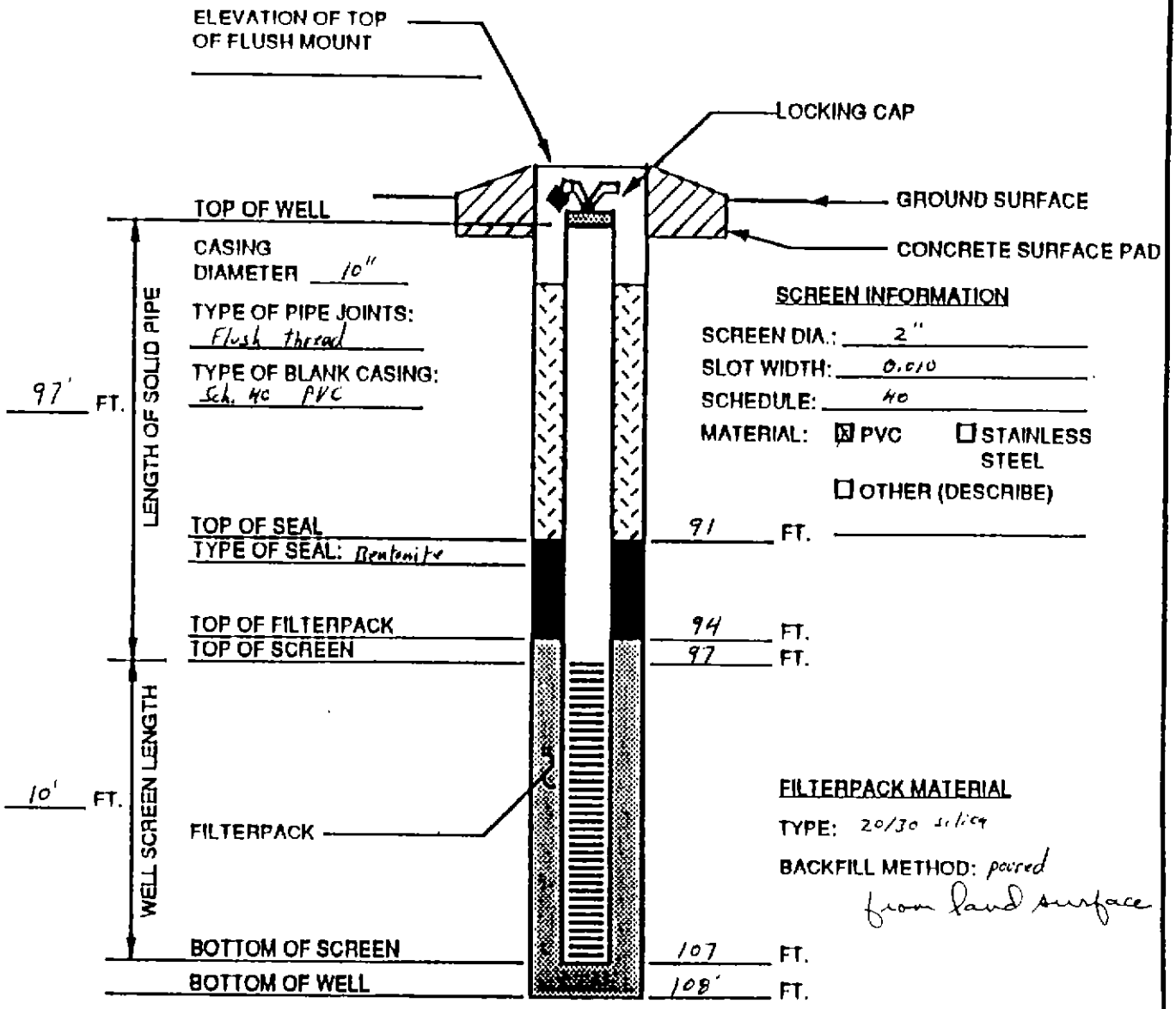


 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER			PROJECT: IR OU 1 2 7
DATE INSTALLED	STARTED: 6/13/94	COMPLETED: 6/16/94	LOCATION (Coordinates or Station): Site 16
ELEVATION TOP OF HOLE: —			SIGNATURE OF INSPECTOR: C. J. Ill
TOTAL DEPTH OF HOLE: 108' bls			HOLE NO. (As shown on drawing title and file number): CEF-16 31 DD

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: pumping

TIME SPENT DEVELOPMENT: 30 min | 9 hrs

VOLUME OF WATER REMOVED: 420 gal | 325 gal

VOLUME OF WATER ADDED: ~200 gal

DESCRIPTION OF PREDEVELOPMENT WATER: Cloudy - Clear

DESCRIPTION OF POST DEVELOPMENT WATER: Clear 43 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 6/16/94 1402 ~91' bls

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7	**LOG of WELL:** CEF-18-32S	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM		**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated	**DATE STARTED:** 05-19-94	**COMPLTD:** 05-19-94
METHOD: Mobil Drill B-61 w/4.25"ID HSA	**CASE SIZE:** 2" / **SCREEN INT.:** 7-17	**PROTECTION LEVEL:** D
TOC ELEV.: 78.08 FT.	**MONITOR INST.:** Microtip-PID / **TOT DPTH:** 18FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 05-19-94	**SITE:** 18

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
			75%	0	0-18.0 *Silty Sand (SM)*, 100%, light gray, quartz, fine-grained, sub-rounded to sub-angular, moderately well sorted.		SM	4-11-19-25	
				0	2.5-8.5 color change; dark brown.			5-15-10-7	
				0				3-6-9-12	
5					8.5-18.0 color change; brown.				
				0				14-23-21-22	
10			75%	0.4				6-10-10-13 groundwater encountered	∇
				8				4-11-10-10	
				3.8				5-10-13-13	
15				88.1				1-1-10-11	
					End of boring: 18'bls.				
20									

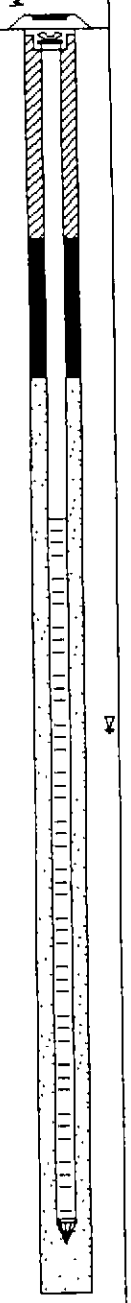
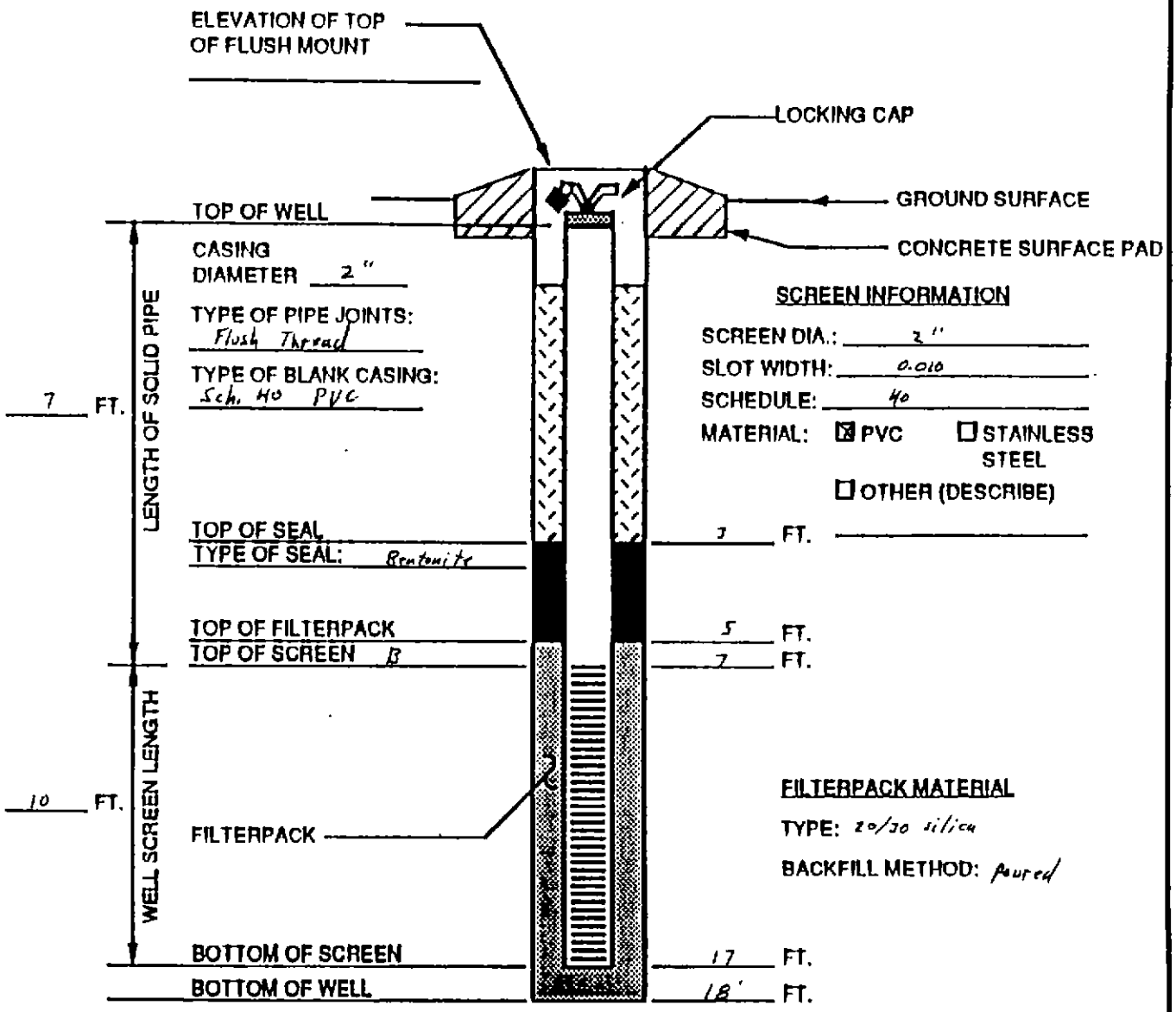


 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER: –			PROJECT: IR-OU 127
DATE INSTALLED	STARTED: 5·19·94	COMPLETED: 5·19·94	LOCATION (Coordinates or Station): Site 16
ELEVATION TOP OF HOLE: –			SIGNATURE OF INSPECTOR: C. J. Dl
TOTAL DEPTH OF HOLE: 18' bls			HOLE NO. (As shown on drawing title and file number): CEF-16-32S

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



SCREEN INFORMATION

SCREEN DIA.: 2"

SLOT WIDTH: 0.010

SCHEDULE: 40

MATERIAL: ☒ PVC ☐ STAINLESS STEEL ☐ OTHER (DESCRIBE)

FILTERPACK MATERIAL

TYPE: 20/30 silica

BACKFILL METHOD: poured

WELL DEVELOPMENT

METHOD: pumping

TIME SPENT DEVELOPMENT: 32 min. / 4½ hrs

VOLUME OF WATER REMOVED: ~170 gal / 55 gal

VOLUME OF WATER ADDED: –

DESCRIPTION OF PREDEVELOPMENT WATER: brown

DESCRIPTION OF POST DEVELOPMENT WATER: Cloudy / 10.0 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 5/17/94 1600 hrs ~9' bls

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-18-33D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-23-94	**COMPLTD:** 05-24-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 80-90	**PROTECTION LEVEL:** D
TOC ELEV.: 75.98 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 91FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-24-94		**SITE:** 18

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					0-90.0 *Sand (SP)*, 100%, medium to dark brown to gray to tan to dark gray, quartz, fine-to medium-grained, sub-rounded to sub-angular, moderately well to well sorted, loose, damp to saturated.		SP		
5									
10								groundwater encountered	∇
15									
20									
25								lenses of silt/clay thickness<6" to 90'bls	
30									
35									
40									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-33D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-23-94	**COMPLTD:** 05-24-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 80-90	**PROTECTION LEVEL:** D
TOC ELEV.: 75.98 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 91FT.	**DPTH TO ▽** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-24-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1				
					Sand continued.		SP		
45									
50									
55									
60									
65									
70									
75									
80									

 ABB ENVIRONMENTAL SERVICES, INC.

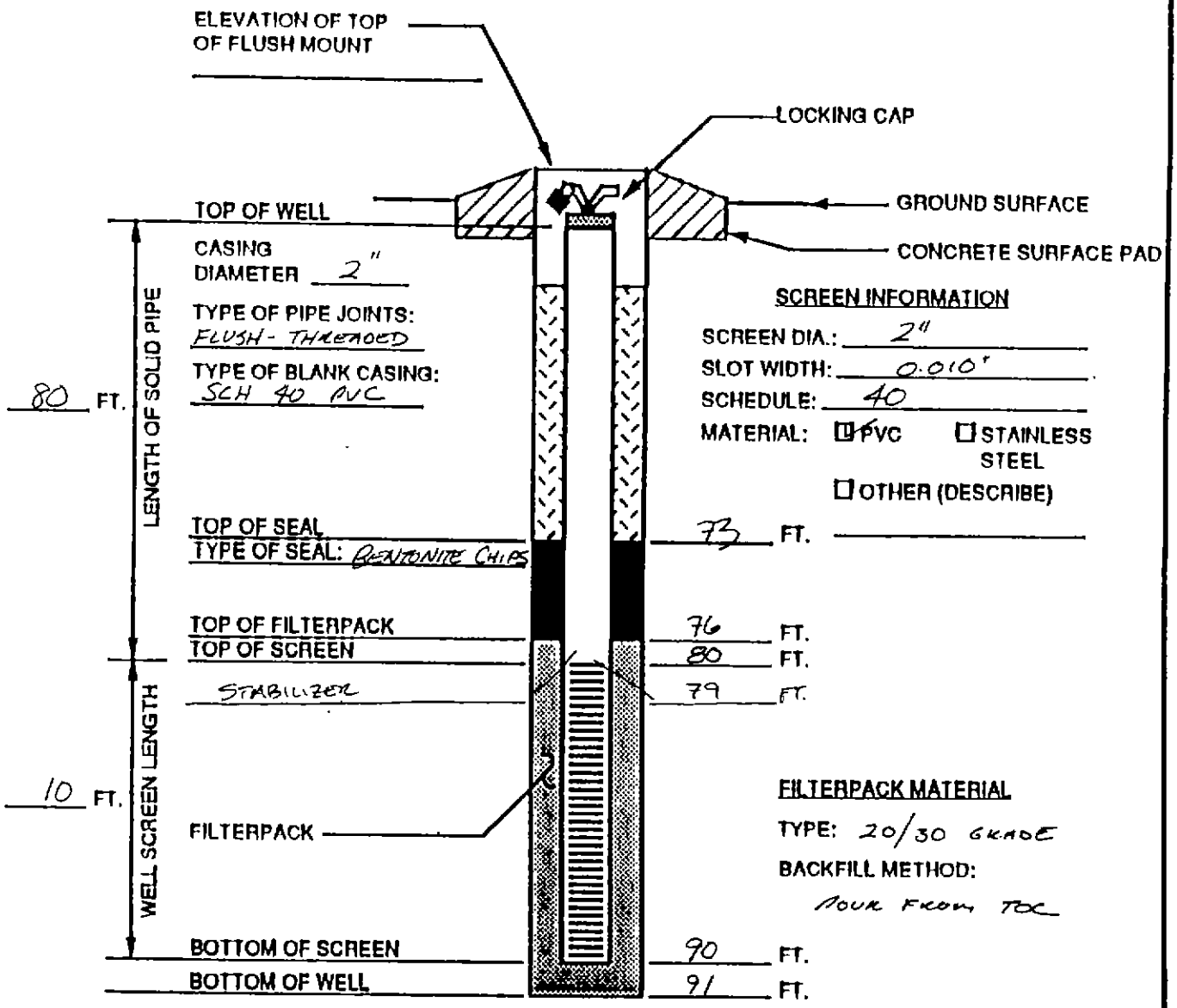
TITLE: Nas Cecil Field RI OUs 1,2,7	**LOG of WELL:** CEF-16-33D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM		**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated	**DATE STARTED:** 05-23-94	**COMPLTD:** 05-24-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2" / **SCREEN INT.:** 80-90	**PROTECTION LEVEL:** D
TOC ELEV.: 75.98 FT.	**MONITOR INST.:** Microtip-PID / **TOT DPTH:** 91FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-24-94	**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 2				
					Sand continued.		SP		
85									
90					90.0-91.0 *Dolomite with Clay*; Dolomite, 50%, medium to dark gray, microcrystalline, moderately well cemented, moderately hard to soft, shell replacement features visible, sucrosic; Clay (CH), 50%, medium to dark gray, soft, tacky, wet, plastic, moderately dense.		DOLOMITE CH		
					End of boring: 91'bls.				
95									
100									
105									
110									
115									
120									

 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER			PROJECT: RI OUS 1,2,7
DATE INSTALLED	STARTED: 5-23-94	COMPLETED: 5-24-94	LOCATION (Coordinates or Station): SITE 16
ELEVATION TOP OF HOLE			SIGNATURE OF INSPECTOR: Alan Workman
TOTAL DEPTH OF HOLE: 91' bls			HOLE NO. (As shown on drawing title and file number): CEF-16-33D

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



SCREEN INFORMATION

SCREEN DIA.: 2"

SLOT WIDTH: 0.010"

SCHEDULE: 40

MATERIAL: ☒ PVC ☐ STAINLESS STEEL ☐ OTHER (DESCRIBE)

FILTERPACK MATERIAL

TYPE: 20/30 GRADE

BACKFILL METHOD: POUR FROM TOC

WELL DEVELOPMENT

METHOD: 2" CENTRIFUGAL

TIME SPENT DEVELOPMENT: 1 hr / 19½ hrs

VOLUME OF WATER REMOVED: 550 GAL / 1230 gal

VOLUME OF WATER ADDED: < 200 GAL

DESCRIPTION OF PREDEVELOPMENT WATER: CLOUDY

DESCRIPTION OF POST DEVELOPMENT WATER: CLEAR / 5.5 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 6/10/94 0900 hrs. 7.12' btoc

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-34DD	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 06-01-94	**COMPLTD:** 06-07-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"IC/8"OC	**SCREEN INT.:** 97-107	**PROTECTION LEVEL:** D
TOC ELEV.: 75.97 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 108FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 06-07-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					0-90.0 *Sand (SP)*, 100%, medium to dark brown to gray to tan to dark gray, quartz, fine-to medium-grained, sub-rounded to sub-angular, moderately well to well sorted, loose, damp to saturated.		SP		
5									
10								groundwater encountered	
15									
20									
25								lenses of silt/clay thickness<6" to 90'bls	
30									
35									
40									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-34DD	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 08-01-94	**COMPLTD:** 08-07-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"IC/8"OC	**SCREEN INT.:** 97-107	**PROTECTION LEVEL:** D
TOC ELEV.: 75.97 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 108FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 08-07-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1				
					Sand continued.		SP		
45									
50									
55									
60									
65									
70									
75									
80									

 ABB ENVIRONMENTAL SERVICES, INC.

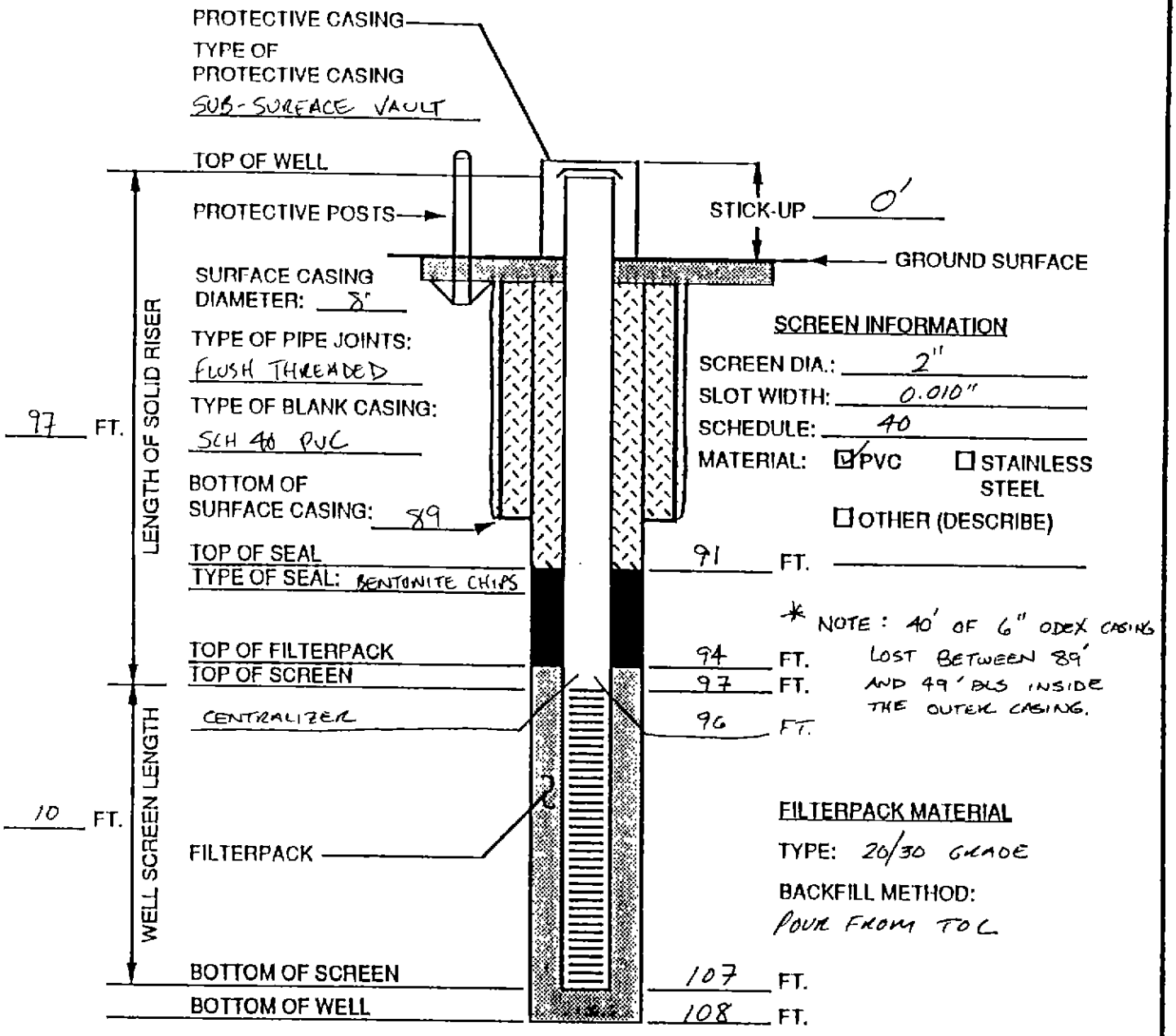
TITLE: Nas Cecil Field RI OUs 1,2,7	**LOG of WELL:** CEF-16-34DD	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM		**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated	**DATE STARTED:** 08-01-94	**COMPLTD:** 08-07-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"IC/8"OC **SCREEN INT.:** 97-107	**PROTECTION LEVEL:** D
TOC ELEV.: 75.97 FT.	**MONITOR INST.:** Microtip-PID **TOT DPTH:** 108FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 08-07-94	**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 2				
					Sand continued.		SP		
85									
90					90.0-96.0 *Dolomite with Clay*; Dolomite, 50%, medium to dark gray, microcrystalline, moderately well cemented, moderately hard to soft, shell replacement features visible, sucrosic; Clay (CH), 50%, medium to dark gray, soft, tacky, wet, plastic, moderately dense.		DOLOMITE CH		
95					96.0-108.0 *Dolomite*, 100%, medium gray to moderate yellowish brown, microcrystalline, moderately well cemented, moderately hard to soft, shell replacement features visible.		DOLOMITE		
100									
105									
					End of boring: 108'bls.				
110									
115									
120									

 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER			PROJECT: RI OUS 1,2,7
DATE INSTALLED	STARTED: 6-1-94	COMPLETED: 6-7-94	LOCATION (Coordinates or Station): SITE 16
ELEVATION TOP OF HOLE			SIGNATURE OF INSPECTOR: Ann Workman
TOTAL DEPTH OF HOLE: 108'			HOLE NO. (As shown on drawing title and file number): CEF-16-34DD

DOUBLE-CASED MONITORING WELL CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: 2" CENTRIFUGAL

TIME SPENT DEVELOPMENT: 1 hr / 19 hrs.

VOLUME OF WATER REMOVED: 550 / 1080 gal

VOLUME OF WATER ADDED: < 200

DESCRIPTION OF PREDEVELOPMENT WATER: CLEAR

DESCRIPTION OF POST DEVELOPMENT WATER: CLEAR / 9.9 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 6/10/94 0900 hrs 6.45' btoc

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7	**LOG of WELL:** CEF-16-35S	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM		**PROJECT NO:** 8500-08
CONTRACTOR: Hardin Huber Incorporated	**DATE STARTED:** 05-10-94	**COMPLTD:** 05-11-94
METHOD: Mobil Drill B-61 w/4.25"ID HSA	**CASE SIZE:** 2" / **SCREEN INT.:** 7-17	**PROTECTION LEVEL:** D
TOC ELEV.: 77.37 FT.	**MONITOR INST.:** Microtip-PID / **TOT DPTH:** 18FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 05-11-94	**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN
			70%	0	0-18.0 *Silty Sand (SM)*, 100%, dark gray, quartz, fine-grained, sub-rounded to sub-angular, moderately well sorted.		SM	13-13-7-4
				0				5-7-8-7
					3.0-18.0 color change; brown to light brown.			
				58.8				4-5-5-7
5				0				4-5-10-11
				19.8				8-14-17-18
			75%					
10				0				4-8-18-17 groundwater encountered
			75%					
				0				11-17-21-24
				0				4-18-20-22
15				0				12-14-18-22
					End of boring: 18'bls.			
20								

WELL DATA

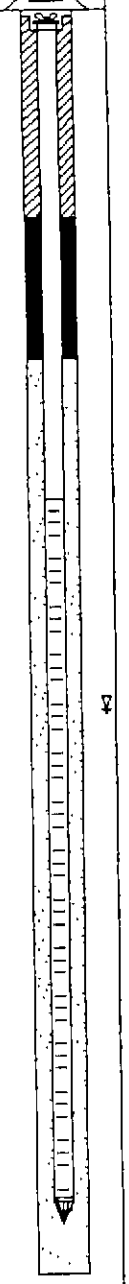
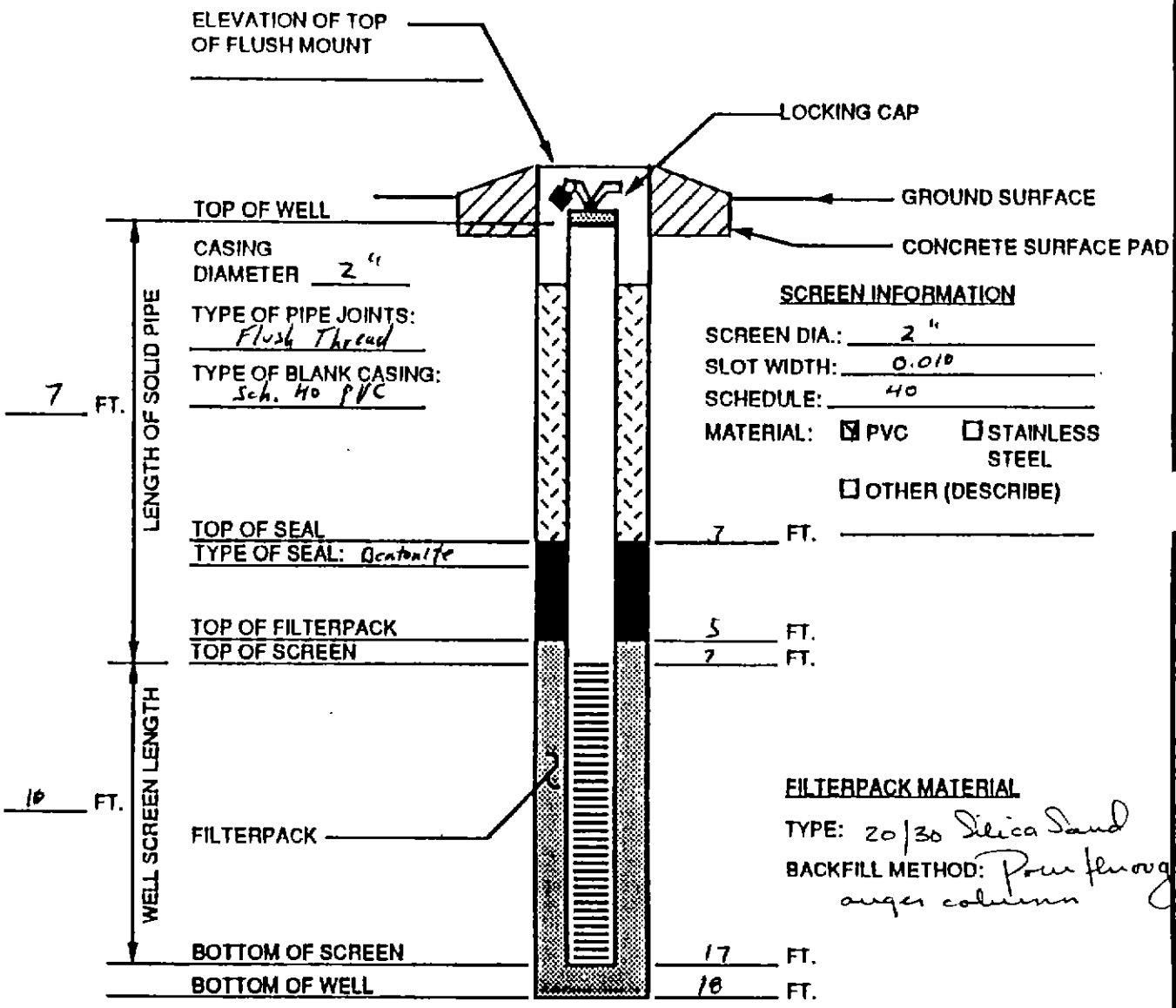


 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER —			PROJECT IR OU 127
DATE INSTALLED	STARTED 5-10-94	COMPLETED 5-11-94	LOCATION (Coordinates or Station) Site 16
ELEVATION TOP OF HOLE —			SIGNATURE OF INSPECTOR C. T. B.
TOTAL DEPTH OF HOLE 18'			HOLE NO. (As shown on drawing title and file number) CEF-16-355

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: pumping

TIME SPENT DEVELOPMENT: 50 min. / 4 hrs

VOLUME OF WATER REMOVED: ~ 180 gal / 100 gal

VOLUME OF WATER ADDED: —

DESCRIPTION OF PREDEVELOPMENT WATER: Brown

DESCRIPTION OF POST DEVELOPMENT WATER: Cloudy / 5.2 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 5/11/94 0810 hrs ~ 10.0' btoc.

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7	**LOG of WELL:** CEF-16-36I	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM		**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated	**DATE STARTED:** 05-16-94	**COMPLTD:** 05-17-94
METHOD: Mobil Drill B-61 w/4.25"ID HSA	**CASE SIZE:** 2" **SCREEN INT.:** 45-55	**PROTECTION LEVEL:** D
TOC ELEV.: 77.15 FT.	**MONITOR INST.:** Microtip-PID **TOT DPTH:** 56FT.	**DPTH TO ▽** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 05-17-94	**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
			70%	0	0-56.0 *Silty Sand (SM)*, 100%, dark gray, quartz, very fine-to fine-grained, sub-rounded, well sorted.		SM	13-13-17-4	
				0				5-7-8-7	
					3.0-18.0 color change; brown to light brown.				
				56.6				4-5-5-7	
5				0				4-5-10-11	
				19.8				8-14-17-18	
			75%						
10				0				4-8-16-17	▽
			75%					groundwater encountered	
				0				11-17-21-24	
				0				4-18-20-22	
15									
				0				12-14-18-22	
				1.5	18.0-21.5 color change; dark brown.			8-11-11-10	
20				0.8				8-8-9-8	
				2	21.5-26.0 color change; light gray to light brown.			4-6-10-10	
				2.8				8-6-5-9	
25				1.3	26.0-56.0 color change; brownish light gray.			7-7-10-10	
				3.2				5-7-10-10	
30				3.6				4-5-6-8	
35				2.7				3-3-3-5	
40				3.1				4-5-18-16	

 ABB ENVIRONMENTAL SERVICES, INC.

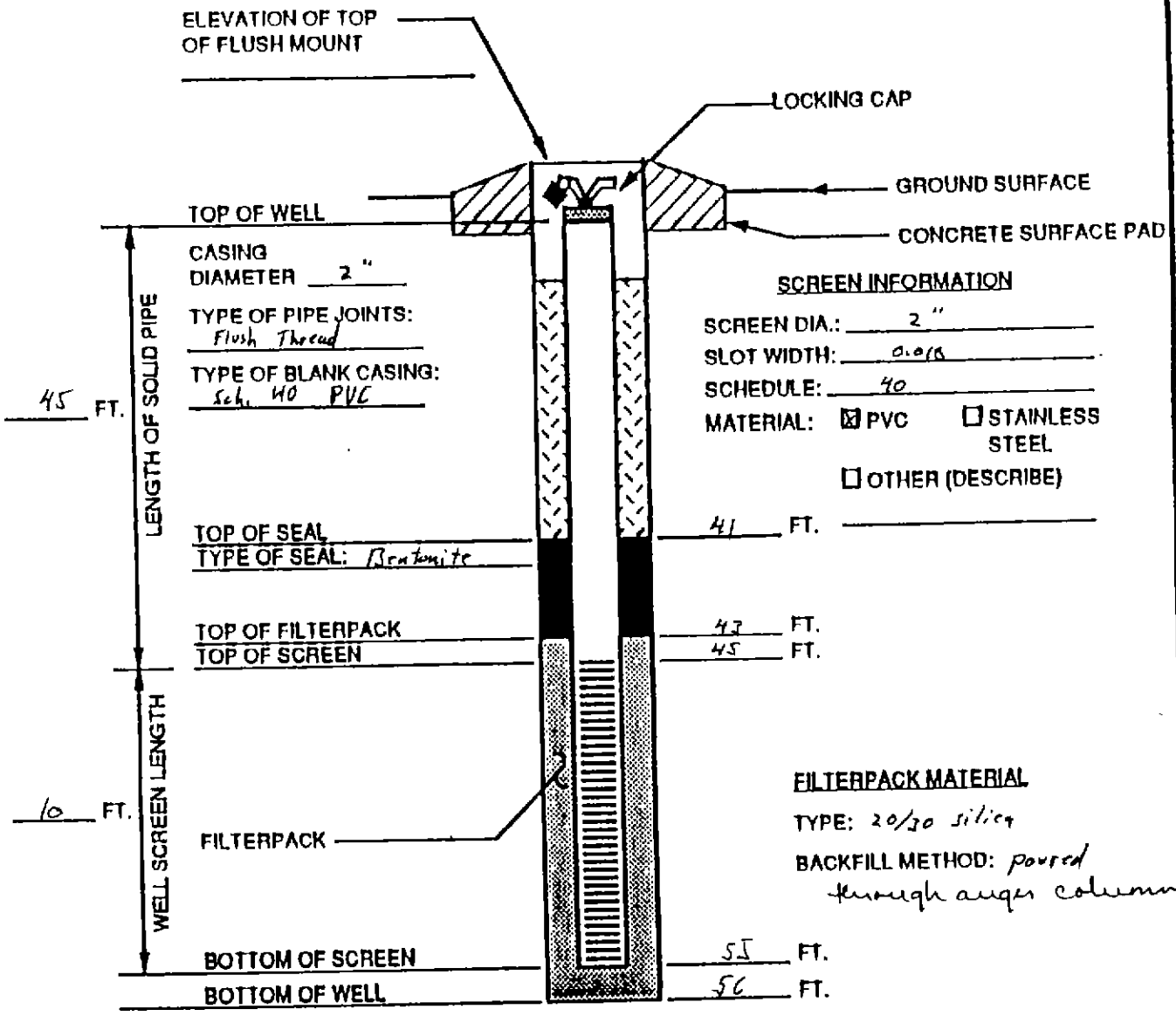
TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-36I	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-16-94	**COMPLTD:** 05-17-94
METHOD: Mobil Drill B-61 w/4.25"ID HSA	**CASE SIZE:** 2"	**SCREEN INT.:** 45-55	**PROTECTION LEVEL:** D
TOC ELEV.: 77.15 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 58FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 05-17-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1				
					Silty Sand continued.		SM		
45				2.2				6-9-15-16	
50				0.5				11-18-18-16	
55				0.9				18-16-15-16	
					End of boring.				
60									
65									
70									
75									
80									

 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER: –			PROJECT: IR OU 127
DATE INSTALLED	STARTED: 5-16-94	COMPLETED: 5-17-94	LOCATION (Coordinates or Station): Site 16
ELEVATION TOP OF HOLE: –			SIGNATURE OF INSPECTOR: CJD
TOTAL DEPTH OF HOLE: 56' bls			HOLE NO. (As shown on drawing title and file number): CEF-16-36I

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: pumping

TIME SPENT DEVELOPMENT: 37 min. / 18 hrs

VOLUME OF WATER REMOVED: ~ 160 gal / 1063 gal

VOLUME OF WATER ADDED: < 150 gal

DESCRIPTION OF PREDEVELOPMENT WATER: brown

DESCRIPTION OF POST DEVELOPMENT WATER: light brown / 31.0 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 6/7/94 1300 hrs 9.35' btoc

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-37D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-21-94	**COMPLTD:** 05-22-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 81-91	**PROTECTION LEVEL:** D
TOC ELEV.: 77.08 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 92FT.	**DPTH TO ▽** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-22-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					0-91.0 *Sand (SP)*, 100%, medium to dark brown to gray to tan to dark gray, quartz, fine-to medium-grained, sub-rounded to sub-angular, moderately well to well sorted, loose, damp to saturated.		SP		
5									
10								groundwater encountered	▽
15									
20									
25								lenses of silt/clay thickness<6" to 91'bls	
30									
35									
40									

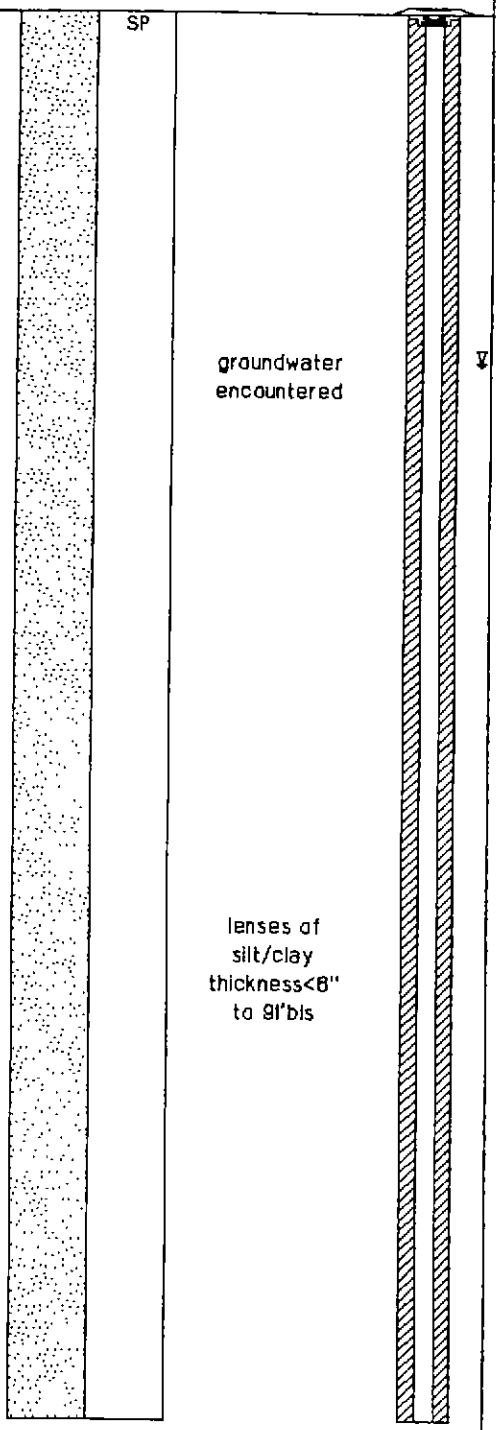


 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-37D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-21-94	**COMPLTD:** 05-22-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 81-91	**PROTECTION LEVEL:** D
TOC ELEV.: 77.08 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 92FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-22-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1				
					Sand continued.		SP		
45									
50									
55									
60									
65									
70									
75									
80									

 ABB ENVIRONMENTAL SERVICES, INC.

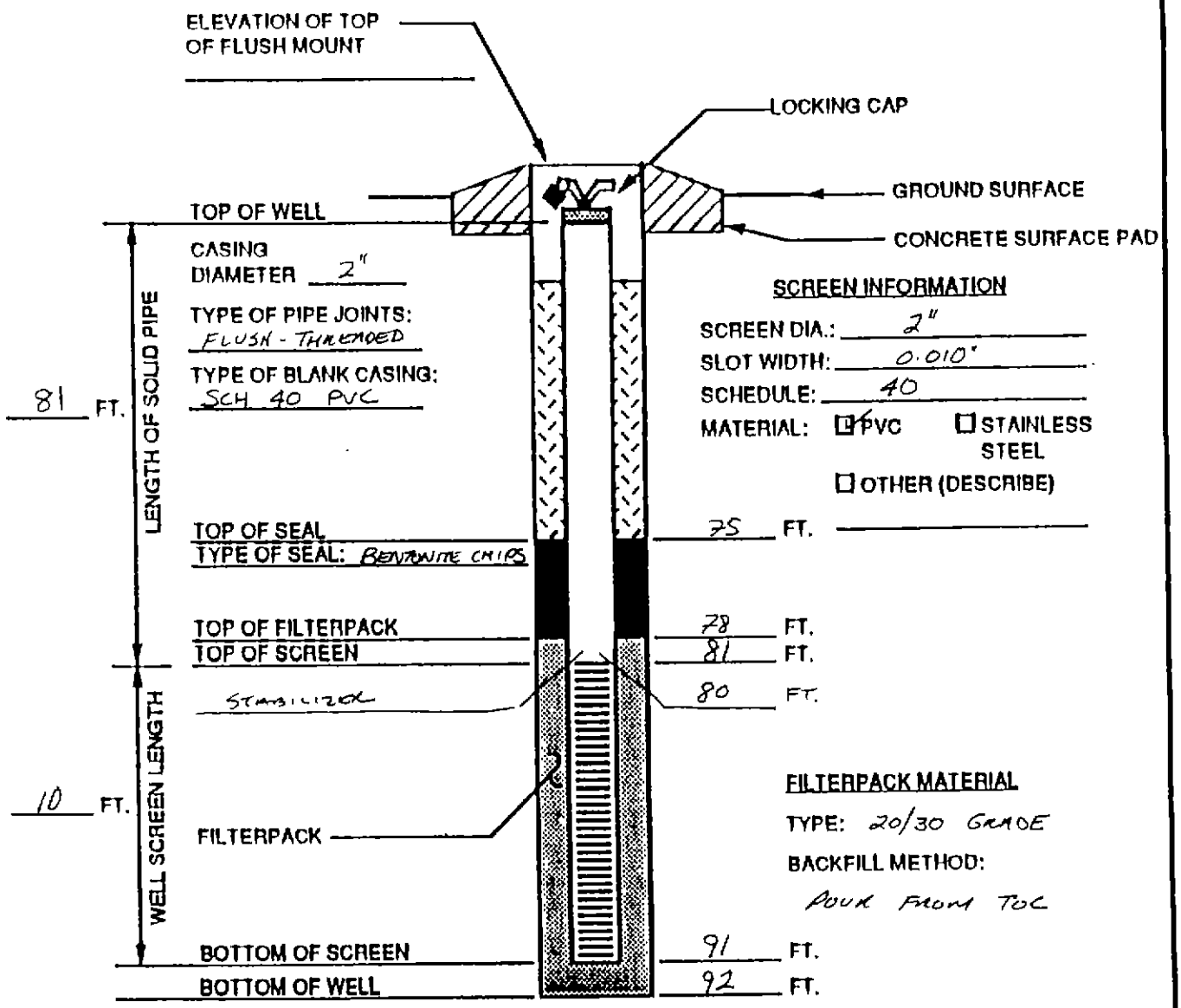
TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-37D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-21-94	**COMPLTD:** 05-22-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 81-91	**PROTECTION LEVEL:** D
TOC ELEV.: 77.08 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 92FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-22-94		**SITE:** 16

DEPTH FT.	ABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 2				
					Sand continued.		SP		
85									
90					91.0-92.0 *Dolomite with Clay*; Dolomite, 50%, medium to dark gray, microcrystalline, moderately well cemented, moderately hard to soft, shell replacement features visible, sucrosic; Clay (CH), 50%, medium to dark gray, soft, tacky, wet, plastic, moderately dense.		DOLOMITE CH		
95					End of boring: 92'bls.				
100									
105									
110									
115									
120									

 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER			PROJECT: RI OUS 1,2,7
DRILLED	STARTED 5-21-94	COMPLETED 5-22-94	LOCATION (Coordinates or Station): SITE 16
ELEVATION TOP OF HOLE			SIGNATURE OF INSPECTOR: [signature]
TOTAL DEPTH OF HOLE 92'			HOLE NO. (As shown on drawing title and file number): CEF-16-37D

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: 2" CENTRIFUGAL

TIME SPENT DEVELOPMENT: 1 hr / 5 1/2 hrs

VOLUME OF WATER REMOVED: 140 GAL / 200 gal

VOLUME OF WATER ADDED: < 200 GAL

DESCRIPTION OF PREDEVELOPMENT WATER: CLOUDY

DESCRIPTION OF POST DEVELOPMENT WATER: CLOUDY / 10.0 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 5/25/94 0800 hrs 9.62' btoc

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7	**LOG of WELL:** CEF-18-38S	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM		**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated	**DATE STARTED:** 05-04-94	**COMPLTD:** 05-04-94
METHOD: Mobil Drill B-61 w/4.25"ID HSA	**CASE SIZE:** 2" / **SCREEN INT.:** 7-17	**PROTECTION LEVEL:** D
TOC ELEV.: 78.70 FT.	**MONITOR INST.:** Microtip-PID / **TOT DPTH:** 18FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 05-04-94	**SITE:** 18

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN
				0	0-18.0 *Silty Sand (SM)*, 100%, light brown, quartz, fine-grained, sub-rounded to sub-angular, moderately well sorted.		SM	
				0	2.5-4.0 color change; dark brown.			3-8-10-11
				0	4.0-6.0 color change; light brown.			2-5-6-5
5								
				0	6.0-8.0 color change; brown.			2-2-8-11
				7.8	8.0-18.0 color change; light brown.			7-10-9-8
10				0				5-9-10-10 groundwater encountered
				0				9-10-11-14
				0				7-10-13-15
15								
				0				9-12-12-14
					End of boring: 18'bls.			
20								

WELL DATA

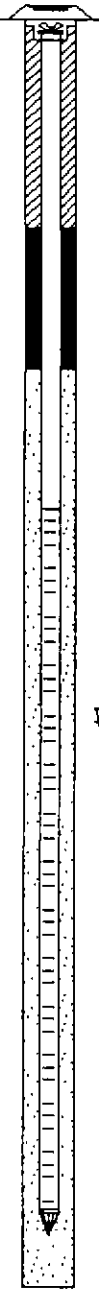
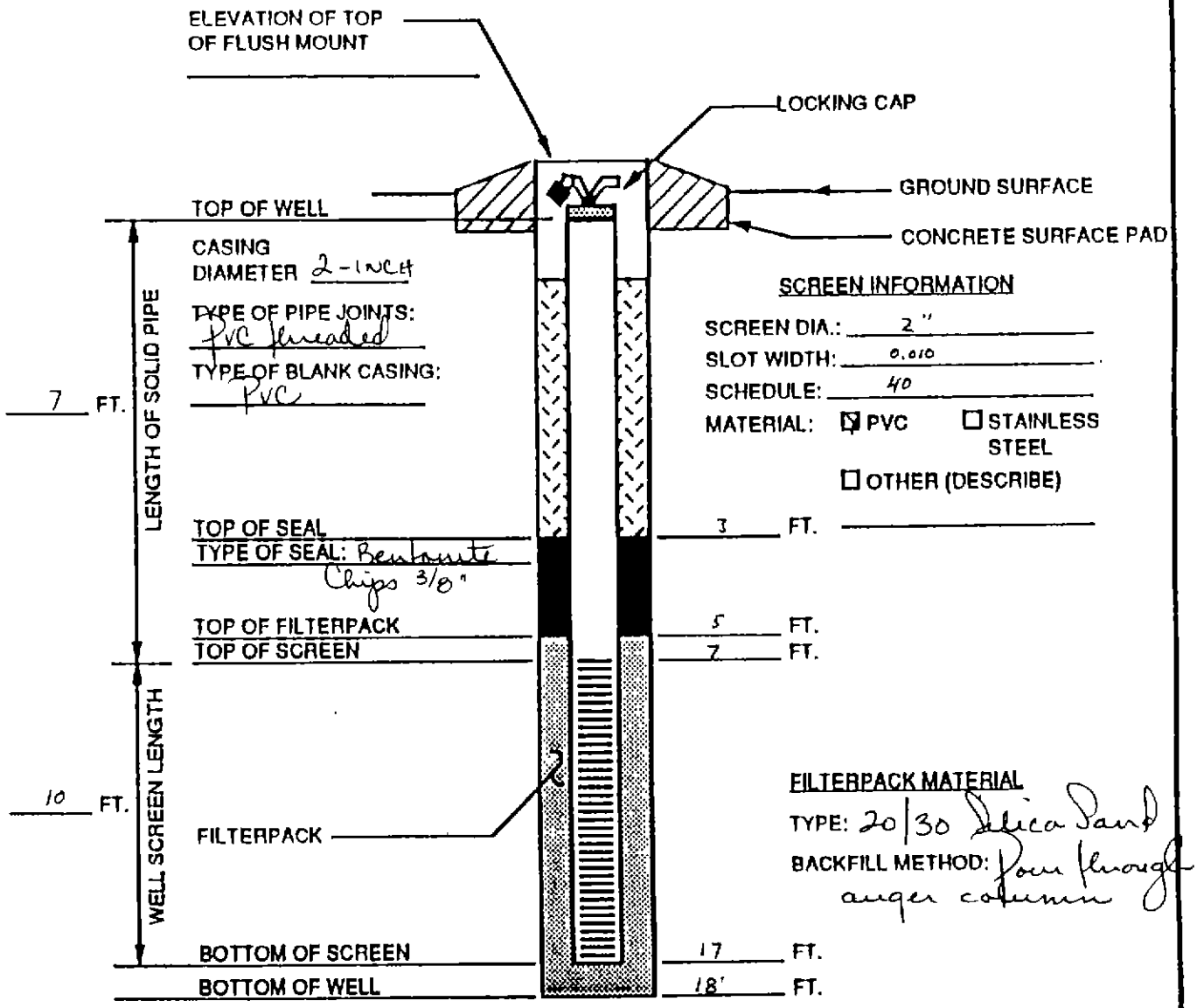


 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER —			PROJECT RI OU 1, 2, 7
DATE INSTALLED	STARTED 5-4-94	COMPLETED 5-4-94	LOCATION (Coordinates or Station) Site 16
ELEVATION TOP OF HOLE —			SIGNATURE OF INSPECTOR CF D-l
TOTAL DEPTH OF HOLE 18' bls			HOLE NO. (As shown on drawing title and file number) CEF-16-3BS

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



SCREEN INFORMATION

SCREEN DIA.: 2"

SLOT WIDTH: 0.010

SCHEDULE: 40

MATERIAL: ☒ PVC ☐ STAINLESS STEEL ☐ OTHER (DESCRIBE)

FILTERPACK MATERIAL

TYPE: 20/30 Silica Sand

BACKFILL METHOD: Pour through auger column

WELL DEVELOPMENT

METHOD: pumping

TIME SPENT DEVELOPMENT: 45 min / 5 1/2 hrs

VOLUME OF WATER REMOVED: ~100 gal / 390 gal

VOLUME OF WATER ADDED: —

DESCRIPTION OF PREDEVELOPMENT WATER: Brown

DESCRIPTION OF POST DEVELOPMENT WATER: Cloudy / 10.0 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 5/4/94 0755 hrs. ~9.5' btoc

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-39I	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-05-94	**COMPLTD:** 05-06-94
METHOD: Mobil Drill B-61 w/4.25"ID HSA	**CASE SIZE:** 2"	**SCREEN INT.:** 45-55	**PROTECTION LEVEL:** D
TOC ELEV.: 76.69 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 58FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 05-06-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
				0	0-58.0 *Silty Sand (SM)*, 100%, light brown, quartz, very fine-to fine-grained, sub-rounded, well sorted.		SM		
				0	2.5-4.0 color change; dark brown.			3-8-10-11	
				0	4.0-6.0 color change; light brown.			2-5-6-5	
5				0	6.0-8.0 color change; brown.			2-2-8-11	
				7.8	8.0-58.0 color change; light brown.			7-10-9-8	
10				0				5-9-10-10	∇
				0				groundwater encountered 9-10-11-14	
				0				7-10-13-15	
15				0				9-12-12-14	
				0				10-15-25-14	
20				4.1				8-10-11-17	
				0				4-5-12-23	
				0				4-5-11-18	
25				0				8-7-14-18	
				0				8-10-13-12	
30				0				7-11-12-14	
35				0				4-5-17-24	
40				0				5-12-17-5	

 ABB ENVIRONMENTAL SERVICES, INC.

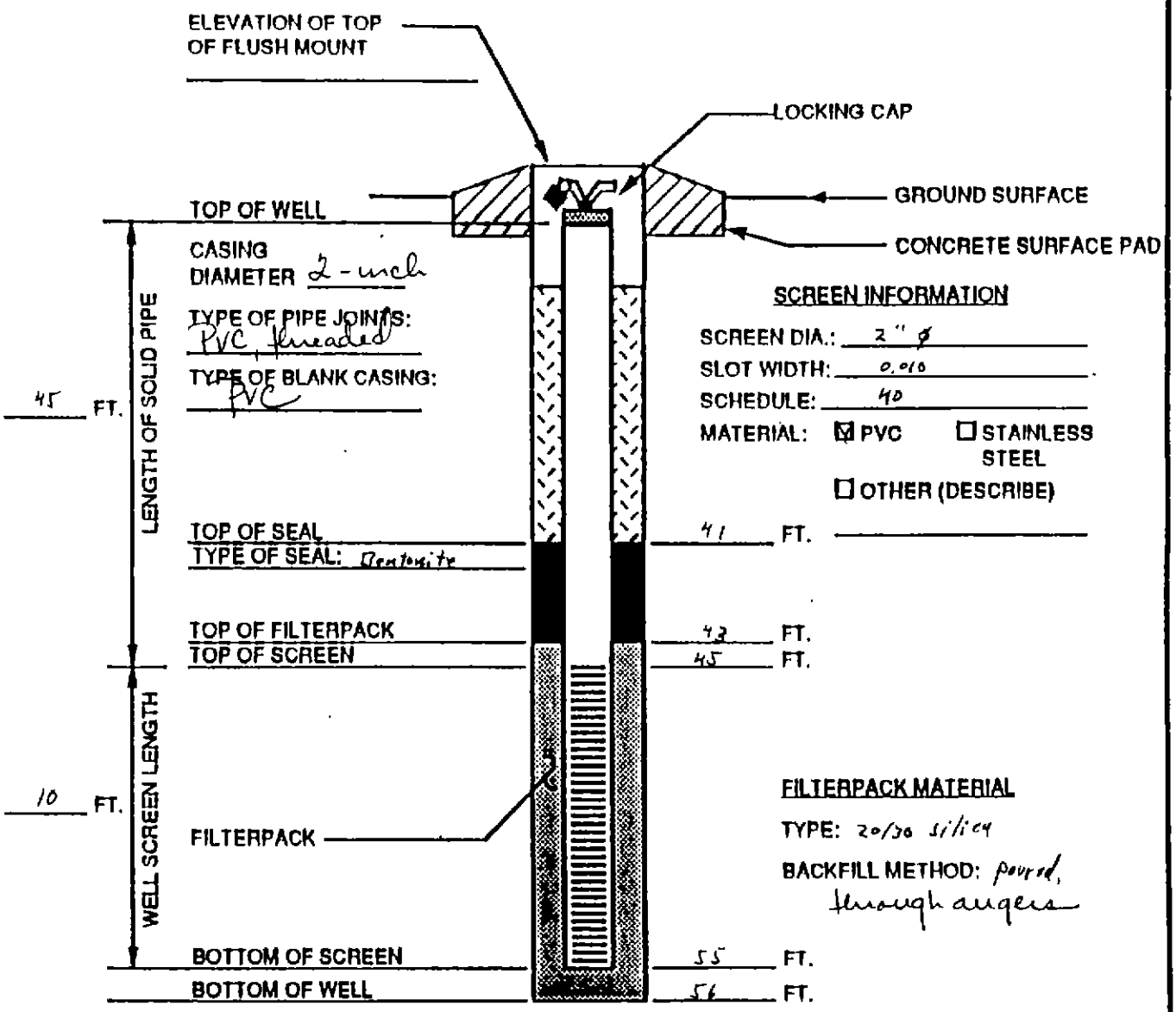
TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-39I	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-05-94	**COMPLTD:** 05-06-94
METHOD: Mobil Drill B-61 w/4.25"ID HSA	**CASE SIZE:** 2"	**SCREEN INT.:** 45-55	**PROTECTION LEVEL:** D
TOC ELEV.: 78.89 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 58FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: C. Brooks	**WELL DEVELOPMENT DATE:** 05-06-94		**SITE:** 16

DEPTH FT.	ABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1				
					Silty Sand continued.		SM		
45				0				6-12-25-24	
50				0				17-28-30-34	
				0				24-47-50-50	
55					End of boring: 58'bls.				
60									
65									
70									
75									
80									

 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER —			PROJECT RI OU 127
DATE INSTALLED	STARTED 5·5·94	COMPLETED 5·6·94	LOCATION (Coordinates or Station) Site 16
ELEVATION TOP OF HOLE —			SIGNATURE OF INSPECTOR C. J. Bl
TOTAL DEPTH OF HOLE 56'			HOLE NO. (As shown on drawing title and file number) CEF-16-39I

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: pumping

TIME SPENT DEVELOPMENT: 66 min | 23 hrs

VOLUME OF WATER REMOVED: 360 gal | 1815 gal

VOLUME OF WATER ADDED: ~ 150 gal

DESCRIPTION OF PREDEVELOPMENT WATER: brown

DESCRIPTION OF POST DEVELOPMENT WATER: Cloudy 15.0 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 5/6/94 0840 ~9.5' bls

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-18-40D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-19-94	**COMPLTD:** 05-20-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 79-89	**PROTECTION LEVEL:** D
TOC ELEV.: 78.85 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 90FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-20-94		**SITE:** 18

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					0-89.0 *Sand (SP)*, 100%, medium to dark brown to gray to tan to dark gray, quartz, fine-to medium-grained, sub-rounded to sub-angular, moderately well to well sorted, loose, damp to saturated.		SP		
5									
10								groundwater encountered	∇
15									
20									
25								lenses of silt/clay thickness<6" to 89'bls	
30									
35									
40									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field RI OUs 1,2,7		**LOG of WELL:** CEF-16-40D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM			**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 05-19-94	**COMPLTD:** 05-20-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 79-89	**PROTECTION LEVEL:** D
TOC ELEV.: 78.85 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 90FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-20-94		**SITE:** 16

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1				
					Sand continued.		SP		
45									
50									
55									
60									
65									
70									
75									
80									

 ABB ENVIRONMENTAL SERVICES, INC.

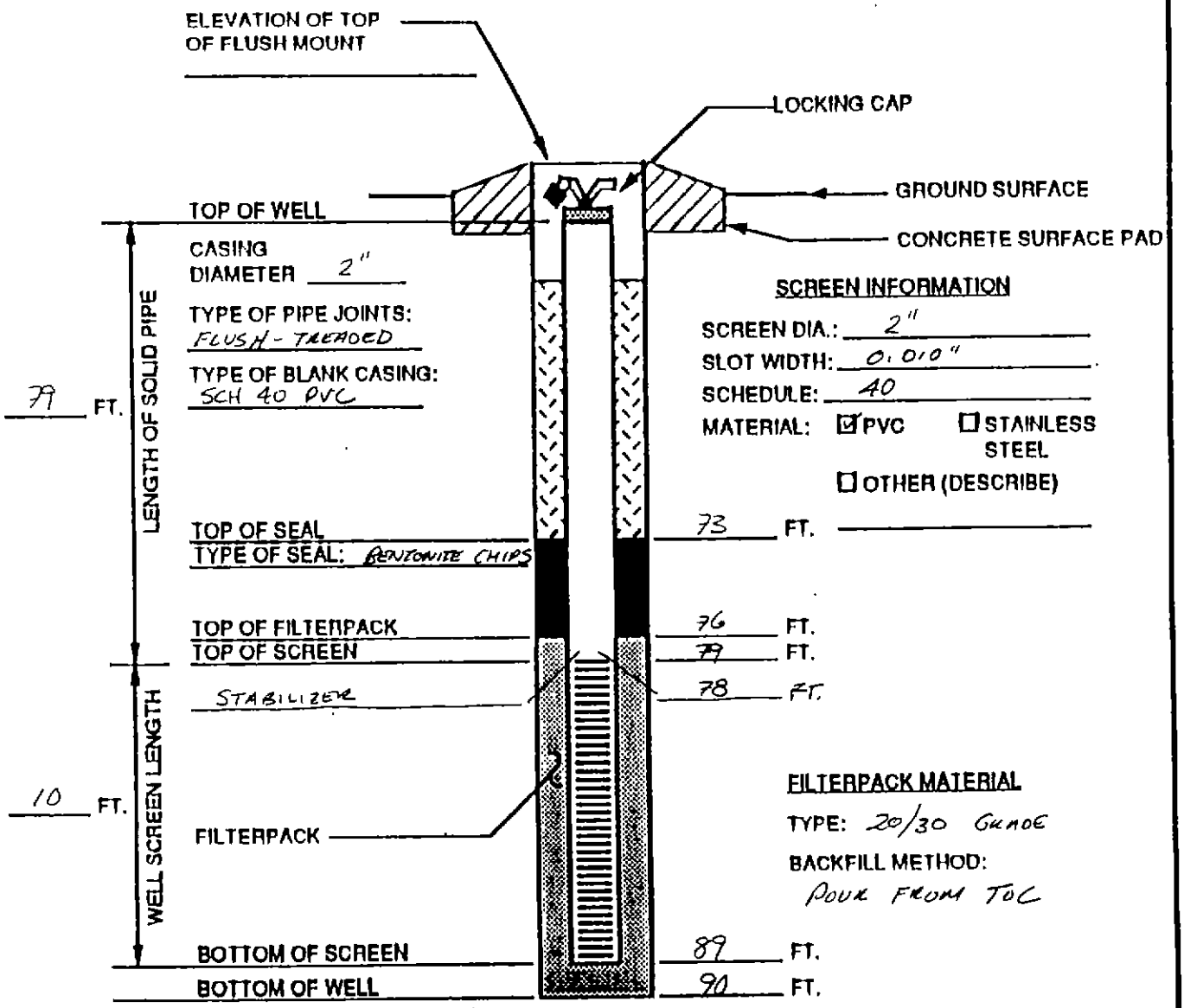
TITLE: Nas Cecil Field RI OUs 1,2,7	**LOG of WELL:** CEF-18-40D	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENGCOM		**PROJECT NO:** 8500-09
CONTRACTOR: Hardin Huber Incorporated	**DATE STARTED:** 05-19-94	**COMPLTD:** 05-20-94
METHOD: Mobil Drill B-80 w/8"ODEX	**CASE SIZE:** 2"	**SCREEN INT.:** 79-89	**PROTECTION LEVEL:** D
TOC ELEV.: 78.85 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 90FT.	**DPTH TO ∇** 10 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 05-20-94	**SITE:** 18

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 2				
					Sand continued.		SP		
85									
90					89.0-90.0 *Dolomite with Clay*; Dolomite, 50%, medium to dark gray, microcrystalline, moderately well cemented, moderately hard to soft, shell replacement features visible, sucrosic; Clay (CH), 50%, medium to dark gray, soft, tacky, wet, plastic, moderately dense.		DOLOMITE CH		
					End of boring: 90'bls.				
95									
100									
105									
110									
115									
120									

 ABB ENVIRONMENTAL SERVICES, INC.

ELEVATION GROUNDWATER			PROJECT: RI OVS 1.2.7
DATE INSTALLED	STARTED: 5-19-94	COMPLETED: 5-20-94	LOCATION (Coordinates or Station): SITE 16
ELEVATION TOP OF HOLE			SIGNATURE OF INSPECTOR: [signature]
TOTAL DEPTH OF HOLE: 90 'bls			HOLE NO. (As shown on drawing title and file number): CEF-16-40D

FLUSH-MOUNT TEST PIEZOMETER CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: 2" CENTRIFUGAL

TIME SPENT DEVELOPMENT: 1 hr / 8½ hrs

VOLUME OF WATER REMOVED: 550 GAL / 458 gal

VOLUME OF WATER ADDED: <200 GAL

DESCRIPTION OF PREDEVELOPMENT WATER: CLOUDY

DESCRIPTION OF POST DEVELOPMENT WATER: CLOUDY / 4.9 NTU

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 5/24/94 0900 hrs. ~9.0' btoc

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

APPENDIX G

APPENDIX G

GROUNDWATER DEVELOPMENT AND SAMPLING LOGS

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-11DD
DATE: 7-1-94
STATIC WATER LEVEL (ft):
WELL DESIGN DEPTH (ft): 118.82
WELL VOLUME (gal):

TIME BEGAN: 850
TIME ENDED: 950
NUMBER OF DRUMS: 10
DRUM DESIGNATIONS: N/A

SITE NAME: SITE 16
PROJECT: RI OUS 1,2,7
PROJECT NUMBER: 8500-09
FIELD PERSONNEL: A. WORKMAN
SHEET NO. 1 OF 2

TIME	ACTIVITY (~~surge~~, bailing, ~~pumping~~)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (~~deg. C~~ F)	pH	CONDUCTIVITY (~~microsiemens~~)	TURBIDITY (NTU)	REMARKS Centrifugal
905	PUMPING		135 GAL	74.1°F	7.10	423	3.1	CLEAR
920			270 GAL	74.0°F	7.07	417	2.2	
935			405 GAL	74.1°F	7.04	415	2.5	
950			550 GAL	73.9°F	7.08	410	2.1	

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-11DD
DATE: 7/9/94
STATIC WATER LEVEL (ft): 10 bls
WELL DESIGN DEPTH (ft): 118
WELL VOLUME (gal): 15.12 gal

TIME BEGAN: 0700
TIME ENDED: 1100
NUMBER OF DRUMS: N/A
DRUM DESIGNATIONS: CERCLA

SITE NAME: Site 16
PROJECT: IRDWS 1,2,7
PROJECT NUMBER: 85500.09
FIELD PERSONNEL: Ed Dowdy
SHEET NO. 2 OF 2

TIME	ACTIVITY (swab/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS Peristaltic
0700	Pumping	1'	25	77	7.3	480	185	Pumping Rate 1gal a min
0730		0	55	77	7.0	470	100	
0800			85	78	7.0	475	50	
0830			115	80	7.5	450	20	
0900			145	81	7.0	450	10	
0930			175	85	7.0	450	5.0	
1000			205	90	7.0	450	0.0	
1030			235	90	7.0	450	0.0	
1100			265	90	7.0	450	0.2	Completed Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF 16 12 I
DATE: 6 21 94
STATIC WATER LEVEL (ft): 10'6 1/2
WELL DESIGN DEPTH (ft): 81'6 1/2
WELL VOLUME (gal): 9.95 gal

TIME BEGAN: 1400
TIME ENDED: 1431
NUMBER OF DRUMS: 6
DRUM DESIGNATIONS: CERCLA
CEF-16-12 I Dev H2O

SITE NAME: Site 16
PROJECT: IR OU 1 2 + 7
PROJECT NUMBER: 8500.09
FIELD PERSONNEL: C Brooks
SHEET NO. 1 OF 2

TIME	ACTIVITY (swab/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
								Centrifugal
1410	pumping	-	120	93.8	6.66	171	>200	Brownish gray
1420	pumping	-	230	87.5	5.94	125	>200	Light gray
1430	pumping	-	340	85.8	5.76	165	>200	Light gray
6/10/94 0700	Pumping	1'	350	78	5.8	80	offScale	Very Dark Gray
0730		0	440	78	5.9	80	>200	Pumping Rate 3gal/min
0800			530	79	5.9	80	>200	
0830			620	79	5.7	80	>200	Centrifugal
0900			710	80	5.8	80	>200	Remains Dark offScale
0930			800	81	5.6	80	>200	
1000			890	85	5.9	80	>200	
1030			980	85	6.0	80	>200	
1100			1070	90	5.9	80	>200	
1130			1160	90	5.9	80	>200	
1200			1250	91	5.8	80	>200	
1230			1340	90	5.9	80	>200	
1300			1430	90	5.9	80	>200	
1330			1520	96	5.8	70	>200	
1400			1610	91	5.7	70	>200	off Scale
1430			1700	92	5.9	75	>200	
1500			1790	90	6.1	75	>200	
1530			1880	90	5.8	75	>200	
1600			1970	90	5.9	80	>200	
1630			2060	90	5.9	80	>200	
1700			2150	90	5.7	80	>200	
1730			2240	90	5.9	80	>200	
1800			2330	89	5.9	80	>200	Will not Clean up

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-12 I
DATE: 7/30/94
STATIC WATER LEVEL (ft) 6.09
WELL DESIGN DEPTH (ft): 81.23 bls
WELL VOLUME (gal): 10.52

TIME BEGAN: 1430
TIME ENDED: 1800
NUMBER OF DRUMS: N/A
DRUM DESIGNATIONS: N/A

SITE NAME: Site 16
PROJECT: RI OU 1,2,7
PROJECT NUMBER: 08500-09
FIELD PERSONNEL: E Dowdy
SHEET NO. 1 OF 2

	TIME	ACTIVITY (swab/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
7/30/94	1430	Pumping	0	2331	26	5.72	75	190.0	Parasaltic Pump
	1530	Pumping	0	2346	26	5.68	71	180.0	Pumping Rate
	1600	Pumping	↓	2353	26	5.5	70	160.9	1/4 gal per
	1630	Pumping	↓	2360	26	5.4	70	110.0	min
	1700	Pumping	↓	2367	26	5.5	70	98.8	-Clearing
	1730	↓	0	2374	25	5.5	70	75.0	↓
	1800	↓	0	2381	25	5.0	70	44.0	↓

MONITORING WELL DEVELOPMENT DATA

WELL: CFF-16-135 TIME BEGAN: 1535 SITE NAME: Site 16
DATE: 4 26 94 TIME ENDED: 1645 PROJECT: RI OU 1,2,7
STATIC WATER LEVEL (ft) 8'6 1/5 NUMBER OF DRUMS: N/A PROJECT NUMBER: 8500.09
WELL DESIGN DEPTH (ft): 16'6 1/5 DRUM DESIGNATIONS: 4-26-94 CERCLA FIELD PERSONNEL: C Brooks
WELL VOLUME (gal): ~1.1 gal CFF-16-135 Dev H2O SHEET NO. 1 OF 1

TIME	ACTIVITY (swab/surge, bailing, ~~pumping~~)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS Centrifugal
1510	pumping	5	< 60	88.7 F	6.53	46.8	—	
1620		0	< 60	88.7 F	5.83	42.9	—	
1630		0	< 60	87.1 F	5.69	41.6	—	
1640		0	~ 33	87.0 F	5.61	40.8	—	
7/22/94 1030	Pumping	0	5	76.6	5.4	68.8	off scale	Static water level
1130		0	35	76.0	5.3	50.1	>200	3.72
1200		0	65	77.0	5.4	51.1	>200	
1230		0	95	77.2	5.5	60.0	75.0	
1300		0	125	75.0	5.7	63.3	50.0	
1330		0	155	76.1	5.6	70.0	25.0	
1400		0	185	76.5	5.6	68.0	13.7	
1430		0	215	77.0	5.5	66.6	10.2	
1500		0	245	77.0	5.6	66.4	10.0	
1530		0	270	77.0	5.5	66.0	8.5	Completed Stop Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-14D
DATE: 5-7-94
STATIC WATER LEVEL (ft): 8.25' btoc
WELL DESIGN DEPTH (ft): 101.15
WELL VOLUME (gal): ~ ~~[illegible]~~ ~14 gal

TIME BEGAN: 0835
TIME ENDED: 0935
NUMBER OF DRUMS: ~~MP-tank~~ N/A
DRUM DESIGNATIONS: N/A

SITE NAME: Site 16
PROJECT: RI OUs 1, 2, 7
PROJECT NUMBER: 8500-09
FIELD PERSONNEL: A Weberman
SHEET NO. 1 OF 2

TIME	ACTIVITY (swab/surge, bailing, ~~pumping~~)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsecmans)	TURBIDITY (NTU)	REMARKS Centrifugal
845	Pumping	1'	55	74.4	6.63	209	2200	
855		0	110	74.3	6.14	151		
905			165	74.2	6.01	140		
915			220	74.2	5.88	124		
925			275	74.3	5.96	122		
935			325	74.3	6.05	120		
7/22/94 1030	Pumping	0	355	75	7.51	250	offScale	
1100			415	75	7.10	205	>200	
1130			475	75	6.95	200	>200	
1200			535	75	6.35	198	198	
1230			595	74	6.11	151	180	
1300			655	74	6.1	149	175	
1330			715	75	5.8	136	150	
1400			775	75	5.5	120	100	
1430			835	75	5.6	125	90	
1500			895	75	5.5	129	87	
1530			955	76	5.7	138	offScale	
1600			1015	75	5.8	165	129	
1630			1075	77	5.7	133	106	
1700			1135	76	5.6	129	107	
1730			1195	76	5.7	115	108	
1800			1255	75	5.6	100	100	
1830			1315	75	5.5	120	97	
1900			1375	74	5.3	123	88	
1930			1435	74	5.5	110	100	
2000			1495	74		128	101	

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-14D
DATE: 5/23/94
STATIC WATER LEVEL (ft): 8.3'blw
WELL DESIGN DEPTH (ft): 10'bls
WELL VOLUME (gal): ~14 gal

TIME BEGAN: 1800
TIME ENDED: 1845
NUMBER OF DRUMS: N/A
DRUM DESIGNATIONS: N/A

SITE NAME: Site 16
PROJECT: RI OUS 1, 2, 7
PROJECT NUMBER: 8500-09
FIELD PERSONNEL: Ed Dowdy
SHEET NO. 1 OF 3

	TIME	ACTIVITY (swab/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
5/23/94	1805	Pumping	0	1500	79	7.3	254	48.3	~~Peristaltic~~ peristaltic pump
	1815	↓	↓	1503	78	7.0	240	57.1	
	1830			1506	77	6.5	237	60.2	
	1845	↓	↓	1509	77	5.9	236	59.0	EOD
	1900	↓	↓	1513	77	5.8	221	~~57.8~~ 57.8	
5/18/94	0700	Pumping	0	1515	79	5.9	150	>200	Honda 2.2 pump
	0730			1605	79	5.8	150	>200	3 gal/min
	0800			1695	80	5.9	140	>200	
	0830			1785	80	5.9	135	>200	
	0900			1875	81	5.9	140	>200	
	0930			1965	81	5.9	130	>200	
	1000			2055	80	5.8	100	175	Slow pumping Rate 1gal/min
	1030			2085	80	5.9	100	135	
	1100			2115	80	5.8	100	130	
	1130			2145	80	5.6	110	140	
	1200			2175	80	5.7	100	135	Stop Development for Day will continue
	1230			2205	81	5.9	140	175	
	1300			2235	81	5.8	145	100	
	1330			2265	81	5.9	136	55.2	
	1400			2295	80	5.7	125	30.9	
	1430			2325	81	5.6	115	25.1	Completed Development
	1500			2355	81	5.6	100	15.0	↓
	1530			2385	81	5.5	100	12.2	

MONITORING WELL DEVELOPMENT DATA

WELL: CEF 16 155
DATE: 5 7 94
STATIC WATER LEVEL (ft): ~7' bls
WELL DESIGN DEPTH (ft): 16' bls
WELL VOLUME (gal): ~1.2 gal

TIME BEGAN: 1342
TIME ENDED: 1456
NUMBER OF DRUMS: 1
DRUM DESIGNATIONS: 5-7-94 CERCLA
CEF-16-155 Dev H_2O

SITE NAME: Site 16
PROJECT: RI OU 1 2 7
PROJECT NUMBER: 8500.09
FIELD PERSONNEL: C. Brooks
SHEET NO. 1 OF 1

TIME	ACTIVITY (surge/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
								Centrifugal
1355	pumping	—		99.1	6.47	367	>200	
1405	pumping	~30 cm 0	~30	96.4	6.97	286		cloudy
1415	pumping	0	~35	96.9	7.06	212		
1425	pumping	0	~40	98.5	6.87	179		
1435	pumping	0	~45	100.1	6.80	156		pump is cycling
1445	pumping	0		100.4	6.66	148		
1455	pumping	0		99.8	6.64	125		
1456	pump stopped							
8/24/94 0815	Pumping	0	50	77	7.3	295	50.6	Parasaltic
0915			55	77	7.5	270	250	
1015			60	77	7.3	261	15.8	
1045			63	78	7.4	260	12.2	
1135			66	79	7.5	260	5.0	Completed Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-160
DATE: 5-11-94
STATIC WATER LEVEL (ft): ~8' btoc
WELL DESIGN DEPTH (ft): 101 bls
WELL VOLUME (gal): ~14.4 gal

TIME BEGAN: 1015
TIME ENDED: 1045
NUMBER OF DRUMS: ~~NO~~ TANK N/A
DRUM DESIGNATIONS: N/A

SITE NAME: SITE 16
PROJECT: RI OUS 1,2,7
PROJECT NUMBER: 8500-09
FIELD PERSONNEL: A. WORKMAN
SHEET NO. 1 OF 1

TIME	ACTIVITY (pump/surge, bailing, cleaning)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. °F)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
1030	PUMPING	1'	162	77.0°F	6.40	167	>200	Centrifugal CLOUDY
1045	↓	0	325	76.7°F	6.16	156	↓	↓
5/24/94 0810	Pumping	0	330	77	7.9	213	150	Peristaltic
0840			335	77	7.5	220	101	
0910			340	77	7.8	212	95	
0940			345	77	7.5	214	72	
1010			350	78	7.2	215	60.1	
1140			(E) ~~355~~ 355	77	6.4	188	30.0	Clearing
1210			(E) ~~360~~ 360	78	7.8	192	28.8	
1240			(E) ~~365~~ 365	77	6.5	178	19.5	
1310			(E) ~~370~~ 370	78	6.2	174	10.0	
1340			(E) ~~375~~ 375	78	6.1	172	7.2	Completed Stop Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-17S
DATE: 4/25/94
STATIC WATER LEVEL (ft): 8.52
WELL DESIGN DEPTH (ft): 17'6"S
WELL VOLUME (gal): 1.26 gal

TIME BEGAN: 0900
TIME ENDED: 1300
NUMBER OF DRUMS: (6)
DRUM DESIGNATIONS: CEF-16-17S
Development water

SITE NAME: Site 16
PROJECT: RIOUS 1,2,7
PROJECT NUMBER: 85009
FIELD PERSONNEL: Ed Dowdy
SHEET NO. 1 OF 1

TIME	ACTIVITY (swab/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
0900	Pumping	1'	5	22	6.2	200	offscale	Peristaltic
0930		0	25	22	6.0	200	>200	
1000		0	35	23	6.0	180	>200	
1030		0	45	23	6.0	180	>200	
1100		0	55	24	5.6	70	165	
1130		0	65	24	5.5	70	50	
1200		0	75	24	5.5	70	10.5	
1230		0	85	26	5.5	70	5.5	
1300	✓	0	95	26	5.5	70	5.5	Completed Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF 16 175
DATE: 4 26 94
STATIC WATER LEVEL (ft): 7'6/8
WELL DESIGN DEPTH (ft): 17'6/8
WELL VOLUME (gal):

TIME BEGAN: 0800
TIME ENDED: 0900
NUMBER OF DRUMS: 1
DRUM DESIGNATIONS: 4-26-94 CERCLA
CEF-16-175 Drv. H2O

SITE NAME: Site 16
PROJECT: RI OU 1, 2, 7
PROJECT NUMBER:
FIELD PERSONNEL: C. Brooks
SHEET NO. 1 OF 2

TIME	ACTIVITY (~~surge~~/surge, bailing, ~~pumping~~)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
0820	pumping	.5'		73.5	7.16	123.6	>200	Centrifugal
0830	pumping	0	60	77.5	6.98	43.9	>200	
0840	pumping	0	~ 90	79.8	6.54	35.7	–	
0850	pumping	0	~ 120	77.4	5.75	32.5	–	
0900	pumping	0	~ 175	80.8	5.65	32.3	–	

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-18D
DATE: 4/25/94
STATIC WATER LEVEL (ft): 9.82
WELL DESIGN DEPTH (ft): 100 bls
WELL VOLUME (gal): 12.6 gal

TIME BEGAN: 0700
TIME ENDED: 1700
NUMBER OF DRUMS: (1)
DRUM DESIGNATIONS: CEF-16-18D
Development Water

SITE NAME: Site 16
PROJECT: OU 12 NAS Cecil Field
PROJECT NUMBER: 8500.09
FIELD PERSONNEL: KJD
SHEET NO. 1 OF 1

TIME	ACTIVITY (pump/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
0700	Pumping	1'	5	23	7.4	220	offScale	Peristaltic Dark Brown
0730	"	0	25	23	7.0	200	" "	
0800	"	0	45	23	7.0	200	" "	
0830	"	0	65	24	7.5	200	" "	
0900	"	0	85	24	6.0	200	" "	
0930	"	0	105	25	6.5	200	" "	
1000	"	0	125	25	6.0	200	" "	
1030	"	0	145	25	6.0	200	" "	
1100	"	0	165	25	6.0	200	" "	
1130	"	0	185	25	6.1	200	" "	
1200	"	0	205	25	6.0	200	" "	
1230	"	0	225	26	5.5	180	offScale	
1300	"	0	245	26	5.6	160	" "	
1330	"	0	265	27	5.5	160	" "	
1400	"	0	285	27	5.5	160	" "	
1430	"	0	305	30	5.6	170	145	
1500	"	0	325	30	5.7	170	130	
1530	"	0	345	30	5.5	170	50	
1600	"	0	365	30	5.2	170	10.0	
1630	"	0	385	30	5.0	170	5.2	
1700	pump	0	405	30	5.0	170	2.3	END DEVELOPMENT

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-18D
DATE: 4-24-94
STATIC WATER LEVEL (ft): ~9.8' bls
WELL DESIGN DEPTH (ft): 100' bls
WELL VOLUME (gal): ~12.6 gal

TIME BEGAN: 1005
TIME ENDED: 1105
NUMBER OF DRUMS: 9
DRUM DESIGNATIONS: CEF-16-18D Development Water

SITE NAME: SITE 16
PROJECT: RI OUS 1,2,7
PROJECT NUMBER: 8500-09
FIELD PERSONNEL: A. WORKMAN
SHEET NO. 1 OF 2

TIME	ACTIVITY (~~swab/surge, bailing, pumping~~)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. ~~C~~ F)	pH	CONDUCTIVITY (~~microsiemens~~)	TURBIDITY (NTU)	REMARKS
1015	PUMPING		82	74.7°	6.01	90.6	>200	Centrifugal CLOUDY
1025	↓		164	74.4°	5.90	77.2	↓	↓
1035			244	74.7°	5.91	76.6		
1045			326	74.5°	6.00	74.0		
1055			408	74.8°	6.01	74.0		
1105			495	74.9°	6.00	74.6		

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-19S
DATE: 5 3 94
STATIC WATER LEVEL (ft): 9' bls
WELL DESIGN DEPTH (ft): 18' bls
WELL VOLUME (gal): ~1.5 gal

TIME BEGAN: 1330
TIME ENDED: 1430
NUMBER OF DRUMS: 3
DRUM DESIGNATIONS: CERCLA
CEF-16-19S 5/3/94 Dev Azo

SITE NAME: Site 16
PROJECT: IR OU 1,2,7
PROJECT NUMBER: 8600-09
FIELD PERSONNEL: C. Brooks
SHEET NO. 1 OF 1

TIME	ACTIVITY (swab/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
								Centrifugal
1350	Pumping	1'	60 gal	82.0	5.77	81.0	>200	Cloudy
1400		0		81.6	5.28	70.0	-	
1410		0	120 gal	81.9	4.99	68.0	-	
1420		0		82.6	4.96	68.6	-	
1430		0	180 gal	81.6	4.93	68.6	-	Cloudy white
5/24/94 0805	Pumping	0	185	77	5.6	80.2	40.5	Clearing Peristaltic Pump
0835			190	77	5.4	80.1	39.0	
0905			200	78	6.1	79.9	20.0	
0935			205	78	5.9	72.0	19.9	
1005			210	79	5.1	70.0	3.6	
1035			215	80	4.9	71.0	3.0	
1105			220	81	4.8	71.0	2.3	Completed END Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-20D
DATE: 5-17-94
STATIC WATER LEVEL (ft): ~8' btoc
WELL DESIGN DEPTH (ft): 101' bls
WELL VOLUME (gal): ~14.4 gal

TIME BEGAN: 1630
TIME ENDED: 1735
NUMBER OF DRUMS: ~~FULL~~ N/A
DRUM DESIGNATIONS: N/A

SITE NAME: SITE 16
PROJECT: RI OUS 1,2,7
PROJECT NUMBER: 8500-09
FIELD PERSONNEL: A. WORKMAN
SHEET NO. 1 OF 2

TIME	ACTIVITY (semi/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. F)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
1645	PUMPING	1'	165 GAL	78.1°	5.95	153	>200	Centrifugal CLOUDY
1700		0	330 GAL	78.0°	5.85	138		
1720		0	495 GAL	77.1°	5.89	128		
1735		0	660 GAL	76.8°	5.78	130		
5/24/94 0800	Pumping	0	665 gal	77	7.9	300	>200	
0830			695	77	7.5	250		1 gal a min
0900			725	79	7.2	220		
0930			755	79	6.9	195		
1000			785	79	6.5	182		
1030			815	80	6.3	175		
1100			845	80	6.2	169		
1130			875	81	6.5	150		
1200			905	81	6.3	150		
5/12/94 0900	Pumping	0	910	80	6.9	130	off scale	3 gal a min
0930			995	80	6.9	130		
1000			1085	81	6.8	125		Dark Brown
1030			1175	81	6.5	120		
1100			1265	85	6.5	120		
1130			1355	90	6.3	120		
1200			1445	90	6.2	120		
1230			1535	90	6.3	120		
1300			1625	91	6.4	115		
1330			1715	91	6.5	120		
1400			1805	91	6.2	120		
1430			1895	91	6.0	120		

MONITORING WELL DEVELOPMENT DATA

WELL: CFF-16-20D
DATE: 7/12/94
STATIC WATER LEVEL (ft): 8' bls
WELL DESIGN DEPTH (ft): 101 bls*
WELL VOLUME (gal): 14.4991

TIME BEGAN: 0900
TIME ENDED: 1830
NUMBER OF DRUMS: N/A
DRUM DESIGNATIONS: N/A

SITE NAME: Site 16
PROJECT: RI OU's 1, 2, 3
PROJECT NUMBER: 6900-09
FIELD PERSONNEL: E Dowdy
SHEET NO. 2 OF 2

TIME	ACTIVITY (pump/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
		EJD						
1500	pump	~~1985~~	1985	94	6.0	120	offscale	Dark Brown
1530		~~2075~~	2075	95	6.0	120		
1600		~~2165~~	2165	98	6.0	120		
1630		~~2255~~	2255	98	6.0	120		
1700		~~2345~~	2345	89	6.0	120		
1730		0	2435	87	6.0	115		
1800			2525	87	6.0	115	190	Clearing
				EJD				End Development
7/30/94 1500	Pumping	0	2532	~~26~~ 26	6.1	130	50	Fol Day
1530			2539	26	6.0	120	25	
1600			2546	26	6.0	120	15	
1630			2553	26	6.0	120	14	
1700			2560	26	6.0	120	12	Completed Development
				EJD				
8/1/94 1530	Pumping	0	2561	29	6.2	130	24.3	Peristaltic
1600		0	2568	29	6.3	140	24.2	
1630		0	2575	26	6.0	130	23.0	
1700		0	2584	26	6.0	130	22.0	
1730	pumping	0	2591	26	6.0	120	15.0	
1800			2598	25	6.0	120	11.9	
1830	Pumping	0	2605	25	6.0	120	5.0	Completed Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-21S
DATE: 4/24/94
STATIC WATER LEVEL (ft): 8'25
WELL DESIGN DEPTH (ft): 17' bls
WELL VOLUME (gal): 1.26 gal

TIME BEGAN: 1445
TIME ENDED: 1900
NUMBER OF DRUMS: (5)
DRUM DESIGNATIONS: CEF-16-21S
Development Water

SITE NAME: Site 16
PROJECT: RI OUs 1,2,7 NAS Cecil Field
PROJECT NUMBER: 8500.09
FIELD PERSONNEL: EJD
SHEET NO. 1 OF 1

TIME	ACTIVITY (pump/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS Centrifugal
1445	Pumping	1'	5	25	5.8	110	off scale	Dark Brown
1500	"	0	15	25	4.5	60	52.0	Clearing
1530	"	0	45	26	4.6	40	112.0	
1600	"	0	75	26	4.4	40	50.0	
1630	"	0	105	25	4.5	40	25.0	
1700	"	0	140	25	4.0	40	10.0	
1730	"	0	170	25	4.5	40	6.5	
1800	"	0	200	25	4.5	40	6.2	
1830	"	0	230	25	4.4	40	3.0	
1900	Pumping	0	260	25	4.5	40	3.0	Stop Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF 16 22I
DATE: 4 25 94
STATIC WATER LEVEL (ft): ~9' b/s
WELL DESIGN DEPTH (ft): 35 b/s
WELL VOLUME (gal):

TIME BEGAN: 0805
TIME ENDED: 0920
NUMBER OF DRUMS: 5
DRUM DESIGNATIONS: 4-25-94
CEF-16-22I CERCLA Dev. H_2O

SITE NAME: Site 16
PROJECT: RI OU 1,2,7
PROJECT NUMBER:
FIELD PERSONNEL: C. Brooks
SHEET NO. 1 OF 2

TIME	ACTIVITY (~~swab/surge~~, bailing, ~~pumping~~)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
0815	pumping		0	75.5 F	7.63	56.6	>200	Centrifugal
0825	pumping		~20	74.6 F	6.36	47.1	>200	
0835	pumping		~80	75.1 F	5.69	45.2	>200	
0845	pumping		~120	74.5 F	5.42	43.7	>200	
0855	pumping		~180	75.7 F	5.31	44.0	–	
0905	pumping		~240	75.5	5.21	43.3	–	
0915	pumping		~300	75.7	5.16	41.5	–	

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-22I
DATE: 4/27/94
STATIC WATER LEVEL (ft): ~9' bls
WELL DESIGN DEPTH (ft): 35' bls
WELL VOLUME (gal): 3.36 gal

TIME BEGAN: 0800
TIME ENDED: 1230
NUMBER OF DRUMS: (8)
DRUM DESIGNATIONS: CEF-16-22I Development Water

SITE NAME: SITE 16
PROJECT: RI OU 1,2,7 NAS Cecil Field
PROJECT NUMBER: 8500.09
FIELD PERSONNEL: EJD
SHEET NO. 1 OF 1

TIME	ACTIVITY (swab/surge, bailing, ~~pumping~~)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
								Peristaltic
0800	Pump	1'	5	24	5.0	100	offscale	
0900	"	0	25	24	4.7	70	150	
0930			45	25	4.5	60	100.0	
1000			65	26	4.5	60	50.5	
1030			85	26	4.4	60	25.5	
1100			105	26	4.5	60	16.0	
1130			125	26	4.5	60	10.0	
1200			145	26	4.3	60	8.1	
1230	✓	✓	165	26	4.5	60	6.5	End Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF - 16 - 23D
DATE: 4-22-94
STATIC WATER LEVEL (ft): —
WELL DESIGN DEPTH (ft): 99' bls
WELL VOLUME (gal): ~13 gal

TIME BEGAN: 825
TIME ENDED: 925
NUMBER OF DRUMS: 7
DRUM DESIGNATIONS:

SITE NAME: SITE 16
PROJECT: RI OUS 1,2,7
PROJECT NUMBER: 8500-09
FIELD PERSONNEL: A. WORKMAN
SHEET NO. 1 OF 2

TIME	ACTIVITY (~~pump/surge~~, bailing, ~~pumping~~)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (~~deg. C~~ F)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
835	PUMPING		65	74.5°F	6.83	205	>200	Centrifugal CLOUDY
845			130	75.0°	6.82	177		
855			195	75.0°	6.84	158		
905			260	75.0°	6.79	146		
915			325	75.3°	6.86	142		
925			385	75.4°	6.71	135		

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-23D
DATE: 4/24/94
STATIC WATER LEVEL (ft): 9.51
WELL DESIGN DEPTH (ft): 99' bls
WELL VOLUME (gal): 12.60 gal

TIME BEGAN: 1030
TIME ENDED: 1430
NUMBER OF DRUMS: (8)
DRUM DESIGNATIONS: C4F-16-23D
Development Water

SITE NAME: Site 16
PROJECT: RI OUs 1, 2, 7 NAS Cecil Field
PROJECT NUMBER: 8500.09
FIELD PERSONNEL: EWD
SHEET NO. 1 OF 1

TIME	ACTIVITY (pump/surge, bailing, bailing)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (micromhos/cm)	TURBIDITY (NTU)	REMARKS
1030	pumping	1'	5	21	6.0	410	125	Centrifugal
1100	"	0	250	21	5.5	400	150	
1130	"	0	500	21	5.5	400	120	
1200	"	0	530	22	6.0	375	145	Slow pumping down
1230	"	0	560	23	6.6	375	100	1 gal per min
1300	"	0	590	24	6.6	375	55	
1330	"	0	620	24	6.5	375	10	
1400	"	0	650	23	6.5	375	5	
1430	"	0	680	23	6.6	375	3.2	Stop Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF 16 245
DATE: 4 24 94
STATIC WATER LEVEL (ft): 9'6/1
WELL DESIGN DEPTH (ft): 17'6/6
WELL VOLUME (gal):

TIME BEGAN: 0849
TIME ENDED: 0943
NUMBER OF DRUMS: 7
DRUM DESIGNATIONS: 4-24-94
CEF-16-245 CERCLA Dev. H_2O

SITE NAME: Site 16
PROJECT: RI OU 1,2,7
PROJECT NUMBER: 0850
FIELD PERSONNEL: C. Brooks
SHEET NO. 1 OF 2

TIME	ACTIVITY (~~swab/surge, bailing, pumping~~)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (~~microsiemens~~)	TURBIDITY (NTU)	REMARKS Centrifugal
0900	pumping		~ 30	71.6 F	7.12	172.2	—	
0910	pumping		~ 70	71.2 F	~~36~~ 5.84	36.4	—	
0920	pumping		~ 110	72.4 F	5.74	33.4	—	
0923	pumping		120	73.0 F	5.66	34.1	—	Stopped pumping 0924
0930	pumping		~ 140	76.0	5.55	31.8		Started pumping 0926
0940	pumping			79.1	5.53	31.9	>200	
0943	Stopped pump.							

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-24S
DATE: 4 24 94
STATIC WATER LEVEL (ft): 9'6 1/2
WELL DESIGN DEPTH (ft): 17 6 1/2
WELL VOLUME (gal): ~9.5gal

TIME BEGAN: 0849
TIME ENDED: 0943
NUMBER OF DRUMS: 3
DRUM DESIGNATIONS: 4-24-94 CEF-16-24S CERCLA Rev Haz

SITE NAME: Site 16
PROJECT: RI OU5 1,2,7
PROJECT NUMBER: 0850
FIELD PERSONNEL: C. Brooks
SHEET NO. 2 OF 2

TIME	ACTIVITY (swab/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
0905	Pumping	1'	~ 30	71.6	7.12	172.2	–	Centrifugal
0910		0	~ 70	71.2	5.84	36.6	–	
0920		0	~ 110	72.4	5.74	33.4	–	
0923		0	~ 120	73.5	5.66	34.1	–	
0930		0	~ 140	76.6	5.55	36.8	–	
0940		0	~ 160	79.1	5.53	31.9	–	
0943		0	~ 180	79.0	5.50	31.9	>200	
5/23/94 1400	Pumping	0	185	83	5.2	723	40.8	Clearing Peristaltic Pump
1430			190	80	5.9	76.0	20.2	
1500			195	79	5.8	75	10.1	
1530			200	79	5.5	30	5.0	
1600			205	77	5.5	31	4.8	
1630			210	77	5.4	30	4.2	
1700			215	76	5.4	31	3.1	
1730			220	76	5.5	31	2.0	
1800			225	76	5.5	31	1.1	Completed Stat Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-250
DATE: 5-4-94
STATIC WATER LEVEL (ft): ~8.0' btoc
WELL DESIGN DEPTH (ft): 94' bls
WELL VOLUME (gal): ~12 gal

TIME BEGAN: 1545
TIME ENDED: 1705
NUMBER OF DRUMS: ~~FOUR TWO TANKS~~
DRUM DESIGNATIONS: NA

SITE NAME: SITE 16
PROJECT: ~~8500-07~~ RI OU5 1,2,7
PROJECT NUMBER: 8500-09
FIELD PERSONNEL: A. Workman
SHEET NO. 1 OF 1

TIME	ACTIVITY (~~swab/surge, bailing, pumping~~)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. ~~C~~ F)	pH	CONDUCTIVITY (~~microsiemens~~)	TURBIDITY (NTU)	REMARKS
								Centrifugal
1555	PUMPING	1/	130 GAL	75.0°	6.65	522	54.7	CLEAR
1605		0	260 GAL	75.6°	7.07	476	46.8	
1630		0	375 GAL	82.0°	7.39	606	36.1	
1645		0	475 GAL	76.2°	7.29	470	30.5	
1655		0	575 GAL	75.8°	7.34	497	29.3	
1705		0	650 GAL	75.7°	7.19	452	32.4	
		0						
5/23/94 1405	Pumping	0	680	81	6.7	500	1050	~~Peristaltic~~ Centrifugal
1430			710	80	6.9	497	55.5	
1500			740	77	6.7	490	15.1	
1530			770	76	6.6	495	5.0	
1600			800	77	6.3	490	4.9	
1630			830	77	6.6	490	5.0	
1700			860	76	6.5	470	4.2	
1730			890	76	6.4	470	4.0	
1800			920	75	6.5	460	4.0	Clear Completed Stop Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-260D
DATE: 5-3-94
STATIC WATER LEVEL (ft): ~91' btoc
WELL DESIGN DEPTH (ft): 118' bls
WELL VOLUME (gal): ~15.5 gal

TIME BEGAN: 755
TIME ENDED: 855
NUMBER OF DRUMS: ~~TOTAL~~ N/A
DRUM DESIGNATIONS: N/A

SITE NAME: SITE 16
PROJECT: RI OUS 1,2,7
PROJECT NUMBER: 8500-09
FIELD PERSONNEL: A WORKMAN
SHEET NO. 1 OF 1

TIME	ACTIVITY (~~pump/surge, bailing, pumping~~)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. ~~C~~ F)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS:
								Centrifugal
805	PUMPING	~~90~~ (R)	90	74.1°	7.21	458	>200	CLOUDY
815	↓	~~180~~ (R)	180	74.0	7.37	452	43.8	CLEAR
825		~~270~~ (R)	270	74.1°	7.40	456	28.8	↓
835		~~360~~ (R)	360	74.1°	7.42	448	33.5	
845		~~450~~ (R)	450	74.2°	7.42	447	29.1	
855	↓	~~580~~ (R)	550	74.2°	7.43	462	25.2	↓
5/23/94 1410	PUMPING	↓	580	68	7.2	520	110	~~Peristaltic~~ Centrifugal
1440			610	70	6.5	500	49	
1510			640	69	6.6	500	10.9	
1540			670	68	6.7	500	5.5	
1610			700	72	6.8	500	1.9	
1640			730	72	6.5	500	1.0	
1710			760	71	6.6	500	0.9	Clear
1740	↓	↓	790	71	6.6	500	0.5	Completed Stop Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF 16 27 I
DATE: 5 21 94
STATIC WATER LEVEL (ft): ~9'6"
WELL DESIGN DEPTH (ft): ≈60 35'64
WELL VOLUME (gal): ~3.6 gal

TIME BEGAN: 0840
TIME ENDED: 0920
NUMBER OF DRUMS: 4
DRUM DESIGNATIONS: 5-21-94 CERCLA CEF-16-27 I

SITE NAME: Site 16
PROJECT: IR OU 1 2 3
PROJECT NUMBER: 8500.09
FIELD PERSONNEL: C. Brooks F. Dowdy
SHEET NO. 1 OF

TIME	ACTIVITY (swab/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsemens)	TURBIDITY (NTU)	REMARKS
								Centrifugal
0900	pumping	1"		70.2°F	7.55	34.2	>200	Brown
0910	pumping	0"		72.6°F	7.24	14.0	>200	
0920	pumping	0"	300	72.7°F	7.14	26.1	>200	Brown / Cloudy
1100	Pumping	0	305	87	6.9	50	OFFscale	Dark Brown ~~Turbulently~~
1130			335	87	6.7	50	>200	Centrifugal
1200			365	88	6.8	40	>200	
1230			395	89	7.3	40	117	Clearing
1300			425	90	6.8	45	77.2	
1330			455	96	6.6	45	<0.5	
1400			485	90	6.5	45	43.0	
1430			515	90	6.5	45	47.0	
1500			545	90	6.5	45	20.1	
1530			575	90	6.5	45	10.0	Completed Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF 16 28D
DATE: 5 24 94
STATIC WATER LEVEL (ft): ~ 9'4"
WELL DESIGN DEPTH (ft): 100' 6"
WELL VOLUME (gal): ~12.7 gal

TIME BEGAN: 1119
TIME ENDED: 1201
NUMBER OF DRUMS: 6
DRUM DESIGNATIONS: 5-24-94 CERCLA
CEF-16-28D Dev. H2O

SITE NAME: Site 16
PROJECT: ER OU 1,2,7
PROJECT NUMBER: 8500.09
FIELD PERSONNEL: C. Rooks E. Dowdy 5/6/94
SHEET NO. 1 OF 1

TIME	ACTIVITY (swab/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
								Continued
1130	pumping	~ 1'	~ 110	82.3 F	7.84	254	>200	Dark gray
1140	pumping	–	~ 190	82.3 F	7.37	244	>200	" "
1150	pumping	–	~ 270	82.8	7.40	241	>200	Gray
1201	Stopped pump	–	345					
5/94 1500	Pumping	0	350	90	8.6	500	Off Scale	Pumped dry
1530			380	90	8.5	500	170	
1600			410	89	8.0	450	120	
1630			440	87	8.2	450	100	
1700			470	87	7.0	450	50	
1730			500	86	7.1	450	20	
1800			530	86	7.5	450	8.0	
1830			560	85	7.0	450	5.9	
1900			590	85	7.0	450	5.0	
1930			620	84	7.0	450	5.0	Completed Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF 16 295
DATE: 5 31 94
STATIC WATER LEVEL (ft): 9'6/5
WELL DESIGN DEPTH (ft): 17'6/5
WELL VOLUME (gal): ~1.1 gal

TIME BEGAN: 1740
TIME ENDED: 1802
NUMBER OF DRUMS: 1
DRUM DESIGNATIONS: CEF-16-295 CERCLA
Dev. H2O 5-31-94

SITE NAME: Site 16
PROJECT: IR OU 1 2 7
PROJECT NUMBER: 8500.09
FIELD PERSONNEL: C Brook
SHEET NO. 1 OF 1

TIME	ACTIVITY (~~pump~~/surge, bailing, ~~pumping~~)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
1750	pumping	–	20 gal	93.7	8.23	1810	>200	Brown
1800	pumping	–	30 gal	88.6	7.51	899	>200	Lt. Brown
1810	pumping off	–						pump stalled
								Hand Pump 2.2
~~0900~~	~~pumping~~							
0900	Pumping	1'	35 gal	82	6.2	60	Off Scale	Dark Brown
0930		0	65 gal	82	6.5	60	>200	Pump Rate 1 gal/min
1000			80 gal	82	6.0	40	>200	Pump Dry Slow Pumping
1030			95	83	5.6	40	>200	Rate 1/2 gal/min
1100			110	83	5.5	40	>200	Clearing
1130			125	84	5.6	45	180	
1200			140	86	5.4	40	>200	
1230			155	86	5.5	40	128	
1300			170	87	5.5	40	100	Clearing
1330			185	87	5.4	40	85	
1400			200	88	5.5	50	79	
1430			215	88	5.5	50	59	
1500			230	90	5.7	50	40	
1530			245	90	5.8	50	40	
1600			260	90	5.6	50	25	
1630			275	91	5.6	50	19	
1700			290	91	5.5	50	15	Completed
								End Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF 16 30 D
DATE: 6 19 94
STATIC WATER LEVEL (ft): 9'6/8
WELL DESIGN DEPTH (ft): 92'6/8
WELL VOLUME (gal): 11.62 gal

TIME BEGAN: 0942
TIME ENDED: 1015
NUMBER OF DRUMS: 6
DRUM DESIGNATIONS: CERCLA
CEF-16-30D Dev. H2O

SITE NAME: Site 16
PROJECT: IR OU 1,2,7
PROJECT NUMBER: 8500.09
FIELD PERSONNEL: C Brooks
SHEET NO. 1 OF 1

TIME	ACTIVITY (~~swab~~/surge, bailing, ~~pumping~~)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
				81.2	7.22	454	>200	Centrifugal
0952	pumping	–		79.8	6.75	174	>200	
1002	pumping	–		78.9	6.78	142	>200	
1012	pumping	–	340					
6/94 0900	Pumping	0	345	89	6.6	300	>200	Header 2.2
0930			375	89	6.5	330	>200	gal a min
1000			405	90	6.3	340	>200	
1030			435	90	6.6	340	>200	
1100			465	90	6.5	340	150	
1130			495	91	6.8	350	100	
1200			525	92	6.9	350	75	
1230			555	92	6.7	350	25	
1300			585	92	6.7	350	35	
1330			615	93	7.0	340	20	
1400			645	93	7.0	340	25	
1430			675	93	7.2	345	15	
1500			705	92	7.0	340	10	
1530			735	92	7.0	340	10	Completed Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF 16 31 DD
DATE: 6 16 94
STATIC WATER LEVEL (ft): 9' 6/8
WELL DESIGN DEPTH (ft): 107' 6/8
WELL VOLUME (gal): 13.72 gal

TIME BEGAN: 1352
TIME ENDED: 1427
NUMBER OF DRUMS: 7
DRUM DESIGNATIONS: CERCLA
CEF-16-31DD Dev. H_2O

SITE NAME: Site 16
PROJECT: IR OU 1 27
PROJECT NUMBER: 8500.09
FIELD PERSONNEL: C. Arcoki
SHEET NO. 1 OF 1

TIME	ACTIVITY (swab/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
								Centrifugal
1402	pumping	-	120	79.2	6.65	4.22	-	Clear
1412	pumping	-	270	80.3	7.32	4.26	-	
1422	pumping	-	420	81.2	7.42	4.25	-	
1/7/94 1600	Pump	0	425	90	7.2	575	>200	1 gal/min
1630		0	455	90	7.5	550	>200	
1700		0	485	90	7.3	550	>200	Stop Development
3/94 0900	Pump	0	500	87	7.9	550	>200	Slow Pumping Rate
0930			515	87	7.8	550	>200	1/2 gal a min
1000			530	88	8.0	600	>200	
1030			545	90	8.1	600	100	
1100			600	90	8.5	600	100	
1200			615	90	8.5	600	79	
1230			630	91	7.9	550	25	
1300			645	91	7.8	550	20	
1330			700	92	7.7	550	17	
1400			715	92	7.8	550	10	
1430			730	92	7.9	550	5.5	
1500			745	93	7.9	550	4.3	Completed Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF 16 325
DATE: 5 19 94
STATIC WATER LEVEL (ft): 7.60' btoc
WELL DESIGN DEPTH (ft): 17'6/1
WELL VOLUME (gal): ~1.3 gal

TIME BEGAN: 1255
TIME ENDED: 1327
NUMBER OF DRUMS: 3
DRUM DESIGNATIONS: 5-19-94 CERCLA
CEF-16-325 Dev. H_2O

SITE NAME: Site 16
PROJECT: IR OU 1,2,7
PROJECT NUMBER: 8500.09
FIELD PERSONNEL: C. Brooks
SHEET NO. 1 OF 1

TIME	ACTIVITY (swab/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
1305	pumping	—	~60 gallons	75.1	7.47	33.5	–	Centrifugal
1315	pumping	–	~120	76.2	5.46	10.0	–	brown
1325	pumping	–	~180	75.7	5.35	27.0	–	Cloudy
9/94 0910	Pumping	0	185	88	6.5	90	100.0	
0940			191	89	6.4	50	79.5	
0020			197	90	6.2	43	49.2	
1050			204	90	5.9	35	40.5	
1120			210	91	5.5	36	50.0	
1150			216	91	5.5	30	20.0	
1220			222	92	5.4	30	15.0	
1250			228	92	5.5	30	10.0	
1320			234	92	5.5	30	10.1	
1350			240	92	5.6	30	10.0	Completed Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-33D
DATE: 5-24-94
STATIC WATER LEVEL (ft): 7.09' btoc
WELL DESIGN DEPTH (ft): 90' bls
WELL VOLUME (gal): 11.62 gal

TIME BEGAN: 1455
TIME ENDED: 1555
NUMBER OF DRUMS: ~~Kipp~~ N/A
DRUM DESIGNATIONS: N/A

SITE NAME: SITE 16
PROJECT: RI OUS 1,2,7
PROJECT NUMBER: 8500-09
FIELD PERSONNEL: A. WORKMAN
SHEET NO. 1 OF 2

TIME	ACTIVITY (pump/surge, bailing, screening)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. F)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
1510	PUMPING	1	135 GAL	76.7°	7.50	313	>200	Centrifugal
1525		0	270 GAL	76.9°	7.33	307	42.7	CLOUDY
1540		0	405 GAL	76.6°	7.28	301	30.3	CLEAR
1555		0	550 GAL	76.1°	7.28	300	51.8	
0900	Pumping	0	555	89	7.5	500	off Scale	
0930			585	89	7.5	500	>200	
1000			615	90	7.5	500	>200	
1030			645	90	7.4	500	>200	
1100			675	90	7.5	500	>200	
1130			705	91	7.3	500	>200	
1200			735	91	7.2	500	>200	
1230			765	91	7.2	500	>200	
1300			795	91	7.0	500	>200	
1330			825	92	7.0	500	175	
1400			855	92	7.0	500	180	
1430			885	92	7.1	500	180	
1500			915	91	7.0	500	>200	Stop Pump Restart
1530			945	91	7.0	500	>200	
1600			975	91	7.0	500	>200	
1630			1005	90	7.1	500	190	
1700			1035	90	7.5	500	190	
1730			1065	90	7.5	500	170	
1800			1095	89	7.4	500	150	
1830			1125	89	7.0	500	145	
1900			1155	89	7.0	500	150	
1930			1185	89	7.0	500	150	

EJD
[illegible]/94
9/94

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-33
DATE: 9/10/94
STATIC WATER LEVEL (ft): 7.12
WELL DESIGN DEPTH (ft): 9068s
WELL VOLUME (gal): ~11.62 gal

TIME BEGAN: 0900
TIME ENDED: 1830
NUMBER OF DRUMS: N/A
DRUM DESIGNATIONS: N/A

SITE NAME: Site 16
PROJECT: RI OUS 1,2,7
PROJECT NUMBER: 8520.09
FIELD PERSONNEL: Ed Dowdy
SHEET NO. 2 OF 2

TIME	ACTIVITY (swab/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
0900	Pumping	0	1215	86	7.0	500	>200	
0930			1245	88	7.0	500	>200	
1000			1275	88	7.0	500	>200	
1030			1305	89	7.0	500	>200	
1100			1335	90	7.0	500	>200	
1130			1365	91	7.5	500	>200	
1200			1395	91	7.5	500	>200	
1230			1425	92	7.0	500	175	
1300			1455	92	7.0	500	149	
1330			1485	92	7.0	500	102	
1400			1515	93	6.9	500	80.0	
1430			1545	94	7.0	500	70.2	Clearing
1500			1575	90	7.0	500	79.9	
1530			1605	90	6.9	496	50.0	
1600			1635	89	7.0	490	50.0	
1630			1665	89	7.0	490	49.2	
1700			1695	88	7.0	490	40.1	
1730			1725	87	7.0	490	20.6	
1800			1755	87		490	12.2	
1830			1785	85	7.0	480	5.5	Completed Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-34DD
DATE: 6-6-94
STATIC WATER LEVEL (ft): ~ 10' bls
WELL DESIGN DEPTH (ft): 107' bls
WELL VOLUME (gal): ~ 13.6 gal

TIME BEGAN: 1325
TIME ENDED: 1425
NUMBER OF DRUMS: ~~TO-MD~~ N/A
DRUM DESIGNATIONS: N/A

SITE NAME: SITE 16
PROJECT: RI OUS 1,2,7
PROJECT NUMBER: 8500-09
FIELD PERSONNEL: A. WORKMAN
SHEET NO. 1 OF 3

TIME	ACTIVITY (~~pump/surge, bailing, pumping~~)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. ~~C~~ F)	pH	CONDUCTIVITY (~~microsiemens~~)	TURBIDITY (N.T.U)	REMARKS Centrifugal
1340	PUMPING		135 GAL	75.6°	6.73	295	15.8	CLEAR
1355	↓		270 GAL	74.8°	7.05	303	10.7	↓
1410			405 GAL	74.7°	7.03	300	9.3	
1425			550 GAL	75.0°	7.07	302	8.8	

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-34 DD
DATE: ~~6/8/94~~ 6/9/94
STATIC WATER LEVEL (ft): 6.42' btoc
WELL DESIGN DEPTH (ft): 107' bls
WELL VOLUME (gal): ~15.5 gal

TIME BEGAN: 0905
TIME ENDED: 1830
NUMBER OF DRUMS: N/A
DRUM DESIGNATIONS: N/A

SITE NAME: Site 16
PROJECT: RI OU 1, 2
PROJECT NUMBER: 8500.09
FIELD PERSONNEL: Ed Dowdy
SHEET NO. ~~1~~ OF ~~1~~ 2 OF 3

TIME	ACTIVITY (swab/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
0905	pumping	1'	5	89	7.5	550	off Scale	1 gal a minute
0930		0	35	90	7.5	500	>200	
1000			65	90	7.5	500	>200	Centrifugal
1030			95	90	7.5	500	>200	
1100			125	91	7.6	475	>200	
1130			155	91	7.8	475	>200	
1200			185	91	7.9	400	>200	
1230			215	92	7.5	400	>200	
1300			245	92	7.5	400	>200	
1330			305	93	7.0	400	>200	Stop & Pumping Rate
1400			365	93	7.1	410	>200	2 gal a min
1430			425	94	7.1	400	175	
1500			485	94	6.9	400	180	
1530			545	93	6.5	450	185	
1600			605	93	6.8	460	150	
1630			665	93	6.5	400	150	
1700			725	92	6.5	400	125	
1230			785	92	6.4	400	140	
1800			845	92	6.5	400	130	
1830			905	92	6.5	400	135	Stop Development for Day, continue 6/10/94
0/94 0900	Pumping	0	910	88	6.8	500	off Scale	
0930			970	88	6.5	510	>200	
1000			1030	89	6.6	490	>200	
1030			1090	89	6.8	495	>200	
1100			1150	91	6.6	475	>200	
1130			1210	91	6.5	470	190	Clearing

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-34DD
DATE: 6/10/94
STATIC WATER LEVEL (ft): 6.45' btoc
WELL DESIGN DEPTH (ft): 107' bls
WELL VOLUME (gal): ~15.5 gal

TIME BEGAN: 0900
TIME ENDED: 1800
NUMBER OF DRUMS: N/A
DRUM DESIGNATIONS: N/A

SITE NAME: Site 16
PROJECT: RIOUS 1,2,7
PROJECT NUMBER: 8500.09
FIELD PERSONNEL: SL Dowdy
SHEET NO. ~~1~~ OF ~~2~~ (Mp) 3 of 3

TIME	ACTIVITY (swab/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
1200	Pumping	0	1270	88	6.5	450	185	Clearing
1230			1330	88	6.5	450	120	
1300			1390	88	6.6	455	110	
1330			1450	91	6.4	450	102	
1400			1510	90	6.5	450	85.6	
1430			1570	90	6.9	450	50.1	
1500			1630	91	6.5	456	26.2	
1530			1690	92	6.5	450	19.1	
1600			1750	90	6.4	450	10.0	
1630			1810	89	6.5	450	15.5	
1700			1870	86	6.4	450	10.9	
1730			1930	87	6.3	450	10.0	
1800			1990	85	6.3	450	9.9	Completed Development

MONITORING WELL DEV. MENT DATA

WELL: CEF 16 355
DATE: 5 11 94
STATIC WATER LEVEL (ft): ~10'6"
WELL DESIGN DEPTH (ft): 17'6"
WELL VOLUME (gal): ~1 gal

TIME BEGAN: ~~0755~~ 0840
TIME ENDED: 0900
NUMBER OF DRUMS: 2
DRUM DESIGNATIONS: 5-11-94 CERCLA
CEF-16-355 Dev. H_2O

SITE NAME: SYI 16
PROJECT: RI OU 1, 2, 3
PROJECT NUMBER:
FIELD PERSONNEL: C. B
SHEET NO. 1 OF 1

TIME	ACTIVITY (~~surge~~/surge, bailing, ~~pumping~~)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
								Centrifugal
0840	pumping	–						
0825	pumping	0		76.3°F	7.26	47.3	>200	Brown
0835	pumping	0	~35	77.6°F	6.17	41.0	–	Cloudy
0845	pumping	0		78.6°F	5.72	39.5	–	cloudy
0855	pumping	0	~70	77.0°F	5.64	36.1	–	cloudy
0900	stopped							
6/9/94 0800	Pumping	0	75	79	7.9	120	8.8	Peristaltic Pump
0900			95	79	7.5	100	8.9	
1000			115	79	7.3	99	10.2	
1100			135	79	6.9	86	6.3	
1130			155	81	6.5	75	6.1	
1200			175	81	6.5	72	5.2	Completed Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF 16 36 I
DATE: 5 16 94
STATIC WATER LEVEL (ft): ~ 9'6"
WELL DESIGN DEPTH (ft): 55'6"
WELL VOLUME (gal): ~3.4 gal

TIME BEGAN: 1608
TIME ENDED: 1645
NUMBER OF DRUMS: 3
DRUM DESIGNATIONS: 5-16-94 CERCLA
CEF-16 36 I Dev. H_2O

SITE NAME: Site 16
PROJECT: IR OU 1 2 7
PROJECT NUMBER: 8500.09
FIELD PERSONNEL: C. Brooks E. Dowdy
SHEET NO. 1 OF 1

TIME	ACTIVITY (swab/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
								Centrifugal
1620	pumping	1"	~ 50	73.9	7.41	41.7	> 200	Brown
1630	pumping	-	~ 110	77.4	6.38	38.6	> 200	light brown
1640	pumping	-	~ 160	79.2	6.31	37.2	> 200	light brown
5/94 0805	pumping	0	165	79	7.5	100	off Scale	Dark Brown
0900			195	79	7.3	98	>200	
0930			225	79	6.9	99	>200	
1000			255	82	6.5	82	>200	
1030			285	82	6.8	95	>200	
1100			315	82	7.1	105	>200	
1130			345	82	7.0	100	>200	
1200			375	83	7.0	100	175	
1230			405	83	7.0	100	150	
1300			435	84	7.1	97	150	
1330			465	84	7.0	99	145	
1400			495	84	7.0	98	150	
1430			525	83	7.1	100	159	End Development for Day
1500			555	83	7.0	100	150	will continue
7/94 1200			560	85	7.8	70	off Scale	Dark Brown
1330			585	84	7.5	65	>200	
1400			615	83	7.5	60	>200	
1430			645	79	7.6	60	71	
1500			675	79	7.4	60	69	
1530			705	78	7.5	60	55	
1600			735	76	7.6	60	49	Stop Pump Because
EJD ~~1630~~			~~765~~	~~78~~	~~7.6~~	~~60~~	~~>200~~	of Rain

See Page 2

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-36I
DATE: 6/7/94
STATIC WATER LEVEL (ft): 9.35' btoc
WELL DESIGN DEPTH (ft): 55' bls
WELL VOLUME (gal): ~3.4 gal

TIME BEGAN: 1300
TIME ENDED: 2130
NUMBER OF DRUMS: N/A
DRUM DESIGNATIONS: 6/8/94 CEF-16 N/A

SITE NAME: Site 16
PROJECT: IRP US 1, 2, 7
PROJECT NUMBER: 8500.09
FIELD PERSONNEL: Ed Dowdy
SHEET NO. 2 OF 2

TIME	ACTIVITY (swab/surge, bailing, ~~pumping~~)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
								Restart Development
1730	Pumping	0	740	78	7.9	68	>200	Dark Brown
1800			770	78	7.8	65	>200	
1830			800	78	7.9	65	>200	
1900			830	78	7.9	65	>200	
1930			860	78	7.8	65	>200	
2000			890	78	7.8	65	136	Clearing
2030			920	78	7.5	50	76	
2100			950	78	7.5	50	80	
2130			980	78	7.5	50	88	Stop Development for Day
6/8/94 0800	Pumping	0	985	~~1015~~ 78	7.0	50	195	Clearing
0830			~~1045~~ 1015	78	6.5	50	135	
0900			~~1075~~ 1045	79	5.7	50	57.2	
0930			~~1105~~ 1075	79	5.5	50	50.0	
1000			~~1135~~ 1105	79	5.5	50	52.0	
1030			~~1165~~ 1135	78	5.5	50	50.2	
1100			1165	79	5.2	50	51.2	
1130			1195	79	5.1	50	39.0	
1200			1228	81	5.2	50	31.0	Completed Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF -16-37D
DATE: 5-22-94
STATIC WATER LEVEL (ft): 9.62' btoc
WELL DESIGN DEPTH (ft): 91' bls
WELL VOLUME (gal): ~ 11.34 gal

TIME BEGAN: 1310
TIME ENDED: 1410
NUMBER OF DRUMS: 8 N/A
DRUM DESIGNATIONS: N/A

SITE NAME: SITE 16
PROJECT: RI OUS 1,2,7
PROJECT NUMBER: 8500-09
FIELD PERSONNEL: A. Workman
SHEET NO. 1 OF 2

TIME	ACTIVITY (~~pump/surge, bailing, swabbing~~)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (~~deg. C~~ F)	pH	CONDUCTIVITY (~~microsiemens~~)	TURBIDITY (NTU)	REMARKS
1325	PUMPING		110 GAL	77.3°	7.44	415	>200	Centrifugal CLOUDY
1340	↓		220 GAL	77.2°	6.90	241	↓	↓
1355	↓		330 GAL	78.0°	6.91	240	↓	↓
1410	↓		440 GAL	78.0°	6.99	232	↓	↓

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-37D
DATE: 5/25/94
STATIC WATER LEVEL (ft): 9.62' btoc
WELL DESIGN DEPTH (ft): 91' bls
WELL VOLUME (gal): ~11.34 gal

TIME BEGAN: 0800
TIME ENDED: 1430
NUMBER OF DRUMS: ~~MPH~~ N/A
DRUM DESIGNATIONS: N/A

SITE NAME: Site 16
PROJECT: Rlous 1,2,7
PROJECT NUMBER: 8500-09
FIELD PERSONNEL: Ed Dowdy
SHEET NO. 2 OF 2

TIME	ACTIVITY (swab/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
0800	pump	11	5	78	6.6	420	offscale	Centrifugal
0900		0	35	78	6.5	410	>200	
1000		0	65	78	6.5	390	>200	
1100		0	95	79	6.3	375	100.0	
1130		0	110	79	6.3	402	45.0	
1200		0	125	81	6.4	462	19.0	
1230			140	79	6.2	400	20.5	
1300			155	79	6.1	408	18.2	
1330			170	79	6.3	405	12.0	
1400			185	80	6.0	400	10.9	
1430			200	81	6.0	400	10.0	Completed Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF 16 385
DATE: 5 4 94
STATIC WATER LEVEL (ft): 9.5' b/c
WELL DESIGN DEPTH (ft): 17' b/c
WELL VOLUME (gal): ~1 gal

TIME BEGAN: 0745
TIME ENDED: 0840
NUMBER OF DRUMS: 2
DRUM DESIGNATIONS: 5-5-94 CENCLA
CEF-16-385 Dev. H_2O

SITE NAME: Site 16
PROJECT: IR OU 127
PROJECT NUMBER: 8500 09
FIELD PERSONNEL: C. Brooks
SHEET NO. 1 OF 1

TIME	ACTIVITY (~~surge/surge, bailing, pumping~~)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
								Centrifugal
0755	pumping	0		69.8°F	5.74	97.8	7200	Brown
0805	pumping	0	45 ~~55~~ gal	72.4°F	5.67	81.7		Cloudy
0815	pumping	0	55 gal	72.3°F	5.67	76.6		Cloudy
0825	pumping	0	~80 gal	74.4°F	5.67	74.0		Cloudy
0835	pumping	0		74.6 F	5.65	72.7		Clearing up
0840	pump stopped		~100 gal					
5/26/94 0930	pumping	0	105 gal	77	5.5	250	Off Scale	
1000			135	78	5.6	225	" "	
1030			165	77	5.5	175	" "	
1100			195	77	5.2	200	" "	
1130			225	79	5.0	150	" "	
1200			255	80	5.0	150	1000	
1230			285	80	5.1	145	52.0	
1300			315	81	5.1	145	25.0	
1330			345	81	5.0	150	20.1	
1400			375	81	5.0	146	18.0	
1430			405	82	5.3	150	15.5	
1500			435	81	5.3	145	11.1	
1530			465	82	5.3	145	10.0	
1600			495	81	5.4	145	10.0	Completed Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF 16 39 I
DATE: 5 6 94
STATIC WATER LEVEL (ft): 9.5'6/4
WELL DESIGN DEPTH (ft): 55'6/4
WELL VOLUME (gal): ~6.4 gal

TIME BEGAN: 0830
TIME ENDED: 0936
NUMBER OF DRUMS: 6
DRUM DESIGNATIONS: 5-6-94 CERCLA
CEF-16-39I Drv. H2O

SITE NAME: Site 16
PROJECT: RI OU 1,3,7
PROJECT NUMBER:
FIELD PERSONNEL: C. Brooks
SHEET NO. 1 OF 1

TIME	ACTIVITY (~~surge~~/surge, bailing, ~~pumping~~)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS: Centrifugal
0840	pumping	–	55 gal	68.5°F	5.71	76.5	>200	Brown
0850	pumping	–	100 gal	73.0°F	5.54	66.5	>200	Lt. Brown
0900	pumping	–	140 gal	73.7°F	5.23	63.6	–	Cloudy
0910	pumping	–	190 gal	73.3°F	5.21	62.1	–	Cloudy
0920	pumping	–	285 gal	73.5°F	5.17	60.8	–	cloudy
0930	pumping	–	330 gal	74.5°F	5.17	61.4	–	cloudy
0936	pump stopped	–	360 gal	–	–	–	–	
0945	Pumping	0	365	80.9°F	6.0	~~469~~185	offScale	Park Brown
1015			370	80	6.9	150	>200	
1045			375	81	5.8	100	>200	
1115			380	81	5.6	105	>200	
1145			385	82	5.7	100	>200	
1215			390	84	5.6	99	>200	
1245			~~395~~ 420	83	5.5	102	>200	Parasaytic
1315			~~400~~ 450	83	5.0	100	offScale	Honda 2.2 pump
1345			~~405~~ 480	84	5.0	100	>200	
1410			~~410~~ 510	84	5.1	97	>200	
1445			~~415~~ 540	82	5.0	96	>200	
1510			~~420~~ 570	80	5.0	89	>200	
1545			~~42~~ 600	80	5.0	85	>200	
1610			630	81	5.1	80	>200	
1645			660	81	5.6	79	>200	
1710			690	80	5.0	77	>200	
1745			720	80	5.0	76	>200	
1810			750	80	5.0	76	>200	
1845			780	79	5.0	78	>200	End Development for Day will continue

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-39I
DATE: 6/14/94
STATIC WATER LEVEL (ft): 9.56/s
WELL DESIGN DEPTH (ft): 55.6/s
WELL VOLUME (gal): 6.49gl

TIME BEGAN: 1200
TIME ENDED:
NUMBER OF DRUMS: N/A
DRUM DESIGNATIONS: N/A

SITE NAME: Site 16
PROJECT: RI OUS 1,2,7
PROJECT NUMBER: 8500-09
FIELD PERSONNEL: Ed Powell
SHEET NO. 1 OF 2

TIME	ACTIVITY (swab/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
1200	pumping	0	785	98	7.0	80	off Scale	3 gal/min
1230			875	97	7.5	80	>200	
1300			965	97	7.0	75	>200	
1330			1055	97	6.7	70	>200	
1400			1145	97	6.5	60	>200	
1430			1235	98	6.4	60	>200	
1500			1325	98	6.5	60	>200	
1530			1415	97	6.5	60	>200	
1600			1505	97	6.5	60	>200	
1630			1595	98	6.5	60	>200	
1700			1625	97	6.5	60	>200	Slow Pumping Rate
1730			1655	97	6.5	60	>200	1 gal/min
1800			1685	95	6.0	60	175	← Rain
1830			1715	94	5.9	60	120	
6/15/94 0730	Pumping	0	1720	76	5.3	70	>200	
0800	Pumping	0	1750	76	5.5	70	>200	
0830	pumping	0	1780	76	5.5	70	7200	Stop Development for Day
6/16/94 1030	Pumping	0	1785	91	5.9	100	>200	
1100			1815	91	5.7	70	>200	
1130			1845	91	5.5	70	125	
1200			1875	91	5.5	60	100	
1230			1905	91	5.5	60	70	
1300			1935	91	5.6	60	60	
1330			1965	91	5.6	60	40	
1400			1995	91	5.[illegible]	60	40	

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-39I
DATE: 6/12/94
STATIC WATER LEVEL (ft): 9.5 bls
WELL DESIGN DEPTH (ft): 55 bls
WELL VOLUME (gal): 6.4 gal

TIME BEGAN: 6/12/94 1430
TIME ENDED:
NUMBER OF DRUMS: N/A
DRUM DESIGNATIONS: N/A

SITE NAME: Site 16
PROJECT: RI OUS 1,2,7
PROJECT NUMBER: 8500-09
FIELD PERSONNEL: Ed Dowdy
SHEET NO. 1 OF 3

TIME	ACTIVITY (swab/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS
1430	Pumping	0	2025	91	5.5	60	35	
1500			2055	91	5.4	60	30	
1530			2085	90	5.5	60	30	
1600			2115	90	5.5	60	25	
1630			2145	90	5.6	60	20	
1700			2175	90	5.5	60	15	Completed Development

MONITORING WELL DEVELOPMENT DATA

WELL: CEF-16-40 P
DATE: 5/24/94
STATIC WATER LEVEL (ft): ~9' btoc
WELL DESIGN DEPTH (ft): ~89' bls
WELL VOLUME (gal): ~11 gal

TIME BEGAN: 0900
TIME ENDED: 1730
NUMBER OF DRUMS: ~~NA~~ N/A
DRUM DESIGNATIONS: N/A

SITE NAME: Site 16
PROJECT: PT OU2 1,2,7
PROJECT NUMBER: 8500.09
FIELD PERSONNEL: Ed [illegible]
SHEET NO. 1 OF 1

TIME	ACTIVITY (swab/surge, bailing, pumping)	EST'D SEDIMENT THICKNESS (feet)	CUMMULATIVE WATER VOLUME (gallons)	TEMPERATURE (deg. C)	pH	CONDUCTIVITY (microsiemens)	TURBIDITY (NTU)	REMARKS Centrifugal
0900	Pumping	1'	5	81.9	6.0	467	off-scale	Dark Brown
0930			35	81.0	6.0	300	>200	
1000			65	82.2	6.1	225	>200	
1030			95	82.0	6.2	200	>200	
1100			125	83.0	6.0	195	>200	
1230			155	83	6.2	220	>200	
1300			185	83	6.1	175	>200	
1330			215	82	6.2	150	>200	
1400			245	83	6.2	145	>200	
1430			275	83	6.2	150	>200	
1500			305	82	6.3	150	>200	
1520			335	80	6.1	137	125	
1600			365	80	6.2	140	50	
1630			395	80	6.2	140	12.0	
1700			425	79	6.3	142	5.0	
1730			458	79	6.3	140	4.9	Completed Development

GROUNDWATER SAMPLING LOG

CLIENT NAS Cecil Field
SITE OU 7 - Site 16
WELL NUMBER CEF-16-5s
JOB NUMBER 8500-09

TOTAL WELL DEPTH 14.00 btoc
WELL DIAMETER 2-inches
BOREHOLE DIAMETER 6-inches

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 5.70'
STANDING WATER COLUMN (FT) 8.30'

AMT ONE WELL VOL (GAL) 1.16
TOTAL GAL TO BE PURGED 5.80

PURGING SYSTEM PERISTALTIC
SAMPLING SYSTEM BAILER

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(°C) °F	TURBIDITY(NTU)	PID(ppm)			
8-11-94	09:10	1	101	5.61	79.3	3.17	3.0		purged at .27 GPM	BT/RH
	0930	6	81	5.68	78.8	2.34	—			
	09:50	11	80	5.42	79.5	1.92	—			
	10:00	13.5	81	5.44	79.6	2.68	—			
	10:10	16	84	5.47	80.2	3.07	—		END PURGE	

NOTES:

FINAL TURBIDITY: Data Not Available
Installed ~~[illegible]~~ 1991

GROUNDWATER SAMPLING LOG

CLIENT NAS Cecil Field
SITE OU 7 - Site 16
WELL NUMBER CEF-16-7S
JOB NUMBER 8500-09

TOTAL WELL DEPTH 14. btoc
WELL DIAMETER 2-inches
BOREHOLE DIAMETER 6-inches

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 5.72'
STANDING WATER COLUMN (FT) 8.28'

AMT ONE WELL VOL (GAL) 1.16
TOTAL GAL TO BE PURGED 5.80

PURGING SYSTEM PERISTALTIC
SAMPLING SYSTEM BAILER

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(C°)	TURBIDITY(NTU)	PID(ppm)			
8-10-94	1345	1	160	5.96	83.2	10.40	0.8		PURGED AT 0.27 GAL/MIN	MP/BT
	1405	6	140	5.81	83.6	6.92	—			
	1425	11	130	5.73	82.9	4.71	—			
	1435	13.5 ~~10~~ BT	135	5.60	82.8	3.52	—			
	1445	16	128	5.53	82.9	3.18	—		END PURGE	

NOTES.

FINAL TURBIDITY: Data Not Available
Lost ed 1991

GROUNDWATE.. MPLING LOG

PAGE 1 OF 1

CLIENT ABB-ES/NAS CECIL FIELD
SITE SITE 16
WELL NUMBER CEF-16-9D
JOB NUMBER 8500-09

TOTAL WELL DEPTH 101.00
WELL DIAMETER 2" INCH
BOREHOLE DIAMETER 6" INCH

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) .14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 5.58'
STANDING WATER COLUMN (FT) 95.42'

AMT ONE WELL VOL (GAL) 13.36
TOTAL GAL TO BE PURGED 66.80

PURGING SYSTEM PERISTALTIC
SAMPLING SYSTEM BAILER

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(~~C~~ °F)	TURBIDITY(NTU)	PID(ppm)			
8-11-94	0830	1	94	5.84	77.1	11.8	1.2		PURGED AT .30 GAL/MIN	BT/RH
	09:00	11	92	5.63	77.7	11.14	—			
	0930	21	92	5.68	77.3	19.7	—			
	10:00	31	86	5.60	77.9	11.68	—			
	10:30	41	83	5.58	79.1	10.29	—			
	11:00	51	84	5.61	80.4	10.25	—			
	11:30	61	81	5.57	79.8	9.47	—			
	1200	71	83	5.56	81.2	9.03	—			
	1300	91	86	5.58	81.1	10.29	—		END PURGE	

NOTES:

FINAL TURBIDITY: DATA NOT AVAILABLE

INSTALLED 1991

GROUNDWATER SAMPLING LOG

CLIENT NAS Cecil Field
SITE OU 7 - Site 16
WELL NUMBER CEF-16-10S
JOB NUMBER 8500-09

TOTAL WELL DEPTH 14.
WELL DIAMETER 2-inches
BOREHOLE DIAMETER 6-inches

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) ——

STATIC WATER LEVEL (FT) 5.68'
STANDING WATER COLUMN (FT) 8.32'

AMT ONE WELL VOL (GAL) 1.16
TOTAL GAL TO BE PURGED 5.80

PURGING SYSTEM PERISTALTIC
SAMPLING SYSTEM BAILER

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(°C)	TURBIDITY(NTU)	PID(ppm)			
8-10-94	1100	1	290	6.33	81.2	20.3	8.7		PURGED AT .27 GAL/MIN	RT/NP
	1130	8.5	290	6.29	80.9	7.26	—			
	1140	11	300	6.21	81.3	5.04	—			
	1150	13.5	300	6.19	81.5	4.36	—			
	1200	16	310	6.14	81.7	3.84	—		END PURGE	

NOTES.

FINAL TURBIDITY: Data Not Available
Installed 1991

CLIENT NAS Cecil Field
SITE OU 7 - Site 16
WELL NUMBER CEF-16-1100
JOB NUMBER 8500-09

TOTAL WELL DEPTH 118.82
WELL DIAMETER 2-inches
BOREHOLE DIAMETER 6-inches

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) ——

STATIC WATER LEVEL (FT) 5.13'
STANDING WATER COLUMN (FT) 113.69

AMT ONE WELL VOL (GAL) 15.92
TOTAL GAL TO BE PURGED 79.60

PURGING SYSTEM PERISTALTIC
SAMPLING SYSTEM BAILER

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(F)	TURBIDITY(NTU)	PID(ppm)			
8-10-94	1050	1	520	7.18	81.6	1.91	4.1		PURGED AT .30 GAL/MIN	BT/MP
	1120	11	430	7.11	80.7	1.62	—			
	1150	21	430	7.05	81.5	1.35	—			
	1250 ~~1220~~	41 ~~31~~	440	7.07	82.9	4.10	—			
	1320	51	443	7.05	81.9	2.52	—			
	1355	61	440	7.06	83.2	2.29	—			
	1420	71	430	7.02	80.8	1.80	—			
	1450	81	430	7.01	81.1	2.68	—			
	1520	91	430	7.05	81.3	1.32	—		END PURGE	

NOTES:

FINAL TURBIDITY: 0.2
7/9/94

GROUNDWATER SAMPLING LOG

CLIENT: NAS Cecil Field
SITE: OU 7 - Site 16
WELL NUMBER: CEF-16-12I
JOB NUMBER: 8500-09

TOTAL WELL DEPTH: 81.23
WELL DIAMETER: 2-inches
BOREHOLE DIAMETER: 6-inches

MIN NUMBER WELL VOL TO BE PURGED: 5
VOL PER VERTICAL FT CASING (GAL): 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL): —

STATIC WATER LEVEL (FT): 5.61'
STANDING WATER COLUMN (FT): 75.62'

AMT ONE WELL VOL (GAL): 10.59
TOTAL GAL TO BE PURGED: 52.95

PURGING SYSTEM: PERISTALTIC
SAMPLING SYSTEM: BAILER

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED					COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(F)	TURBIDITY(NTU)	PID(ppm)		
8-11-94	0900	1	70	5.27	76.3	14.62	0.4	PURGED AT .30 GAL/MIN	DT/RH
	0930	11	62	5.23	77.6	13.75	—		
	10:00	21	59	5.11	78.3	23.8	—		
	10:30	31	61	5.10	79.9	17.33	—		
	11:00	41	59	5.14	80.4	14.87	—		
	11:30	51	58	5.10	80.4	17.38	—		
	1200	61	64	5.14	80.7	15.36	—		
	1300	81	60	5.10	82.2	13.98	—		
	1325	—						STOP PURGING DUE TO RAIN END PURGE SAMPLE WELL	

NOTES:

FINAL TURBIDITY: >200
7/10/94

GROUNDWATER SAMPLING LOG

CLIENT NAS Cecil Field
SITE OU7 - Site 16
WELL NUMBER CEF-16-13S
JOB NUMBER 8500-09

TOTAL WELL DEPTH 16.01 ft. btoc
WELL DIAMETER 2-inches
BOREHOLE DIAMETER 6-inches

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 5.12' btoc
STANDING WATER COLUMN (FT) 10.89

AMT ONE WELL VOL (GAL) 1.52
TOTAL GAL TO BE PURGED 7.6

PURGING SYSTEM peristaltic
SAMPLING SYSTEM bailer

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(~~C~~)	TURBIDITY(NTU)	PID(ppm)			
7/17/94	1045	1	70	6.9	~~90~~	109.0	0			EJD/DW
	10:52	2.8	60	5.4	~~90~~	47.0	—		Resampled at	
	~~10:58~~	~~4.6~~					—		request of E	
	11:02	5.3	55	5.1	~~97.6~~ 26.0	17.2	—		Blomberg	
	11:12	7.8	55	5.2	26.5	6.6	—			
	11:26	11.3	60	5.4	27	2.6	—		Collect Sample	

NOTES:

FINAL TURBIDITY: 8.5
DEVELOPMENT
5-22-94

GROUNDWATER SAMPLING LOG

CLIENT NAS Cecil Field
SITE OU7 - Site 16
WELL NUMBER CEF-16-14D
JOB NUMBER 8500-09

TOTAL WELL DEPTH 102.06
WELL DIAMETER 2-inches
BOREHOLE DIAMETER 6-inches

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 5.18
STANDING WATER COLUMN (FT) 96.88

AMT ONE WELL VOL (GAL) 13.56
TOTAL GAL TO BE PURGED 67.8

PURGING SYSTEM peristaltic
SAMPLING SYSTEM bailer

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(°C)	TURBIDITY(NTU)	PID(ppm)			
7/17/94	1047	1	110	5.85	25	16.6	0		1/4 gal per min	DW
	1058	3.75	105	5.81	~~97.2~~	16.7	—		Resampled at	
	1117	8.50	143	6.52	27	7.6	—		request of E.	
	1136	13.25	135	6.50	25	23.9	—		Blomberg	
	1155	18.00	130	6.14	25	14.6	—			
	1220	24.25	129	6.27	26	9.9	—			
	1320	39.25	125	6.01	25	8.0	—		Pumping Rate	
	1350	54.25	125	6.00	25	5.5	—	←	1/2 gal per min	
	1413	67 gal	120	5.95	25	5.0	—		Completed purge	

NOTES:

FINAL TURBIDITY: 12.2
DEVELOPMENT 6/1/94

CLIENT NAS Cecil Field
SITE OU7 Site 16
WELL NUMBER CEF-16-15S
JOB NUMBER 8500-09

TOTAL WELL DEPTH 10.38
WELL DIAMETER 2-inches
BOREHOLE DIAMETER 6-inches

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 4.89
STANDING WATER COLUMN (FT) 10.49

AMT ONE WELL VOL (GAL) 1.4
TOTAL GAL TO BE PURGED 7.3

PURGING SYSTEM Peristaltic
SAMPLING SYSTEM Bailer

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(C°)	TURBIDITY(NTU)	PID(ppm)			
7/12/94	1200	1	200	7.3	30	12.6	0			EJD
	1218	3.5	200	6.2	28	5.2	—			
	1220	5.5	200	6.5	28.5	~~0.9~~ 1.4	—			
	1225	6.75	199	6.33	28	0.9	—			
	12:31	8.25	197	6.35	28	0.8	—		END PURGE	

NOTES:

TURBIDITY: 5.0 NTU PER 5/24/94 DEVELOPMENT

GROUNDWATER SAMPLING LOG

CLIENT NAS CECIL FIELD
SITE SITE 16
WELL NUMBER CEF-16-16D
JOB NUMBER 8500-09

TOTAL WELL DEPTH 102.19
WELL DIAMETER 2"
BOREHOLE DIAMETER 6"

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 4.82
STANDING WATER COLUMN (FT) 97.37

AMT ONE WELL VOL (GAL) 13.63
TOTAL GAL TO BE PURGED 68.16

PURGING SYSTEM PERISTALTIC
SAMPLING SYSTEM BAILER

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(C°)	TURBIDITY(NTU)	PID(ppm)			
7-29-94	0740	1	130	5.99	26	22.0	1.1		PURGING REINITIATED	BB + BT
	0810	10	130	5.96	25	6.17	—		TO ATTAIN ≤ 5.0 NTU	
	0840	20	130	5.84	24	2.85	—		VALUE	
	0910	30	135	5.84	25	2.92	—			
	0940	40	140	5.91	26	2.54	—			
	1010	50	140	5.95	26	2.25	—			
	1040	60	140	5.87	27	2.21	—			
	1110	70	139	5.92	26	2.18	—		END PURGING	

NOTES:

TURBIDITY: 7.2 NTU AS OF 5-24-94 DEVELOPMENT

GROUNDWATER SAMPLING LOG

CLIENT NAS Cecil Field
SITE OU 7 - Site 16
WELL NUMBER CEF-16-175
JOB NUMBER 8500-09

TOTAL WELL DEPTH 17.41' btoc
WELL DIAMETER 2-inches
BOREHOLE DIAMETER 6-inches

MIN NUMBER WELL VOL TO BE PURGED —
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 5.42' btoc
STANDING WATER COLUMN (FT) 11.99

AMT ONE WELL VOL (GAL) 1.68
TOTAL GAL TO BE PURGED 8.4

PURGING SYSTEM peristaltic
SAMPLING SYSTEM bailer

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(C°)	TURBIDITY(NTU)	PID(ppm)			
07/17/94	0937	2	110	5.24	83.5	6.3	0		.29 gal/min	AF
	0945	4	80	5.28	88.8	3.2	—			
	~~0953~~ 1033	6.3	80	5.28	90.9	2.7	—		Resampled at	
	0959	8	80	5.53	91.8	2.2	—		request of E.	
	1010	11	80	5.40	92.8	1.9	—		Blomberg / NP	
									END PURGE	

NOTES:

FINAL TURBIDITY: 5.5 NTU
4-25-94

GROUNDWATER SAMPLING LOG

CLIENT NAS Cecil Field
SITE OU 7 - Site 16
WELL NUMBER CEF-16-18D
JOB NUMBER 8500-09

TOTAL WELL DEPTH 100.29
WELL DIAMETER 2-inches
BOREHOLE DIAMETER 6-inches

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 3.86'
STANDING WATER COLUMN (FT) 96.43'

AMT ONE WELL VOL (GAL) 13.50
TOTAL GAL TO BE PURGED 67.50

PURGING SYSTEM CENTRIFUGAL
SAMPLING SYSTEM BAILER

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(C°)	TURBIDITY(NTU)	PID(ppm)			
07/13/94 ~~0850~~	0850	1	460	5.4	84	12.3	0.0			DW
	0910	61	400	5.6	88	12.1	—			
	0926	109	400	6.70	90.8	3.3	—		Pumping Rate 3gal/min	
	0930	121	390	7.04	91.1	2.1	—			
	0935	136	300	6.53	91.5	2.0	—			

NOTES:

FINAL DEVELOPMENT TURBIDITY: 2.3 NTU
4-25-94

CLIENT AS CECIL FIELD
SITE SITE 16
WELL NUMBER CEF-16-19S
JOB NUMBER 8500-09

TOTAL WELL DEPTH 11.07 (FT, TOC)
WELL DIAMETER 2" INCH
BOREHOLE DIAMETER 6" INCH

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 5.92
STANDING WATER COLUMN (FT) 11.15

AMT ONE WELL VOL (GAL) 1.56
TOTAL GAL TO BE PURGED 7.81

PURGING SYSTEM PERISTALTIC
SAMPLING SYSTEM BAILER

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(C°)	TURBIDITY(NTU)	PID(ppm)			
7-29-94	0830	1	50	5.14	26	0.51	1.5			BB/BT
	0845	5	55	5.15	26	4.84	—			
	0900	10	61	4.97	27	1.06	—			
	0915	15	63	5.05	26	0.55	—			
	0930	20	65	5.15	27	0.37	—		END PURGING	

NOTES:

FINAL TURBIDITY: 2.3 NTU

5-24-94

GROUNDWATER SAMPLING LOG

CLIENT ~~ABB-ES~~/NAS CECIL FIELD
SITE SITE 16
WELL NUMBER CEF-16-20D
JOB NUMBER 8500.09

TOTAL WELL DEPTH 102.71' bTOC
WELL DIAMETER 2" INCH
BOREHOLE DIAMETER 6" INCH

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 5.68'
STANDING WATER COLUMN (FT) 97.03'

AMT ONE WELL VOL (GAL) 13.58
TOTAL GAL TO BE PURGED 67.90

PURGING SYSTEM PERISTALTIC
SAMPLING SYSTEM BAILER

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(F)	TURBIDITY(NTU)	PID(ppm)			
8-16-94	1210	1	152	6.43	78.1	10.67	0.7		WELL PURGED AT 0.30 GAL/MIN.	BT
	1240	10	129	6.19	77.3	6.18	0			
	1310	20	116	6.05	76.7	45.0	—			
	1340	30	114	6.07	76.2	20.9	—			
	1410	40	111	6.08	76.0	12.23	—			
	1440	50	112	6.04	76.1	10.41	—			
	1510	60	110	6.08	75.7	6.06	—			
	1540	70	111	6.11	75.9	4.97	—			
	1555	75	105	6.12	76.1	4.76	—		END PURGE	

NOTES:

FINAL TURBIDITY: 5.0

8-1-94

CLIENT NAS Cecil Field
SITE OU 7 - Site 16
WELL NUMBER CEF-16-215
JOB NUMBER 8500-09

TOTAL WELL DEPTH 17.3
WELL DIAMETER 2-inches
BOREHOLE DIAMETER 6-inches

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 7.37
STANDING WATER COLUMN (FT) 9.46

AMT ONE WELL VOL (GAL) 1.96
TOTAL GAL TO BE PURGED 9.8

PURGING SYSTEM Peristaltic Pump
SAMPLING SYSTEM bailer

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(C°)	TURBIDITY(NTU)	PID(ppm)			
7-18-94	1430	1	90	4.94	27.3	13.0	0		0.33 gal/min	DW
	1439	4	75	4.88	26.0	6.0	—			
	1450	7.5	68	4.83	29.0	6.1	—			
	1453	8.5	62	4.84	27.0	5.1	—			
	1500	10.5	62	4.84	28.2	5.1	—			
	1510	13.8	50.8	4.93	27.0	4.0	—			
	1530	20.3	60.0	4.87	28.0	2.20	—		Collect Sample	

NOTES:

FINAL TURBIDITY: 3.0 NTU

4-24-94

GROUNDWATER SAMPLING LOG

CLIENT NAS CECIL FIELD
SITE SITE 16
WELL NUMBER CEF-16-22I
JOB NUMBER 8500-09

TOTAL WELL DEPTH 34.55'
WELL DIAMETER 2"
BOREHOLE DIAMETER 6"

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 6.93
STANDING WATER COLUMN (FT) 27.62

AMT ONE WELL VOL (GAL) 3.87
TOTAL GAL TO BE PURGED 19.33

PURGING SYSTEM PERISTALTIC
SAMPLING SYSTEM BAILER

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(C°)	TURBIDITY(NTU)	PID(ppm)			
7-29-94	0850	1	45	5.06	26	13.23	0.4			BB & BT
	0920	10	50	5.23	25	36.1	—			
	0950	20	50	5.16	26	11.25	—			
	1020	30	50	5.06	26	8.31	—			
	1050	40	50	5.05	26	8.09	—			
	1120	50	40	5.09	27	7.27	—			
	1150	55	40	5.01	27	7.23	—			
	1220	60	50	4.96	27	7.27	—			
	1250	65	50	5.00	27	7.35	—			
	1310	70	47	5.03	27	7.60	—			
	1350	75	49	5.13	27	6.65	—			
	1420	80	50	5.19	26	6.31	—			
	1450	85	50	5.16	26	6.35	—			
	1520	90	50	5.14	26	6.44	—			

NOTES:

FINAL TURBIDITY: 6.5 NTU

4-27-9

CLIENT ABB-ES/NAS-CECIL FIELD
SITE SITE 16
WELL NUMBER CEF-16-22I
JOB NUMBER 8500-09

TOTAL WELL DEPTH 34.55
WELL DIAMETER 2" INCH
BOREHOLE DIAMETER 16" INCH

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 6.93
STANDING WATER COLUMN (FT) 27.62

AMT ONE WELL VOL (GAL) 3.87
TOTAL GAL TO BE PURGED 19.33

PURGING SYSTEM PERISTALTIC
SAMPLING SYSTEM BAILER

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(C)	TURBIDITY(NTU)	PID(ppm)			
7-29-94	1550	95	50	5.07	26	7.13	—			BB/BT
↓	1620	100	50	5.24	28	6.40	—			↓
↓	1650	105	50	5.12	27	6.55	—		END PURGING	↓

NOTES:

FINAL TURBIDITY: 6.5 NTU

4-27-94

GROUNDWATER SAMPLING LOG

CLIENT NAS Cecil Field
SITE OU 7 - Site 16
WELL NUMBER CEF-16-23D
JOB NUMBER 8500-09

TOTAL WELL DEPTH 99.26
WELL DIAMETER 2-inches
BOREHOLE DIAMETER 6-inches

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 7.45
STANDING WATER COLUMN (FT) 91.81

AMT ONE WELL VOL (GAL) 12.9
TOTAL GAL TO BE PURGED 64.3

PURGING SYSTEM peristaltic
SAMPLING SYSTEM bailer

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(C°)	TURBIDITY(NTU)	PID(ppm)			
19 Jul 94	1300	0	—	—	—	—	0		0.33 gal/min.	AF/DW
	1335	10	430	5.75	26	4.8	—			
	1440	20	~~45~~ 460	5.64	26	0.60	—			
	1605	~~45~~ 40	462	5.62	26.5	0.7	—			
	1730	50	460		26.0	0.9	—			

NOTES.

FINAL TURBIDITY: 3.2 NTU

4-24-94

CLIENT NAS Cecil Field
SITE OU7 - Site 16
WELL NUMBER CEF-16-23D
JOB NUMBER 8500-09

TOTAL WELL DEPTH 99.26
WELL DIAMETER 2-inches
BOREHOLE DIAMETER 6-inches

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 7.49
STANDING WATER COLUMN (FT) 91.77

AMT ONE WELL VOL (GAL) 12.85
TOTAL GAL TO BE PURGED 64.24

PURGING SYSTEM peristaltic
SAMPLING SYSTEM bailer

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(C°)	TURBIDITY(NTU)	PID(ppm)			
20 July 94	0805	50	—	—	—	—	0		Purge volume not reached	PW
	0912	72	441	6.65	23.5	0.1	—		yesterday. Volume will	
	0956	80	449	6.92	24.0	0.2	—		carry over from yesterday	
	1100	101	461	6.80	25.5	0.1	—		as per M.P. instructions	
	1123	108	465	6.82	25.6	0.00	—		Reached a purge volume	
									of 50 gal. yesterday	
									Starting pumping rate	
									is 0.33 gpm	
									PURGE HALTED AT 1123	

NOTES:

Final TURBIDITY: 3.2 NTU
4-24-94

GROUNDWATER SAMPLING LOG

CLIENT NAS Cecil Field
SITE OU 7 - Site 16
WELL NUMBER CEF-16-24s
JOB NUMBER 8500-09

TOTAL WELL DEPTH 16.99
WELL DIAMETER 2-inches
BOREHOLE DIAMETER 6-inches

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 7.60 BTC
STANDING WATER COLUMN (FT) 9.04

AMT ONE WELL VOL (GAL) 1.27
TOTAL GAL TO BE PURGED 6.4

PURGING SYSTEM Peristaltic
SAMPLING SYSTEM Bailer

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(C°)	TURBIDITY(NTU)	PID(ppm)			
13 July 94	1102	5	55.0	5.58	88.8	10.0	0		.25 gal/min	AF/EJD
	1117	9	51	5.76	89.3	8.8	—			AF/EJD
	1142	15	50	5.63	90.3	6.1	—			AF/EJD
	1150	17	51	5.29	91.1	3.0	—			AF/EJD
	1152	19	51	5.24	91.2	3.0	—			AF/EJD
	11:55	21	51.5	5.22	91.5	3.0	—		Completed Purge	AF/EJD

NOTES:

FINAL TURBIDITY: 1.1 NTU

5-23-94

GROUNDWATER SAMPLING LOG

CLIENT NAS Cecil Field
SITE OU 7 - Site 16
WELL NUMBER CEF-16-25
JOB NUMBER 8500-09

TOTAL WELL DEPTH 93.95
WELL DIAMETER 2-inches
BOREHOLE DIAMETER 6-inches

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 6.31' BTC
STANDING WATER COLUMN (FT) 87.37'

AMT ONE WELL VOL (GAL) 12.23
TOTAL GAL TO BE PURGED 61.2

PURGING SYSTEM Peristaltic
SAMPLING SYSTEM Bailer

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(C°)	TURBIDITY(NTU)	PID(ppm)			
13 July 94	1056	5	490	7.03	89.1	9.7	0		1 gal/4 min	AF/EJD
	1115	~~20~~ 9 (EJD)	470	7.03	89.3	6.1	—			AF/EJD
	1134	15	470	7.10	90.0	5.1	—			AF/EJD
	1213	24	465	6.91	92.7	1.0	—			
	1313	55	460	6.82	93.	1.1	—			
	1345	75	460	6.80	96	0.9	—		Completed purge	

NOTES:

FINAL TURBIDITY: 4.0

5-23-94

GROUNDWATER SAMPLING LOG

CLIENT NAS Cecil Field
SITE OU 7 - Site 16
WELL NUMBER CEF-16-2600
JOB NUMBER 8500-09

TOTAL WELL DEPTH 118.26
WELL DIAMETER 2-inches
BOREHOLE DIAMETER 6-inches

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 6.36' BTC
STANDING WATER COLUMN (FT) 111.56'

AMT ONE WELL VOL (GAL) ~~16~~ 15.62
TOTAL GAL TO BE PURGED 78.1

PURGING SYSTEM Centrifugal
SAMPLING SYSTEM Bailer

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(C°)	TURBIDITY(NTU)	PID(ppm)			
13 JULY 94	1045	2	310	6.59	88.0	30.9	0		2.2 gal/min	AF/EJD
	1049	30	455	7.08	88.6	23.7	—		Pumping rate 3 gal/min	AF/EJD
	1106	55	430	6.82	88.8	2.6	—			AF/EJD
	1115	65	440	7.12	89.3	2.2	—			AF/EJD
	1130	75	435	6.89	89.3	2.0	—			AF/EJD
↓	1145	85	440	7.13	89.4	1.2	—		Completed Purge	AF/EJD

NOTES:

FINAL TURBIDITY: 0.5 NTU

5-23-94

GROUNDWATER SAMPLING LOG

CLIENT NAS Cecil Field
SITE OU 7 - Site 16
WELL NUMBER CEF-16-27 I
JOB NUMBER 8500-09

TOTAL WELL DEPTH 34.74' TOC
WELL DIAMETER 2-inches
BOREHOLE DIAMETER 6-inches

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 7.11
STANDING WATER COLUMN (FT) 27.63

AMT ONE WELL VOL (GAL) 3.87
TOTAL GAL TO BE PURGED 19.35

PURGING SYSTEM PERISTALTIC
SAMPLING SYSTEM BAILER

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(F°)	TURBIDITY(NTU)	PID(ppm)			
8-8-94	1110	2	40	6.69	82.3	1.73	1.5		PUMPING @ .27 GAL/MIN	MP/BT
	1125	7	37	5.99	79.9	1.69	—			
	1145	12	39	5.72	79.2	1.81	—			
	1205	17	36	5.77	79.3	1.88	—			
	1225	22	37	5.65	79.9	1.78	—		END PURGING	✓

NOTES:

FINAL TURBIDITY: 10.0 NTU
6-6-94

GROUNDWATER SAMPLING LOG

CLIENT NAS Cecil Field
SITE OU 7 - Site 16
WELL NUMBER CEF-16-28D
JOB NUMBER 8500-09

TOTAL WELL DEPTH 98.69' TOC
WELL DIAMETER 2-inches
BOREHOLE DIAMETER 6-inches

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 5.89'
STANDING WATER COLUMN (FT) 92.80'

AMT ONE WELL VOL (GAL) 12.99
TOTAL GAL TO BE PURGED 64.95

PURGING SYSTEM PERISTALTIC
SAMPLING SYSTEM BAILER

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(F)	TURBIDITY(NTU)	PID(ppm)			
8-8-94	1110	2	400	6.82	79.9	2.02	BT ~~1.5~~ 0.9		PUMPING @ 1/3 GAL/MIN	MP/BT
	1125	7	400	6.18	80.4	2.20	—			
	1155	17	410	5.58	78.8	1.94	—			
	1225	27	410	5.71	79.5	1.73	—			
	1255	37	430	5.84	80.8	1.42	—			
	1325	47	425	6.00	80.4	1.75	—			
	1355	57	430	6.07	81.3	1.01	—			
	1455	77	410	5.96	80.2	1.46	—		END PURGING	

NOTES:

FINAL TURBIDITY: 5.0 NTU

6-6-0

145

GROUNDWATER SAMPLING LOG

CLIENT: NAS Cecil Field
SITE: OU 7 - Site 16
WELL NUMBER: CEF-16-29s
JOB NUMBER: 8500-09

TOTAL WELL DEPTH: 15.29
WELL DIAMETER: 2-inches
BOREHOLE DIAMETER: 6-inches

MIN NUMBER WELL VOL TO BE PURGED: 5
VOL PER VERTICAL FT CASING (GAL): 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL): —

STATIC WATER LEVEL (FT): 5.57
STANDING WATER COLUMN (FT): 9.72

AMT ONE WELL VOL (GAL): 1.36
TOTAL GAL TO BE PURGED: 6.80

PURGING SYSTEM: Peristaltic Pump
SAMPLING SYSTEM: Bailer

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED EC(µmhos)	pH	TEMP(C°)	TURBIDITY(NTU)	PID(ppm)		COMMENTS	SAMPLER
7-2-94	1420	1	40	5.33	32	56.4	3.5			BB & BT
	1435	6	48	5.62	30	66.7	—			
	1505	16	40	5.74	31	21.4	—			
	1535	26	45	5.58	30	13.96	—		SLOW DOWN PURGE RATE	
	1605	31 ~~36~~ BT	50	5.41	31	6.16	—			
	1635	36 ~~46~~ BT	45	5.50	32	5.82	✓			
	1705	41 ~~56~~ BT	50	5.50	31	5.13	—			
	1735	46 ~~66~~ BT	50	5.92	31	5.05	—			
	1805	51 ~~76~~ BT	50	5.53	31	4.84	—		END PURGING	

NOTES:

FINAL TURBIDITY: 15.0 NTU
7/6/94

GROUNDWATER SAMPLING LOG

PAGE 1 OF 1

CLIENT NAS Cecil Field
SITE OU 7 - Site 16
WELL NUMBER CEF-16-310D
JOB NUMBER 8500-09

TOTAL WELL DEPTH 106.64
WELL DIAMETER 2-inches
BOREHOLE DIAMETER 6-inches

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 4.26'
STANDING WATER COLUMN (FT) 102.38'

AMT ONE WELL VOL (GAL) 14.33
TOTAL GAL TO BE PURGED 71.65

PURGING SYSTEM PARASALTIC
SAMPLING SYSTEM BAILER

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(C°)	TURBIDITY(NTU)	PID(ppm)			
3-2-94	1045	1	490	6.79	29	3.15	4.7			BB/BT
	1130	16	~~360~~ 460 BT	7.04	27	0.18	—			
	1200	21	463	7.00	27	0.13	—			
	1230	31	451	7.02	27	0.20	—			
	1300	41	470	6.76	27	0.21	—			
	1330	51	452	6.88	28	0.18	—			
	1400	61	467	6.97	27	0.12	—			
	1430	71	490	6.68	29	0.50	—			
	1500	81	480	6.78	28	0.49	—		END PURGE	

NOTES:

FINAL TURBIDITY: 4.3

~~6/16/94~~ 7/8

GROUNDWATER SAMPLING LOG

CLIENT NAS Cecil Field
SITE OU 7 - Site 16
WELL NUMBER CEF-16-32s
JOB NUMBER 8500-09

TOTAL WELL DEPTH 17.00'
WELL DIAMETER 2-inches
BOREHOLE DIAMETER 6-inches

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 6.40'
STANDING WATER COLUMN (FT) 10.60'

AMT ONE WELL VOL (GAL) 1.48
TOTAL GAL TO BE PURGED 7.40

PURGING SYSTEM PERISTALTIC
SAMPLING SYSTEM BAILER

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(F)	TURBIDITY(NTU)	PID(ppm)			
8-8-94	1440	1	60	5.87	87.2	6.09	8.2	~~8.2~~ BT	PUMPING @ 0.27 GAL/MIN	MP/BT
	1455	5	63	5.68	83.5	2.51	—			
	1505 (BT) ~~1510~~	7	59	5.51	82.7	2.23	—			
	1510	8.5	59	5.29	82.4	1.88	—			
	1517	10	59	5.18	82.7	1.78	—		END PURGE	

NOTES:

FINAL TURBIDITY: 10.0 NTU

6-9-94

APPENDIX H

APPENDIX H

HYDRAULIC CONDUCTIVITY TESTING RESULTS

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/02/95 10:30:53

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TEST DESCRIPTION

Data set...........
Data set title..... CEF-16-11DD RUN NO. 4

Knowns and Constants:
No. of data points.................. 51
Pumping rate........................ 1
Radius (distance) to obs. well...... 0.08333

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ANALYTICAL METHOD

Cooper et al. (Confined Aquifer Slug Test)

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RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

	Estimate		Std. Error
T =	6.5740E-002	+/-	4.1195E-002
S =	3.1504E-004	+/-	1.3958E-003

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
Number of residuals............... 51
Number of estimated parameters.... 2
Degrees of freedom................ 49
Residual mean..................... 0.02194
Residual standard deviation....... 0.1569
Residual variance................. 0.02461

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0266	1.515	0.80563	0.70937	1
0.03	0.964	0.7886	0.1754	1
0.0333	0.822	0.77276	0.049237	1
0.05	0.93	0.70103	0.22897	1
0.0666	0.335	0.64042	-0.30542	1
0.0833	0.237	0.58749	-0.35049	1
0.1	0.541	0.54095	4.513E-005	1
0.1166	0.708	0.4999	0.2081	1
0.1333	0.658	0.463	0.195	1
0.15	0.43	0.42986	0.00013953	1
0.1666	0.123	0.40014	-0.27714	1
0.1833	0.174	0.37305	-0.19905	1
0.2	0.392	0.34845	0.043551	1
0.2166	0.484	0.32616	0.15784	1
0.2333	0.465	0.30568	0.15932	1
0.25	0.338	0.28694	0.051064	1
0.2666	0.177	0.26984	-0.092837	1
0.2833	0.018	0.25402	-0.23602	1
0.3	0.113	0.23946	-0.12646	1
0.3166	0.161	0.22611	-0.065107	1
0.3333	0.158	0.21369	-0.055694	1
0.4166	0.199	0.16409	0.034905	1
0.5	0.012	0.12934	-0.11734	1
0.5833	0.066	0.10436	-0.038362	1
0.6666	0.088	0.085961	0.0020391	1
0.75	0.05	0.072099	-0.022099	1
0.8333	0.075	0.061479	0.013521	1
0.9166	0.066	0.05319	0.01281	1
1	0.063	0.046606	0.016394	1
1.0833	0.06	0.041312	0.018688	1
1.1666	0.066	0.036991	0.029009	1
1.25	0.072	0.033413	0.038587	1
1.3333	0.063	0.030425	0.032575	1
1.4166	0.06	0.027897	0.032103	1
1.5	0.056	0.025735	0.030265	1
1.5833	0.069	0.023873	0.045127	1
1.6666	0.063	0.022254	0.040746	1
1.75	0.053	0.020834	0.032166	1
1.8333	0.063	0.019582	0.043418	1
1.9166	0.06	0.018469	0.041531	1
2	0.06	0.017474	0.042526	1
2.5	0.056	0.013194	0.042806	1
3	0.063	0.010591	0.052409	1
3.5	0.063	0.0088404	0.05416	1
4	0.056	0.0075834	0.048417	1
4.5	0.063	0.0066372	0.056363	1
5	0.056	0.0058998	0.0501	1
5.5	0.066	0.0053091	0.060691	1
6	0.06	0.0048256	0.055174	1
6.5	0.056	0.0044226	0.051577	1
7	0.053	0.0040817	0.048918	1

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RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

		Estimate
T	=	6.5740E-002
S	=	3.1504E-004

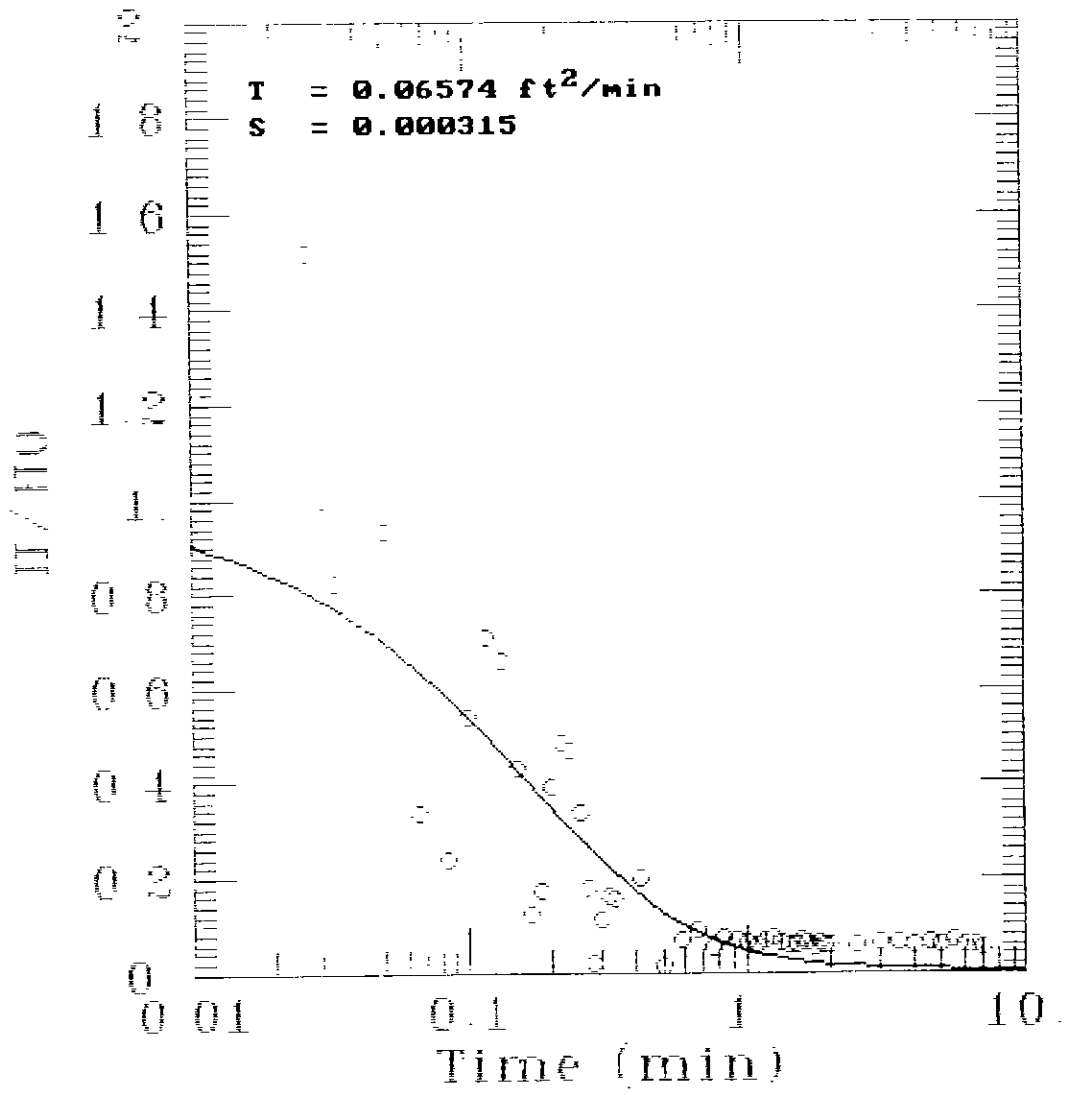
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

T = 6.57404E-002
S = 3.15038E-004

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E-002	9.034E-001	1.122E-002	8.950E-001	1.259E-002	8.860E-001
1.413E-002	8.761E-001	1.585E-002	8.654E-001	1.778E-002	8.539E-001
1.995E-002	8.414E-001	2.239E-002	8.279E-001	2.512E-002	8.133E-001
2.818E-002	7.976E-001	3.162E-002	7.807E-001	3.548E-002	7.626E-001
3.981E-002	7.433E-001	4.467E-002	7.226E-001	5.012E-002	7.006E-001
5.623E-002	6.772E-001	6.310E-002	6.525E-001	7.079E-002	6.264E-001
7.943E-002	5.991E-001	8.913E-002	5.706E-001	1.000E-001	5.410E-001
1.122E-001	5.103E-001	1.259E-001	4.789E-001	1.413E-001	4.468E-001
1.585E-001	4.143E-001	1.778E-001	3.816E-001	1.995E-001	3.491E-001
2.239E-001	3.170E-001	2.512E-001	2.857E-001	2.818E-001	2.554E-001
3.162E-001	2.264E-001	3.548E-001	1.991E-001	3.981E-001	1.736E-001
4.467E-001	1.502E-001	5.012E-001	1.289E-001	5.623E-001	1.099E-001
6.310E-001	9.318E-002	7.079E-001	7.861E-002	7.943E-001	6.611E-002
8.913E-001	5.551E-002	1.000E+000	4.661E-002	1.122E+000	3.920E-002
1.259E+000	3.307E-002	1.413E+000	2.801E-002	1.585E+000	2.384E-002
1.778E+000	2.039E-002	1.995E+000	1.753E-002	2.239E+000	1.513E-002
2.512E+000	1.312E-002	2.818E+000	1.141E-002	3.162E+000	9.952E-003
3.548E+000	8.702E-003	3.981E+000	7.624E-003	4.467E+000	6.693E-003
5.012E+000	5.884E-003	5.623E+000	5.181E-003	6.310E+000	4.568E-003
7.079E+000	4.032E-003	7.943E+000	3.563E-003	8.913E+000	3.152E-003

CEF-16-11DD RUN NO. 4



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/01 14:29

Unit# 00001 Test 0

Setups: INPUT 1

Type	Level(F)
Mode	TOC
I.D.	00004

Reference	0.000
Linearity	0.040
Scale Factor	10.010
Offset	−0.090
Delay mSEC	50.000

CEF−16−11DD RUN 4

Step 0 10/31 12:43:22

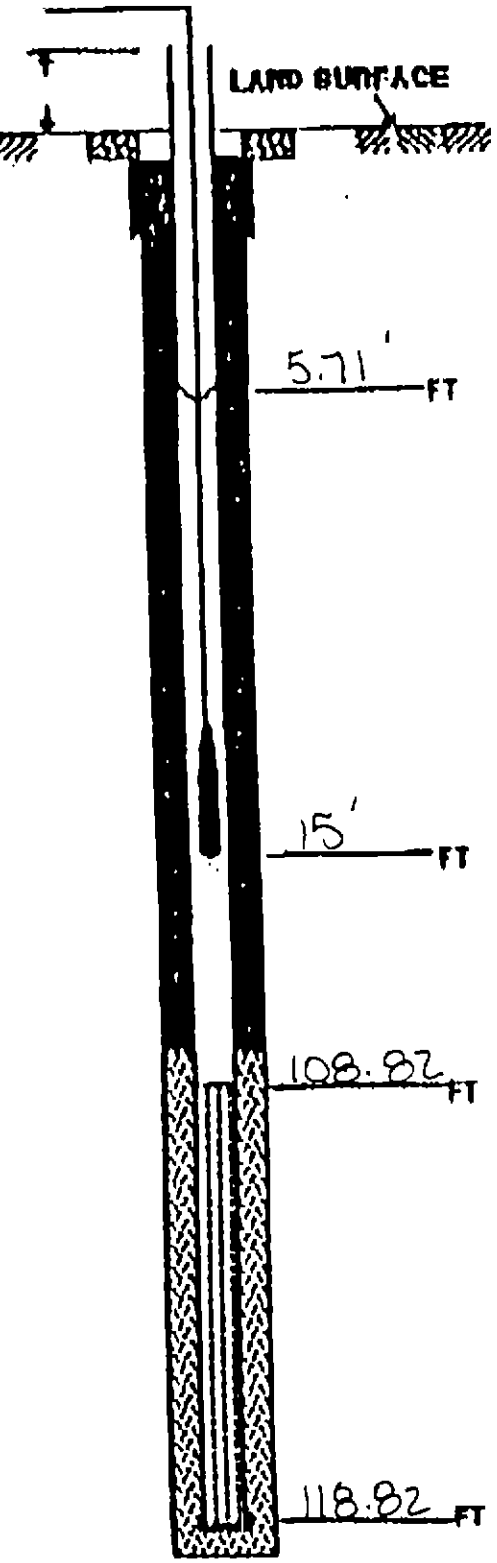
Elapsed Time	INPUT 1
0.0000	0.018
0.0033	0.075
0.0066	0.658
0.0100	0.395
0.0133	0.847
0.0166	0.990
0.0200	0.771
0.0233	0.658
0.0266	1.515
0.0300	0.964
0.0333	0.822
0.0500	0.930
0.0666	0.335
0.0833	−0.237
0.1000	−0.541
0.1166	−0.708
0.1333	−0.658
0.1500	−0.430
0.1666	−0.123
0.1833	0.174
0.2000	0.392
0.2166	0.484
0.2333	0.465
0.2500	0.338
0.2666	0.177
0.2833	0.018
0.3000	−0.113
0.3166	−0.161
0.3333	−0.158
0.4166	0.199
0.5000	0.012

CEF-16-11DD RUN 4
(CON'T)

Step 0 10/31 12:43:22

Elapsed Time	INPUT 1
0.5833	0.066
0.6666	0.088
0.7500	0.050
0.8333	0.075
0.9166	0.066
1.0000	0.063
1.0833	0.060
1.1666	0.066
1.2500	0.072
1.3333	0.063
1.4166	0.060
1.5000	0.056
1.5833	0.069
1.6666	0.063
1.7500	0.053
1.8333	0.063
1.9166	0.060
2.0000	0.060
2.5000	0.056
3.0000	0.063
3.5000	0.063
4.0000	0.056
4.5000	0.063
5.0000	0.056
5.5000	0.066
6.0000	0.060
6.5000	0.056
7.0000	0.053
7.5000	0.053
8.0000	0.047
8.5000	0.060
9.0000	0.063
9.5000	0.050
10.0000	0.063

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU'S 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-11DD PUMPING WELL ——

DATE 10.31.94 TIME 1250

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R-1-10 R2-10 MIN. R3-10 R-4-10

TIME OF INSTALLATION 1250

STATIC DEPTH TO WATER 5.71' FT. —— PSI

DEPTH OF TRANSDUCER 15' bTOC

CALIBRATION

13' DEPTH 6.95 FT —— PSI

14' DEPTH 7.94 FT —— PSI

15' DEPTH 8.93 FT —— PSI

CLOCKS SYNCHRONIZED? ——

STATIC DEPTH TO WATER 5.71' bTOC

TIME PUMPING STARTS ——

—— VERIFICATION OF DATA ACQUISITION (HR)

—— VERIFICATION OF DATA ACQUISITION (HR)

—— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER —— FT —— PSI

TIME PUMPING STOPS ——

MAXIMUM RECOVERY DEPTH TO WATER —— FT —— PSI

END RECOVERY ——

RECALIBRATION OF TRANSDUCER

DEPTH —— FT —— PSI

DEPTH —— FT —— PSI

DEPTH —— FT —— PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/02/95 10:39:32

===

TEST DESCRIPTION

Data set...........
Data set title..... CEF-16-12I RUN NO. 5

Knowns and Constants:
No. of data points.................. 44
Radius of well casing............... 0.08333
Radius of well...................... 0.25
Aquifer saturated thickness......... 100
Well screen length.................. 10
Static height of water in well...... 74.96
Log(Re/Rw).......................... 3.19
A, B, C............................. 2.760, 0.448, 0.000

===

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

===

RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

	Estimate		Std. Error
K =	2.8568E-002	+/-	9.3951E-004
y0 =	5.2551E+000	+/-	1.8808E-001

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
Number of residuals................ 44
Number of estimated parameters.... 2
Degrees of freedom................ 42
Residual mean..................... 0.02689
Residual standard deviation....... 0.052
Residual variance................. 0.002703

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.03	2.384	2.4241	-0.040088	1
0.0333	2.261	2.2263	0.034694	1
0.05	1.547	1.4472	0.099807	1
0.0666	0.881	0.94317	-0.062166	1
0.0833	0.495	0.6131	-0.1181	1
0.1	0.325	0.39854	-0.07354	1
0.1166	0.262	0.25974	0.0022631	1
0.1333	0.224	0.16884	0.05516	1
0.15	0.189	0.10975	0.079247	1
0.1666	0.167	0.071528	0.095472	1
0.1833	0.139	0.046497	0.092503	1
0.2	0.116	0.030225	0.085775	1
0.2166	0.097	0.019698	0.077302	1
0.2333	0.094	0.012805	0.081195	1
0.25	0.082	0.0083235	0.073676	1
0.2666	0.078	0.0054246	0.072575	1
0.2833	0.056	0.0035262	0.052474	1
0.3	0.05	0.0022922	0.047708	1
0.3166	0.05	0.0014939	0.048506	1
0.3333	0.056	0.00097108	0.055029	1
0.4166	0.044	0.00011329	0.043887	1
0.5	0.022	1.3184E-005	0.021987	1
0.5833	0.028	1.5381E-006	0.027998	1
0.6666	0.028	1.7945E-007	0.028	1
0.75	0.015	2.0881E-008	0.015	1
0.8333	0.015	2.4362E-009	0.015	1
0.9166	0.022	2.8422E-010	0.022	1
1	0.022	3.3074E-011	0.022	1
1.0833	0.009	3.8587E-012	0.009	1
1.1666	0.015	4.5018E-013	0.015	1
1.25	0.025	5.2386E-014	0.025	1
1.3333	0.018	6.1117E-015	0.018	1
1.4166	0.009	7.1304E-016	0.009	1
1.5	0.012	8.2974E-017	0.012	1
1.5833	0.034	9.6803E-018	0.034	1
1.6666	0.015	1.1294E-018	0.015	1
1.75	0.015	1.3142E-019	0.015	1
1.8333	0.022	1.5333E-020	0.022	1
1.9166	0.015	1.7888E-021	0.015	1
2	0.009	2.0816E-022	0.009	1
2.5	0.006	5.2221E-028	0.006	1
3	0.006	1.3101E-033	0.006	1
3.5	0.012	3.2866E-039	0.012	1
4	0.006	8.2453E-045	0.006	1

==========

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
K =	2.8568E-002
y0 =	5.2551E+000

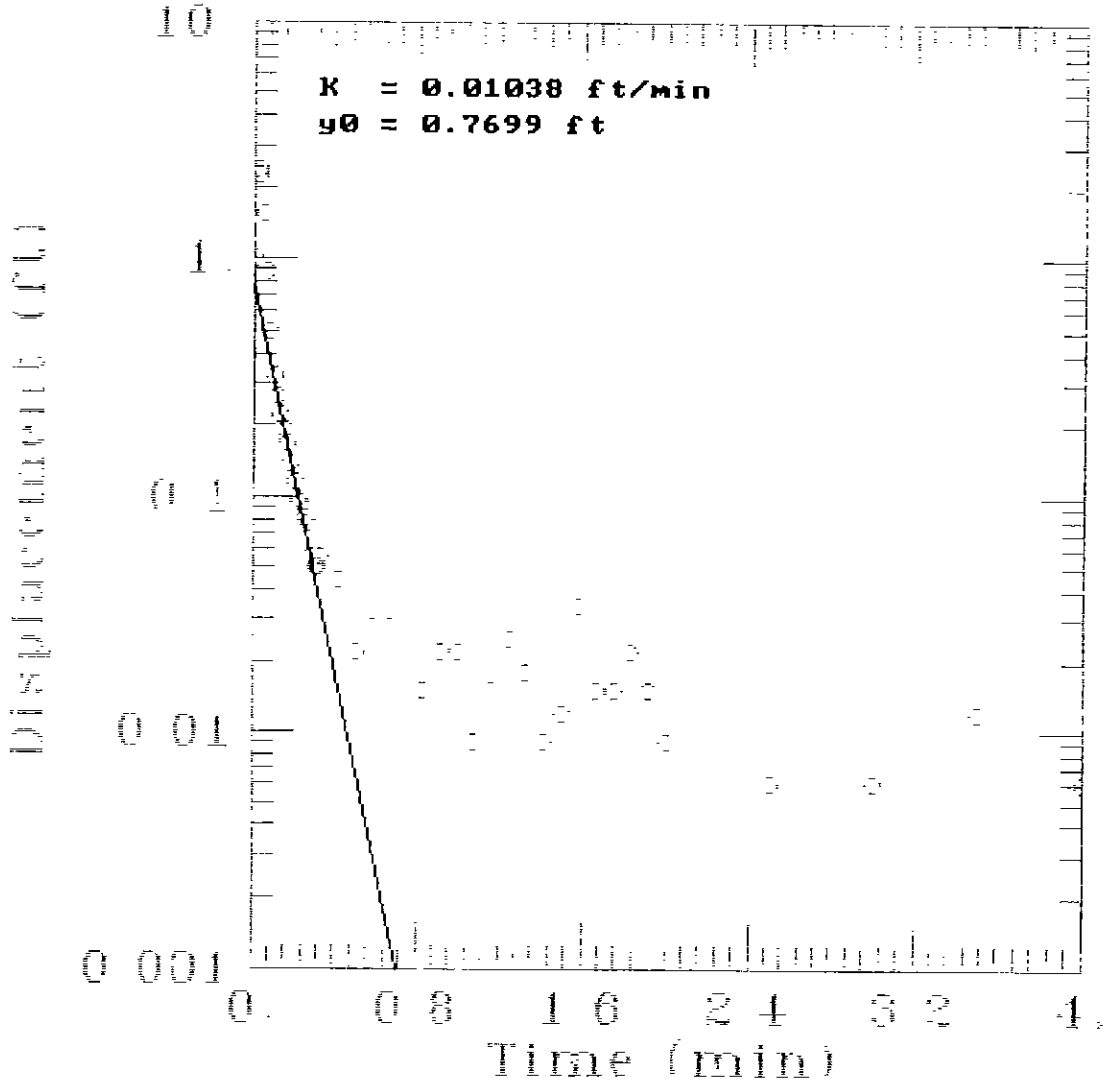
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

TYPE CURVE DATA

K = 1.03792E-002
y0 = 7.69850E-001

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	7.699E-001	4.000E+000	4.060E-017		

CEF-16-12I RUN NO. 5



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/07 16:35

Unit# 00001 Test 1

Setups: INPUT 1

Type Level (F)
Mode TOC
I.D. 00000

Reference 0.000
Linearity 0.050
Scale factor 9.990
Offset 0.020
Delay mSEC 50.000

CEF-16-12I RUN 5

Step 0 11/07 14:10:33

Elapsed Time INPUT 1

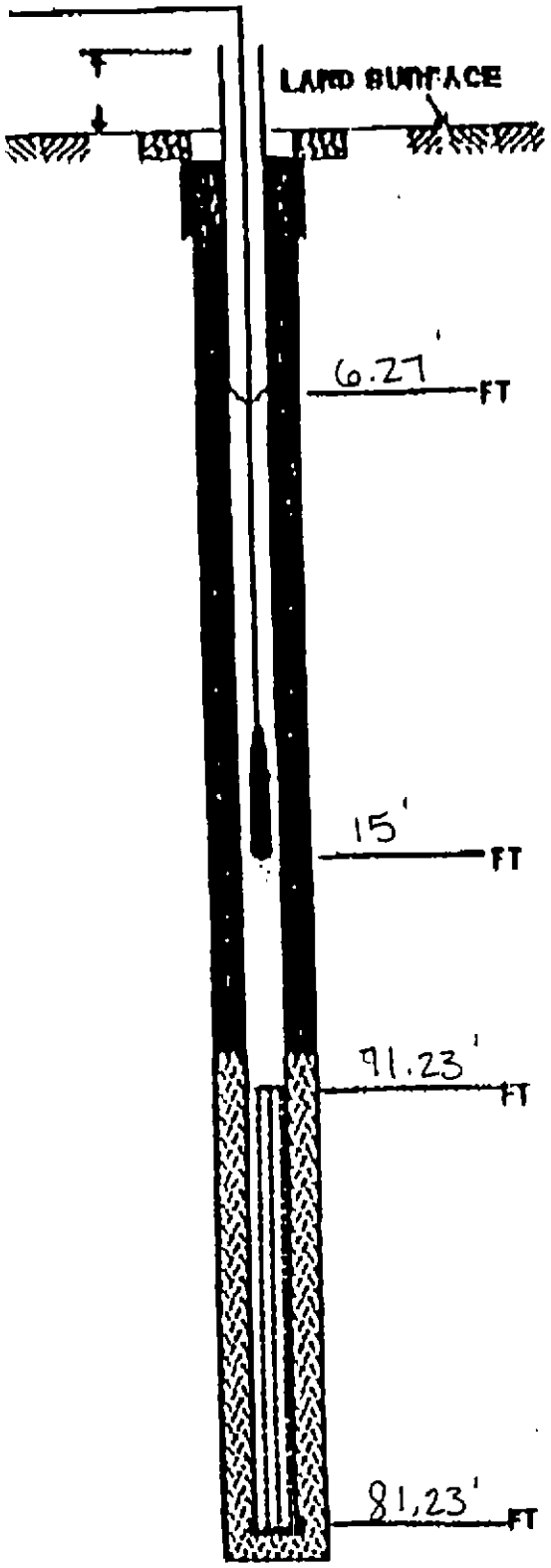
0.0000	0.006
0.0033	0.006
0.0066	1.010
0.0100	0.758
0.0133	1.468
0.0166	1.351
0.0200	1.320
0.0233	1.557
0.0266	2.141
0.0300	2.384
0.0333	2.261
0.0500	1.547
0.0666	0.881
0.0833	0.495
0.1000	0.325
0.1166	0.262
0.1333	0.224
0.1500	0.189
0.1666	0.167
0.1833	0.139
0.2000	0.116
0.2166	0.097
0.2333	0.094
0.2500	0.082
0.2666	0.078
0.2833	0.056
0.3000	0.050
0.3166	0.050
0.3333	0.056
0.4166	0.044
0.5000	0.022

CEF-16-12I RUN 5
(CON'T)

Step 0 11/07 14:10:33

Elapsed Time	INPUT 1
0.5833	0.028
0.6666	0.028
0.7500	0.015
0.8333	0.015
0.9166	0.022
1.0000	0.022
1.0833	0.009
1.1666	0.015
1.2500	0.025
1.3333	0.018
1.4166	0.009
1.5000	0.012
1.5833	0.034
1.6666	0.015
1.7500	0.015
1.8333	0.022
1.9166	0.015
2.0000	0.009
2.5000	0.006
3.0000	0.006
3.5000	0.012
4.0000	0.006
4.5000	0.000
5.0000	0.012
5.5000	0.003
6.0000	0.012
6.5000	0.009
7.0000	0.009
7.5000	0.006
8.0000	0.000
8.5000	0.015
9.0000	0.009
9.5000	0.012
10.0000	0.022
11.0000	0.012
12.0000	0.009

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU's 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-12I PUMPING WELL —

DATE 11.7.94 TIME 1346

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE (15) ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R4- 11 MIN R5- 12

TIME OF INSTALLATION 1346

STATIC DEPTH TO WATER 6.27' FT. — PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 6.64' FT — PSI

14' DEPTH 7.64' FT — PSI

15' DEPTH 8.64' FT — PSI

CLOCKS SYNCHRONIZED? —

STATIC DEPTH TO WATER 6.27' btoc

TIME PUMPING STARTS —

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER — FT — PSI

TIME PUMPING STOPS —

MAXIMUM RECOVERY DEPTH TO WATER — FT — PSI

END RECOVERY —

RECALIBRATION OF TRANSDUCER

DEPTH — FT — PSI

DEPTH — FT — PSI

DEPTH — FT — PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/02/95 14:35:01

TEST DESCRIPTION

```
Data set...........
Data set title..... CEF-16-13S RUN NO. 3

Knowns and Constants:
   No. of data points.................. 46
   Radius of well casing............... 0.08333
   Radius of well...................... 0.25
   Aquifer saturated thickness......... 100
   Well screen length.................. 10
   Static height of water in well...... 11.56
   Log(Re/Rw).......................... 2.372
   A, B, C.............................  2.760,  0.448,  0.000
```

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

```
         Estimate          Std. Error
  K  =   2.4957E-003 +/-   6.4991E-005
  y0 =   1.5019E+000 +/-   2.1556E-002
```

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

```
Weighted Residual Statistics:
   Number of residuals............... 46
   Number of estimated parameters.... 2
   Degrees of freedom................ 44
   Residual mean..................... 0.0096
   Residual standard deviation....... 0.03502
   Residual variance................. 0.001227
```

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0333	1.531	1.3577	0.17328	1
0.05	1.297	1.2907	0.0062901	1
0.0666	1.215	1.2274	-0.012381	1
0.0833	1.136	1.1668	-0.030806	1
0.1	1.082	1.1092	-0.027221	1
0.1166	1.025	1.0548	-0.029797	1
0.1333	0.968	1.0027	-0.034739	1
0.15	0.93	0.95325	-0.023251	1
0.1666	0.886	0.90648	-0.02048	1
0.1833	0.835	0.86174	-0.026742	1
0.2	0.797	0.81921	-0.022213	1
0.2166	0.759	0.77902	-0.020018	1
0.2333	0.721	0.74057	-0.019571	1
0.25	0.693	0.70402	-0.011022	1
0.2666	0.651	0.66948	-0.018479	1
0.2833	0.626	0.63644	-0.010438	1
0.3	0.601	0.60503	-0.0040279	1
0.3166	0.566	0.57534	-0.0093422	1
0.3333	0.547	0.54695	5.2665E-005	1
0.4166	0.439	0.42492	0.014082	1
0.5	0.354	0.33001	0.023986	1
0.5833	0.281	0.25638	0.024615	1
0.6666	0.234	0.19918	0.034817	1
0.75	0.193	0.1547	0.038304	1
0.8333	0.158	0.12018	0.037818	1
0.9166	0.132	0.093368	0.038632	1
1	0.11	0.072515	0.037485	1
1.0833	0.091	0.056336	0.034664	1
1.1666	0.075	0.043767	0.031233	1
1.25	0.063	0.033992	0.029008	1
1.3333	0.056	0.026408	0.029592	1
1.4166	0.047	0.020516	0.026484	1
1.5	0.041	0.015934	0.025066	1
1.5833	0.037	0.012379	0.024621	1
1.6666	0.031	0.009617	0.021383	1
1.75	0.031	0.0074691	0.023531	1
1.8333	0.022	0.0058026	0.016197	1
1.9166	0.022	0.004508	0.017492	1
2	0.022	0.0035012	0.018499	1
2.5	0.006	0.00076932	0.0052307	1
3	0.006	0.00016904	0.005831	1
3.5	0.006	3.7144E-005	0.0059629	1
4	0.009	8.1618E-006	0.0089918	1
5	0.003	3.9407E-007	0.0029996	1
5.5	0.003	8.659E-008	0.0029999	1
6	0.003	1.9027E-008	0.003	1

==========

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
K =	2.4957E-003
y0 =	1.5019E+000

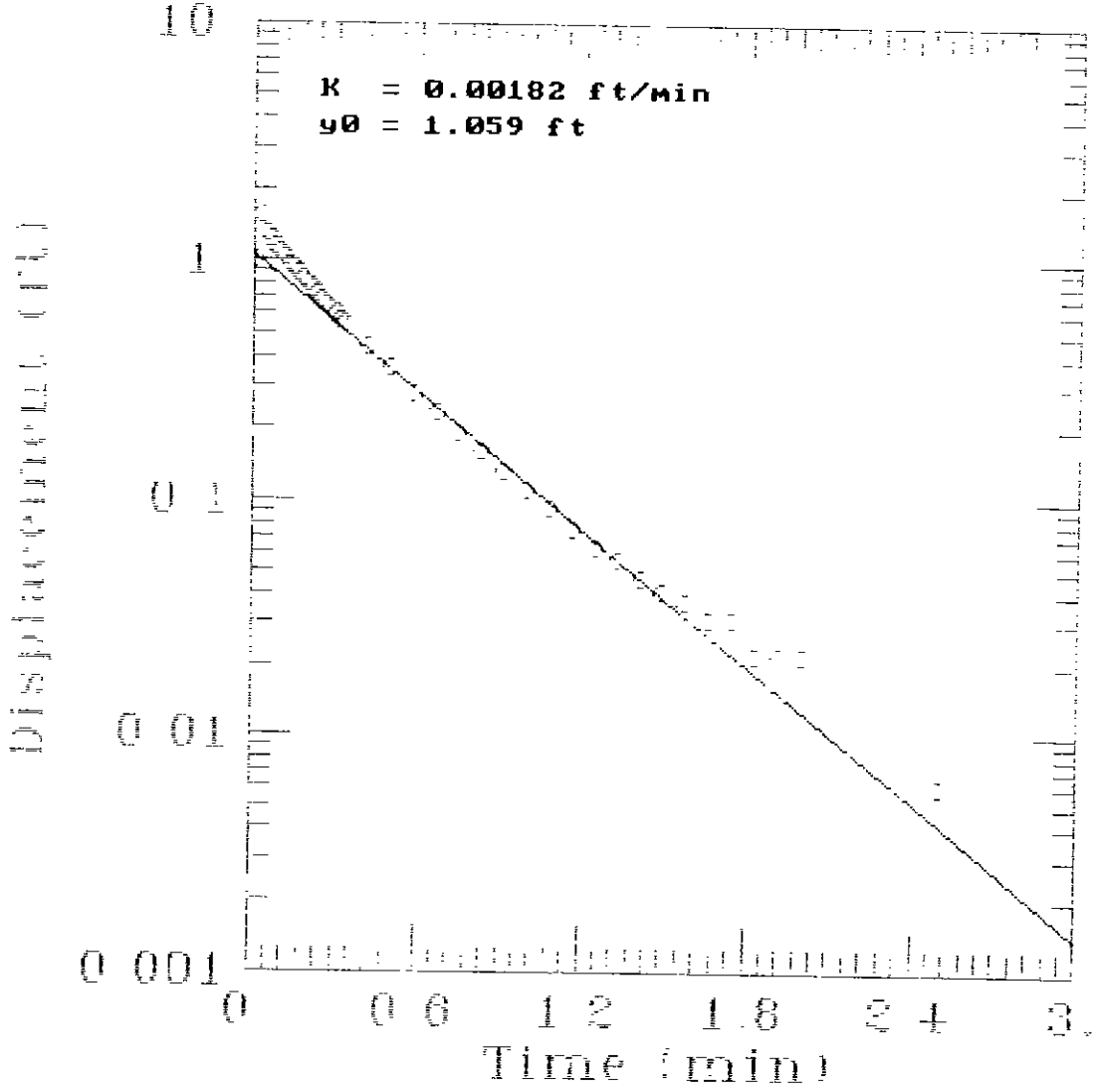
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>

TYPE CURVE DATA

K = 1.82032E-003
y0 = 1.05880E+000

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	1.059E+000	3.000E+000	1.396E-003		

CEF-16-13S RUN NO. 3



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/01 14:29

Unit# 00001 Test 0

Setups: INPUT 1

Type	Level(F)
Mode	TOC
I.D.	00004

Reference	0.000
Linearity	0.040
Scale Factor	10.010
Offset	−0.090
Delay mSEC	50.000

CEF−16−13S RUN 3

Step 0 11/01 07:07:58

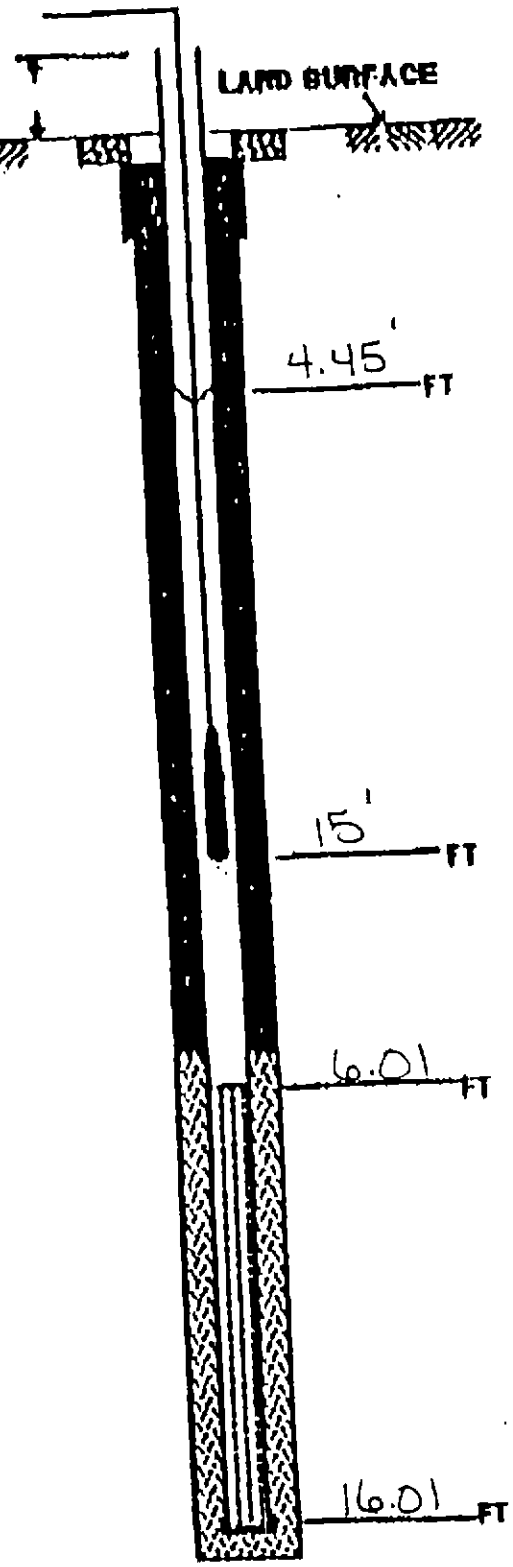
Elapsed Time	INPUT 1
0.0000	0.000
0.0033	0.003
0.0066	0.000
0.0100	0.332
0.0133	1.000
0.0166	1.025
0.0200	1.085
0.0233	0.575
0.0266	0.468
0.0300	1.313
0.0333	1.531
0.0500	1.297
0.0666	1.215
0.0833	1.136
0.1000	1.082
0.1166	1.025
0.1333	0.968
0.1500	0.930
0.1666	0.886
0.1833	0.835
0.2000	0.797
0.2166	0.759
0.2333	0.721
0.2500	0.693
0.2666	0.651
0.2833	0.626
0.3000	0.601
0.3166	0.566
0.3333	0.547
0.4166	0.439
0.5000	0.354

CEF-16-13S RUN 3
(CON'T)

Step 0 11/01 07:07:58

Elapsed Time	INPUT 1
0.5833	0.281
0.6666	0.234
0.7500	0.193
0.8333	0.158
0.9166	0.132
1.0000	0.110
1.0833	0.091
1.1666	0.075
1.2500	0.063
1.3333	0.056
1.4166	0.047
1.5000	0.041
1.5833	0.037
1.6666	0.031
1.7500	0.031
1.8333	0.022
1.9166	0.022
2.0000	0.022
2.5000	0.006
3.0000	0.006
3.5000	0.006
4.0000	0.009
4.5000	0.000
5.0000	0.003
5.5000	0.003
6.0000	0.003
6.5000	0.006
7.0000	0.003
7.5000	0.000
8.0000	0.000
8.5000	0.003
9.0000	0.003
9.5000	0.003
10.0000	-0.003

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU'S 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-13S PUMPING WELL ——

DATE 11.1.94 TIME 0740

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE (BT) ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R1-10 MIN R2-10 R3-10

TIME OF INSTALLATION 0740

STATIC DEPTH TO WATER 4.45 FT. —— PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 8.21' FT —— PSI

14' DEPTH 9.21' FT —— PSI

15' DEPTH 10.21' FT —— PSI

CLOCKS SYNCHRONIZED? ——

STATIC DEPTH TO WATER 4.45' bTOC

TIME PUMPING STARTS ——

—— VERIFICATION OF DATA ACQUISITION (HR)

—— VERIFICATION OF DATA ACQUISITION (HR)

—— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER —— FT —— PSI

TIME PUMPING STOPS ——

MAXIMUM RECOVERY DEPTH TO WATER —— FT —— PSI

END RECOVERY ——

RECALIBRATION OF TRANSDUCER

DEPTH —— FT —— PSI

DEPTH —— FT —— PSI

DEPTH —— FT —— PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/02/95

14:47:18

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TEST DESCRIPTION

Data set...........
Data set title..... CEF-16-14D RUN NO. 2

Knowns and Constants:
No. of data points.................. 49
Radius of well casing............... 0.08333
Radius of well...................... 0.25
Aquifer saturated thickness......... 100
Well screen length.................. 10
Static height of water in well...... 97.56
Log(Re/Rw).......................... 3.586
A, B, C............................. 2.760, 0.448, 0.000

==

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

==

RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

	Estimate		Std. Error
K =	1.2549E-002	+/-	2.5106E-004
y0 =	2.0060E+000	+/-	2.8739E-002

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
Number of residuals............... 49
Number of estimated parameters.... 2
Degrees of freedom................ 47
Residual mean..................... 0.01362
Residual standard deviation....... 0.0299
Residual variance................. 0.0008939

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0266	1.629	1.5343	0.09474	1
0.03	1.48	1.4826	-0.0025751	1
0.0333	1.436	1.4341	0.0019243	1
0.05	1.196	1.2119	-0.015919	1
0.0666	0.974	1.0252	-0.05121	1
0.0833	0.807	0.86639	-0.059392	1
0.1	0.683	0.73218	-0.049177	1
0.1166	0.585	0.61938	-0.034378	1
0.1333	0.506	0.52343	-0.017428	1
0.15	0.43	0.44234	-0.012342	1
0.1666	0.382	0.37419	0.0078051	1
0.1833	0.329	0.31623	0.012773	1
0.2	0.278	0.26724	0.01076	1
0.2166	0.256	0.22607	0.029931	1
0.2333	0.218	0.19105	0.026952	1
0.25	0.199	0.16145	0.037548	1
0.2666	0.18	0.13658	0.043421	1
0.2833	0.155	0.11542	0.039579	1
0.3	0.148	0.097541	0.050459	1
0.3166	0.117	0.082514	0.034486	1
0.3333	0.11	0.069731	0.040269	1
0.4166	0.069	0.030117	0.038883	1
0.5	0.053	0.012994	0.040006	1
0.5833	0.038	0.0056123	0.032388	1
0.6666	0.031	0.0024239	0.028576	1
0.75	0.025	0.0010458	0.023954	1
0.8333	0.022	0.0004517	0.021548	1
0.9166	0.022	0.00019509	0.021805	1
1	0.019	8.4174E-005	0.018916	1
1.0833	0.019	3.6355E-005	0.018964	1
1.1666	0.019	1.5702E-005	0.018984	1
1.25	0.015	6.7747E-006	0.014993	1
1.3333	0.015	2.926E-006	0.014997	1
1.4166	0.015	1.2637E-006	0.014999	1
1.5	0.019	5.4526E-007	0.018999	1
1.5833	0.019	2.355E-007	0.019	1
1.6666	0.015	1.0171E-007	0.015	1
1.75	0.009	4.3885E-008	0.009	1
1.8333	0.006	1.8954E-008	0.006	1
1.9166	0.012	8.1862E-009	0.012	1
2	0.009	3.5321E-009	0.009	1
2.5	0.012	2.288E-011	0.012	1
3	0.006	1.4821E-013	0.006	1
3.5	0.012	9.6007E-016	0.012	1
4	0.009	6.2191E-018	0.009	1
4.5	0.012	4.0286E-020	0.012	1
5	0.009	2.6096E-022	0.009	1
5.5	0.009	1.6904E-024	0.009	1
6	0.012	1.095E-026	0.012	1

==

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
K =	1.2549E-002
y0 =	2.0060E+000

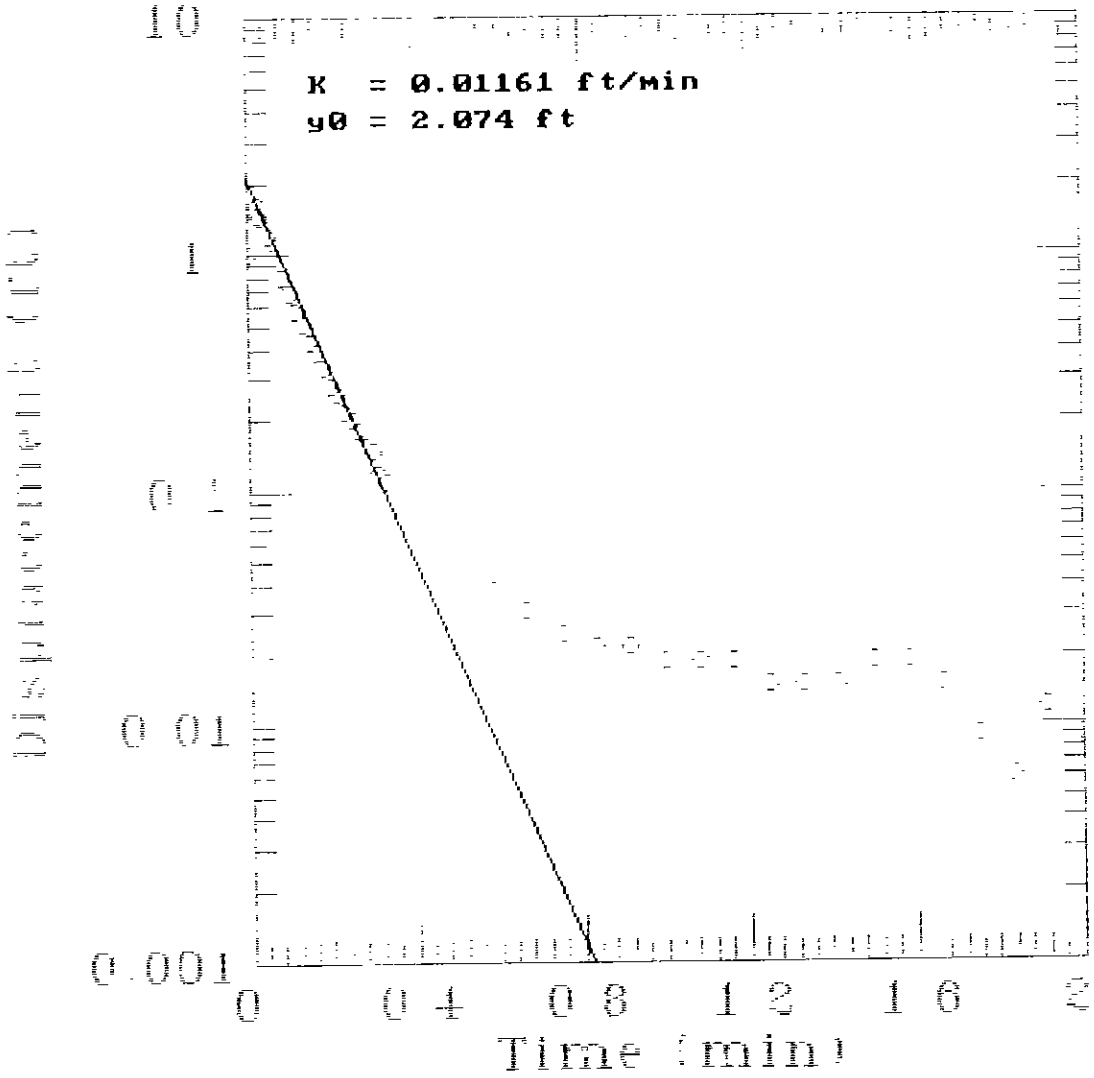
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

K = 1.16087E-002
y0 = 2.07414E+000

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	2.074E+000	2.000E+000	1.653E-008		

CEF-16-14D RUN NO. 2



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/01 14:29

Unit# 00001 Test 0

Setups: INPUT 1

Type	Level(F)
Mode	TOC
I.D.	00004

Reference	0.000
Linearity	0.040
Scale Factor	10.010
Offset	−0.090
Delay mSEC	50.000

CEF−16−14D RUN 2

Step 0 11/01 08:10:19

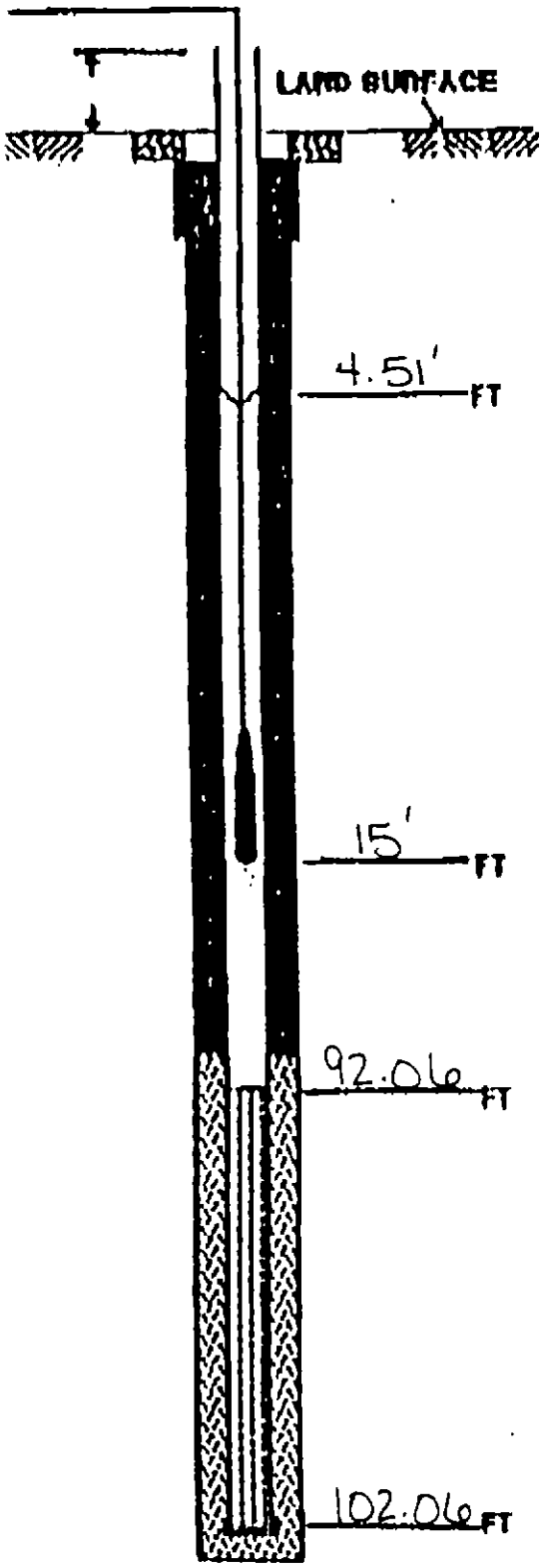
Elapsed Time	INPUT 1
0.0000	0.003
0.0033	0.009
0.0066	0.720
0.0100	0.633
0.0133	1.009
0.0166	0.683
0.0200	0.689
0.0233	1.151
0.0266	1.629
0.0300	1.480
0.0333	1.436
0.0500	1.196
0.0666	0.974
0.0833	0.807
0.1000	0.683
0.1166	0.585
0.1333	0.506
0.1500	0.430
0.1666	0.382
0.1833	0.329
0.2000	0.278
0.2166	0.256
0.2333	0.218
0.2500	0.199
0.2666	0.180
0.2833	0.155
0.3000	0.148
0.3166	0.117
0.3333	0.110
0.4166	0.069
0.5000	0.053

CEF-16-14D RUN 2
(CON'T)

Step 0 11/01 08:10:19

Elapsed Time	INPUT 1
0.5833	0.038
0.6666	0.031
0.7500	0.025
0.8333	0.022
0.9166	0.022
1.0000	0.019
1.0833	0.019
1.1666	0.019
1.2500	0.015
1.3333	0.015
1.4166	0.015
1.5000	0.019
1.5833	0.019
1.6666	0.015
1.7500	0.009
1.8333	0.006
1.9166	0.012
2.0000	0.009
2.5000	0.012
3.0000	0.006
3.5000	0.012
4.0000	0.009
4.5000	0.012
5.0000	0.009
5.5000	0.009
6.0000	0.012
6.5000	0.009
7.0000	0.009
7.5000	0.003
8.0000	0.000
8.5000	0.000
9.0000	0.015
9.5000	0.009
10.0000	0.012

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU's 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-14D PUMPING WELL —

DATE 11.1.94 TIME ~~0845~~ 0850 (ST)

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE (ST) ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R1-11 min R2-11 R3-10

TIME OF INSTALLATION ~~0845~~ (ST) 0850

STATIC DEPTH TO WATER 4.51' FT. — PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 8.20 FT — PSI

14' DEPTH 9.21 FT — PSI

15' DEPTH 10.22 FT — PSI

CLOCKS SYNCHRONIZED? —

STATIC DEPTH TO WATER 4.51' btoc

TIME PUMPING STARTS —

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER — FT — PSI

TIME PUMPING STOPS —

MAXIMUM RECOVERY DEPTH TO WATER — FT — PSI

END RECOVERY —

RECALIBRATION OF TRANSDUCER

DEPTH — FT — PSI

DEPTH — FT — PSI

DEPTH — FT — PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/02/95 14:53:31

==

TEST DESCRIPTION

Data set...........
Data set title..... CEF-16-15S RUN NO. 3

Knowns and Constants:
```
   No. of data points................... 47
   Radius of well casing................ 0.08333
   Radius of well....................... 0.25
   Aquifer saturated thickness.......... 100
   Well screen length................... 10
   Static height of water in well....... 10.93
   Log(Re/Rw)........................... 2.348
   A, B, C.............................. 2.760, 0.448, 0.000
```

==

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

==

RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

	Estimate		Std. Error
K =	8.7545E-004	+/-	3.0739E-005
y0 =	1.4042E+000	+/-	2.0611E-002

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
```
   Number of residuals................ 47
   Number of estimated parameters.... 2
   Degrees of freedom................ 45
   Residual mean..................... 0.01216
   Residual standard deviation....... 0.05957
   Residual variance................. 0.003549
```

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0333	1.633	1.3549	0.2781	1
0.05	1.384	1.3308	0.053184	1
0.0666	1.336	1.3073	0.028701	1
0.0833	1.327	1.2841	0.042941	1
0.1	1.292	1.2612	0.030767	1
0.1166	1.245	1.2389	0.0060546	1
0.1333	1.223	1.2169	0.006079	1
0.15	1.194	1.1953	-0.0012881	1
0.1666	1.153	1.1742	-0.021166	1
0.1833	1.128	1.1533	-0.025293	1
0.2	1.093	1.1328	-0.039791	1
0.2166	1.074	1.1128	-0.038773	1
0.2333	1.049	1.093	-0.043992	1
0.25	1.02	1.0736	-0.053562	1
0.2666	1.005	1.0546	-0.049591	1
0.2833	0.97	1.0358	-0.065844	1
0.3	0.948	1.0174	-0.06943	1
0.3166	0.932	0.99945	-0.067451	1
0.3333	0.929	0.98168	-0.052684	1
0.4166	0.837	0.89767	-0.060668	1
0.5	0.774	0.82076	-0.046755	1
0.5833	0.714	0.75051	-0.036513	1
0.6666	0.66	0.68628	-0.026282	1
0.75	0.606	0.62748	-0.021481	1
0.8333	0.572	0.57378	-0.001779	1
0.9166	0.524	0.52467	-0.00067339	1
1	0.49	0.47972	0.010281	1
1.0833	0.452	0.43866	0.013337	1
1.1666	0.42	0.40112	0.018879	1
1.25	0.398	0.36675	0.031247	1
1.3333	0.363	0.33536	0.027635	1
1.4166	0.341	0.30666	0.034336	1
1.5	0.316	0.28039	0.035612	1
1.5833	0.287	0.25639	0.030608	1
1.6666	0.268	0.23445	0.033551	1
1.75	0.256	0.21436	0.041639	1
1.8333	0.227	0.19602	0.030984	1
1.9166	0.23	0.17924	0.05076	1
2	0.205	0.16388	0.041117	1
2.5	0.145	0.095787	0.049213	1
3	0.123	0.055986	0.067014	1
3.5	0.085	0.032723	0.052277	1
4	0.088	0.019126	0.068874	1
4.5	0.063	0.011179	0.051821	1
5	0.05	0.0065339	0.043466	1
5.5	0.066	0.003819	0.062181	1
6	0.056	0.0022321	0.053768	1

==========

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
K =	8.7545E-004
y0 =	1.4042E+000

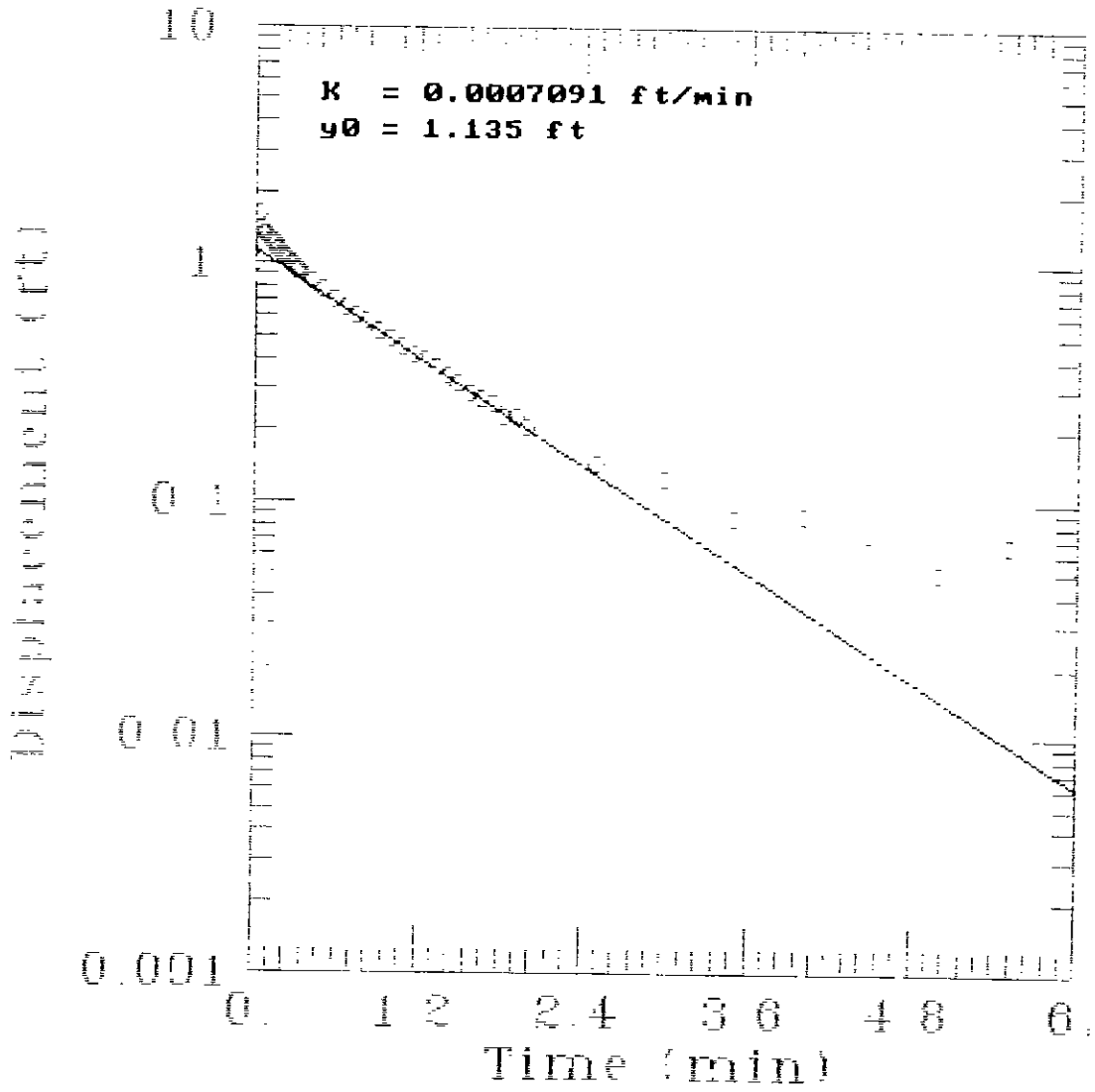
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

K = 7.09065E-004
y0 = 1.13470E+000

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	1.135E+000	6.000E+000	6.139E-003		

CEF-16-15S RUN NO. 3



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/04 17:14

Unit# 00001 Test 2

Setups: INPUT 1

Type Level (F)
Mode TOC
I.D. 00000

Reference 0.000
Linearity 0.050
Scale factor 9.990
Offset 0.020
Delay mSEC 50.000

CEF-16-15S RUN 3

Step 0 11/04 11:07:19

Elapsed Time INPUT 1

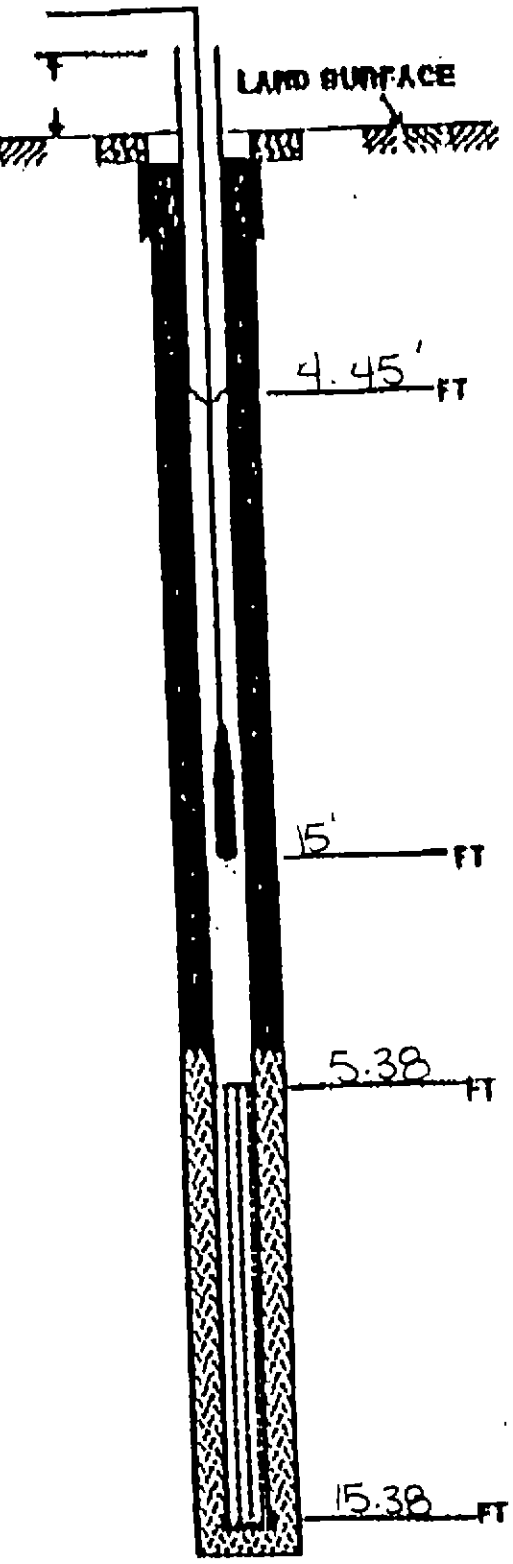
0.0000	0.003
0.0033	0.025
0.0066	0.581
0.0100	0.941
0.0133	0.733
0.0166	0.420
0.0200	0.730
0.0233	0.578
0.0266	0.755
0.0300	1.131
0.0333	1.633
0.0500	1.384
0.0666	1.336
0.0833	1.327
0.1000	1.292
0.1166	1.245
0.1333	1.223
0.1500	1.194
0.1666	1.153
0.1833	1.128
0.2000	1.093
0.2166	1.074
0.2333	1.049
0.2500	1.020
0.2666	1.005
0.2833	0.970
0.3000	0.948
0.3166	0.932
0.3333	0.929
0.4166	0.837
0.5000	0.774

CEF-16-15S RUN 3
(CON'T)

Step 0 11/04 11:07:19

Elapsed Time	INPUT 1
0.5833	0.714
0.6666	0.660
0.7500	0.606
0.8333	0.572
0.9166	0.524
1.0000	0.490
1.0833	0.452
1.1666	0.420
1.2500	0.398
1.3333	0.363
1.4166	0.341
1.5000	0.316
1.5833	0.287
1.6666	0.268
1.7500	0.256
1.8333	0.227
1.9166	0.230
2.0000	0.205
2.5000	0.145
3.0000	0.123
3.5000	0.085
4.0000	0.088
4.5000	0.063
5.0000	0.050
5.5000	0.066
6.0000	0.056
6.5000	0.038
7.0000	0.053
7.5000	0.044
8.0000	0.060
8.5000	0.034
9.0000	0.060
9.5000	0.031
10.0000	0.056

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU'S 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-15S PUMPING WELL ___

DATE 11.4.95 TIME 1027

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE (BT) ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R1-10 MIN R2-10 R3-10

TIME OF INSTALLATION 1027

STATIC DEPTH TO WATER 4.45' FT. ___ PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 8.18' FT ___ PSI

14' DEPTH 9.19' FT ___ PSI

15' DEPTH 10.19' FT ___ PSI

CLOCKS SYNCHRONIZED? ___

STATIC DEPTH TO WATER 4.45' btoc

TIME PUMPING STARTS ___

___ VERIFICATION OF DATA ACQUISITION (HR)

___ VERIFICATION OF DATA ACQUISITION (HR)

___ VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER ___ FT ___ PSI

TIME PUMPING STOPS ___

MAXIMUM RECOVERY DEPTH TO WATER ___ FT ___ PSI

END RECOVERY ___

RECALIBRATION OF TRANSDUCER

DEPTH ___ FT ___ PSI

DEPTH ___ FT ___ PSI

DEPTH ___ FT ___ PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/02/95 14:58:52

==

TEST DESCRIPTION

Data set...........
Data set title..... CEF-16-16D RUN NO. 1

Knowns and Constants:
- No. of data points.................. 48
- Radius of well casing............... 0.08333
- Radius of well...................... 0.25
- Aquifer saturated thickness......... 100
- Well screen length.................. 10
- Static height of water in well...... 97.29
- Log(Re/Rw).......................... 3.57
- A, B, C............................. 2.760, 0.448, 0.000

==

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

==

RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

	Estimate		Std. Error
K =	1.7454E-002	+/-	4.8248E-004
y0 =	2.1166E+000	+/-	4.0979E-002

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
- Number of residuals............... 48
- Number of estimated parameters.... 2
- Degrees of freedom................ 46
- Residual mean..................... 0.02077
- Residual standard deviation....... 0.03655
- Residual variance................. 0.001336

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0233	1.599	1.5246	0.074434	1
0.0266	1.45	1.4553	-0.0053406	1
0.03	1.371	1.3873	-0.016303	1
0.0333	1.305	1.3243	-0.01931	1
0.05	1.077	1.0468	0.030214	1
0.0666	0.78	0.82859	-0.048586	1
0.0833	0.587	0.65495	-0.067947	1
0.1	0.47	0.5177	-0.047695	1
0.1166	0.376	0.40978	-0.033783	1
0.1333	0.309	0.32391	-0.014908	1
0.15	0.262	0.25603	0.0059703	1
0.1666	0.233	0.20266	0.030339	1
0.1833	0.192	0.16019	0.031809	1
0.2	0.167	0.12662	0.040379	1
0.2166	0.148	0.10023	0.047773	1
0.2333	0.129	0.079224	0.049776	1
0.25	0.123	0.062621	0.060379	1
0.2666	0.094	0.049568	0.044432	1
0.2833	0.088	0.039181	0.048819	1
0.3	0.082	0.03097	0.05103	1
0.3166	0.082	0.024514	0.057486	1
0.3333	0.072	0.019377	0.052623	1
0.4166	0.063	0.0059959	0.057004	1
0.5	0.047	0.0018527	0.045147	1
0.5833	0.037	0.00057328	0.036427	1
0.6666	0.041	0.00017739	0.040823	1
0.75	0.031	5.4813E-005	0.030945	1
0.8333	0.034	1.6961E-005	0.033983	1
0.9166	0.031	5.2482E-006	0.030995	1
1	0.028	1.6217E-006	0.027998	1
1.0833	0.025	5.018E-007	0.024999	1
1.1666	0.022	1.5527E-007	0.022	1
1.25	0.022	4.7979E-008	0.022	1
1.3333	0.028	1.4846E-008	0.028	1
1.4166	0.012	4.5938E-009	0.012	1
1.5	0.018	1.4195E-009	0.018	1
1.5833	0.025	4.3923E-010	0.025	1
1.6666	0.018	1.3591E-010	0.018	1
1.75	0.012	4.1996E-011	0.012	1
1.8333	0.028	1.2995E-011	0.028	1
1.9166	0.015	4.021E-012	0.015	1
2	0.022	1.2425E-012	0.022	1
2.5	0.015	1.0876E-015	0.015	1
3	0.003	9.5195E-019	0.003	1
3.5	0.018	8.3325E-022	0.018	1
4	0.012	7.2936E-025	0.012	1
4.5	0.018	6.3841E-028	0.018	1
5	0.009	5.5881E-031	0.009	1

==

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
K =	1.7454E-002
y0 =	2.1166E+000

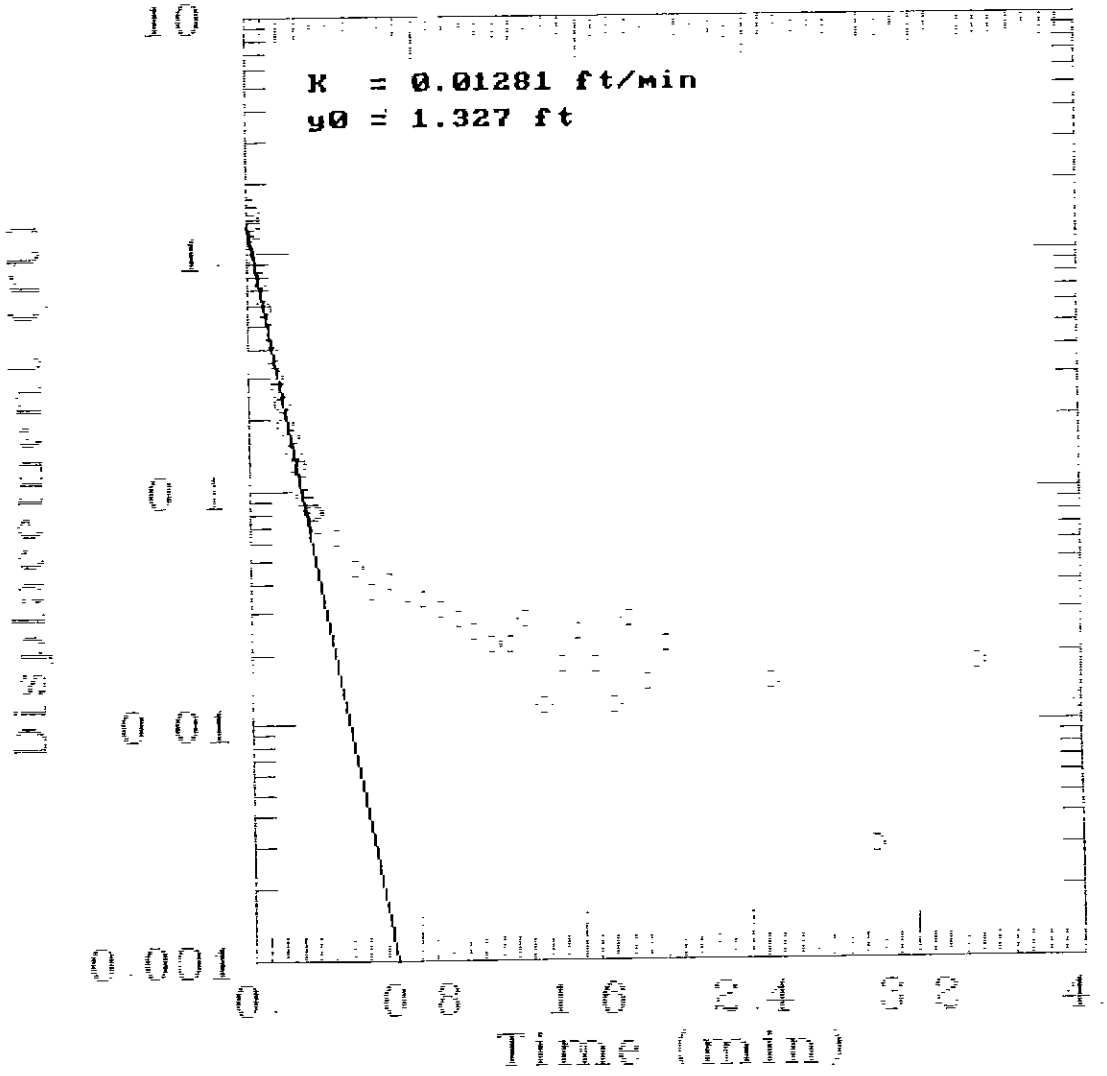
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>

TYPE CURVE DATA

K = 1.28142E-002
y0 = 1.32707E+000

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	1.327E+000	4.000E+000	1.456E-018		

CEF-16-16D RUN NO. 1



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/04 17:15

Unit# 00001 Test 3

Setups: INPUT 1

Type Level (F)
Mode TOC
I.D. 00000

Reference 0.000
Linearity 0.050
Scale factor 9.990
Offset 0.020
Delay mSEC 50.000

CEF-16-16D RUN 1

Step 0 11/04 11:26:42

Elapsed Time INPUT 1

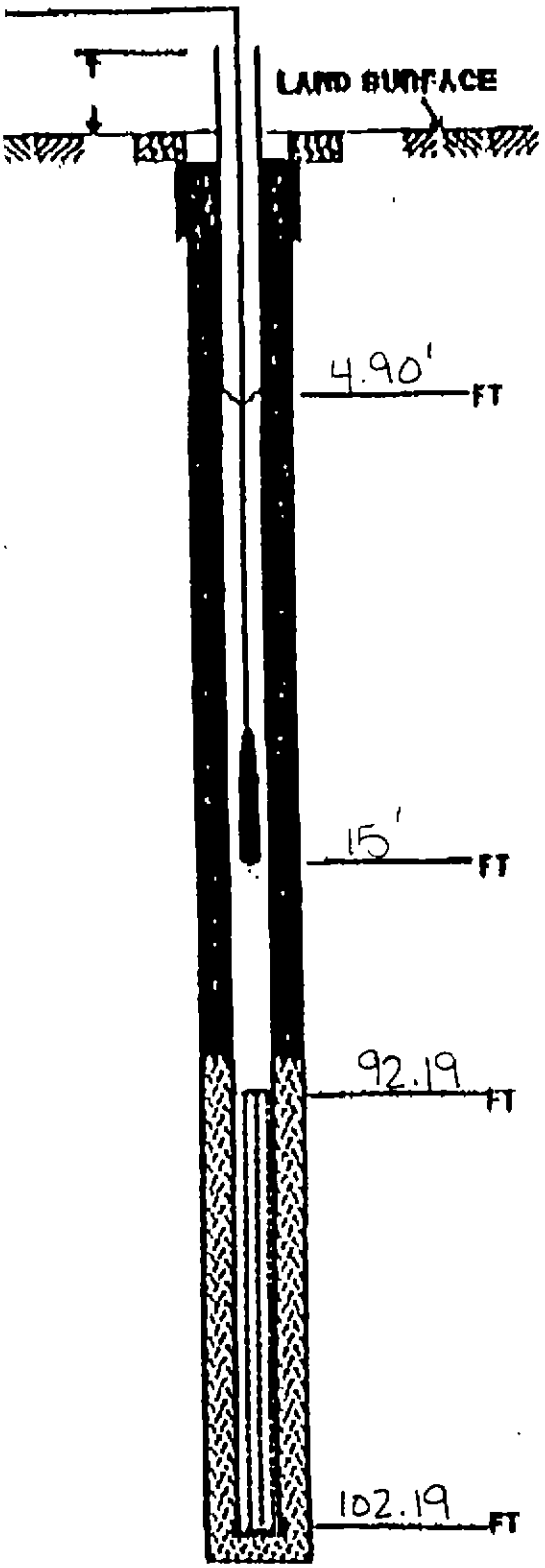
0.0000	0.018
0.0033	0.995
0.0066	1.219
0.0100	1.608
0.0133	0.821
0.0166	0.982
0.0200	1.314
0.0233	1.599
0.0266	1.450
0.0300	1.371
0.0333	1.305
0.0500	1.077
0.0666	0.780
0.0833	0.587
0.1000	0.470
0.1166	0.376
0.1333	0.309
0.1500	0.262
0.1666	0.233
0.1833	0.192
0.2000	0.167
0.2166	0.148
0.2333	0.129
0.2500	0.123
0.2666	0.094
0.2833	0.088
0.3000	0.082
0.3166	0.082
0.3333	0.072
0.4166	0.063
0.5000	0.047

CEF-16-16D RUN 1
(CON'T)

Step 0 11/04 11:26:42

Elapsed Time	INPUT 1
0.5833	0.037
0.6666	0.041
0.7500	0.031
0.8333	0.034
0.9166	0.031
1.0000	0.028
1.0833	0.025
1.1666	0.022
1.2500	0.022
1.3333	0.028
1.4166	0.012
1.5000	0.018
1.5833	0.025
1.6666	0.018
1.7500	0.012
1.8333	0.028
1.9166	0.015
2.0000	0.022
2.5000	0.015
3.0000	0.003
3.5000	0.018
4.0000	0.012
4.5000	0.018
5.0000	0.009
5.5000	0.015
6.0000	0.018
6.5000	0.028
7.0000	0.015
7.5000	0.025
8.0000	0.022
8.5000	0.006
9.0000	0.028
9.5000	0.012
10.0000	0.022

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU's 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-16D PUMPING WELL —

DATE 11-4-94 TIME 1123

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE 10 ~~20~~ PSIG

CHANNEL NO. 1

TEST DURATION R1- 10 MIN R2- 10 R3- 10

TIME OF INSTALLATION 1123

STATIC DEPTH TO WATER 4.90' FT. — PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 7.99' FT — PSI

14' DEPTH 9.00' FT — PSI

15' DEPTH 9.99' FT — PSI

CLOCKS SYNCHRONIZED? —

STATIC DEPTH TO WATER 4.90' btoc

TIME PUMPING STARTS —

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER — FT — PSI

TIME PUMPING STOPS —

MAXIMUM RECOVERY DEPTH TO WATER — FT — PSI

END RECOVERY —

RECALIBRATION OF TRANSDUCER

DEPTH — FT — PSI

DEPTH — FT — PSI

DEPTH — FT — PSI

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<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
                    A Q T E S O L V   R E S U L T S
                             Version  1.10

02/02/95                                                                15:07:30

==============================================================================
                            TEST DESCRIPTION


Data set...........
Data set title..... CEF-16-17S RUN NO. 3

Knowns and Constants:
   No. of data points................. 48
   Radius of well casing.............. 0.08333
   Radius of well..................... 0.25
   Aquifer saturated thickness......... 100
   Well screen length................. 10
   Static height of water in well...... 12.52
   Log(Re/Rw)......................... 2.406
   A, B, C............................  2.760,  0.448,  0.000

==============================================================================
                            ANALYTICAL METHOD


Bouwer-Rice (Unconfined Aquifer Slug Test)

==============================================================================
                  RESULTS FROM STATISTICAL CURVE MATCHING


STATISTICAL MATCH PARAMETER ESTIMATES

          Estimate          Std.  Error
   K  =   4.8438E-003 +/-   2.2588E-004
   y0 =   1.5722E+000 +/-   4.9477E-002


ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
   Number of residuals............... 48
   Number of estimated parameters.... 2
   Degrees of freedom................ 46
   Residual mean..................... 0.01896
   Residual standard deviation....... 0.06379
   Residual variance................. 0.00407
```

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.03	1.64	1.3212	0.31882	1
0.0333	1.251	1.2961	-0.045138	1
0.05	1.118	1.1765	-0.058505	1
0.0666	0.989	1.0685	-0.079534	1
0.0833	0.888	0.96991	-0.081909	1
0.1	0.809	0.88039	-0.071387	1
0.1166	0.726	0.79959	-0.073591	1
0.1333	0.666	0.72579	-0.059789	1
0.15	0.603	0.6588	-0.055799	1
0.1666	0.553	0.59834	-0.045339	1
0.1833	0.537	0.54311	-0.006113	1
0.2	0.489	0.49298	-0.003984	1
0.2166	0.458	0.44774	0.010259	1
0.2333	0.429	0.40642	0.022585	1
0.25	0.401	0.3689	0.032097	1
0.2666	0.369	0.33505	0.033952	1
0.2833	0.335	0.30412	0.030877	1
0.3	0.325	0.27605	0.048947	1
0.3166	0.309	0.25072	0.058281	1
0.3333	0.268	0.22758	0.040423	1
0.4166	0.195	0.14039	0.054607	1
0.5	0.148	0.086559	0.061441	1
0.5833	0.12	0.053398	0.066602	1
0.6666	0.094	0.032942	0.061058	1
0.75	0.079	0.02031	0.05869	1
0.8333	0.069	0.012529	0.056471	1
0.9166	0.05	0.0077293	0.042271	1
1	0.047	0.0047655	0.042235	1
1.0833	0.034	0.0029398	0.03106	1
1.1666	0.037	0.0018136	0.035186	1
1.25	0.037	0.0011182	0.035882	1
1.3333	0.041	0.0006898	0.04031	1
1.4166	0.028	0.00042554	0.027574	1
1.5	0.028	0.00026236	0.027738	1
1.5833	0.022	0.00016185	0.021838	1
1.6666	0.022	9.9847E-005	0.0219	1
1.75	0.025	6.156E-005	0.024938	1
1.8333	0.022	3.7977E-005	0.021962	1
1.9166	0.022	2.3428E-005	0.021977	1
2	0.018	1.4444E-005	0.017986	1
2.5	0.012	7.9523E-007	0.011999	1
3	0.018	4.3782E-008	0.018	1
3.5	0.015	2.4104E-009	0.015	1
4	0.012	1.327E-010	0.012	1
4.5	0.018	7.306E-012	0.018	1
5	0.018	4.0223E-013	0.018	1
5.5	0.015	2.2145E-014	0.015	1
6	0.015	1.2192E-015	0.015	1

==

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
K =	4.8438E-003
y0 =	1.5722E+000

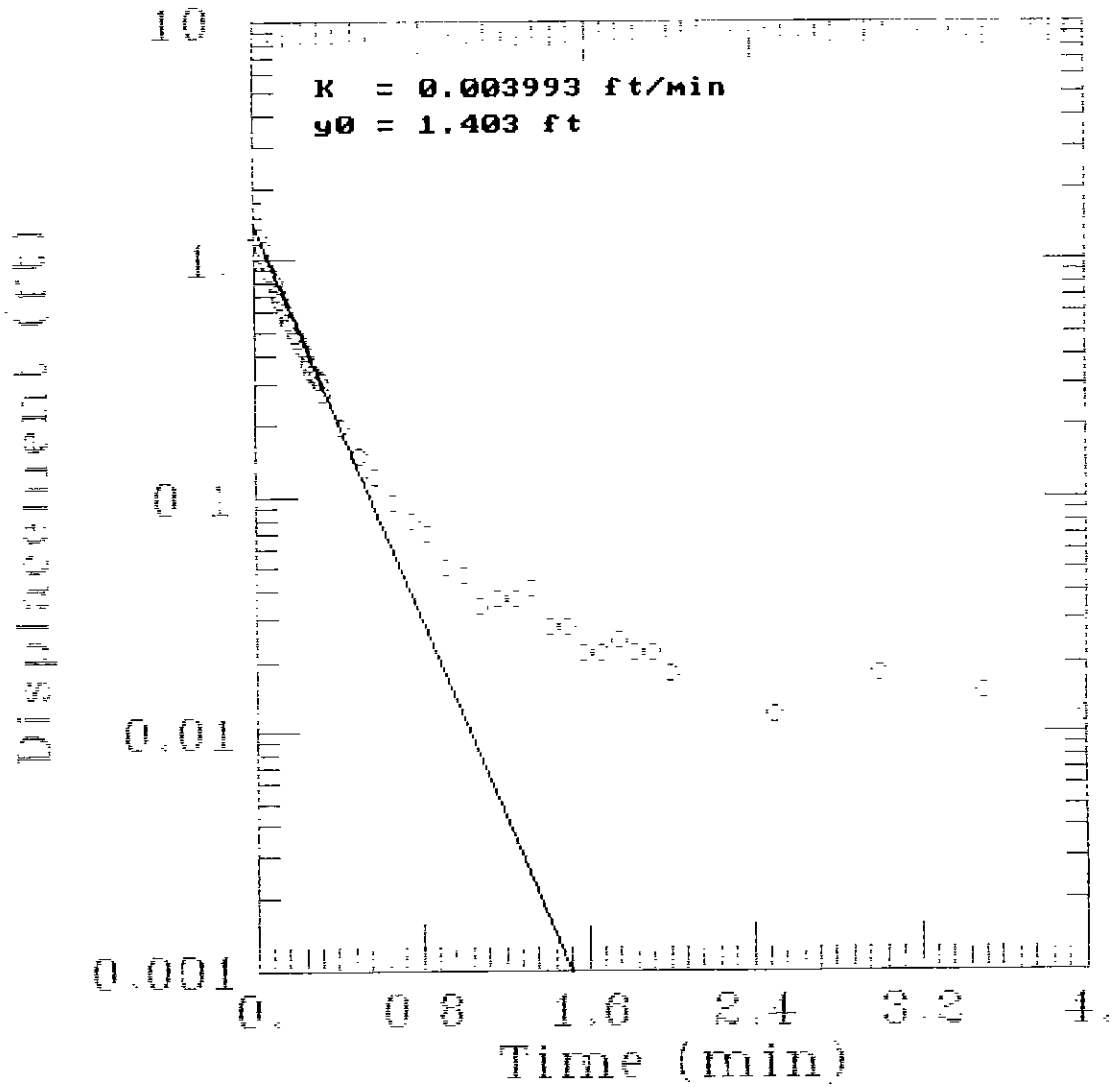
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

K = 3.99281E-003
y0 = 1.40347E+000

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	1.403E+000	4.000E+000	6.972E-009		

CEF-16-17S RUN NO. 3



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/02 09:33

Unit# 00001 Test 2

Setups: INPUT 1

Type Level (F)
Mode TOC
I.D. 00000

Reference 0.000
Linearity 0.050
Scale factor 9.990
Offset 0.020
Delay mSEC 50.000

CEF-16-17S RUN 3

Step 0 11/01 17:19:34

Elapsed Time INPUT 1

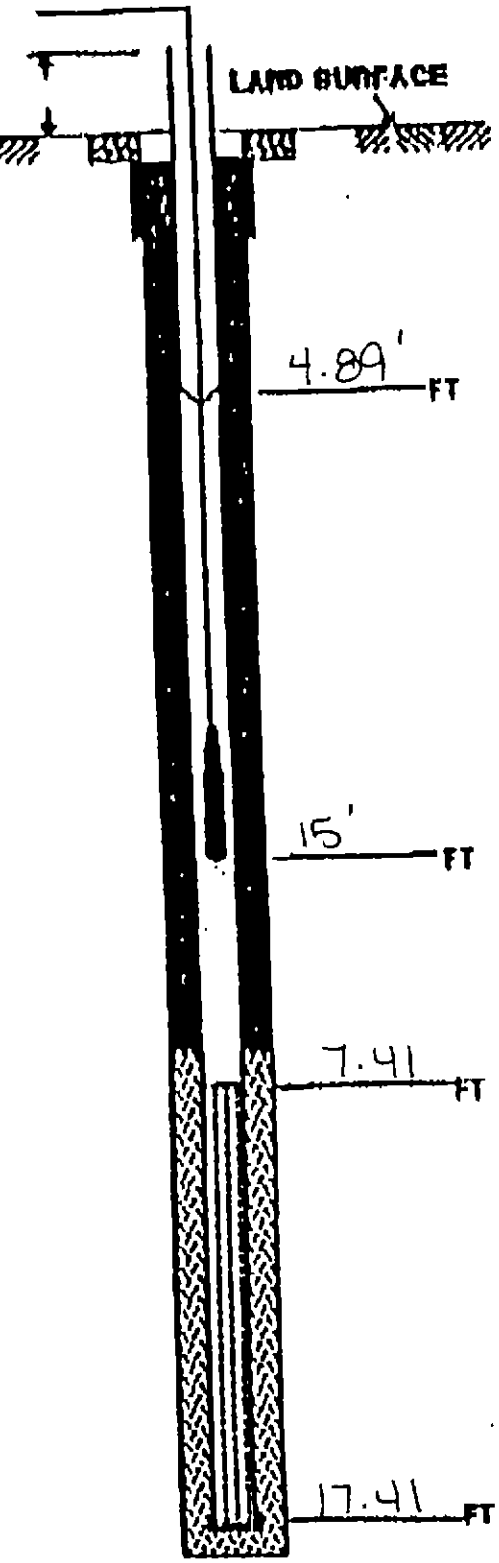
0.0000	0.003
0.0033	0.044
0.0066	0.287
0.0100	0.739
0.0133	1.118
0.0166	1.283
0.0200	0.474
0.0233	0.673
0.0266	1.298
0.0300	1.640
0.0333	1.251
0.0500	1.118
0.0666	0.989
0.0833	0.888
0.1000	0.809
0.1166	0.726
0.1333	0.666
0.1500	0.603
0.1666	0.553
0.1833	0.537
0.2000	0.489
0.2166	0.458
0.2333	0.429
0.2500	0.401
0.2666	0.369
0.2833	0.335
0.3000	0.325
0.3166	0.309
0.3333	0.268
0.4166	0.195
0.5000	0.148

CEF-16-17S RUN 3
(CON'T)

Step 0 11/01 17:19:34

Elapsed Time	INPUT 1
0.5833	0.120
0.6666	0.094
0.7500	0.079
0.8333	0.069
0.9166	0.050
1.0000	0.047
1.0833	0.034
1.1666	0.037
1.2500	0.037
1.3333	0.041
1.4166	0.028
1.5000	0.028
1.5833	0.022
1.6666	0.022
1.7500	0.025
1.8333	0.022
1.9166	0.022
2.0000	0.018
2.5000	0.012
3.0000	0.018
3.5000	0.015
4.0000	0.012
4.5000	0.018
5.0000	0.018
5.5000	0.015
6.0000	0.015
6.5000	0.018
7.0000	0.015
7.5000	0.015
8.0000	0.015
8.5000	0.031
9.0000	0.022
9.5000	0.018
10.0000	0.015

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU'S 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-175 PUMPING WELL —

DATE 11·1·94 TIME 1645

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE (PSI) ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R1-10 MIN R2-10 R3-10

TIME OF INSTALLATION 1645

STATIC DEPTH TO WATER 4.89' FT. — PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 8.00' FT — PSI

14' DEPTH 8.98' FT — PSI

15' DEPTH 9.98' FT — PSI

CLOCKS SYNCHRONIZED? —

STATIC DEPTH TO WATER 4.89' btoc

TIME PUMPING STARTS —

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER — FT — PSI

TIME PUMPING STOPS —

MAXIMUM RECOVERY DEPTH TO WATER — FT — PSI

END RECOVERY —

RECALIBRATION OF TRANSDUCER

DEPTH — FT — PSI

DEPTH — FT — PSI

DEPTH — FT — PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/02/95 15:15:53

==

TEST DESCRIPTION

Data set...........
Data set title..... CEF-16-18D RUN NO. 3

Knowns and Constants:
- No. of data points.................. 46
- Radius of well casing............... 0.08333
- Radius of well...................... 0.25
- Aquifer saturated thickness......... 100
- Well screen length.................. 10
- Static height of water in well...... 96.16
- Log(Re/Rw)........................... 3.516
- A, B, C............................. 2.760, 0.448, 0.000

==

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

==

RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

	Estimate		Std. Error
K =	1.9961E-002	+/-	4.6795E-004
y0 =	2.5297E+000	+/-	5.3295E-002

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
- Number of residuals............... 46
- Number of estimated parameters.... 2
- Degrees of freedom................ 44
- Residual mean..................... 0.013
- Residual standard deviation....... 0.02878
- Residual variance................. 0.0008284

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.03	1.593	1.549	0.043985	1
0.0333	1.41	1.4677	-0.057653	1
0.05	1.188	1.117	0.071026	1
0.0666	0.837	0.85148	-0.014476	1
0.0833	0.597	0.64803	-0.051025	1
0.1	0.449	0.49319	-0.044187	1
0.1166	0.335	0.37596	-0.04096	1
0.1333	0.281	0.28613	-0.0051281	1
0.15	0.234	0.21776	0.016239	1
0.1666	0.17	0.166	0.0039994	1
0.1833	0.151	0.12634	0.024663	1
0.2	0.132	0.09615	0.03585	1
0.2166	0.101	0.073296	0.027704	1
0.2333	0.101	0.055782	0.045218	1
0.25	0.101	0.042454	0.058546	1
0.2666	0.069	0.032363	0.036637	1
0.2833	0.057	0.02463	0.03237	1
0.3	0.053	0.018745	0.034255	1
0.3166	0.038	0.014289	0.023711	1
0.3333	0.05	0.010875	0.039125	1
0.4166	0.031	0.0027858	0.028214	1
0.5	0.022	0.00071246	0.021288	1
0.5833	0.019	0.00018251	0.018817	1
0.6666	0.015	4.6751E-005	0.014953	1
0.75	0.009	1.1956E-005	0.008988	1
0.8333	0.019	3.0628E-006	0.018997	1
0.9166	0.009	7.8458E-007	0.0089992	1
1	0.009	2.0065E-007	0.0089998	1
1.0833	0.009	5.14E-008	0.0089999	1
1.1666	0.015	1.3167E-008	0.015	1
1.25	0.006	3.3673E-009	0.006	1
1.3333	0.015	8.6259E-010	0.015	1
1.4166	0.006	2.2096E-010	0.006	1
1.5	0.003	5.6511E-011	0.003	1
1.5833	0.006	1.4476E-011	0.006	1
1.6666	0.034	3.7082E-012	0.034	1
1.75	0.012	9.4836E-013	0.012	1
1.8333	0.025	2.4293E-013	0.025	1
1.9166	0.006	6.2231E-014	0.006	1
2	0.006	1.5915E-014	0.006	1
2.5	0.006	4.4823E-018	0.006	1
3	0.019	1.2624E-021	0.019	1
3.5	0.006	3.5553E-025	0.006	1
4	0.003	1.0013E-028	0.003	1
4.5	0.009	2.8199E-032	0.009	1
5	0.003	7.9419E-036	0.003	1

==========

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
K =	1.9961E-002
y0 =	2.5297E+000

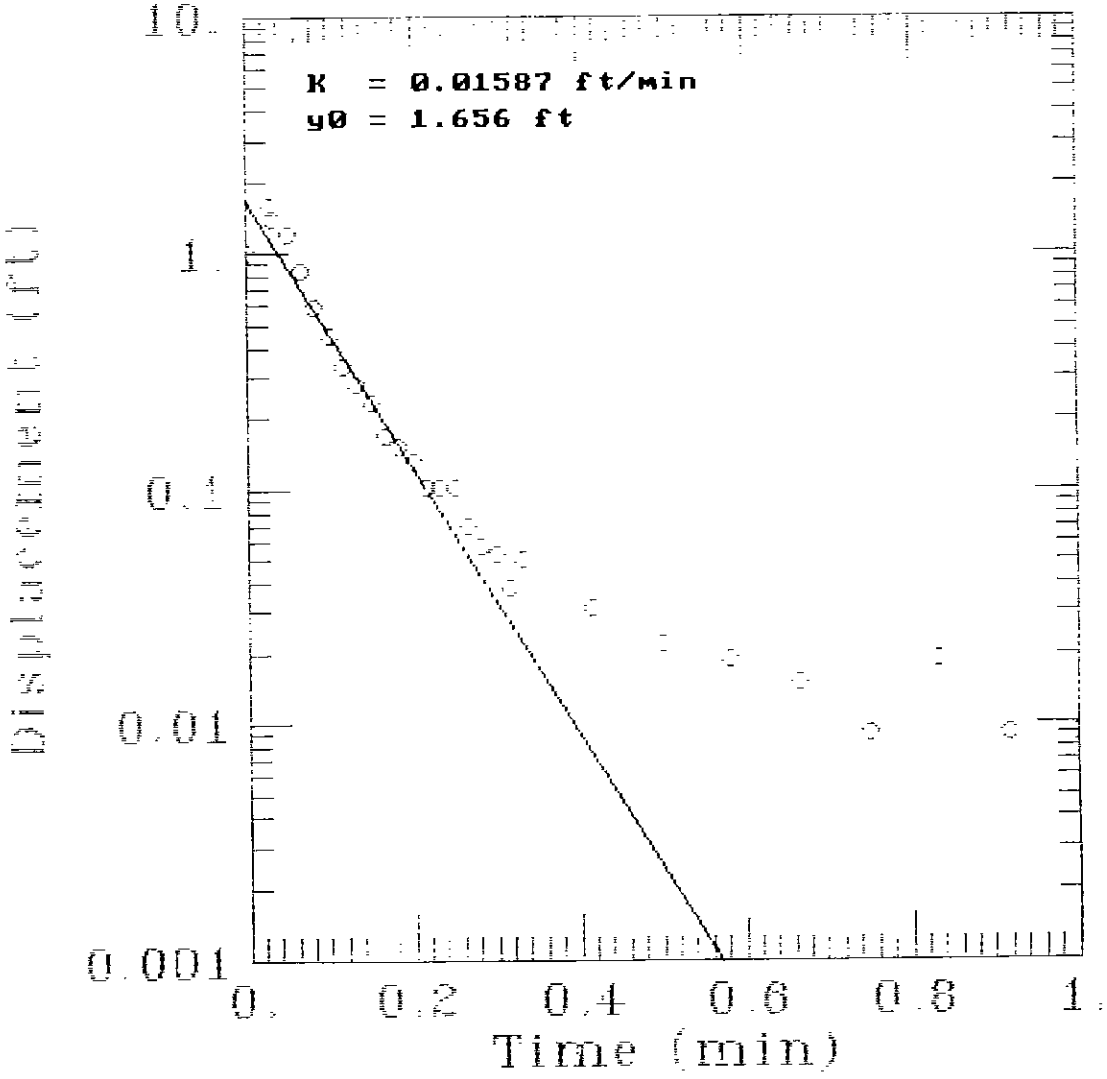
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

K = 1.58660E-002
y0 = 1.65567E+000

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	1.656E+000	1.000E+000	3.759E-006		

CEF-16-18D RUN NO. 3



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/02 09:36

Unit# 00001 Test 5

Setups: INPUT 1

Type Level (F)
Mode TOC
I.D. 00000

Reference 0.000
Linearity 0.050
Scale factor 9.990
Offset 0.020
Delay mSEC 50.000

CEF-16-18D RUN 3

Step 0 11/01 18:09:35

Elapsed Time INPUT 1

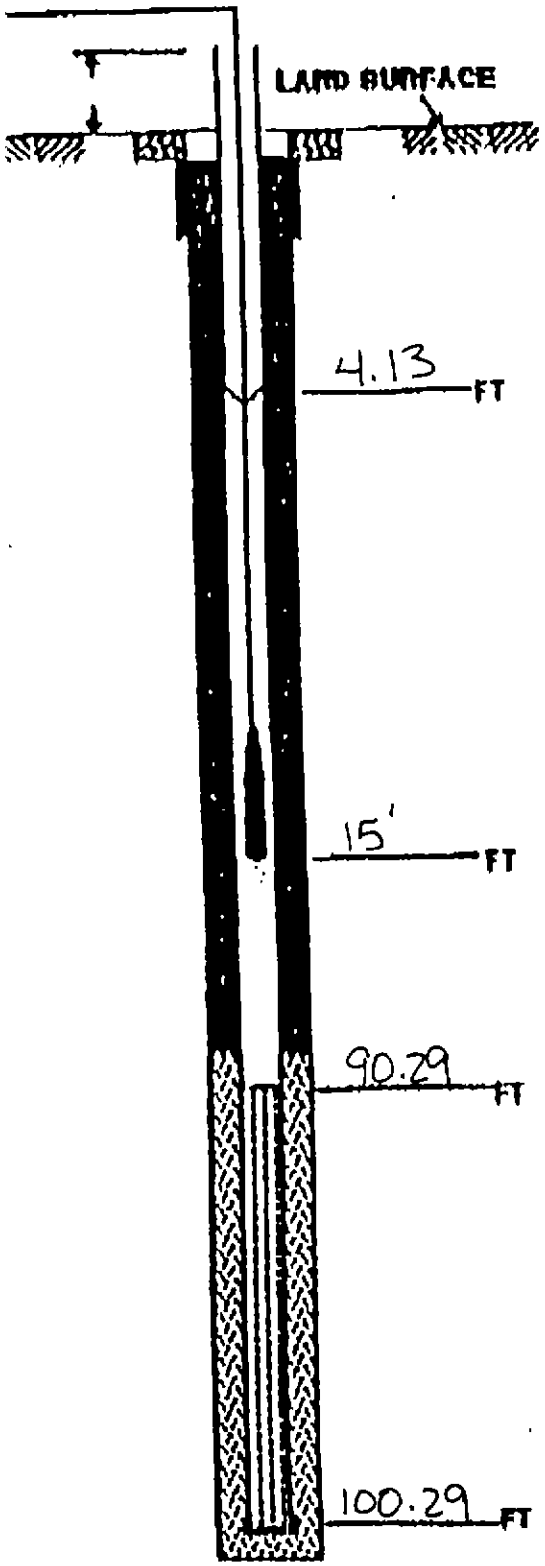
0.0000	0.000
0.0033	0.006
0.0066	0.417
0.0100	0.945
0.0133	0.771
0.0166	0.812
0.0200	0.736
0.0233	1.078
0.0266	0.929
0.0300	1.593
0.0333	1.410
0.0500	1.188
0.0666	0.837
0.0833	0.597
0.1000	0.449
0.1166	0.335
0.1333	0.281
0.1500	0.234
0.1666	0.170
0.1833	0.151
0.2000	0.132
0.2166	0.101
0.2333	0.101
0.2500	0.101
0.2666	0.069
0.2833	0.057
0.3000	0.053
0.3166	0.038
0.3333	0.050
0.4166	0.031
0.5000	0.022

CEF-16-18D RUN 3
(CON'T)

Step 0 11/01 18:09:35

Elapsed Time	INPUT 1
0.5833	0.019
0.6666	0.015
0.7500	0.009
0.8333	0.019
0.9166	0.009
1.0000	0.009
1.0833	0.009
1.1666	0.015
1.2500	0.006
1.3333	0.015
1.4166	0.006
1.5000	0.003
1.5833	0.006
1.6666	0.034
1.7500	0.012
1.8333	0.025
1.9166	0.006
2.0000	0.006
2.5000	0.006
3.0000	0.019
3.5000	0.006
4.0000	0.003
4.5000	0.009
5.0000	0.003
5.5000	0.009
6.0000	0.028
6.5000	0.000
7.0000	0.006
7.5000	0.012
8.0000	0.025
8.5000	0.006
9.0000	0.015
9.5000	0.031
10.0000	0.006

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU'S 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-18D PUMPING WELL —

DATE 11-1-94 TIME 1735

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R1- 10 MIN. R2- 10 R3- 10

TIME OF INSTALLATION 1735

STATIC DEPTH TO WATER 4.13' FT. — PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 8.76' FT — PSI

14' DEPTH 9.76' FT — PSI

15' DEPTH 10.77' FT — PSI

CLOCKS SYNCHRONIZED? —

STATIC DEPTH TO WATER 4.13' btoc

TIME PUMPING STARTS —

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER — FT — PSI

TIME PUMPING STOPS —

MAXIMUM RECOVERY DEPTH TO WATER — FT — PSI

END RECOVERY —

RECALIBRATION OF TRANSDUCER

DEPTH — FT — PSI

DEPTH — FT — PSI

DEPTH — FT — PSI

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<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

                         A Q T E S O L V   R E S U L T S

                                 Version  1.10

                                                                       15:22:55
02/02/95

===============================================================================
                                TEST DESCRIPTION


Data set...........
Data set title..... CEF-16-19S RUN NO. 1

Knowns and Constants:
   No. of data points.................. 50
   Radius of well casing............... 0.08333
   Radius of well...................... 0.25
   Aquifer saturated thickness......... 100
   Well screen length.................. 10
   Static height of water in well...... 11.15
   Log(Re/Rw).......................... 2.356
   A, B, C.............................  2.760,  0.448,  0.000

===============================================================================
                                ANALYTICAL METHOD


Bouwer-Rice (Unconfined Aquifer Slug Test)

===============================================================================
                      RESULTS FROM STATISTICAL CURVE MATCHING



STATISTICAL MATCH PARAMETER ESTIMATES

           Estimate          Std. Error
   K  =   4.9506E-003 +/-   1.2971E-004
   y0 =   1.4640E+000 +/-   2.4405E-002


ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
   Number of residuals............... 50
   Number of estimated parameters.... 2
   Degrees of freedom................ 48
   Residual mean..................... 0.01529
   Residual standard deviation....... 0.03502
   Residual variance................. 0.001227
```

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0266	1.366	1.2463	0.11968	1
0.03	1.239	1.2209	0.018059	1
0.0333	1.233	1.1968	0.036199	1
0.05	1.04	1.0818	-0.041763	1
0.0666	0.923	0.97838	-0.055375	1
0.0833	0.822	0.88433	-0.062333	1
0.1	0.756	0.79933	-0.04333	1
0.1166	0.683	0.72294	-0.039936	1
0.1333	0.616	0.65345	-0.037447	1
0.15	0.569	0.59064	-0.021637	1
0.1666	0.515	0.53419	-0.019188	1
0.1833	0.474	0.48284	-0.0088411	1
0.2	0.433	0.43643	-0.0034301	1
0.2166	0.401	0.39472	0.0062811	1
0.2333	0.36	0.35678	0.0032217	1
0.25	0.338	0.32248	0.015515	1
0.2666	0.319	0.29166	0.027336	1
0.2833	0.294	0.26363	0.030371	1
0.3	0.272	0.23829	0.033712	1
0.3166	0.243	0.21551	0.027486	1
0.3333	0.224	0.1948	0.029201	1
0.4166	0.158	0.11767	0.04033	1
0.5	0.12	0.071036	0.048964	1
0.5833	0.079	0.04291	0.03609	1
0.6666	0.075	0.02592	0.04908	1
0.75	0.056	0.015648	0.040352	1
0.8333	0.041	0.0094521	0.031548	1
0.9166	0.047	0.0057096	0.04129	1
1	0.034	0.0034468	0.030553	1
1.0833	0.037	0.0020821	0.034918	1
1.1666	0.022	0.0012577	0.020742	1
1.25	0.037	0.00075926	0.036241	1
1.3333	0.031	0.00045864	0.030541	1
1.4166	0.018	0.00027704	0.017723	1
1.5	0.015	0.00016725	0.014833	1
1.5833	0.034	0.00010103	0.033899	1
1.6666	0.028	6.1027E-005	0.027939	1
1.75	0.022	3.6841E-005	0.021963	1
1.8333	0.025	2.2254E-005	0.024978	1
1.9166	0.012	1.3443E-005	0.011987	1
2	0.025	8.1153E-006	0.024992	1
2.5	0.018	3.9377E-007	0.018	1
3	0.022	1.9107E-008	0.022	1
3.5	0.022	9.2711E-010	0.022	1
4	0.018	4.4985E-011	0.018	1
4.5	0.025	2.1828E-012	0.025	1
5	0.009	1.0591E-013	0.009	1
5.5	0.012	5.1392E-015	0.012	1
6	0.003	2.4937E-016	0.003	1
6.5	0.003	1.21E-017	0.003	1

==

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

```
         Estimate
   K  =    4.9506E-003
   y0 =    1.4640E+000
```

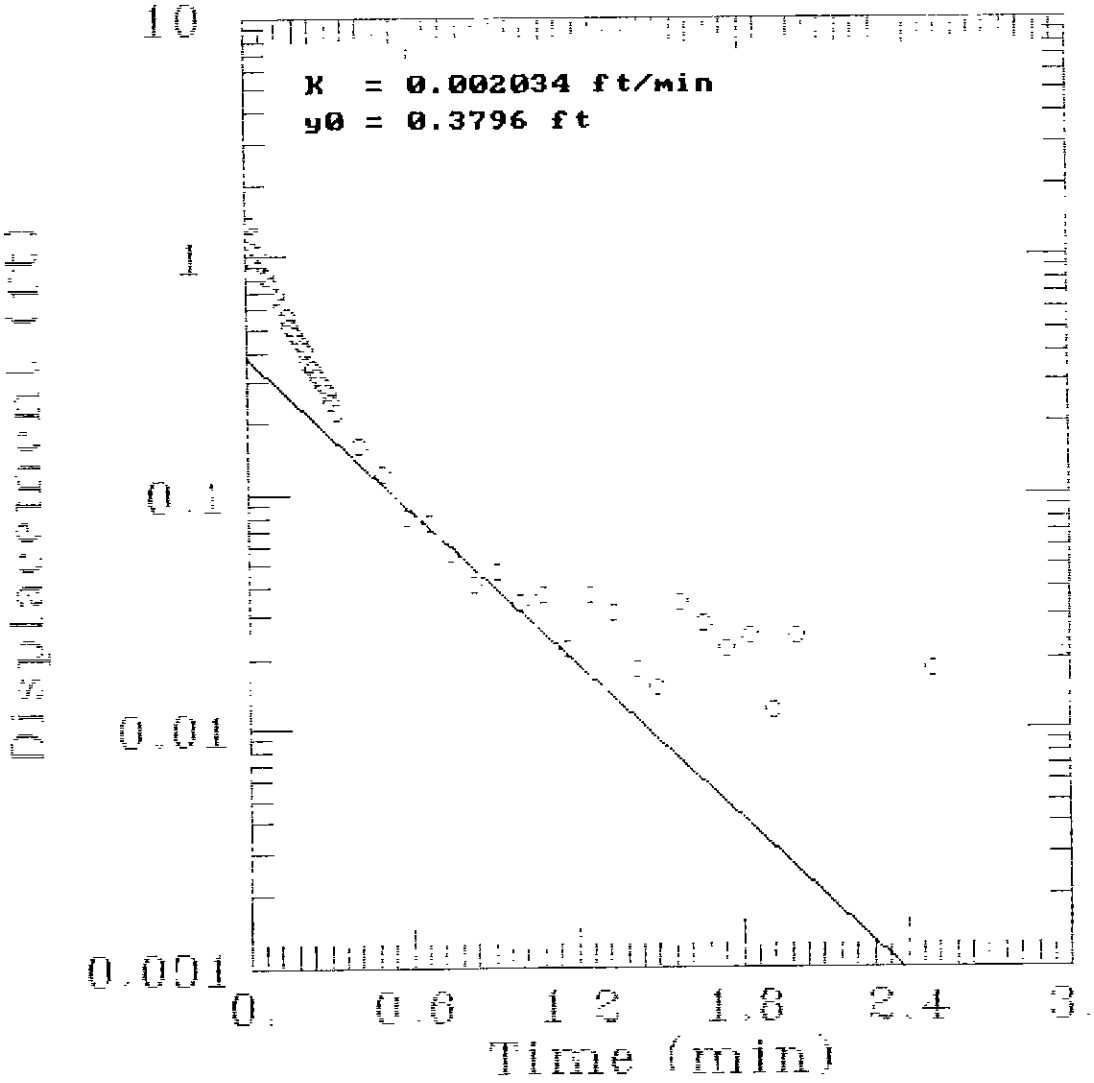
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

```
     K  = 2.03402E-003
     y0 = 3.79569E-001
```

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	3.796E-001	3.000E+000	2.187E-004		

CEF-16-19S RUN NO. 1



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/01 14:29

Unit# 00001 Test 0

Setups: INPUT 1

Type	Level(F)
Mode	TOC
I.D.	00004

Reference	0.000
Linearity	0.040
Scale Factor	10.010
Offset	−0.090
Delay mSEC	50.000

CEF−16−19S RUN 1

Step 0 11/01 09:43:25

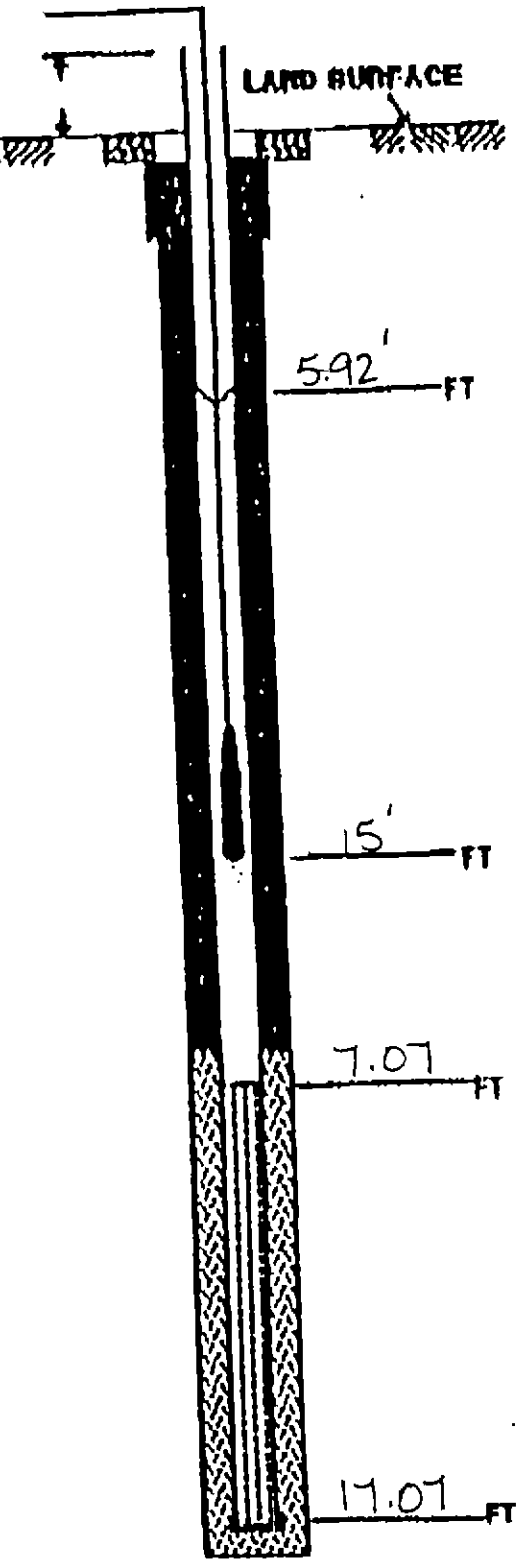
Elapsed Time	INPUT 1
0.0000	0.015
0.0033	0.319
0.0066	0.556
0.0100	0.651
0.0133	0.803
0.0166	0.452
0.0200	0.740
0.0233	1.065
0.0266	1.366
0.0300	1.239
0.0333	1.233
0.0500	1.040
0.0666	0.923
0.0833	0.822
0.1000	0.756
0.1166	0.683
0.1333	0.616
0.1500	0.569
0.1666	0.515
0.1833	0.474
0.2000	0.433
0.2166	0.401
0.2333	0.360
0.2500	0.338
0.2666	0.319
0.2833	0.294
0.3000	0.272
0.3166	0.243
0.3333	0.224
0.4166	0.158
0.5000	0.120

CEF-16-19S RUN 1
(CON'T)

Step 0 11/01 09:43:25

Elapsed Time	INPUT 1
0.5833	0.079
0.6666	0.075
0.7500	0.056
0.8333	0.041
0.9166	0.047
1.0000	0.034
1.0833	0.037
1.1666	0.022
1.2500	0.037
1.3333	0.031
1.4166	0.018
1.5000	0.015
1.5833	0.034
1.6666	0.028
1.7500	0.022
1.8333	0.025
1.9166	0.012
2.0000	0.025
2.5000	0.018
3.0000	0.022
3.5000	0.022
4.0000	0.018
4.5000	0.025
5.0000	0.009
5.5000	0.012
6.0000	0.003
6.5000	0.003
7.0000	0.015
7.5000	0.018
8.0000	0.018
8.5000	0.018
9.0000	0.015
9.5000	0.018
10.0000	0.022

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU'S 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-19S PUMPING WELL —

DATE 11·1·94 TIME 1050

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE (B) ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R-1 10 MIN. R2- 10 R3- 10

TIME OF INSTALLATION 1050

STATIC DEPTH TO WATER 5.92' FT. — PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 6.75' FT — PSI

14' DEPTH 7.74' FT — PSI

15' DEPTH 8.73' FT — PSI

CLOCKS SYNCHRONIZED? —

STATIC DEPTH TO WATER 5.92' btoc

TIME PUMPING STARTS —

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER — FT — PSI

TIME PUMPING STOPS —

MAXIMUM RECOVERY DEPTH TO WATER — FT — PSI

END RECOVERY —

RECALIBRATION OF TRANSDUCER

DEPTH — FT — PSI

DEPTH — FT — PSI

DEPTH — FT — PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/02/95 15:37:40

===

TEST DESCRIPTION

```
Data set...........
Data set title..... CEF-16-20D RUN NO. 3

Knowns and Constants:
   No. of data points................. 49
   Radius of well casing.............. 0.08333
   Radius of well..................... 0.25
   Aquifer saturated thickness........ 100
   Well screen length................. 10
   Static height of water in well..... 96.23
   Log(Re/Rw)......................... 3.519
   A, B, C............................  2.760,  0.448,  0.000
```

===

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

===

RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

	Estimate		Std. Error
K =	2.1981E-002	+/-	6.7167E-004
y0 =	2.4569E+000	+/-	6.2252E-002

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

```
Weighted Residual Statistics:
   Number of residuals.............. 49
   Number of estimated parameters.... 2
   Degrees of freedom............... 47
   Residual mean.................... 0.01927
   Residual standard deviation....... 0.03594
   Residual variance................ 0.001292
```

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0266	1.541	1.5225	0.018482	1
0.03	1.525	1.4322	0.092817	1
0.0333	1.244	1.3496	-0.10563	1
0.05	1.026	0.9994	0.026596	1
0.0666	0.72	0.74139	-0.021391	1
0.0833	0.499	0.549	-0.05	1
0.1	0.363	0.40653	-0.043535	1
0.1166	0.281	0.30158	-0.020581	1
0.1333	0.221	0.22332	-0.0023207	1
0.15	0.18	0.16537	0.014631	1
0.1666	0.161	0.12268	0.038324	1
0.1833	0.129	0.090842	0.038158	1
0.2	0.12	0.067268	0.052732	1
0.2166	0.101	0.049902	0.051098	1
0.2333	0.082	0.036952	0.045048	1
0.25	0.075	0.027363	0.047637	1
0.2666	0.072	0.020299	0.051701	1
0.2833	0.063	0.015031	0.047969	1
0.3	0.06	0.011131	0.048869	1
0.3166	0.056	0.0082571	0.047743	1
0.3333	0.044	0.0061144	0.037886	1
0.4166	0.037	0.0013663	0.035634	1
0.5	0.028	0.00030475	0.027695	1
0.5833	0.022	6.8098E-005	0.021932	1
0.6666	0.022	1.5217E-005	0.021985	1
0.75	0.025	3.3942E-006	0.024997	1
0.8333	0.018	7.5844E-007	0.017999	1
0.9166	0.018	1.6948E-007	0.018	1
1	0.012	3.7802E-008	0.012	1
1.0833	0.018	8.447E-009	0.018	1
1.1666	0.018	1.8875E-009	0.018	1
1.25	0.012	4.2101E-010	0.012	1
1.3333	0.018	9.4077E-011	0.018	1
1.4166	0.015	2.1022E-011	0.015	1
1.5	0.015	4.689E-012	0.015	1
1.5833	0.022	1.0478E-012	0.022	1
1.6666	0.022	2.3413E-013	0.022	1
1.75	0.018	5.2223E-014	0.018	1
1.8333	0.018	1.1669E-014	0.018	1
1.9166	0.018	2.6076E-015	0.018	1
2	0.018	5.8162E-016	0.018	1
2.5	0.018	7.2145E-020	0.018	1
3	0.009	8.9489E-024	0.009	1
3.5	0.025	1.11E-027	0.025	1
4	0.018	1.3769E-031	0.018	1
4.5	0.018	1.7079E-035	0.018	1
5	0.018	2.1185E-039	0.018	1
5.5	0.015	2.6278E-043	0.015	1
6	0.015	3.2595E-047	0.015	1

==

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
K =	2.1981E-002
y0 =	2.4569E+000

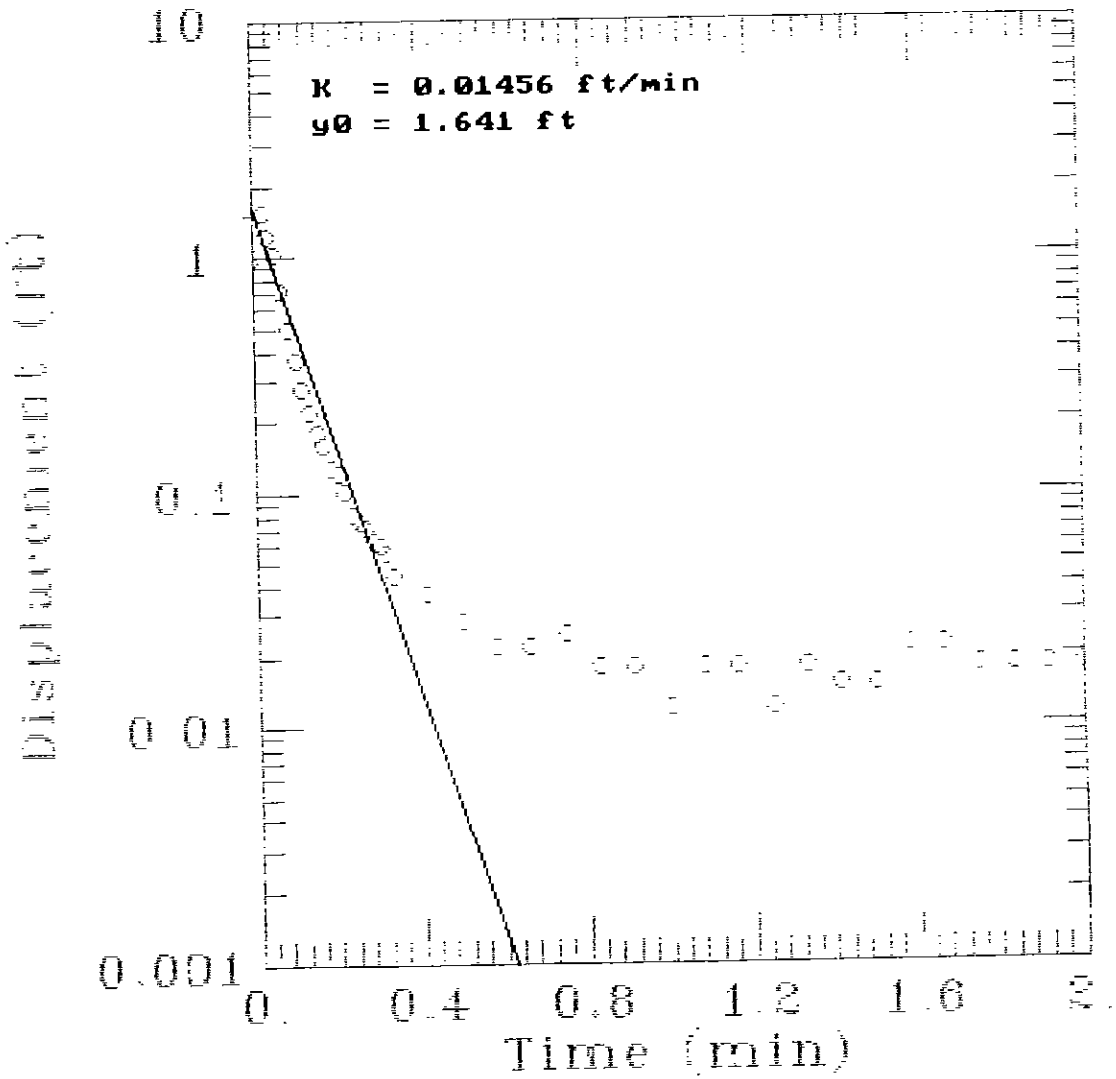
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>

TYPE CURVE DATA

K = 1.45591E-002
y0 = 1.64115E+000

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	1.641E+000	2.000E+000	7.336E-011		

CEF-16-20D RUN NO. 3



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/02 13:42

Unit# 00001 Test 2

Setups: INPUT 1

Type Level (F)
Mode TOC
I.D. 00000

Reference 0.000
Linearity 0.050
Scale factor 9.990
Offset 0.020
Delay mSEC 50.000

CEF-16-20D RUN 3

Step 0 11/02 10:52:48

Elapsed Time INPUT 1

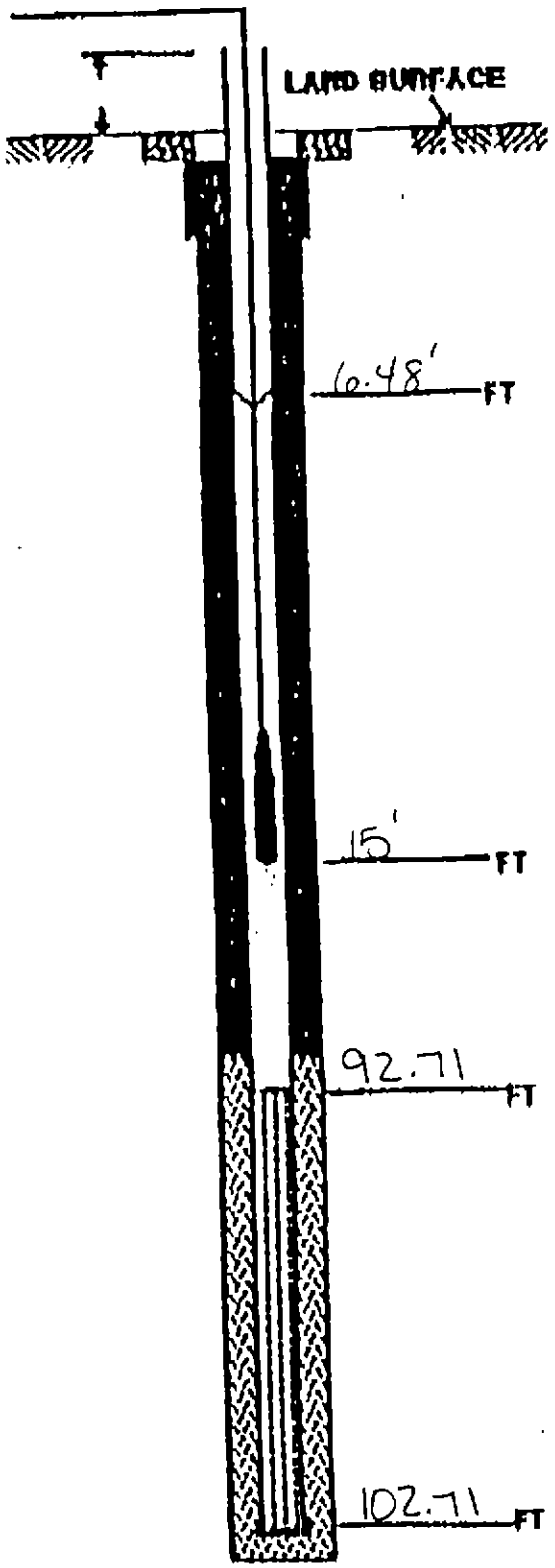
0.0000	0.012
0.0033	0.394
0.0066	1.004
0.0100	1.238
0.0133	1.206
0.0166	0.827
0.0200	0.874
0.0233	1.263
0.0266	1.541
0.0300	1.525
0.0333	1.244
0.0500	1.026
0.0666	0.720
0.0833	0.499
0.1000	0.363
0.1166	0.281
0.1333	0.221
0.1500	0.180
0.1666	0.161
0.1833	0.129
0.2000	0.120
0.2166	0.101
0.2333	0.082
0.2500	0.075
0.2666	0.072
0.2833	0.063
0.3000	0.060
0.3166	0.056
0.3333	0.044
0.4166	0.037
0.5000	0.028

CEF-16-20D RUN 3
(CON'T)

Step 0 11/02 10:52:48

Elapsed Time	INPUT 1
0.5833	0.022
0.6666	0.022
0.7500	0.025
0.8333	0.018
0.9166	0.018
1.0000	0.012
1.0833	0.018
1.1666	0.018
1.2500	0.012
1.3333	0.018
1.4166	0.015
1.5000	0.015
1.5833	0.022
1.6666	0.022
1.7500	0.018
1.8333	0.018
1.9166	0.018
2.0000	0.018
2.5000	0.018
3.0000	0.009
3.5000	0.025
4.0000	0.018
4.5000	0.018
5.0000	0.018
5.5000	0.015
6.0000	0.015
6.5000	0.015
7.0000	0.012
7.5000	0.012
8.0000	0.015
8.5000	0.012
9.0000	0.018
9.5000	0.012
10.0000	0.003

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU's 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-20D PUMPING WELL —

DATE 11-2-94 TIME 1000

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R1-11 MIN R2-11 R3-10

TIME OF INSTALLATION 1000

STATIC DEPTH TO WATER 6.48' FT. — PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 6.45' FT — PSI

14' DEPTH 7.44' FT — PSI

15' DEPTH 8.45' FT — PSI

CLOCKS SYNCHRONIZED? —

STATIC DEPTH TO WATER 6.48' btoc

TIME PUMPING STARTS —

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER — FT — PSI

TIME PUMPING STOPS —

MAXIMUM RECOVERY DEPTH TO WATER — FT — PSI

END RECOVERY —

RECALIBRATION OF TRANSDUCER

DEPTH — FT — PSI

DEPTH — FT — PSI

DEPTH — FT — PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/02/95 15:43:45

==

TEST DESCRIPTION

Data set...........
Data set title..... CEF-16-21S RUN NO. 3

Knowns and Constants:

No. of data points..................	49
Radius of well casing...............	0.08333
Radius of well......................	0.25
Aquifer saturated thickness.........	100
Well screen length..................	10
Static height of water in well......	10.45
Log(Re/Rw)..........................	2.328
A, B, C.............................	2.760, 0.448, 0.000

==

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

==

RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

	Estimate		Std. Error
K =	3.9184E-003	+/-	2.3581E-004
y0 =	1.6504E+000	+/-	5.8872E-002

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:

Number of residuals...............	49
Number of estimated parameters....	2
Degrees of freedom................	47
Residual mean.....................	0.03433
Residual standard deviation.......	0.09411
Residual variance.................	0.008857

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0266	1.916	1.4508	0.46524	1
0.03	1.367	1.427	-0.060048	1
0.0333	1.354	1.4044	-0.050401	1
0.05	1.234	1.2952	-0.06119	1
0.0666	1.108	1.1951	-0.08705	1
0.0833	1.01	1.1021	-0.092119	1
0.1	0.931	1.0164	-0.085414	1
0.1166	0.858	0.93783	-0.079828	1
0.1333	0.789	0.8649	-0.075899	1
0.15	0.742	0.79764	-0.055641	1
0.1666	0.688	0.73597	-0.04797	1
0.1833	0.637	0.67874	-0.041739	1
0.2	0.6	0.62596	-0.025957	1
0.2166	0.568	0.57756	-0.0095605	1
0.2333	0.54	0.53265	0.0073528	1
0.25	0.492	0.49123	0.00077341	1
0.2666	0.47	0.45325	0.016753	1
0.2833	0.442	0.418	0.024	1
0.3	0.42	0.3855	0.034505	1
0.3166	0.394	0.35569	0.03831	1
0.3333	0.375	0.32803	0.04697	1
0.4166	0.296	0.21905	0.076949	1
0.5	0.236	0.14621	0.089793	1
0.5833	0.208	0.097634	0.11037	1
0.6666	0.17	0.065198	0.1048	1
0.75	0.145	0.043516	0.10148	1
0.8333	0.129	0.029059	0.099941	1
0.9166	0.11	0.019405	0.090595	1
1	0.113	0.012952	0.10005	1
1.0833	0.094	0.0086491	0.085351	1
1.1666	0.091	0.0057757	0.085224	1
1.25	0.085	0.003855	0.081145	1
1.3333	0.075	0.0025743	0.072426	1
1.4166	0.078	0.001719	0.076281	1
1.5	0.069	0.0011474	0.067853	1
1.5833	0.066	0.0007662	0.065234	1
1.6666	0.066	0.00051165	0.065488	1
1.75	0.063	0.0003415	0.062658	1
1.8333	0.063	0.00022805	0.062772	1
1.9166	0.053	0.00015229	0.052848	1
2	0.05	0.00010164	0.049898	1
2.5	0.041	9.0043E-006	0.040991	1
3	0.037	7.9767E-007	0.036999	1
3.5	0.031	7.0663E-008	0.031	1
4	0.031	6.2599E-009	0.031	1
4.5	0.022	5.5455E-010	0.022	1
5	0.018	4.9126E-011	0.018	1
5.5	0.025	4.3519E-012	0.025	1
6	0.015	3.8552E-013	0.015	1

===

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
K =	3.9184E-003
y0 =	1.6504E+000

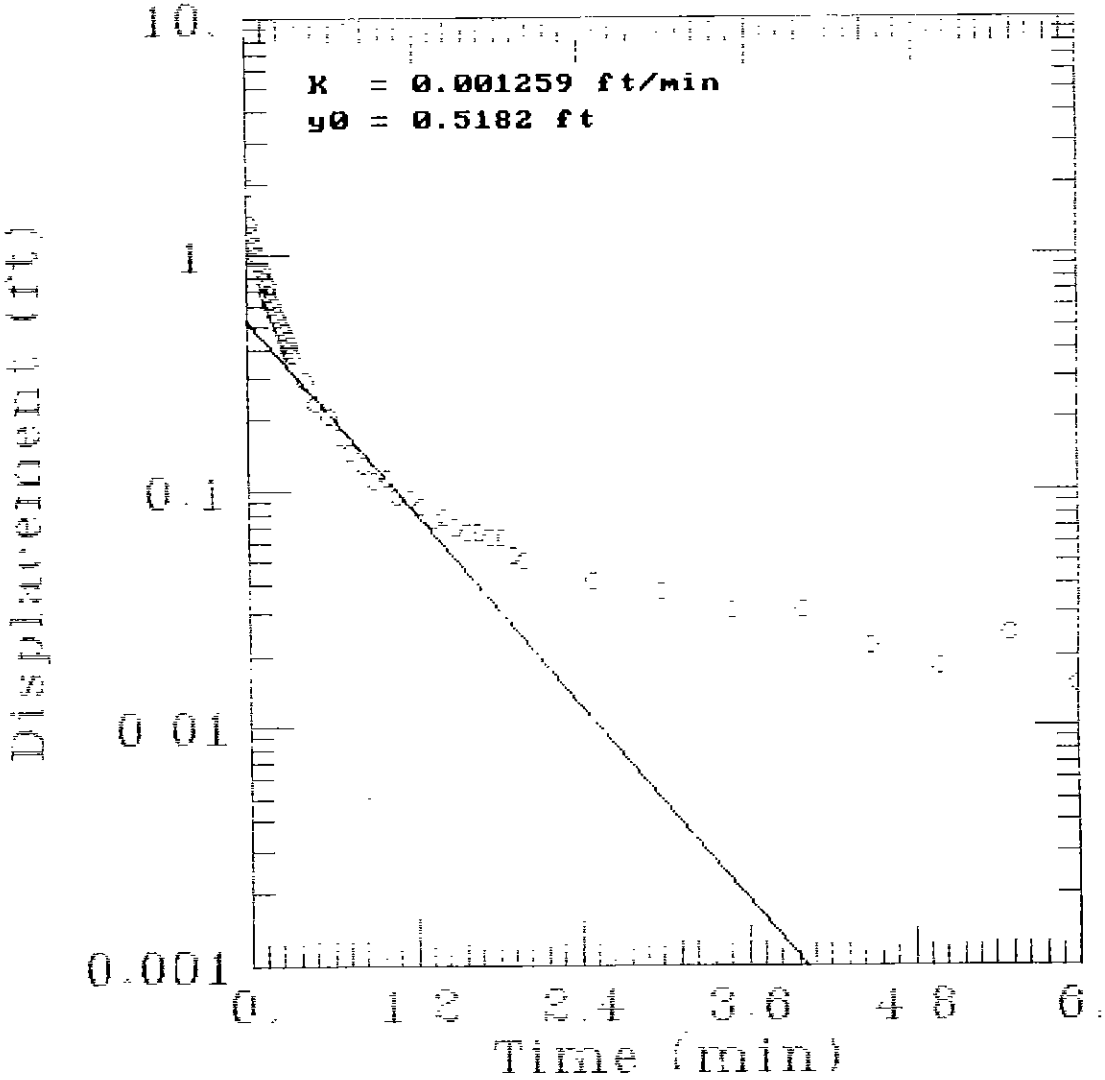
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

TYPE CURVE DATA

K = 1.25869E-003
y0 = 5.18189E-001

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	5.182E-001	6.000E+000	4.539E-005		

CEF-16-21S RUN NO. 3



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/02 17:32

Unit# 00001 Test 2

Setups: INPUT 1

Type	Level (F)
Mode	TOC
I.D.	00000

Reference	0.000
Linearity	0.050
Scale factor	9.990
Offset	0.020
Delay mSEC	50.000

CEF-16-21S RUN 3

Step 0 11/02 14:51:34

Elapsed Time INPUT 1

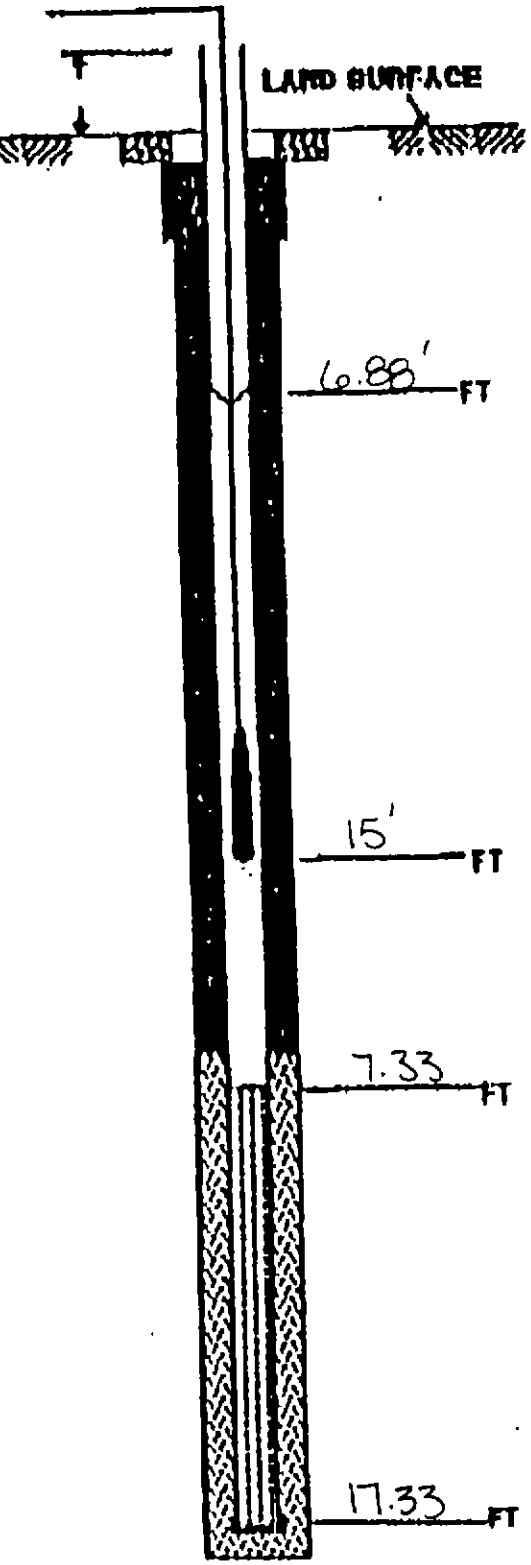
0.0000	0.003
0.0033	0.003
0.0066	0.438
0.0100	1.130
0.0133	1.184
0.0166	1.203
0.0200	0.972
0.0233	0.625
0.0266	1.916
0.0300	1.367
0.0333	1.354
0.0500	1.234
0.0666	1.108
0.0833	1.010
0.1000	0.931
0.1166	0.858
0.1333	0.789
0.1500	0.742
0.1666	0.688
0.1833	0.637
0.2000	0.600
0.2166	0.568
0.2333	0.540
0.2500	0.492
0.2666	0.470
0.2833	0.442
0.3000	0.420
0.3166	0.394
0.3333	0.375
0.4166	0.296
0.5000	0.236

CEF-16-21S RUN 3
(CON'T)

Step 0 11/02 14:51:34

Elapsed Time	INPUT 1
0.5833	0.208
0.6666	0.170
0.7500	0.145
0.8333	0.129
0.9166	0.110
1.0000	0.113
1.0833	0.094
1.1666	0.091
1.2500	0.085
1.3333	0.075
1.4166	0.078
1.5000	0.069
1.5833	0.066
1.6666	0.066
1.7500	0.063
1.8333	0.063
1.9166	0.053
2.0000	0.050
2.5000	0.041
3.0000	0.037
3.5000	0.031
4.0000	0.031
4.5000	0.022
5.0000	0.018
5.5000	0.025
6.0000	0.015
6.5000	0.012
7.0000	0.015
7.5000	0.022
8.0000	0.006
8.5000	0.018
9.0000	0.015
9.5000	0.006
10.0000	0.015

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU's 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-21S PUMPING WELL —

DATE 11.2.94 TIME 1407

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE (BT) ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R1-10 MIN R2- 10 R3-10

TIME OF INSTALLATION 1407

STATIC DEPTH TO WATER 6.88' FT. — PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 6.01' FT — PSI

14' DEPTH 7.00' FT — PSI

15' DEPTH 7.99' FT — PSI

CLOCKS SYNCHRONIZED? —

STATIC DEPTH TO WATER 6.88' btoc

TIME PUMPING STARTS —

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER — FT — PSI

TIME PUMPING STOPS —

MAXIMUM RECOVERY DEPTH TO WATER — FT — PSI

END RECOVERY —

RECALIBRATION OF TRANSDUCER

DEPTH — FT — PSI

DEPTH — FT — PSI

DEPTH — FT — PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/03/95 08:39:55

==

TEST DESCRIPTION

```
Data set...........
Data set title..... CEF-16-22I RUN NO. 2

Knowns and Constants:
   No. of data points................... 43
   Radius of well casing................ 0.08333
   Radius of well....................... 0.25
   Aquifer saturated thickness.......... 100
   Well screen length................... 10
   Static height of water in well....... 27.52
   Log(Re/Rw)........................... 2.729
   A, B, C..............................  2.760,  0.448,  0.000
```

==

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

==

RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

	Estimate		Std. Error
K =	1.0300E-002	+/-	2.7859E-004
y0 =	1.6770E+000	+/-	3.2972E-002

ANALYSIS OF MODEL RESIDUALS

```
residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
   Number of residuals............... 43
   Number of estimated parameters.... 2
   Degrees of freedom................ 41
   Residual mean..................... 0.01318
   Residual standard deviation....... 0.03227
   Residual variance................. 0.001042
```

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0266	1.278	1.2559	0.022089	1
0.03	1.263	1.2103	0.052662	1
0.0333	1.222	1.1677	0.054313	1
0.05	0.912	0.97383	-0.061825	1
0.0666	0.757	0.81303	-0.056032	1
0.0833	0.625	0.67805	-0.053051	1
0.1	0.505	0.56548	-0.060479	1
0.1166	0.438	0.47211	-0.03411	1
0.1333	0.379	0.39373	-0.01473	1
0.15	0.325	0.32836	-0.0033619	1
0.1666	0.281	0.27414	0.0068555	1
0.1833	0.259	0.22863	0.03037	1
0.2	0.23	0.19067	0.039327	1
0.2166	0.189	0.15919	0.02981	1
0.2333	0.161	0.13276	0.028239	1
0.25	0.154	0.11072	0.04328	1
0.2666	0.129	0.092438	0.036562	1
0.2833	0.123	0.077091	0.045909	1
0.3	0.107	0.064293	0.042707	1
0.3166	0.091	0.053677	0.037323	1
0.3333	0.085	0.044765	0.040235	1
0.4166	0.047	0.018099	0.028901	1
0.5	0.053	0.0073098	0.04569	1
0.5833	0.028	0.0029554	0.025045	1
0.6666	0.018	0.0011949	0.016805	1
0.75	0.015	0.0004826	0.014517	1
0.8333	0.015	0.00019512	0.014805	1
0.9166	0.009	7.8889E-005	0.0089211	1
1	0.012	3.1861E-005	0.011968	1
1.0833	0.009	1.2882E-005	0.0089871	1
1.1666	0.009	5.2083E-006	0.0089948	1
1.25	0.015	2.1035E-006	0.014998	1
1.3333	0.006	8.5047E-007	0.0059991	1
1.4166	0.012	3.4386E-007	0.012	1
1.5	0.003	1.3887E-007	0.0029999	1
1.5833	0.012	5.6149E-008	0.012	1
1.6666	0.025	2.2702E-008	0.025	1
1.75	0.018	9.1686E-009	0.018	1
1.9166	0.022	1.4988E-009	0.022	1
2	0.003	6.0532E-010	0.003	1
2.5	0.006	2.6384E-012	0.006	1
3	0.022	1.15E-014	0.022	1
3.5	0.012	5.0126E-017	0.012	1

==========

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
K =	1.0300E-002
y0 =	1.6770E+000

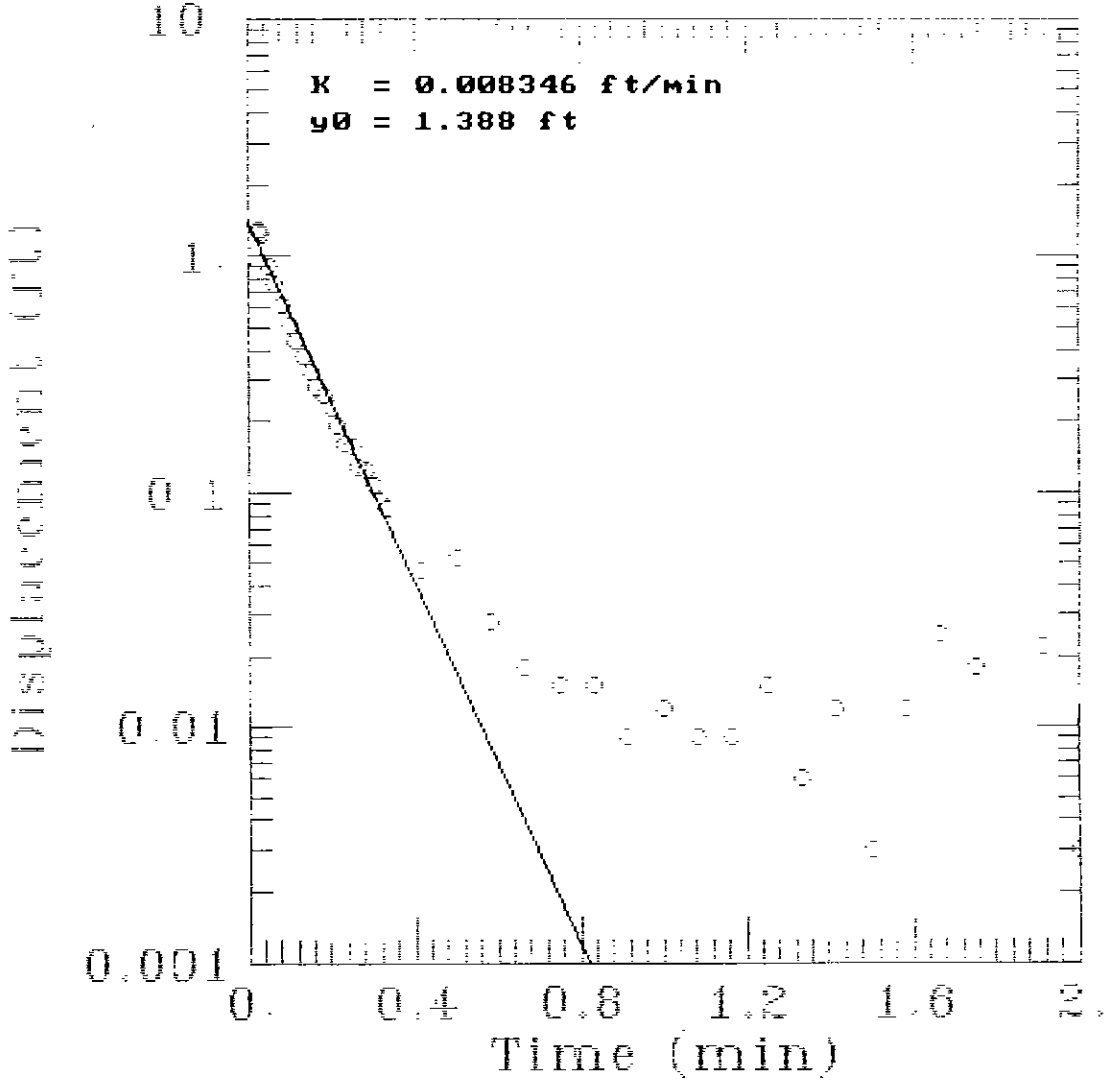
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

K = 8.34596E-003
y0 = 1.38785E+000

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	1.388E+000	2.000E+000	3.097E-008		

CEF-16-22I RUN NO. 2



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/02 13:49

Unit# 00001 Test 7

Setups: INPUT 1

Type	Level (F)
Mode	TOC
I.D.	00000

Reference	0.000
Linearity	0.050
Scale factor	9.990
Offset	0.020
Delay mSEC	50.000

CEF-16-22I RUN 2

Step 0 11/02 12:34:48

Elapsed Time INPUT 1

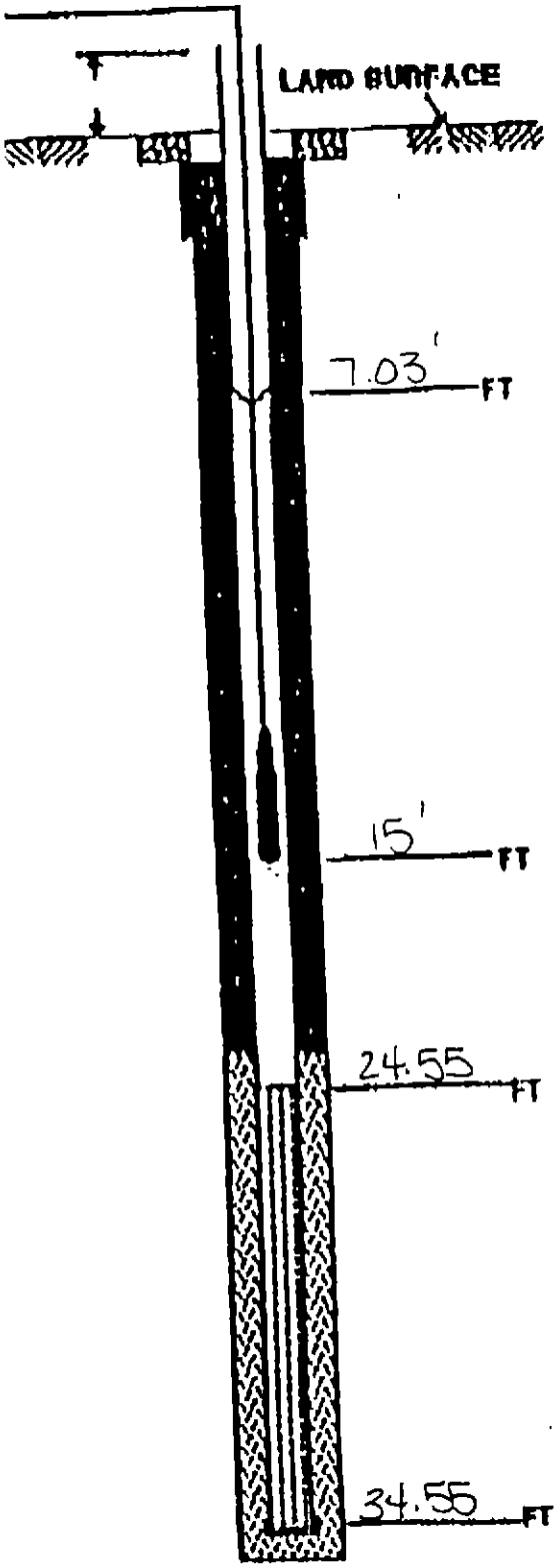
0.0000	0.000
0.0033	0.675
0.0066	0.985
0.0100	1.357
0.0133	1.613
0.0166	0.941
0.0200	0.874
0.0233	1.228
0.0266	1.278
0.0300	1.263
0.0333	1.222
0.0500	0.912
0.0666	0.757
0.0833	0.625
0.1000	0.505
0.1166	0.438
0.1333	0.379
0.1500	0.325
0.1666	0.281
0.1833	0.259
0.2000	0.230
0.2166	0.189
0.2333	0.161
0.2500	0.154
0.2666	0.129
0.2833	0.123
0.3000	0.107
0.3166	0.091
0.3333	0.085
0.4166	0.047
0.5000	0.053

CEF-16-22I RUN 2
(CON'T)

Step 0 11/02 12:34:48

Elapsed Time	INPUT 1
0.5833	0.028
0.6666	0.018
0.7500	0.015
0.8333	0.015
0.9166	0.009
1.0000	0.012
1.0833	0.009
1.1666	0.009
1.2500	0.015
1.3333	0.006
1.4166	0.012
1.5000	0.003
1.5833	0.012
1.6666	0.025
1.7500	0.018
1.8333	0.000
1.9166	0.022
2.0000	0.003
2.5000	0.006
3.0000	0.022
3.5000	0.012
4.0000	0.000
4.5000	0.015
5.0000	0.006
5.5000	0.000
6.0000	0.003
6.5000	0.015
7.0000	0.003
7.5000	0.000
8.0000	0.003
8.5000	0.000
9.0000	0.012
9.5000	0.003
10.0000	0.000

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU'S 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-22 I PUMPING WELL ___

DATE 11-2-94 TIME 1215

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE (PSI) ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R1- 10 MIN. R2- 10 R3- 10

TIME OF INSTALLATION 1215

STATIC DEPTH TO WATER 7.03' FT. ___ PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 5.92' FT ___ PSI

14' DEPTH 6.91' FT ___ PSI

15' DEPTH 7.91' FT ___ PSI

CLOCKS SYNCHRONIZED? ___

STATIC DEPTH TO WATER 7.03' btoc

TIME PUMPING STARTS ___

___ VERIFICATION OF DATA ACQUISITION (HR)

___ VERIFICATION OF DATA ACQUISITION (HR)

___ VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER ___ FT. ___ PSI

TIME PUMPING STOPS ___

MAXIMUM RECOVERY DEPTH TO WATER ___ FT. ___ PSI

END RECOVERY ___

RECALIBRATION OF TRANSDUCER

DEPTH ___ FT ___ PSI

DEPTH ___ FT ___ PSI

DEPTH ___ FT ___ PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/03/95 08:46:10

===

TEST DESCRIPTION

```
Data set...........
Data set title..... CEF-16-23D RUN NO. 2

Knowns and Constants:
   No. of data points.................. 36
   Radius of well casing............... 0.08333
   Radius of well...................... 0.25
   Aquifer saturated thickness......... 100
   Well screen length.................. 10
   Static height of water in well...... 92.22
   Log(Re/Rw).......................... 3.406
   A, B, C.............................  2.760,  0.448,  0.000
```

===

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

===

RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

	Estimate		Std. Error
K =	1.8196E-002	+/-	2.9031E-004
y0 =	2.4306E+000	+/-	3.4187E-002

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

```
Weighted Residual Statistics:
   Number of residuals............... 36
   Number of estimated parameters.... 2
   Degrees of freedom................ 34
   Residual mean..................... 0.008477
   Residual standard deviation....... 0.01986
   Residual variance................. 0.0003944
```

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.03	1.518	1.5319	-0.01393	1
0.0333	1.468	1.4561	0.011916	1
0.05	1.171	1.1261	0.044875	1
0.0666	0.865	0.87228	-0.0072787	1
0.0833	0.641	0.67461	-0.033614	1
0.1	0.489	0.52174	-0.032742	1
0.1166	0.372	0.40413	-0.032133	1
0.1333	0.303	0.31255	-0.009554	1
0.15	0.246	0.24173	0.0042729	1
0.1666	0.195	0.18724	0.007762	1
0.1833	0.157	0.14481	0.012191	1
0.2	0.132	0.11199	0.020006	1
0.2166	0.11	0.086749	0.023251	1
0.2333	0.094	0.067091	0.026909	1
0.25	0.085	0.051888	0.033112	1
0.2666	0.069	0.040191	0.028809	1
0.2833	0.059	0.031084	0.027916	1
0.3	0.047	0.02404	0.02296	1
0.3166	0.044	0.018621	0.025379	1
0.3333	0.041	0.014401	0.026599	1
0.4166	0.022	0.0039971	0.018003	1
0.5	0.015	0.0011077	0.013892	1
0.5833	0.009	0.00030743	0.0086926	1
0.6666	0.006	8.5327E-005	0.0059147	1
0.75	0.009	2.3646E-005	0.0089764	1
0.9166	0.006	1.8215E-006	0.0059982	1
1	0.003	5.0478E-007	0.0029995	1
1.0833	0.009	1.401E-007	0.0089999	1
1.1666	0.006	3.8885E-008	0.006	1
1.3333	0.006	2.9908E-009	0.006	1
1.5	0.003	2.3004E-010	0.003	1
1.5833	0.003	6.3846E-011	0.003	1
1.6666	0.003	1.772E-011	0.003	1
1.75	0.003	4.9107E-012	0.003	1
1.9166	0.006	3.7829E-013	0.006	1
2	0.015	1.0483E-013	0.015	1

==========

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
K =	1.8196E-002
y0 =	2.4306E+000

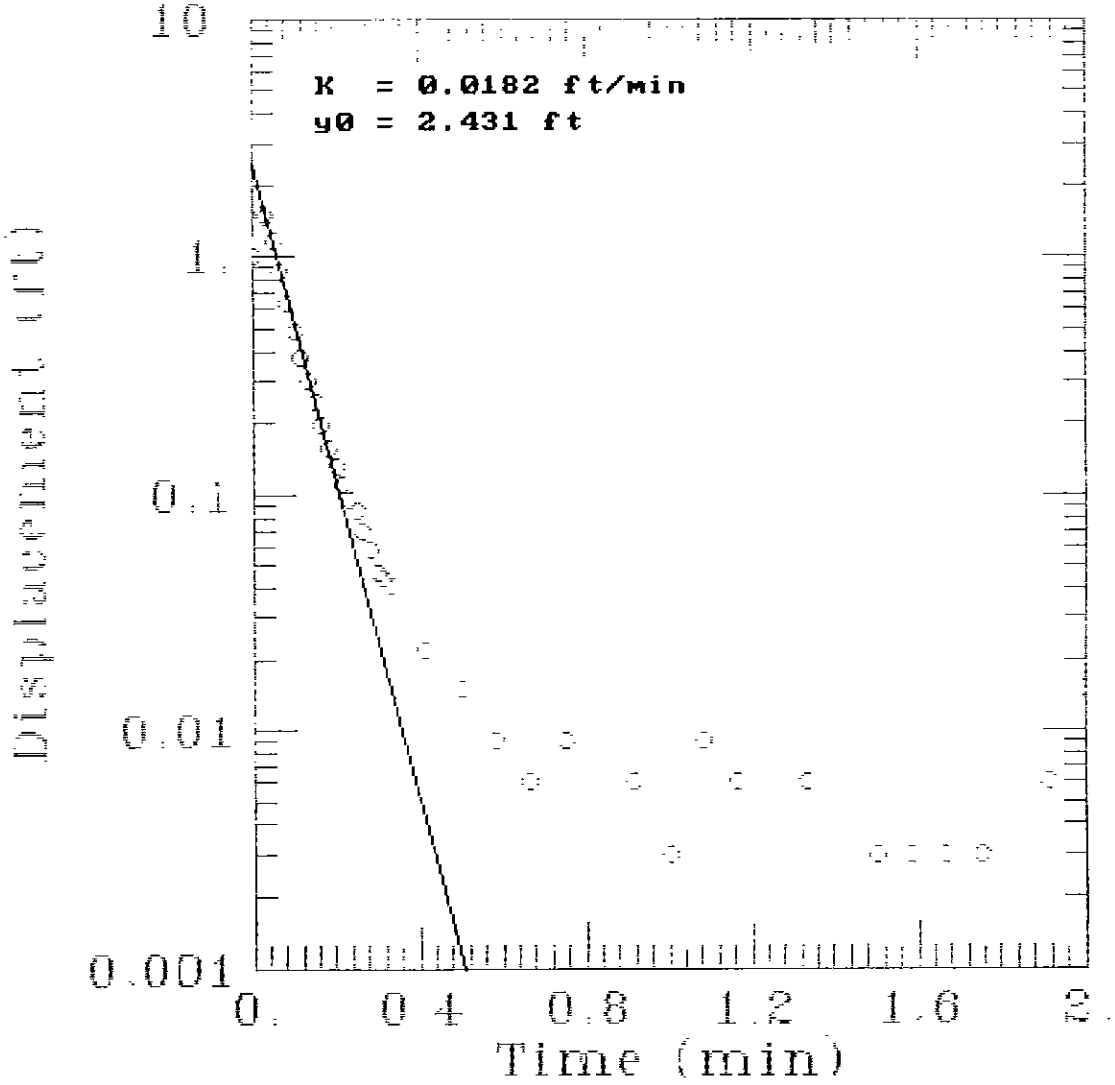
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

TYPE CURVE DATA

K = 1.81965E-002
y0 = 2.43062E+000

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	2.431E+000	2.000E+000	1.048E-013		

CEF-16-23D RUN NO. 2



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/02 13:45

Unit# 00001 Test 4

Setups: INPUT 1

Type Level (F)
Mode TOC
I.D. 00000

Reference 0.000
Linearity 0.050
Scale factor 9.990
Offset 0.020
Delay mSEC 50.000

CEF-16-23D RUN 2

Step 0 11/02 11:44:19

Elapsed Time INPUT 1

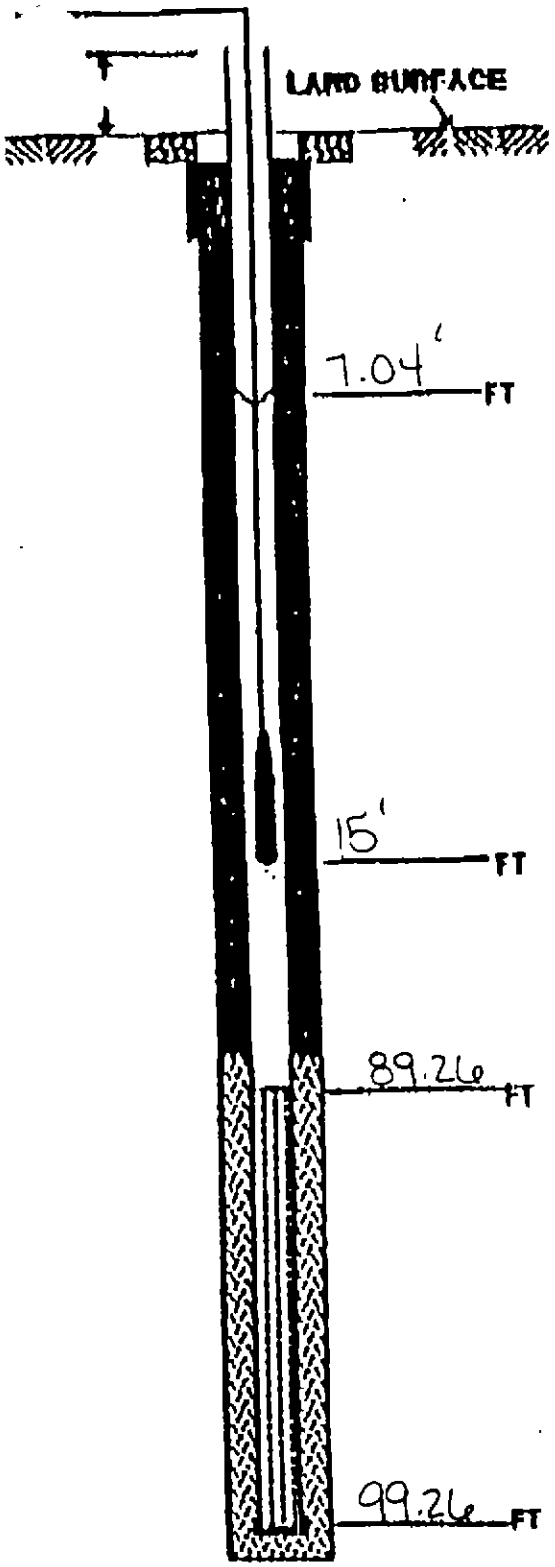
0.0000	-0.009
0.0033	-0.003
0.0066	0.489
0.0100	0.770
0.0133	0.931
0.0166	1.108
0.0200	0.587
0.0233	0.855
0.0266	1.206
0.0300	1.518
0.0333	1.468
0.0500	1.171
0.0666	0.865
0.0833	0.641
0.1000	0.489
0.1166	0.372
0.1333	0.303
0.1500	0.246
0.1666	0.195
0.1833	0.157
0.2000	0.132
0.2166	0.110
0.2333	0.094
0.2500	0.085
0.2666	0.069
0.2833	0.059
0.3000	0.047
0.3166	0.044
0.3333	0.041
0.4166	0.022
0.5000	0.015

CEF-16-23D RUN 2
(CON'T)

Step 0 11/02 11:44:19

Elapsed Time	INPUT 1
0.5833	0.009
0.6666	0.006
0.7500	0.009
0.8333	0.000
0.9166	0.006
1.0000	0.003
1.0833	0.009
1.1666	0.006
1.2500	0.000
1.3333	0.006
1.4166	0.000
1.5000	0.003
1.5833	0.003
1.6666	-0.003
1.7500	0.003
1.8333	0.000
1.9166	0.006
2.0000	0.015
2.5000	0.000
3.0000	0.003
3.5000	0.003
4.0000	0.006
4.5000	0.000
5.0000	-0.003
5.5000	0.003
6.0000	0.000
6.5000	-0.003
7.0000	-0.003
7.5000	-0.006
8.0000	-0.006
8.5000	0.000
9.0000	-0.003
9.5000	0.000
10.0000	0.000

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU's 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-23D PUMPING WELL —

DATE 11.2.94 TIME 1120

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE (BT) ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R1-10 MIN R2-10 R3-10

TIME OF INSTALLATION 1120

STATIC DEPTH TO WATER 7.04 FT. — PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 5.88' FT — PSI

14' DEPTH 6.87' FT — PSI

15' DEPTH 7.87' FT — PSI

CLOCKS SYNCHRONIZED? —

STATIC DEPTH TO WATER 7.04' btoc

TIME PUMPING STARTS —

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER — FT — PSI

TIME PUMPING STOPS —

MAXIMUM RECOVERY DEPTH TO WATER — FT — PSI

END RECOVERY —

RECALIBRATION OF TRANSDUCER

DEPTH — FT — PSI

DEPTH — FT — PSI

DEPTH — FT — PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/03/95 08:55:57

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TEST DESCRIPTION

Data set...........
Data set title..... CEF-16-24S RUN NO. 3

Knowns and Constants:
- No. of data points................... 50
- Radius of well casing............... 0.08333
- Radius of well...................... 0.25
- Aquifer saturated thickness......... 100
- Well screen length.................. 10
- Static height of water in well...... 9.59
- Log(Re/Rw).......................... 2.291
- A, B, C............................. 2.760, 0.448, 0.000

==

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

==

RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

	Estimate		Std. Error
K =	8.3455E-003	+/-	2.6040E-004
y0 =	1.7122E+000	+/-	3.5347E-002

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
- Number of residuals............... 50
- Number of estimated parameters.... 2
- Degrees of freedom................ 48
- Residual mean..................... 0.02566
- Residual standard deviation....... 0.04083
- Residual variance................. 0.001667

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0233	1.381	1.3408	0.040221	1
0.0266	1.334	1.2951	0.038856	1
0.03	1.289	1.2497	0.039251	1
0.0333	1.16	1.2072	-0.047212	1
0.05	1.008	1.0132	-0.0051546	1
0.0666	0.812	0.85118	-0.039184	1
0.0833	0.673	0.71436	-0.041357	1
0.1	0.559	0.59953	-0.040525	1
0.1166	0.464	0.50368	-0.039681	1
0.1333	0.395	0.42271	-0.027715	1
0.15	0.332	0.35476	-0.022764	1
0.1666	0.287	0.29805	-0.011049	1
0.1833	0.256	0.25014	0.0058622	1
0.2	0.221	0.20993	0.011071	1
0.2166	0.196	0.17637	0.019632	1
0.2333	0.173	0.14802	0.024983	1
0.25	0.164	0.12422	0.039777	1
0.2666	0.164	0.10436	0.059636	1
0.2833	0.132	0.087588	0.044412	1
0.3	0.123	0.073508	0.049492	1
0.3166	0.123	0.061757	0.061243	1
0.3333	0.113	0.051829	0.061171	1
0.4166	0.094	0.021625	0.072375	1
0.5	0.082	0.0090129	0.072987	1
0.5833	0.072	0.0037604	0.06824	1
0.6666	0.056	0.0015689	0.054431	1
0.75	0.056	0.00065392	0.055346	1
0.8333	0.047	0.00027283	0.046727	1
0.9166	0.05	0.00011383	0.049886	1
1	0.05	4.7444E-005	0.049953	1
1.0833	0.044	1.9795E-005	0.04398	1
1.1666	0.037	8.259E-006	0.036992	1
1.25	0.034	3.4422E-006	0.033997	1
1.3333	0.034	1.4362E-006	0.033999	1
1.4166	0.034	5.9922E-007	0.033999	1
1.5	0.041	2.4975E-007	0.041	1
1.5833	0.031	1.042E-007	0.031	1
1.6666	0.028	4.3476E-008	0.028	1
1.75	0.025	1.812E-008	0.025	1
1.8333	0.028	7.5602E-009	0.028	1
1.9166	0.034	3.1543E-009	0.034	1
2	0.034	1.3147E-009	0.034	1
2.5	0.028	6.9205E-012	0.028	1
3	0.028	3.643E-014	0.028	1
3.5	0.018	1.9177E-016	0.018	1
4	0.028	1.0095E-018	0.028	1
4.5	0.031	5.3139E-021	0.031	1
5	0.022	2.7973E-023	0.022	1
5.5	0.015	1.4725E-025	0.015	1
6	0.018	7.7513E-028	0.018	1

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

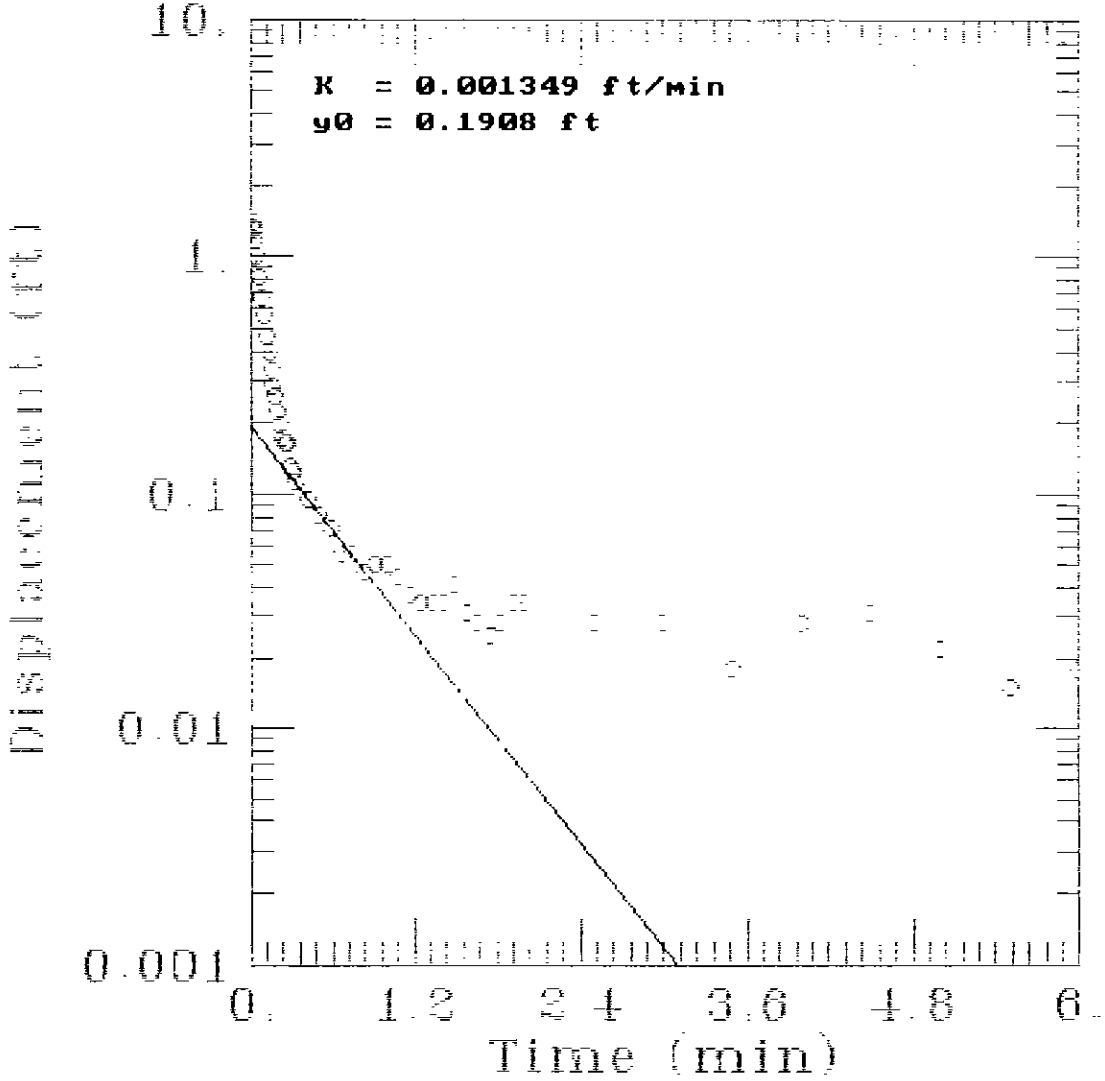
	Estimate
K =	8.3455E-003
y0 =	1.7122E+000

TYPE CURVE DATA

K = 1.34864E-003
y0 = 1.90791E-001

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	1.908E-001	6.000E+000	7.273E-006		

CEF-16-24S RUN NO. 3



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/01 14:29

Unit# 00001 Test 0

Setups: INPUT 1

Type	Level(F)
Mode	TOC
I.D.	00004

Reference	0.000
Linearity	0.040
Scale Factor	10.010
Offset	−0.090
Delay mSEC	50.000

CEF−16−24S RUN 3

Step 0 11/01 12:50:55

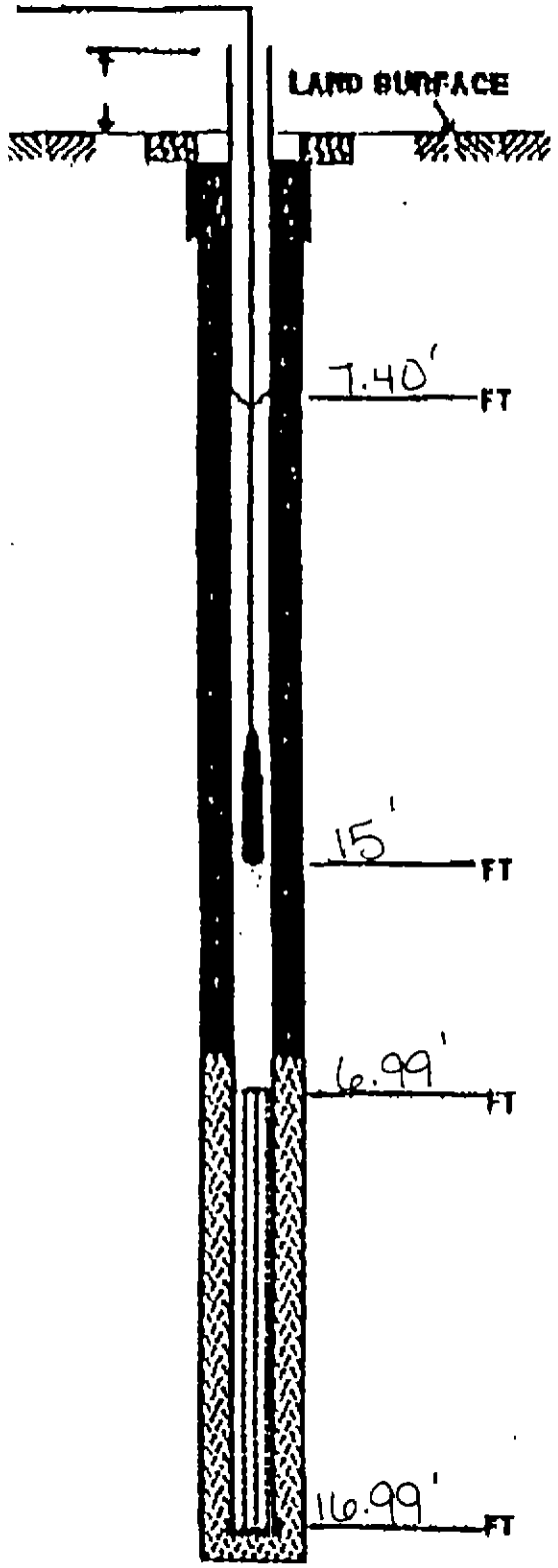
Elapsed Time	INPUT 1
0.0000	0.022
0.0033	0.692
0.0066	0.679
0.0100	0.825
0.0133	0.844
0.0166	1.014
0.0200	1.078
0.0233	1.381
0.0266	1.334
0.0300	1.289
0.0333	1.160
0.0500	1.008
0.0666	0.812
0.0833	0.673
0.1000	0.559
0.1166	0.464
0.1333	0.395
0.1500	0.332
0.1666	0.287
0.1833	0.256
0.2000	0.221
0.2166	0.196
0.2333	0.173
0.2500	0.164
0.2666	0.164
0.2833	0.132
0.3000	0.123
0.3166	0.123
0.3333	0.113
0.4166	0.094
0.5000	0.082

CEF-16-24S RUN 3
(CON'T)

Step 0 11/01 12:50:55

Elapsed Time	INPUT 1
0.5833	0.072
0.6666	0.056
0.7500	0.056
0.8333	0.047
0.9166	0.050
1.0000	0.050
1.0833	0.044
1.1666	0.037
1.2500	0.034
1.3333	0.034
1.4166	0.034
1.5000	0.041
1.5833	0.031
1.6666	0.028
1.7500	0.025
1.8333	0.028
1.9166	0.034
2.0000	0.034
2.5000	0.028
3.0000	0.028
3.5000	0.018
4.0000	0.028
4.5000	0.031
5.0000	0.022
5.5000	0.015
6.0000	0.018
6.5000	0.022
7.0000	0.012
7.5000	0.018
8.0000	0.012
8.5000	0.009
9.0000	0.009
9.5000	0.018
10.0000	0.022

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU's 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-24S PUMPING WELL —

DATE 11-1-94 TIME 1330

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R4- 10 MIN R5- 10 R6- 10

TIME OF INSTALLATION 1330

STATIC DEPTH TO WATER 7.40' FT. — PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 5.27' FT — PSI

14' DEPTH 6.26' FT — PSI

15' DEPTH 7.27' FT — PSI

CLOCKS SYNCHRONIZED? —

STATIC DEPTH TO WATER 7.40' btoc

TIME PUMPING STARTS —

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER — FT — PSI

TIME PUMPING STOPS —

MAXIMUM RECOVERY DEPTH TO WATER — FT — PSI

END RECOVERY —

RECALIBRATION OF TRANSDUCER

DEPTH — FT — PSI

DEPTH — FT — PSI

DEPTH — FT — PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/03/95 09:35:26

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TEST DESCRIPTION

Data set...........
Data set title..... CEF-16-25D RUN NO. 5

Knowns and Constants:
- No. of data points.................. 48
- Pumping rate........................ 1
- Radius (distance) to obs. well...... 0.08333

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ANALYTICAL METHOD

Cooper et al. (Confined Aquifer Slug Test)

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RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

	Estimate		Std. Error
T =	2.3569E-001	+/-	9.7301E-001
S =	1.0000E-008	+/-	7.2669E-007

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
- Number of residuals............... 48
- Number of estimated parameters.... 2
- Degrees of freedom................ 46
- Residual mean..................... 0.03081
- Residual standard deviation....... 0.3765
- Residual variance................. 0.1418

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.03	2.371	0.77806	1.5929	1
0.0333	2.295	0.75841	1.5366	1
0.05	1.598	0.66809	0.92991	1
0.0666	0.868	0.59101	0.27699	1
0.0833	0.369	0.52392	-0.15492	1
0.1	0.053	0.46557	-0.41257	1
0.1166	0.12	0.41491	-0.29491	1
0.1333	0.148	0.37026	-0.22226	1
0.15	0.107	0.33107	-0.22407	1
0.1666	0.037	0.29677	-0.25977	1
0.1833	0.009	0.26634	-0.25734	1
0.2	0.018	0.23946	-0.22146	1
0.2166	0.05	0.21581	-0.16581	1
0.2333	0.066	0.19473	-0.12873	1
0.25	0.069	0.17602	-0.10702	1
0.2666	0.041	0.15948	-0.11848	1
0.2833	0.028	0.14467	-0.11667	1
0.3	0.028	0.13147	-0.10347	1
0.3166	0.031	0.11976	-0.088761	1
0.3333	0.025	0.10923	-0.08423	1
0.4166	0.006	0.070955	-0.064955	1
0.5	0.031	0.048284	-0.017284	1
0.5833	0.006	0.034455	-0.028455	1
0.6666	0.009	0.02573	-0.01673	1
0.75	0.031	0.020036	0.010964	1
0.8333	0.009	0.016202	-0.0072019	1
0.9166	0.022	0.013527	0.0084734	1
1	0.022	0.011594	0.010406	1
1.0833	0.003	0.010154	-0.0071543	1
1.1666	0.028	0.0090469	0.018953	1
1.25	0.018	0.0081697	0.0098303	1
1.3333	0.009	0.0074587	0.0015413	1
1.4166	0.025	0.0068688	0.018131	1
1.5	0.003	0.0063696	-0.0033696	1
1.5833	0.018	0.0059412	0.012059	1
1.6666	0.015	0.0055683	0.0094317	1
1.75	0.009	0.0052397	0.0037603	1
1.8333	0.025	0.0049481	0.020052	1
1.9166	0.009	0.004687	0.004313	1
2	0.015	0.0044513	0.010549	1
2.5	0.025	0.003413	0.021587	1
3	0.009	0.0027608	0.0062392	1
3.5	0.015	0.0023164	0.012684	1
4	0.022	0.0019958	0.020004	1
4.5	0.003	0.001754	0.001246	1
5	0.025	0.0015653	0.023435	1
5.5	0.015	0.0014139	0.013586	1
6	0.012	0.0012896	0.01071	1

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RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

		Estimate
T	=	2.3569E-001
S	=	1.0000E-008

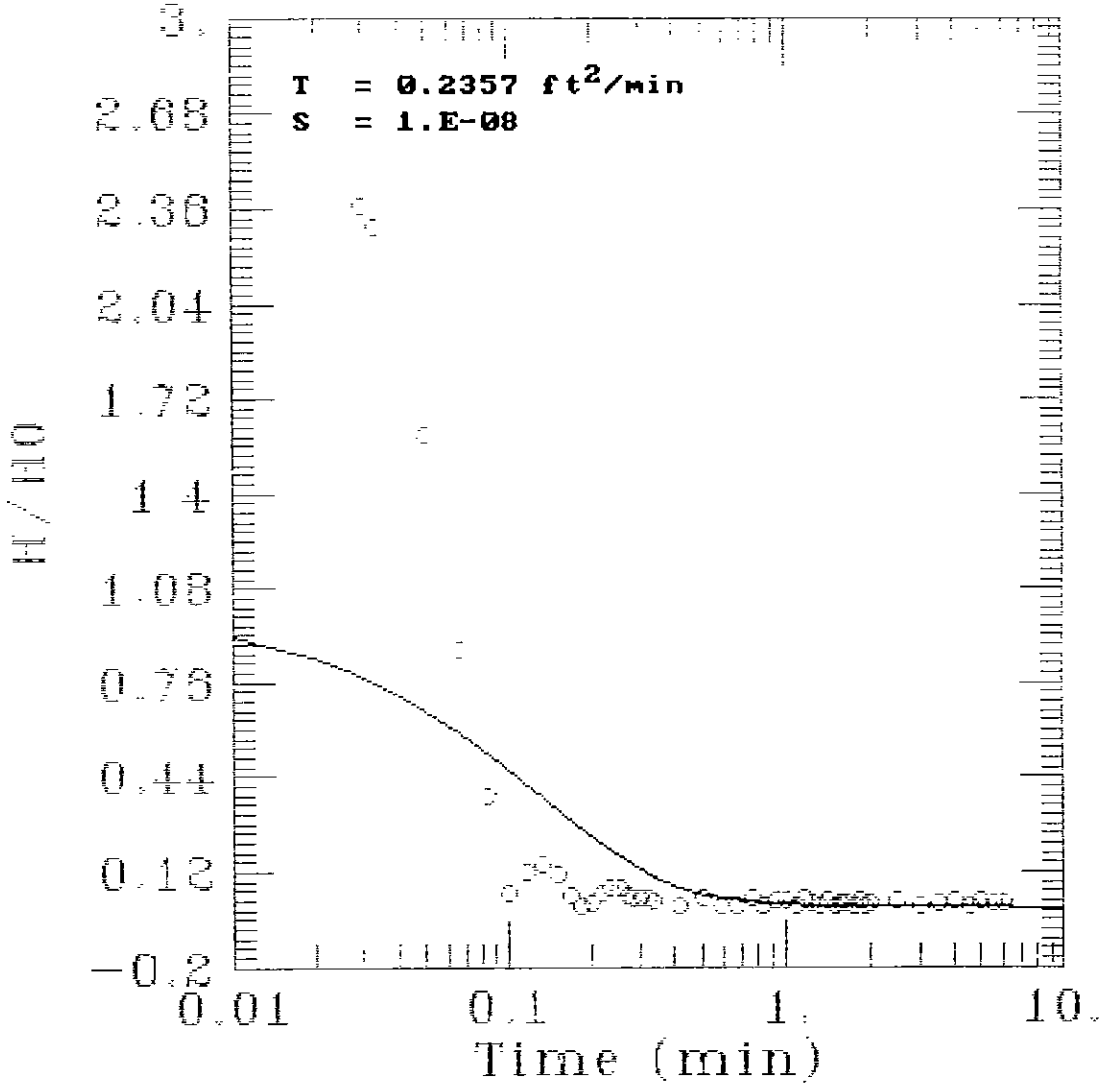
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

T = 2.35690E-001
S = 1.00000E-008

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E-002	9.137E-001	1.122E-002	9.044E-001	1.259E-002	8.942E-001
1.413E-002	8.830E-001	1.585E-002	8.706E-001	1.778E-002	8.571E-001
1.995E-002	8.423E-001	2.239E-002	8.260E-001	2.512E-002	8.084E-001
2.818E-002	7.892E-001	3.162E-002	7.683E-001	3.548E-002	7.458E-001
3.981E-002	7.215E-001	4.467E-002	6.954E-001	5.012E-002	6.675E-001
5.623E-002	6.378E-001	6.310E-002	6.064E-001	7.079E-002	5.733E-001
7.943E-002	5.386E-001	8.913E-002	5.026E-001	1.000E-001	4.656E-001
1.122E-001	4.277E-001	1.259E-001	3.893E-001	1.413E-001	3.510E-001
1.585E-001	3.130E-001	1.778E-001	2.759E-001	1.995E-001	2.402E-001
2.239E-001	2.063E-001	2.512E-001	1.748E-001	2.818E-001	1.459E-001
3.162E-001	1.200E-001	3.548E-001	9.728E-002	3.981E-001	7.777E-002
4.467E-001	6.142E-002	5.012E-001	4.804E-002	5.623E-001	3.734E-002
6.310E-001	2.900E-002	7.079E-001	2.262E-002	7.943E-001	1.782E-002
8.913E-001	1.425E-002	1.000E+000	1.159E-002	1.122E+000	9.605E-003
1.259E+000	8.087E-003	1.413E+000	6.895E-003	1.585E+000	5.934E-003
1.778E+000	5.137E-003	1.995E+000	4.464E-003	2.239E+000	3.889E-003
2.512E+000	3.394E-003	2.818E+000	2.967E-003	3.162E+000	2.599E-003
3.548E+000	2.281E-003	3.981E+000	2.006E-003	4.467E+000	1.768E-003
5.012E+000	1.561E-003	5.623E+000	1.381E-003	6.310E+000	1.223E-003
7.079E+000	1.085E-003	7.943E+000	9.627E-004	8.913E+000	8.549E-004

CEF-16-25D RUN NO. 5



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/07 13:09

Unit# 00001 Test 7

Setups: INPUT 1

Type Level (F)
Mode TOC
I.D. 00000

Reference 0.000
Linearity 0.050
Scale factor 9.990
Offset 0.020
Delay mSEC 50.000

CEF-16-25D RUN 5

Step 0 11/07 11:48:33

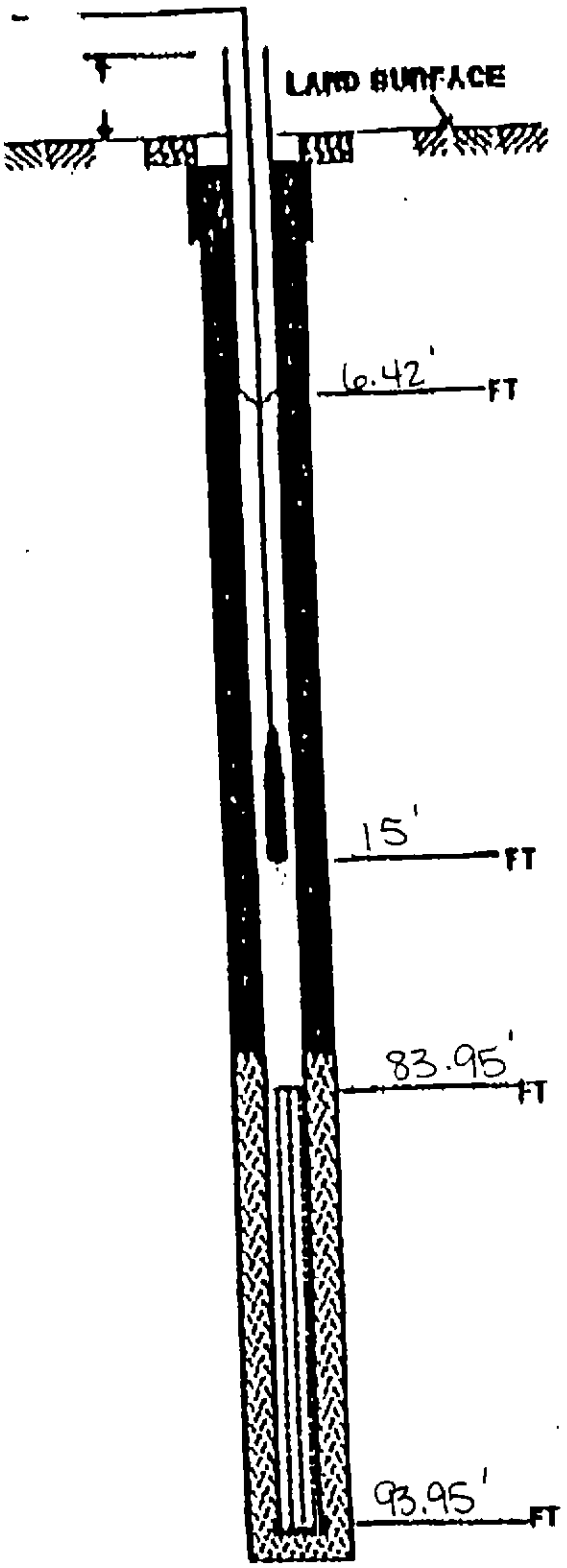
Elapsed Time	INPUT 1
0.0000	0.003
0.0033	0.571
0.0066	1.800
0.0100	1.197
0.0133	0.922
0.0166	1.730
0.0200	1.197
0.0233	1.853
0.0266	2.197
0.0300	2.371
0.0333	2.295
0.0500	1.598
0.0666	0.868
0.0833	0.369
0.1000	0.053
0.1166	-0.120
0.1333	-0.148
0.1500	-0.107
0.1666	-0.037
0.1833	0.009
0.2000	0.018
0.2166	0.050
0.2333	0.066
0.2500	0.069
0.2666	0.041
0.2833	0.028
0.3000	0.028
0.3166	0.031
0.3333	0.025
0.4166	0.006
0.5000	0.031

CEF-16-25D RUN 5
(CON'T)

Step 0 11/07 11:48:33

Elapsed Time	INPUT 1
0.5833	0.006
0.6666	0.009
0.7500	0.031
0.8333	0.009
0.9166	0.022
1.0000	0.022
1.0833	0.003
1.1666	0.028
1.2500	0.018
1.3333	0.009
1.4166	0.025
1.5000	0.003
1.5833	0.018
1.6666	0.015
1.7500	0.009
1.8333	0.025
1.9166	0.009
2.0000	0.015
2.5000	0.025
3.0000	0.009
3.5000	0.015
4.0000	0.022
4.5000	-0.003
5.0000	0.025
5.5000	0.015
6.0000	0.012
6.5000	0.022
7.0000	0.009
7.5000	0.025
8.0000	0.003
8.5000	0.018
9.0000	0.015
9.5000	0.006
10.0000	0.018
11.0000	0.003
12.0000	0.015

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU'S 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-25D PUMPING WELL —

DATE 11-7-94 TIME 1110

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R7-13 MIN R8-12

TIME OF INSTALLATION 1110

STATIC DEPTH TO WATER 6.42' FT. — PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION
DEPTH 6.54' FT — PSI
DEPTH 7.53' FT — PSI
DEPTH 8.54' FT — PSI

CLOCKS SYNCHRONIZED? —

STATIC DEPTH TO WATER 6.42' btoc

TIME PUMPING STARTS —

— VERIFICATION OF DATA ACQUISITION (HR)
— VERIFICATION OF DATA ACQUISITION (HR)
— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER — FT — PSI

TIME PUMPING STOPS —

MAXIMUM RECOVERY DEPTH TO WATER — FT — PSI

END RECOVERY —

RECALIBRATION OF TRANSDUCER
DEPTH — FT — PSI
DEPTH — FT — PSI
DEPTH — FT — PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/03/95 09:55:18

==

TEST DESCRIPTION

Data set...........
Data set title..... CEF-16-26DD RUN NO. 6

Knowns and Constants:
- No. of data points.................. 43
- Pumping rate........................ 1
- Radius (distance) to obs. well...... 0.08333

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ANALYTICAL METHOD

Cooper et al. (Confined Aquifer Slug Test)

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RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

	Estimate		Std. Error
T =	1.6502E-001	+/-	9.3367E-001
S =	1.0000E-008	+/-	9.7620E-007

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
- Number of residuals............... 43
- Number of estimated parameters.... 2
- Degrees of freedom................ 41
- Residual mean..................... 0.08831
- Residual standard deviation....... 0.5486
- Residual variance................. 0.301

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0266	2.737	0.85129	1.8857	1
0.03	2.63	0.83519	1.7948	1
0.0333	2.478	0.81999	1.658	1
0.05	1.942	0.7485	1.1935	1
0.0666	1.361	0.68519	0.67581	1
0.0833	0.915	0.62803	0.28697	1
0.1	0.574	0.5765	-0.0025046	1
0.1166	0.347	0.53018	-0.18318	1
0.1333	0.211	0.48791	-0.27691	1
0.15	0.142	0.44952	-0.30752	1
0.1666	0.104	0.41478	-0.31078	1
0.1833	0.082	0.38293	-0.30093	1
0.2	0.069	0.35386	-0.28486	1
0.2166	0.053	0.32746	-0.27446	1
0.2333	0.063	0.30316	-0.24016	1
0.25	0.041	0.28092	-0.23992	1
0.2666	0.053	0.26066	-0.20766	1
0.2833	0.05	0.24197	-0.19197	1
0.3	0.05	0.22481	-0.17481	1
0.3166	0.05	0.20915	-0.15915	1
0.3333	0.041	0.19466	-0.15366	1
0.4166	0.022	0.13786	-0.11586	1
0.5	0.018	0.099769	-0.081769	1
0.5833	0.022	0.073881	-0.051881	1
0.6666	0.009	0.055982	-0.046982	1
0.75	0.012	0.043399	-0.031399	1
0.8333	0.012	0.034437	-0.022437	1
0.9166	0.012	0.027943	-0.015943	1
1	0.012	0.023155	-0.011155	1
1.0833	0.009	0.019576	-0.010576	1
1.1666	0.003	0.016853	-0.013853	1
1.25	0.015	0.014743	0.00025748	1
1.3333	0.006	0.013084	-0.0070844	1
1.4166	0.006	0.011758	-0.0057581	1
1.5	0.009	0.010679	-0.0016788	1
1.5833	0.003	0.009789	-0.006789	1
1.6666	0.022	0.0090437	0.012956	1
1.8333	0.006	0.0078661	-0.0018661	1
1.9166	0.012	0.0073928	0.0046072	1
2	0.009	0.0069763	0.0020237	1
3	0.009	0.0041965	0.0048035	1
3.5	0.015	0.0034942	0.011506	1
4	0.003	0.0029891	1.0852E-005	1

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RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

		Estimate
T	=	1.6502E-001
S	=	1.0000E-008

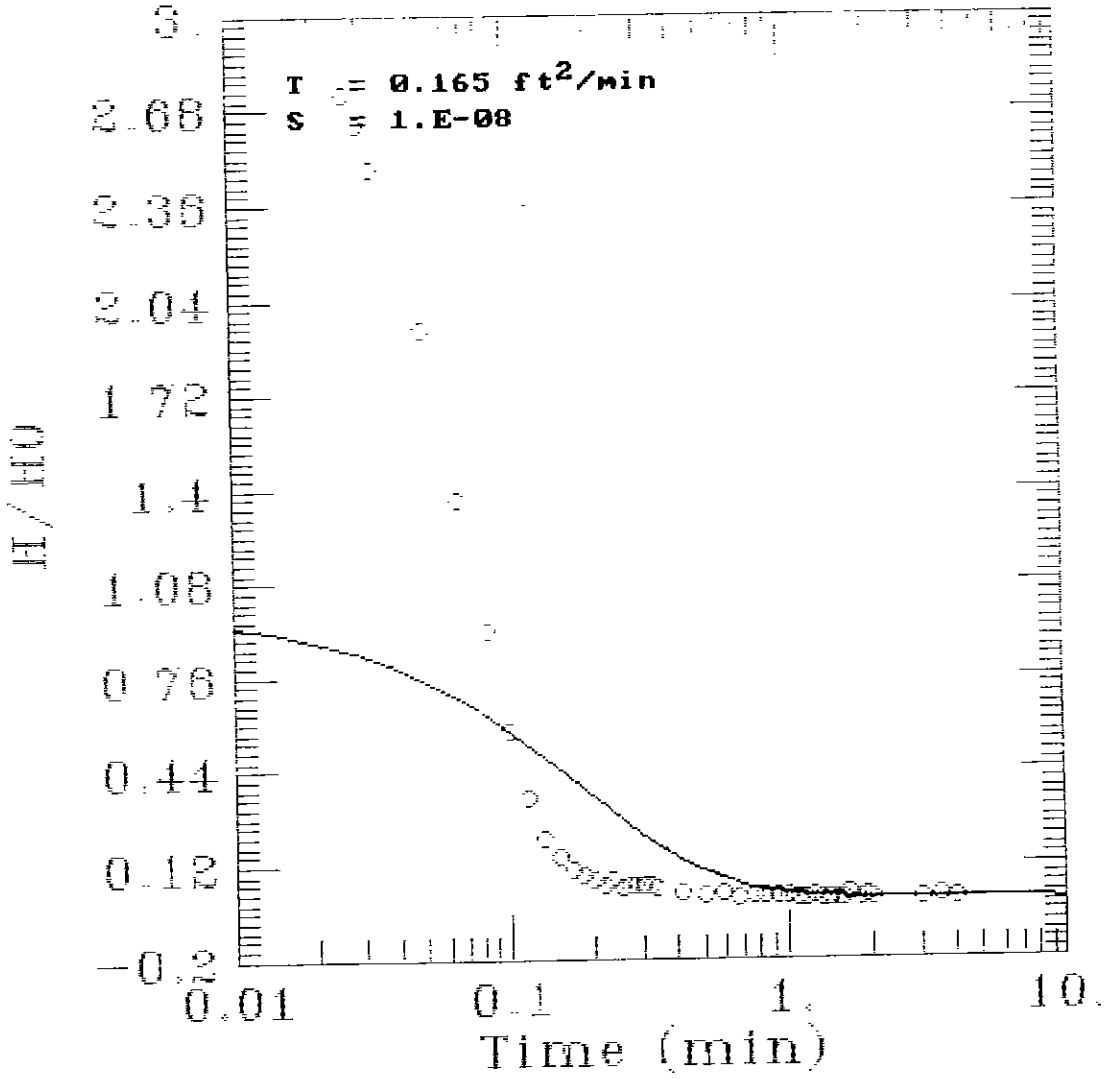
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

TYPE CURVE DATA

T = 1.65019E-001
S = 1.00000E-008

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E-002	9.373E-001	1.122E-002	9.304E-001	1.259E-002	9.229E-001
1.413E-002	9.146E-001	1.585E-002	9.054E-001	1.778E-002	8.952E-001
1.995E-002	8.841E-001	2.239E-002	8.719E-001	2.512E-002	8.584E-001
2.818E-002	8.437E-001	3.162E-002	8.277E-001	3.548E-002	8.101E-001
3.981E-002	7.911E-001	4.467E-002	7.704E-001	5.012E-002	7.480E-001
5.623E-002	7.239E-001	6.310E-002	6.980E-001	7.079E-002	6.703E-001
7.943E-002	6.407E-001	8.913E-002	6.095E-001	1.000E-001	5.765E-001
1.122E-001	5.420E-001	1.259E-001	5.062E-001	1.413E-001	4.692E-001
1.585E-001	4.314E-001	1.778E-001	3.930E-001	1.995E-001	3.546E-001
2.239E-001	3.166E-001	2.512E-001	2.794E-001	2.818E-001	2.435E-001
3.162E-001	2.095E-001	3.548E-001	1.777E-001	3.981E-001	1.485E-001
4.467E-001	1.224E-001	5.012E-001	9.933E-002	5.623E-001	7.951E-002
6.310E-001	6.286E-002	7.079E-001	4.920E-002	7.943E-001	3.826E-002
8.913E-001	2.971E-002	1.000E+000	2.316E-002	1.122E+000	1.822E-002
1.259E+000	1.455E-002	1.413E+000	1.182E-002	1.585E+000	9.774E-003
1.778E+000	8.217E-003	1.995E+000	6.999E-003	2.239E+000	6.018E-003
2.512E+000	5.208E-003	2.818E+000	4.524E-003	3.162E+000	3.940E-003
3.548E+000	3.438E-003	3.981E+000	3.006E-003	4.467E+000	2.632E-003
5.012E+000	2.310E-003	5.623E+000	2.031E-003	6.310E+000	1.790E-003
7.079E+000	1.580E-003	7.943E+000	1.397E-003	8.913E+000	1.238E-003

CEF-16-26DD RUN NO. 6



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/07 13:06

Unit# 00001 Test 5

Setups: INPUT 1

Type Level (F)
Mode TOC
I.D. 00000

Reference 0.000
Linearity 0.050
Scale factor 9.990
Offset 0.020
Delay mSEC 50.000

CEF-16-26DD RUN 6

Step 0 11/07 10:47:20

Elapsed Time INPUT 1

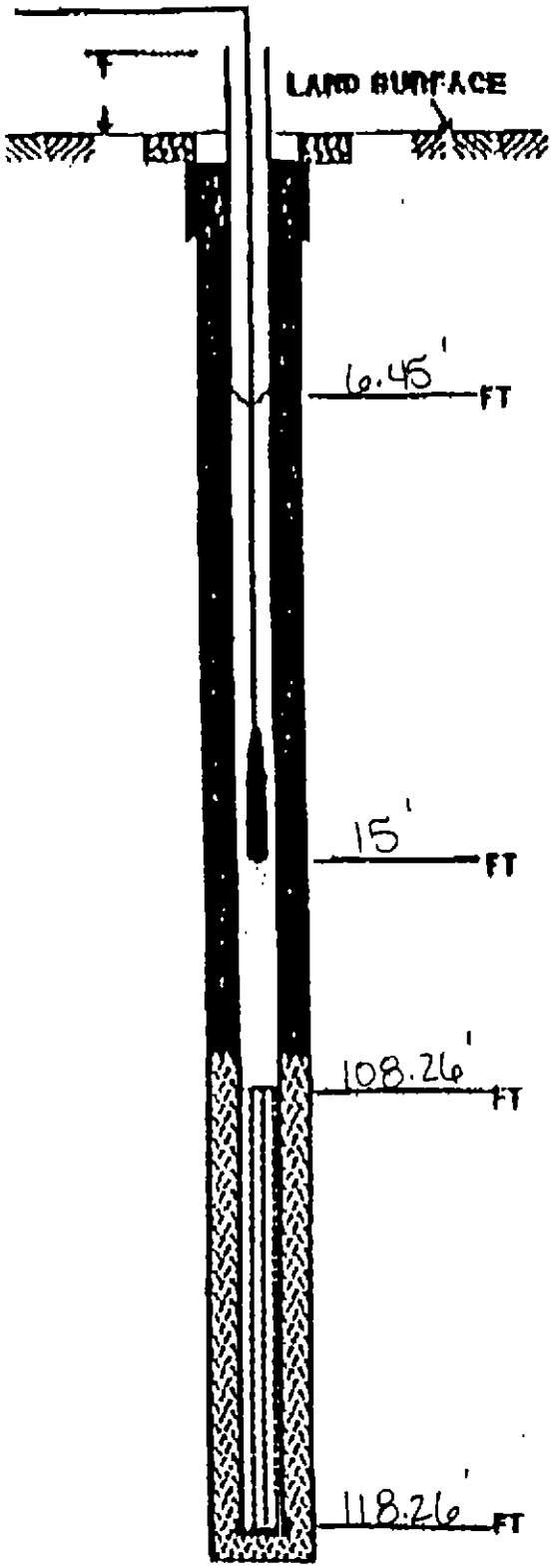
0.0000	0.003
0.0033	0.811
0.0066	1.651
0.0100	1.547
0.0133	1.152
0.0166	1.294
0.0200	1.604
0.0233	2.011
0.0266	2.737
0.0300	2.630
0.0333	2.478
0.0500	1.942
0.0666	1.361
0.0833	0.915
0.1000	0.574
0.1166	0.347
0.1333	0.211
0.1500	0.142
0.1666	0.104
0.1833	0.082
0.2000	0.069
0.2166	0.053
0.2333	0.063
0.2500	0.041
0.2666	0.053
0.2833	0.050
0.3000	0.050
0.3166	0.050
0.3333	0.041
0.4166	0.022
0.5000	0.018

CEF-16-26DD RUN 6
(CON'T)

Step 0 11/07 10:47:20

Elapsed Time	INPUT 1
0.5833	0.022
0.6666	0.009
0.7500	0.012
0.8333	0.012
0.9166	0.012
1.0000	0.012
1.0833	0.009
1.1666	0.003
1.2500	0.015
1.3333	0.006
1.4166	0.006
1.5000	0.009
1.5833	0.003
1.6666	0.022
1.7500	0.000
1.8333	0.006
1.9166	0.012
2.0000	-0.009
2.5000	0.000
3.0000	0.009
3.5000	0.015
4.0000	-0.003
4.5000	0.012
5.0000	0.012
5.5000	0.006
6.0000	-0.003
6.5000	0.012
7.0000	0.009
7.5000	0.003
8.0000	0.000
8.5000	0.006
9.0000	0.009
9.5000	-0.003
10.0000	0.012
11.0000	-0.003
12.0000	-0.006

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU's 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-26DD PUMPING WELL —

DATE 11-7-94 TIME 1027

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE (B) ~~80~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R-5 12 MIN R-6 12

TIME OF INSTALLATION 1027

STATIC DEPTH TO WATER 6.45' FT. — PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 6.43 FT — PSI

14' DEPTH 7.43 FT — PSI

15' DEPTH 8.42 FT — PSI

CLOCKS SYNCHRONIZED? —

STATIC DEPTH TO WATER 6.45' btoc

TIME PUMPING STARTS —

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER — FT — PSI

TIME PUMPING STOPS —

MAXIMUM RECOVERY DEPTH TO WATER — FT — PSI

END RECOVERY —

RECALIBRATION OF TRANSDUCER

DEPTH — FT — PSI

DEPTH — FT — PSI

DEPTH — FT — PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/03/95 10:02:37

==

TEST DESCRIPTION

Data set...........
Data set title..... CEF-16-27I RUN NO. 3

Knowns and Constants:
No. of data points.................. 41
Radius of well casing............... 0.08333
Radius of well...................... 0.25
Aquifer saturated thickness......... 100
Well screen length.................. 10
Static height of water in well...... 27.19
Log(Re/Rw).......................... 2.724
A, B, C............................. 2.760, 0.448, 0.000

==

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

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RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

	Estimate		Std. Error
K =	1.6473E-002	+/-	3.1954E-004
y0 =	2.0358E+000	+/-	2.9384E-002

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
Number of residuals................ 41
Number of estimated parameters.... 2
Degrees of freedom................ 39
Residual mean..................... 0.008457
Residual standard deviation....... 0.02071
Residual variance................. 0.000429

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0233	1.328	1.3567	-0.02872	1
0.0266	1.297	1.2809	0.016065	1
0.03	1.253	1.2073	0.045721	1
0.0333	1.168	1.1398	0.028157	1
0.05	0.798	0.85215	-0.054153	1
0.0666	0.593	0.63818	-0.045185	1
0.0833	0.46	0.47711	-0.01711	1
0.1	0.363	0.35669	0.0063097	1
0.1166	0.265	0.26713	-0.0021285	1
0.1333	0.208	0.19971	0.0082933	1
0.15	0.164	0.1493	0.014698	1
0.1666	0.129	0.11181	0.017187	1
0.1833	0.097	0.083592	0.013408	1
0.2	0.094	0.062494	0.031506	1
0.2166	0.069	0.046802	0.022198	1
0.2333	0.056	0.03499	0.02101	1
0.25	0.063	0.026159	0.036841	1
0.2666	0.034	0.01959	0.01441	1
0.2833	0.031	0.014646	0.016354	1
0.3	0.028	0.010949	0.017051	1
0.3166	0.028	0.0082	0.0198	1
0.3333	0.025	0.0061304	0.01887	1
0.4166	0.006	0.0014367	0.0045633	1
0.5	0.025	0.00033611	0.024664	1
0.5833	0.003	7.8769E-005	0.0029212	1
0.75	0.009	4.3187E-006	0.0089957	1
0.9166	0.018	2.3719E-007	0.018	1
1	0.006	5.5491E-008	0.0059999	1
1.0833	0.006	1.3005E-008	0.006	1
1.1666	0.003	3.0477E-009	0.003	1
1.25	0.003	7.13E-010	0.003	1
1.3333	0.003	1.671E-010	0.003	1
1.4166	0.003	3.916E-011	0.003	1
1.5833	0.009	2.147E-012	0.009	1
1.75	0.003	1.1771E-013	0.003	1
1.8333	0.015	2.7587E-014	0.015	1
1.9166	0.003	6.4652E-015	0.003	1
2.5	0.018	2.4971E-019	0.018	1
3	0.003	4.1227E-023	0.003	1
3.5	0.009	6.8064E-027	0.009	1
4	0.003	1.1237E-030	0.003	1

==========

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
K =	1.6473E-002
y0 =	2.0358E+000

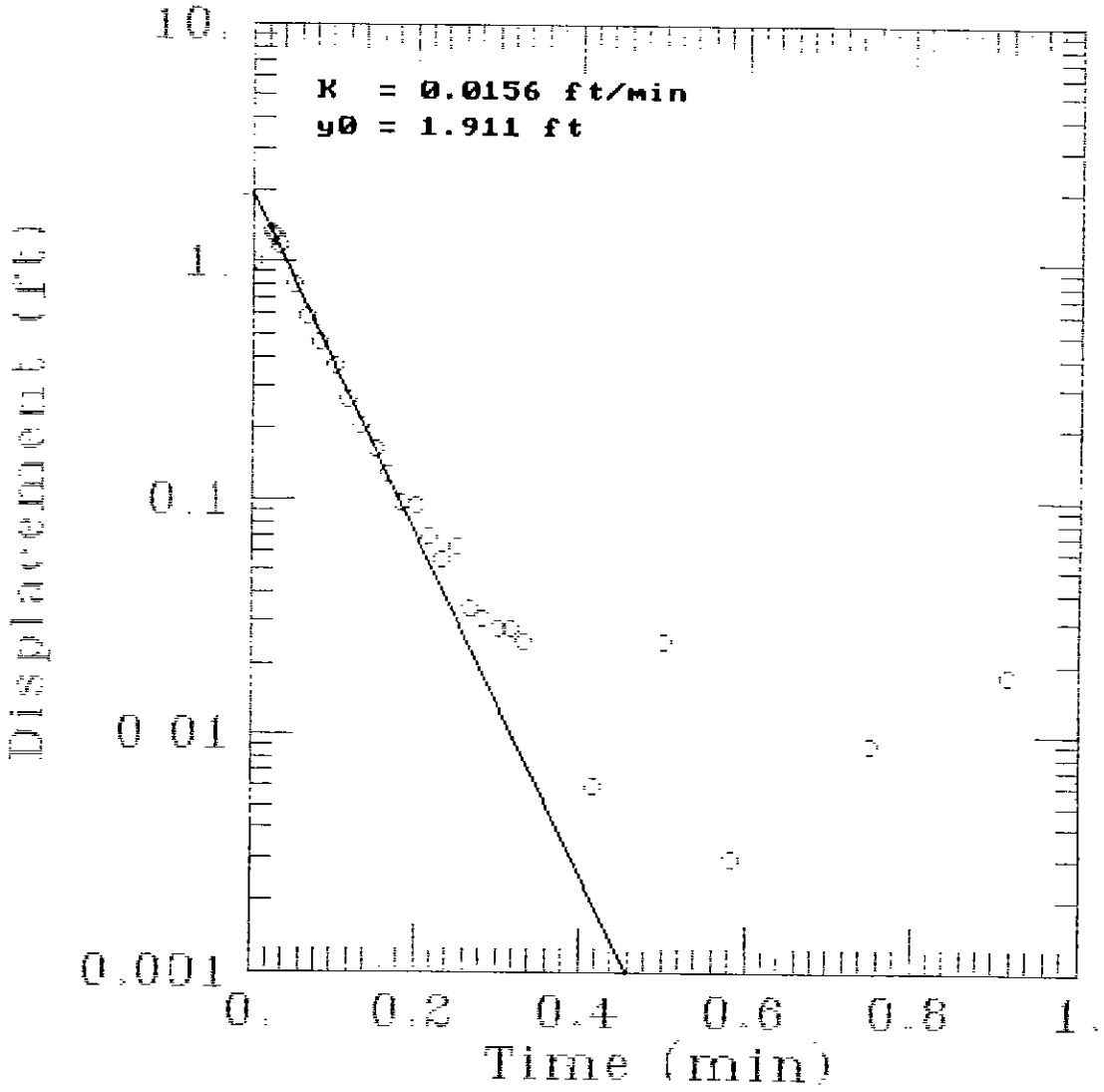
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

K = 1.55970E-002
y0 = 1.91095E+000

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	1.911E+000	1.000E+000	1.315E-007		

CEF-16-27I RUN NO. 3



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/02 17:36

Unit# 00001 Test 5

Setups: INPUT 1

Type Level (F)
Mode TOC
I.D. 00000

Reference 0.000
Linearity 0.050
Scale factor 9.990
Offset 0.020
Delay mSEC 50.000

CEF-16-27I RUN 3

Step 0 11/02 15:59:39

Elapsed Time INPUT 1

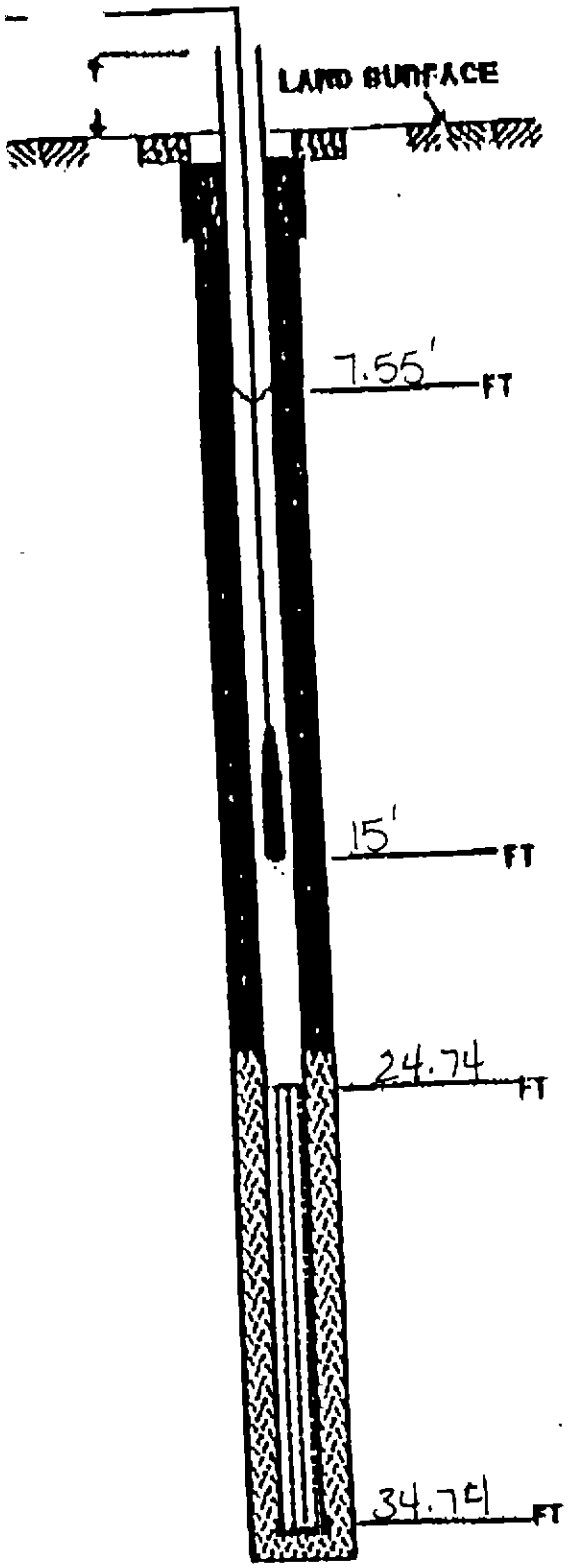
0.0000	0.009
0.0033	0.378
0.0066	0.962
0.0100	1.007
0.0133	1.426
0.0166	0.981
0.0200	1.000
0.0233	1.328
0.0266	1.297
0.0300	1.253
0.0333	1.168
0.0500	0.798
0.0666	0.593
0.0833	0.460
0.1000	0.363
0.1166	0.265
0.1333	0.208
0.1500	0.164
0.1666	0.129
0.1833	0.097
0.2000	0.094
0.2166	0.069
0.2333	0.056
0.2500	0.063
0.2666	0.034
0.2833	0.031
0.3000	0.028
0.3166	0.028
0.3333	0.025
0.4166	0.006
0.5000	0.025

CEF-16-27I RUN 3
(CON'T)

Step 0 11/02 15:59:39

Elapsed Time	INPUT 1
0.5833	0.003
0.6666	0.000
0.7500	0.009
0.8333	0.000
0.9166	0.018
1.0000	0.006
1.0833	-0.006
1.1666	-0.003
1.2500	-0.003
1.3333	-0.003
1.4166	-0.003
1.5000	0.000
1.5833	0.009
1.6666	0.000
1.7500	0.003
1.8333	0.015
1.9166	-0.003
2.0000	0.000
2.5000	0.018
3.0000	-0.003
3.5000	0.009
4.0000	0.000
4.5000	0.018
5.0000	0.018
5.5000	0.018
6.0000	-0.003
6.5000	0.003
7.0000	0.018
7.5000	0.006
8.0000	0.018
8.5000	0.000
9.0000	-0.003
9.5000	0.006
10.0000	0.003

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU'S 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-27I PUMPING WELL ——

DATE 11.2.94 TIME 1520

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R1- 10 MIN R2- 10 R3- 10

TIME OF INSTALLATION 1520

STATIC DEPTH TO WATER 7.55' FT. —— PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 5.36' FT —— PSI

14' DEPTH 6.35' FT —— PSI

15' DEPTH 7.35' FT —— PSI

CLOCKS SYNCHRONIZED? ——

STATIC DEPTH TO WATER 7.55' btoc

TIME PUMPING STARTS ——

—— VERIFICATION OF DATA ACQUISITION (HR)

—— VERIFICATION OF DATA ACQUISITION (HR)

—— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER —— FT —— PSI

TIME PUMPING STOPS ——

MAXIMUM RECOVERY DEPTH TO WATER —— FT —— PSI

END RECOVERY ——

RECALIBRATION OF TRANSDUCER

DEPTH —— FT —— PSI

DEPTH —— FT —— PSI

DEPTH —— FT —— PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/03/95 10:11:13

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TEST DESCRIPTION

Data set...........
Data set title..... CEF-16-28D RUN NO. 4

Knowns and Constants:
- No. of data points.................. 45
- Radius of well casing............... 0.08333
- Radius of well...................... 0.25
- Aquifer saturated thickness......... 100
- Well screen length.................. 10
- Static height of water in well...... 91.75
- Log(Re/Rw)........................... 3.397
- A, B, C............................. 2.760, 0.448, 0.000

==

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

==

RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

	Estimate		Std. Error
K =	1.0155E-002	+/-	8.9094E-004
y0 =	2.9116E+000	+/-	2.1554E-001

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
- Number of residuals............... 45
- Number of estimated parameters.... 2
- Degrees of freedom................ 43
- Residual mean..................... 0.127
- Residual standard deviation....... 0.1779
- Residual variance................. 0.03166

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0333	2.345	2.1857	0.15931	1
0.05	2.058	1.8929	0.16509	1
0.0666	1.575	1.6408	-0.065767	1
0.0833	1.278	1.421	-0.14299	1
0.1	1.083	1.2306	-0.14764	1
0.1166	0.931	1.0667	-0.13572	1
0.1333	0.805	0.92383	-0.11883	1
0.15	0.71	0.80008	-0.090081	1
0.1666	0.644	0.69351	-0.049506	1
0.1833	0.574	0.60061	-0.026611	1
0.2	0.521	0.52016	0.00084168	1
0.2166	0.473	0.45087	0.022129	1
0.2333	0.435	0.39048	0.044524	1
0.25	0.407	0.33817	0.068828	1
0.2666	0.382	0.29313	0.088874	1
0.2833	0.36	0.25386	0.10614	1
0.3	0.331	0.21986	0.11114	1
0.3166	0.331	0.19057	0.14043	1
0.3333	0.319	0.16504	0.15396	1
0.4166	0.258	0.080549	0.17745	1
0.5	0.246	0.039278	0.20672	1
0.5833	0.221	0.019169	0.20183	1
0.6666	0.23	0.0093555	0.22064	1
0.75	0.211	0.004562	0.20644	1
0.8333	0.224	0.0022265	0.22177	1
0.9166	0.211	0.0010866	0.20991	1
1	0.205	0.00052986	0.20447	1
1.0833	0.227	0.0002586	0.22674	1
1.1666	0.211	0.00012621	0.21087	1
1.25	0.208	6.1542E-005	0.20794	1
1.3333	0.224	3.0035E-005	0.22397	1
1.4166	0.198	1.4659E-005	0.19799	1
1.5	0.208	7.1479E-006	0.20799	1
1.5833	0.208	3.4885E-006	0.208	1
1.6666	0.198	1.7026E-006	0.198	1
1.75	0.211	8.3021E-007	0.211	1
1.8333	0.217	4.0518E-007	0.217	1
1.9166	0.208	1.9775E-007	0.208	1
2	0.214	9.6427E-008	0.214	1
2.5	0.205	1.3008E-009	0.205	1
3	0.198	1.7548E-011	0.198	1
3.5	0.208	2.3673E-013	0.208	1
4	0.221	3.1935E-015	0.221	1
4.5	0.208	4.3081E-017	0.208	1
5	0.208	5.8117E-019	0.208	1

==========

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
K =	1.0155E-002
y0 =	2.9116E+000

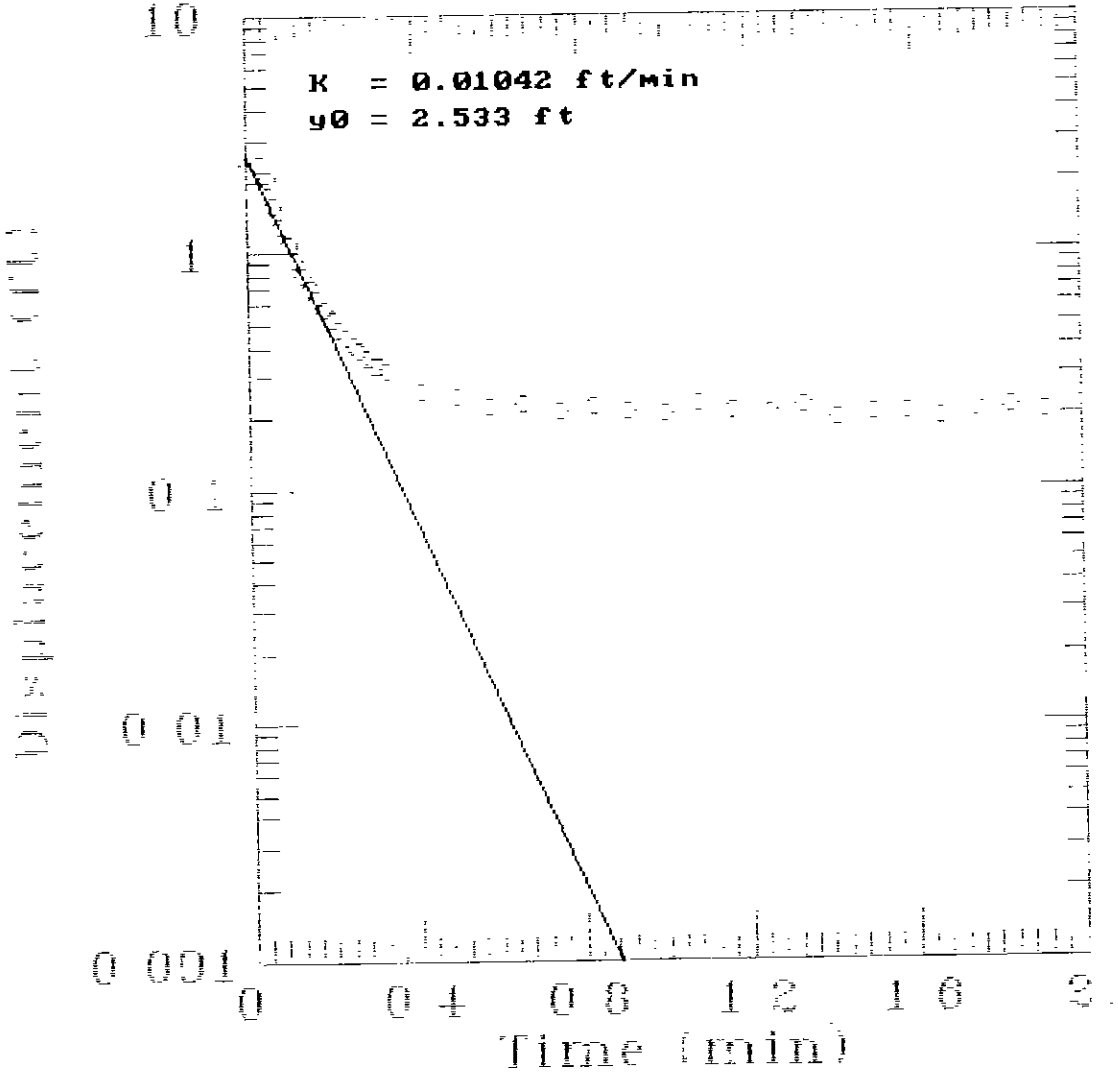
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

K = 1.04157E-002
y0 = 2.53313E+000

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	2.533E+000	2.000E+000	5.396E-008		

CEF-16-28D RUN NO. 4



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/07 16:40

Unit# 00001 Test 4

Setups: INPUT 1

Type Level (F)
Mode TOC
I.D. 00000

Reference 0.000
Linearity 0.050
Scale factor 9.990
Offset 0.020
Delay mSEC 50.000

CEF-16-28D RUN 4

Step 0 11/07 15:34:30

Elapsed Time INPUT 1

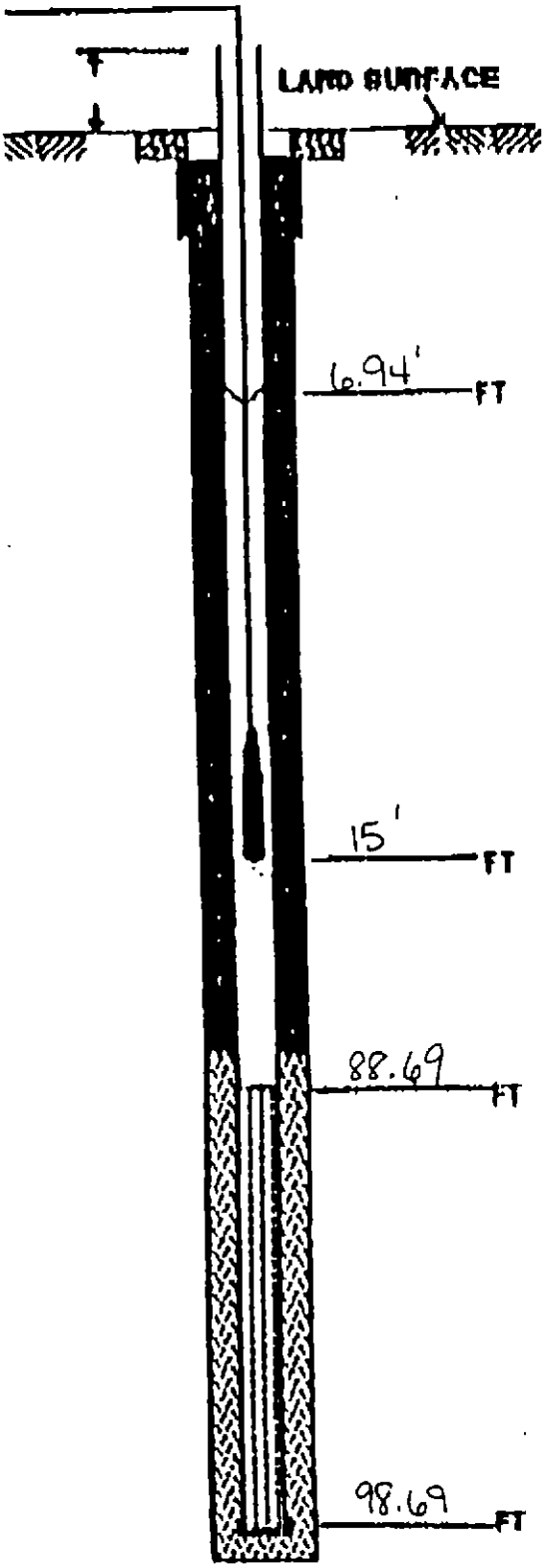
0.0000	0.006
0.0033	0.653
0.0066	1.102
0.0100	0.855
0.0133	0.937
0.0166	1.241
0.0200	1.253
0.0233	1.487
0.0266	1.847
0.0300	2.115
0.0333	2.345
0.0500	2.058
0.0666	1.575
0.0833	1.278
0.1000	1.083
0.1166	0.931
0.1333	0.805
0.1500	0.710
0.1666	0.644
0.1833	0.574
0.2000	0.521
0.2166	0.473
0.2333	0.435
0.2500	0.407
0.2666	0.382
0.2833	0.360
0.3000	0.331
0.3166	0.331
0.3333	0.319
0.4166	0.258
0.5000	0.246

CEF-16-28D RUN 4
(CON'T)

Step 0 11/07 15:34:30

Elapsed Time	INPUT 1
0.5833	0.221
0.6666	0.230
0.7500	0.211
0.8333	0.224
0.9166	0.211
1.0000	0.205
1.0833	0.227
1.1666	0.211
1.2500	0.208
1.3333	0.224
1.4166	0.198
1.5000	0.208
1.5833	0.208
1.6666	0.198
1.7500	0.211
1.8333	0.217
1.9166	0.208
2.0000	0.214
2.5000	0.205
3.0000	0.198
3.5000	0.208
4.0000	0.221
4.5000	0.208
5.0000	0.208
5.5000	0.198
6.0000	0.198
6.5000	0.211
7.0000	0.211
7.5000	0.211
8.0000	0.202
8.5000	0.211
9.0000	0.208
9.5000	0.208
10.0000	0.198
11.0000	0.195
12.0000	0.224
13.0000	0.195
14.0000	0.205
15.0000	0.211

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU's 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-28D PUMPING WELL —

DATE 11-7-94 TIME 1527

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE 20 PSIG

CHANNEL NO. 1

TEST DURATION R4- 15 MIN. R5- 17

TIME OF INSTALLATION 1527

STATIC DEPTH TO WATER 6.94' FT. — PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 5.96' FT — PSI

14' DEPTH 6.96' FT — PSI

15' DEPTH 7.95' FT — PSI

CLOCKS SYNCHRONIZED? —

STATIC DEPTH TO WATER 6.94' btoc

TIME PUMPING STARTS —

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER — FT — PSI

TIME PUMPING STOPS —

MAXIMUM RECOVERY DEPTH TO WATER — FT — PSI

END RECOVERY —

RECALIBRATION OF TRANSDUCER

DEPTH — FT — PSI

DEPTH — FT — PSI

DEPTH — FT — PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/03/95 10:25:09

TEST DESCRIPTION

Data set...........
Data set title..... CEF-16-29S RUN NO. 1

Knowns and Constants:
- No. of data points.................. 49
- Radius of well casing............... 0.08333
- Radius of well...................... 0.25
- Aquifer saturated thickness......... 100
- Well screen length.................. 10
- Static height of water in well...... 9.59
- Log(Re/Rw).......................... 2.291
- A, B, C............................. 2.760, 0.448, 0.000

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

	Estimate		Std. Error
K =	3.3682E-003	+/-	2.5090E-004
y0 =	1.6420E+000	+/-	6.9093E-002

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
- Number of residuals............... 49
- Number of estimated parameters.... 2
- Degrees of freedom................ 47
- Residual mean..................... 0.04581
- Residual standard deviation....... 0.1175
- Residual variance................. 0.0138

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0266	1.889	1.467	0.42195	1
0.03	1.51	1.4461	0.063924	1
0.0333	1.349	1.426	-0.077006	1
0.05	1.301	1.3286	-0.027633	1
0.0666	1.213	1.2384	-0.025433	1
0.0833	1.102	1.1539	-0.051868	1
0.1	1.004	1.0751	-0.071077	1
0.1166	0.925	1.0021	-0.077091	1
0.1333	0.843	0.93366	-0.090665	1
0.15	0.78	0.86991	-0.08991	1
0.1666	0.717	0.81085	-0.093853	1
0.1833	0.666	0.75548	-0.089485	1
0.2	0.622	0.7039	-0.081897	1
0.2166	0.59	0.65611	-0.06611	1
0.2333	0.559	0.61131	-0.052308	1
0.25	0.53	0.56957	-0.039566	1
0.2666	0.505	0.5309	-0.025898	1
0.2833	0.483	0.49465	-0.011647	1
0.3	0.464	0.46087	0.0031298	1
0.3166	0.451	0.42958	0.021418	1
0.3333	0.426	0.40025	0.025751	1
0.4166	0.376	0.28126	0.094735	1
0.5	0.341	0.19757	0.14343	1
0.5833	0.312	0.13884	0.17316	1
0.6666	0.29	0.097564	0.19244	1
0.75	0.271	0.068532	0.20247	1
0.8333	0.252	0.048159	0.20384	1
0.9166	0.237	0.033843	0.20316	1
1	0.214	0.023772	0.19023	1
1.0833	0.205	0.016705	0.18829	1
1.1666	0.173	0.011739	0.16126	1
1.25	0.145	0.0082459	0.13675	1
1.3333	0.129	0.0057946	0.12321	1
1.4166	0.107	0.004072	0.10293	1
1.5	0.097	0.0028603	0.09414	1
1.5833	0.082	0.00201	0.07999	1
1.6666	0.072	0.0014125	0.070588	1
1.75	0.06	0.00099217	0.059008	1
1.8333	0.056	0.00069722	0.055303	1
1.9166	0.047	0.00048996	0.04651	1
2	0.041	0.00034416	0.040656	1
2.5	0.025	4.141E-005	0.024959	1
3	0.018	4.9826E-006	0.017995	1
3.5	0.015	5.9952E-007	0.014999	1
4	0.018	7.2135E-008	0.018	1
4.5	0.009	8.6795E-009	0.009	1
5	0.012	1.0443E-009	0.012	1
5.5	0.012	1.2566E-010	0.012	1
6	0.009	1.512E-011	0.009	1

==

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
K =	3.3682E-003
y0 =	1.6420E+000

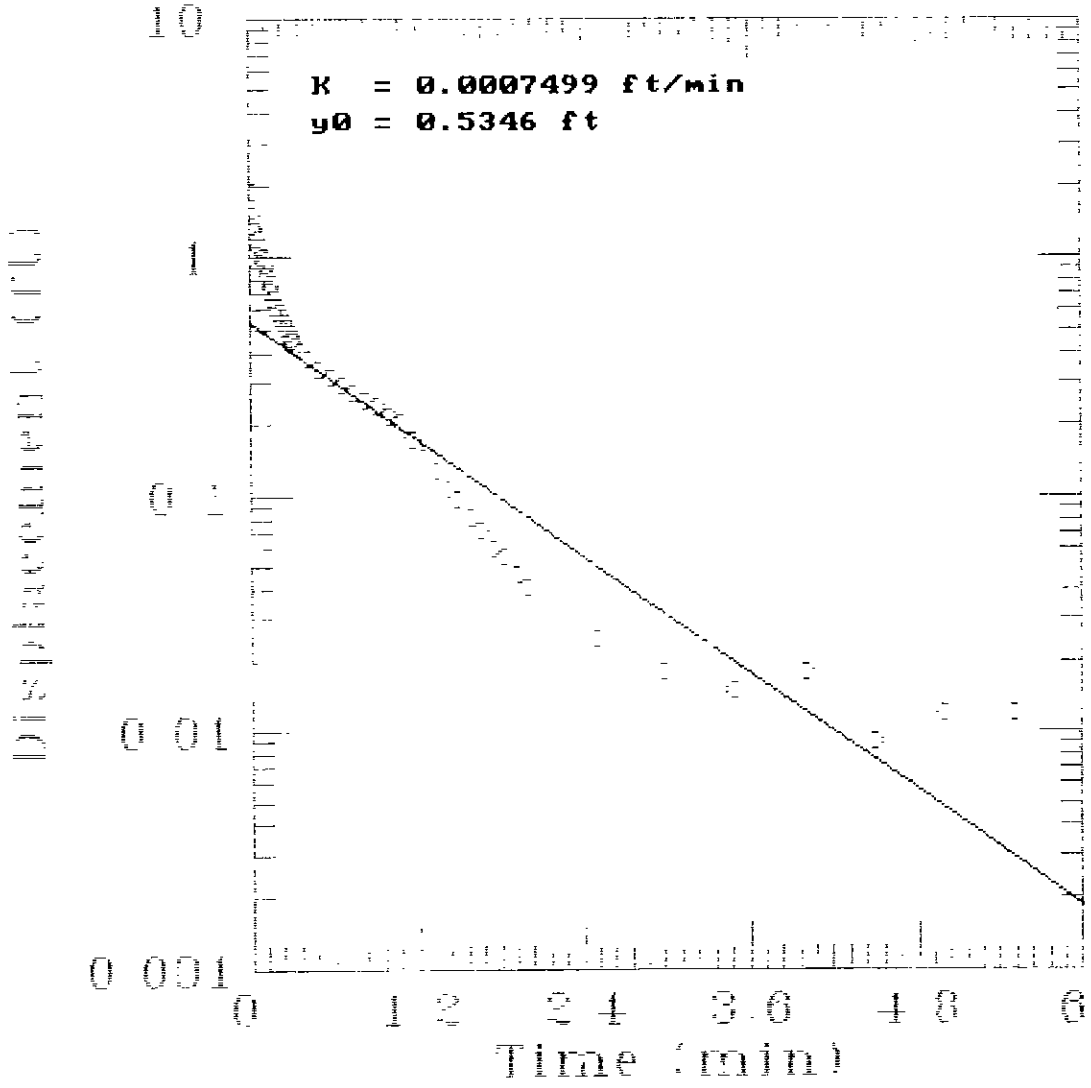
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

TYPE CURVE DATA

K = 7.49935E-004
y0 = 5.34644E-001

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	5.346E-001	6.000E+000	1.866E-003		

CEF-16-29S RUN NO. 1



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/08 11:36

Unit# 00001 Test 0

Setups: INPUT 1

Type Level (F)
Mode TOC
I.D. 00000

Reference 0.000
Linearity 0.050
Scale factor 9.990
Offset 0.020
Delay mSEC 50.000

CEF-16-29S RUN 1

Step 0 11/08 08:30:11

Elapsed Time INPUT 1

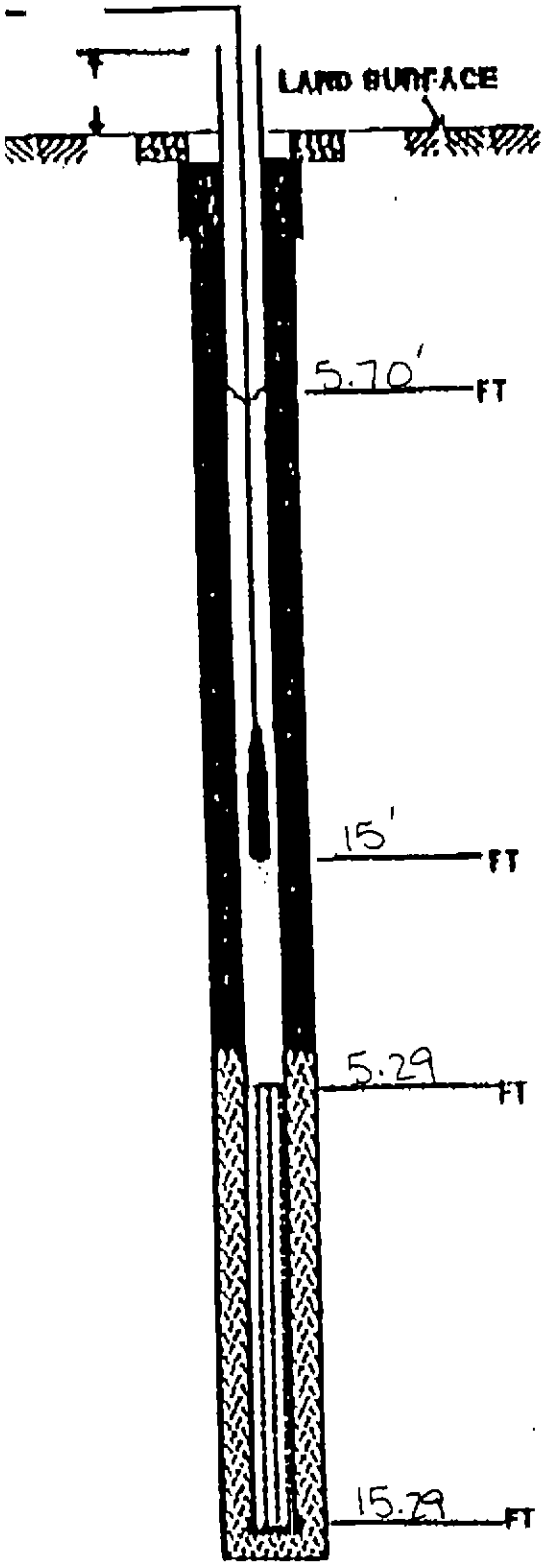
0.0000	-0.003
0.0033	0.000
0.0066	0.846
0.0100	1.655
0.0133	1.339
0.0166	1.409
0.0200	0.581
0.0233	1.298
0.0266	1.889
0.0300	1.510
0.0333	1.349
0.0500	1.301
0.0666	1.213
0.0833	1.102
0.1000	1.004
0.1166	0.925
0.1333	0.843
0.1500	0.780
0.1666	0.717
0.1833	0.666
0.2000	0.622
0.2166	0.590
0.2333	0.559
0.2500	0.530
0.2666	0.505
0.2833	0.483
0.3000	0.464
0.3166	0.451
0.3333	0.426
0.4166	0.376
0.5000	0.341

CEF-16-29S RUN 1
(CON'T)

Step 0 11/08 08:30:11

Elapsed Time	INPUT 1
0.5833	0.312
0.6666	0.290
0.7500	0.271
0.8333	0.252
0.9166	0.237
1.0000	0.214
1.0833	0.205
1.1666	0.173
1.2500	0.145
1.3333	0.129
1.4166	0.107
1.5000	0.097
1.5833	0.082
1.6666	0.072
1.7500	0.060
1.8333	0.056
1.9166	0.047
2.0000	0.041
2.5000	0.025
3.0000	0.018
3.5000	0.015
4.0000	0.018
4.5000	0.009
5.0000	0.012
5.5000	0.012
6.0000	0.009
6.5000	0.003
7.0000	0.009
7.5000	0.009
8.0000	0.006
8.5000	0.015
9.0000	0.006
9.5000	0.009
10.0000	0.006

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU's 1,2? 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-29S PUMPING WELL ——

DATE 11·8·94 TIME 0815

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE ~~50~~ ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R1 - 10 MIN R2 - 10 R3 - 10

TIME OF INSTALLATION 0815

STATIC DEPTH TO WATER 5.70' FT. —— PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 7.24' FT —— PSI

14' DEPTH 8.24' FT —— PSI

15' DEPTH 9.23' FT —— PSI

CLOCKS SYNCHRONIZED? ——

STATIC DEPTH TO WATER 5.70' btoc

TIME PUMPING STARTS ——

—— VERIFICATION OF DATA ACQUISITION (HR)

—— VERIFICATION OF DATA ACQUISITION (HR)

—— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER —— FT —— PSI

TIME PUMPING STOPS ——

MAXIMUM RECOVERY DEPTH TO WATER —— FT —— PSI

END RECOVERY ——

RECALIBRATION OF TRANSDUCER

DEPTH —— FT —— PSI

DEPTH —— FT —— PSI

DEPTH —— FT —— PSI

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<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

                     A Q T E S O L V    R E S U L T S

                              Version  1.10

02/03/95                                                              10:31:47

================================================================================
                              TEST DESCRIPTION

Data set...........
Data set title..... CEF-16-30D RUN NO. 3

Knowns and Constants:
   No. of data points.................. 49
   Radius of well casing............... 0.08333
   Radius of well...................... 0.25
   Aquifer saturated thickness......... 100
   Well screen length.................. 10
   Static height of water in well...... 84.01
   Log(Re/Rw).......................... 3.283
   A, B, C.............................  2.760,  0.448,  0.000

================================================================================
                              ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

================================================================================
                    RESULTS FROM STATISTICAL CURVE MATCHING


STATISTICAL MATCH PARAMETER ESTIMATES

           Estimate          Std. Error
   K  =   1.3441E-002 +/-   4.1391E-004
   y0 =   3.4213E+000 +/-   7.7864E-002


ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
   Number of residuals............... 49
   Number of estimated parameters.... 2
   Degrees of freedom................ 47
   Residual mean..................... 0.02724
   Residual standard deviation....... 0.07103
   Residual variance................. 0.005045
```

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0266	2.618	2.5	0.11801	1
0.03	2.451	2.4017	0.04927	1
0.0333	2.394	2.3101	0.08395	1
0.05	1.838	1.8971	-0.059069	1
0.0666	1.39	1.5598	-0.16976	1
0.0833	1.112	1.2809	-0.16891	1
0.1	0.929	1.0519	-0.12292	1
0.1166	0.793	0.86488	-0.071878	1
0.1333	0.688	0.71026	-0.022259	1
0.15	0.587	0.58328	0.003718	1
0.1666	0.515	0.47957	0.035429	1
0.1833	0.455	0.39384	0.061165	1
0.2	0.398	0.32343	0.074573	1
0.2166	0.353	0.26592	0.08708	1
0.2333	0.316	0.21838	0.09762	1
0.25	0.287	0.17934	0.10766	1
0.2666	0.262	0.14745	0.11455	1
0.2833	0.237	0.12109	0.11591	1
0.3	0.205	0.099442	0.10556	1
0.3166	0.195	0.081761	0.11324	1
0.3333	0.186	0.067144	0.11886	1
0.4166	0.116	0.025139	0.090861	1
0.5	0.082	0.0094007	0.072599	1
0.5833	0.066	0.0035196	0.06248	1
0.6666	0.047	0.0013177	0.045682	1
0.75	0.041	0.00049278	0.040507	1
0.8333	0.031	0.00018449	0.030816	1
0.9166	0.031	6.9074E-005	0.030931	1
1	0.034	2.5831E-005	0.033974	1
1.0833	0.022	9.671E-006	0.02199	1
1.1666	0.012	3.6208E-006	0.011996	1
1.25	0.022	1.354E-006	0.021999	1
1.3333	0.012	5.0694E-007	0.011999	1
1.4166	0.012	1.898E-007	0.012	1
1.5	0.028	7.0977E-008	0.028	1
1.5833	0.012	2.6574E-008	0.012	1
1.6666	0.015	9.9491E-009	0.015	1
1.75	0.012	3.7205E-009	0.012	1
1.8333	0.012	1.393E-009	0.012	1
1.9166	0.015	5.2152E-010	0.015	1
2	0.018	1.9503E-010	0.018	1
2.5	0.009	5.3588E-013	0.009	1
3	0.006	1.4725E-015	0.006	1
3.5	0.015	4.046E-018	0.015	1
4	0.006	1.1117E-020	0.006	1
4.5	0.009	3.0547E-023	0.009	1
5	0.006	8.3937E-026	0.006	1
5.5	0.003	2.3064E-028	0.003	1
6	0.009	6.3373E-031	0.009	1

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

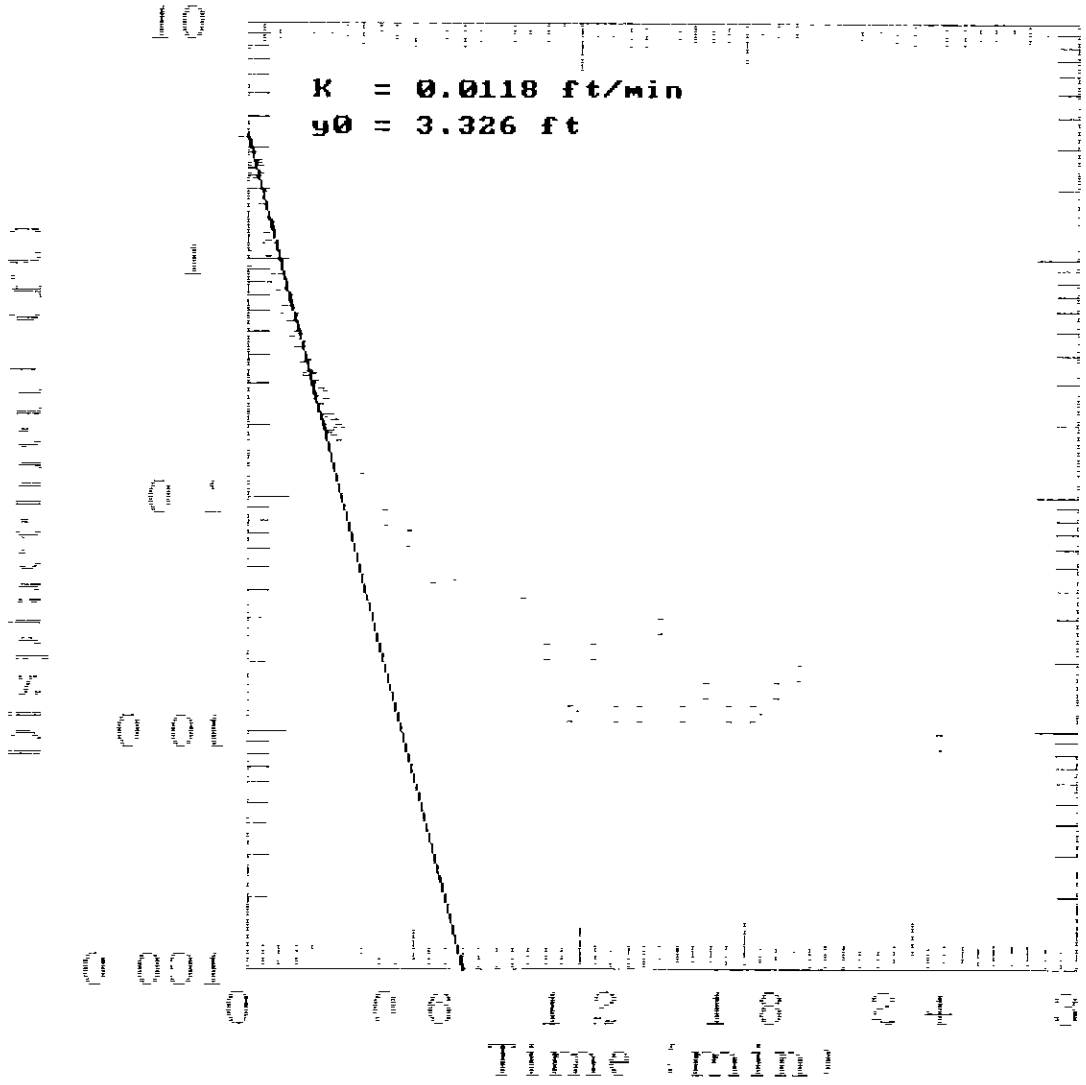
	Estimate
K =	1.3441E-002
y0 =	3.4213E+000

TYPE CURVE DATA

K = 1.18003E-002
y0 = 3.32564E+000

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	3.326E+000	3.000E+000	1.076E-013		

CEF-16-30D RUN NO. 3



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/08 11:43

Unit# 00001 Test 5

Setups: INPUT 1

Type	Level (F)
Mode	TOC
I.D.	00000

Reference	0.000
Linearity	0.050
Scale factor	9.990
Offset	0.020
Delay mSEC	50.000

CEF-16-30D RUN 3

Step 0 11/08 10:03:05

Elapsed Time INPUT 1

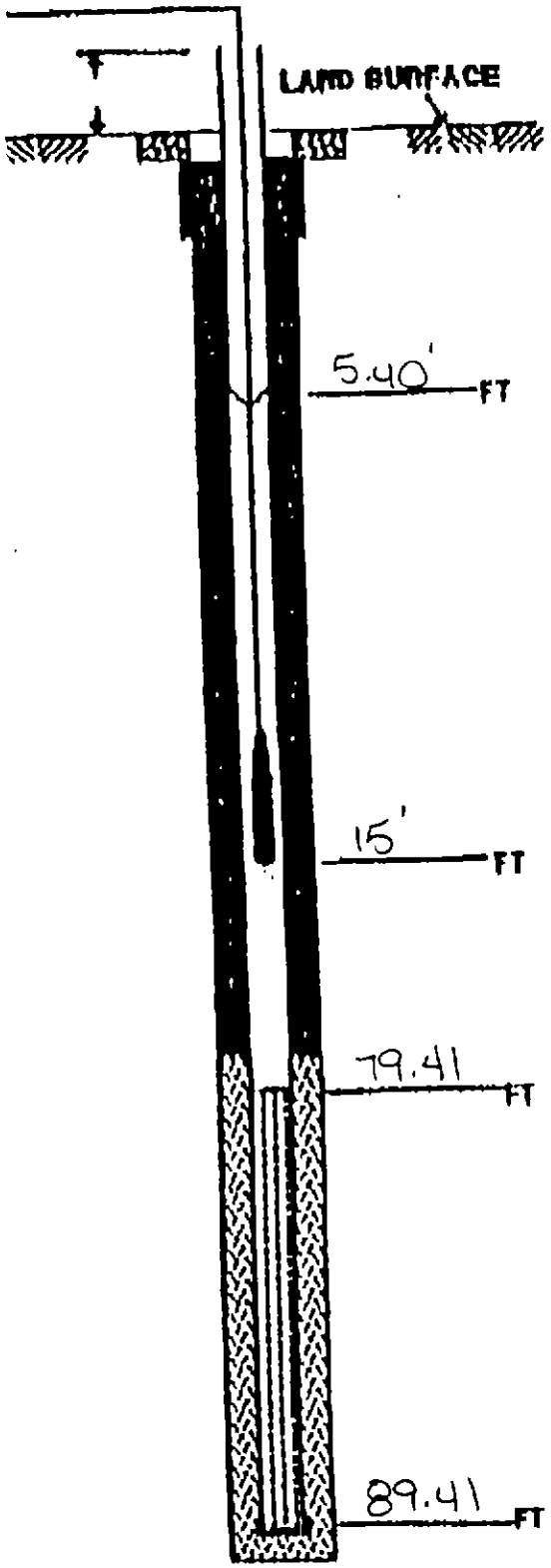
0.0000	0.938
0.0033	1.364
0.0066	0.938
0.0100	0.894
0.0133	1.292
0.0166	1.478
0.0200	1.472
0.0233	2.028
0.0266	2.618
0.0300	2.451
0.0333	2.394
0.0500	1.838
0.0666	1.390
0.0833	1.112
0.1000	0.929
0.1166	0.793
0.1333	0.688
0.1500	0.587
0.1666	0.515
0.1833	0.455
0.2000	0.398
0.2166	0.353
0.2333	0.316
0.2500	0.287
0.2666	0.262
0.2833	0.237
0.3000	0.205
0.3166	0.195
0.3333	0.186
0.4166	0.116
0.5000	0.082

CEF-16-30D RUN 3
(CON'T)

Step 0 11/08 10:03:05

Elapsed Time	INPUT 1
0.5833	0.066
0.6666	0.047
0.7500	0.041
0.8333	0.031
0.9166	0.031
1.0000	0.034
1.0833	0.022
1.1666	0.012
1.2500	0.022
1.3333	0.012
1.4166	0.012
1.5000	0.028
1.5833	0.012
1.6666	0.015
1.7500	0.012
1.8333	0.012
1.9166	0.015
2.0000	0.018
2.5000	0.009
3.0000	0.006
3.5000	0.015
4.0000	0.006
4.5000	0.009
5.0000	0.006
5.5000	0.003
6.0000	0.009
6.5000	0.009
7.0000	0.009
7.5000	0.012
8.0000	0.003
8.5000	0.006
9.0000	0.003
9.5000	0.009
10.0000	0.015
11.0000	0.006

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU's 1,2? 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-30D PUMPING WELL —

DATE 11.8.94 TIME 0918

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R1-12 MIN R2- 11 R3- 11

TIME OF INSTALLATION 0918

STATIC DEPTH TO WATER 5.40' FT. — PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 7.46' FT — PSI

14' DEPTH 8.46' FT — PSI

15' DEPTH 9.46' FT — PSI

CLOCKS SYNCHRONIZED? —

STATIC DEPTH TO WATER 5.40' btoc

TIME PUMPING STARTS —

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER — FT — PSI

TIME PUMPING STOPS —

MAXIMUM RECOVERY DEPTH TO WATER — FT — PSI

END RECOVERY —

RECALIBRATION OF TRANSDUCER

DEPTH — FT — PSI

DEPTH — FT — PSI

DEPTH — FT — PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/03/95 10:38:54

===

TEST DESCRIPTION

Data set...........
Data set title..... CEF-16-31DD RUN NO. 3

Knowns and Constants:
- No. of data points.................. 52
- Pumping rate........................ 1
- Radius (distance) to obs. well...... 0.08333

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ANALYTICAL METHOD

Cooper et al. (Confined Aquifer Slug Test)

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RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

		Estimate		Std. Error
T	=	1.3566E-001	+/-	3.9042E-001
S	=	1.0000E-008	+/-	4.9454E-007

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
- Number of residuals............... 52
- Number of estimated parameters.... 2
- Degrees of freedom................ 50
- Residual mean..................... 0.05798
- Residual standard deviation....... 0.3063
- Residual variance................. 0.09382

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0166	1.526	0.91714	0.60886	1
0.02	1.441	0.90224	0.53876	1
0.0233	0.948	0.88816	0.059839	1
0.0266	1.416	0.87446	0.54154	1
0.03	2.038	0.86065	1.1774	1
0.0333	1.766	0.84757	0.91843	1
0.05	1.586	0.7855	0.8005	1
0.0666	0.575	0.72965	-0.15465	1
0.0833	0.272	0.67844	-0.40644	1
0.1	0.806	0.63158	0.17442	1
0.1166	0.974	0.5888	0.3852	1
0.1333	0.825	0.5492	0.2758	1
0.15	0.487	0.51269	-0.025689	1
0.1666	0.091	0.47918	-0.38818	1
0.1833	0.249	0.44801	-0.19901	1
0.2	0.439	0.41916	0.019838	1
0.2166	0.48	0.39259	0.087406	1
0.2333	0.382	0.36781	0.014193	1
0.25	0.211	0.34481	-0.13381	1
0.2666	0.041	0.32357	-0.28257	1
0.2833	0.094	0.30372	-0.20972	1
0.3	0.164	0.28525	-0.12125	1
0.3166	0.167	0.26817	-0.10117	1
0.3333	0.117	0.25217	-0.13517	1
0.4166	0.117	0.18719	-0.070188	1
0.5	0.019	0.14097	-0.12197	1
0.5833	0.041	0.10779	-0.066786	1
0.6666	0.015	0.083674	-0.068674	1
0.75	0.015	0.065948	-0.050948	1
0.8333	0.022	0.052809	-0.030809	1
0.9166	0.019	0.042955	-0.023955	1
1	0.015	0.035478	-0.020478	1
1.0833	0.009	0.029758	-0.020758	1
1.1666	0.019	0.025327	-0.0063275	1
1.25	0.012	0.021855	-0.0098548	1
1.3333	0.025	0.019109	0.0058911	1
1.4166	0.015	0.01691	-0.0019103	1
1.5	0.012	0.015128	-0.003128	1
1.5833	0.009	0.01367	-0.0046703	1
1.6666	0.012	0.012463	-0.000463	1
1.75	0.012	0.011451	0.00054896	1
1.8333	0.012	0.010596	0.0014043	1
1.9166	0.015	0.0098643	0.0051357	1
2	0.012	0.009232	0.002768	1
2.5	0.012	0.0067269	0.0052731	1
3	0.015	0.0053272	0.0096728	1
3.5	0.009	0.0044125	0.0045875	1
4	0.006	0.0037615	0.0022385	1
4.5	0.012	0.003274	0.008726	1
5	0.009	0.0028963	0.0061037	1
5.5	0.012	0.0025958	0.0094042	1
6	0.012	0.0023516	0.0096484	1

==

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

		Estimate
T	=	1.3566E-001
S	=	1.0000E-008

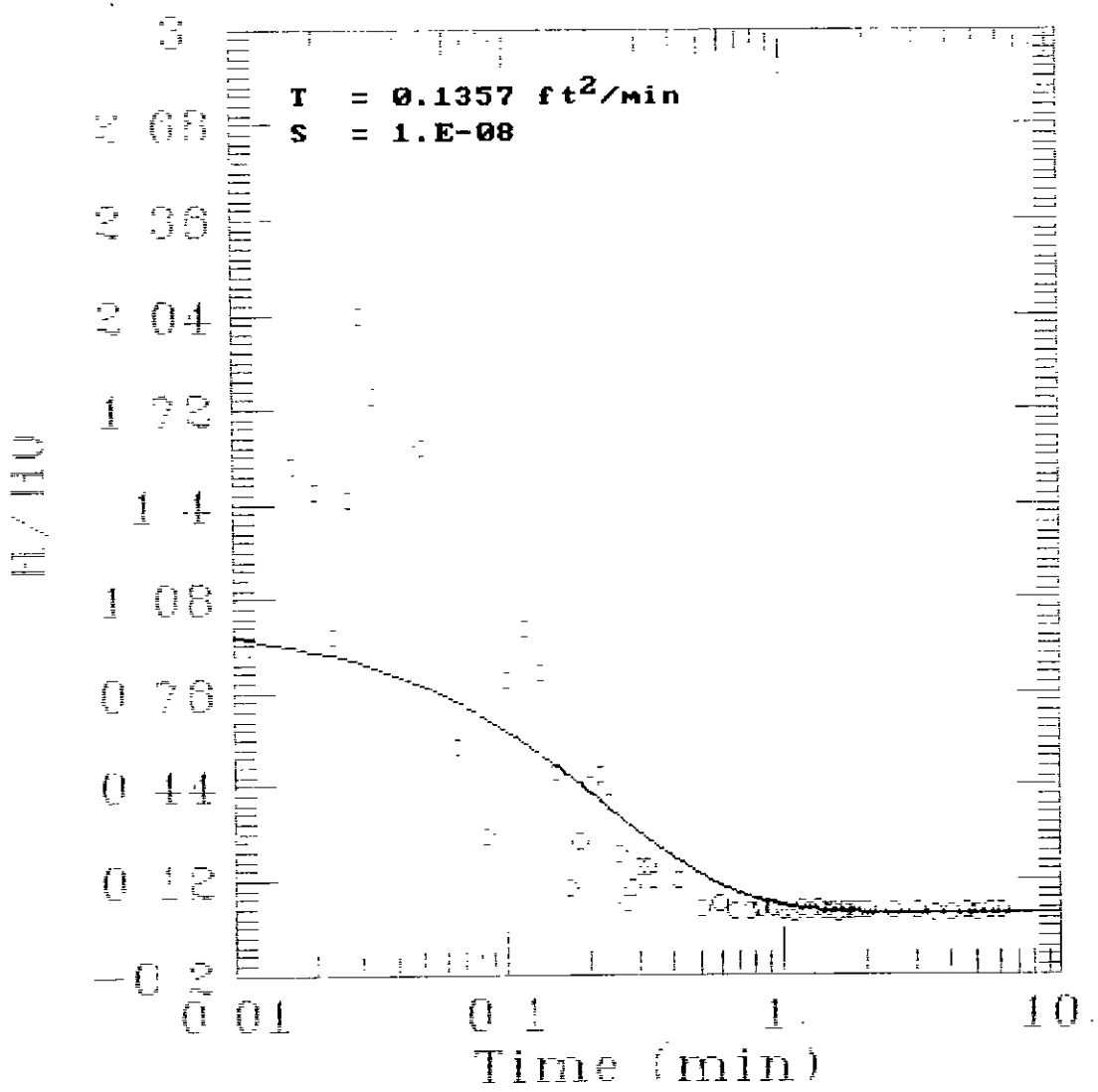
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

T = 1.35662E-001
S = 1.00000E-008

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E-002	9.474E-001	1.122E-002	9.417E-001	1.259E-002	9.353E-001
1.413E-002	9.283E-001	1.585E-002	9.205E-001	1.778E-002	9.119E-001
1.995E-002	9.024E-001	2.239E-002	8.920E-001	2.512E-002	8.806E-001
2.818E-002	8.680E-001	3.162E-002	8.542E-001	3.548E-002	8.391E-001
3.981E-002	8.226E-001	4.467E-002	8.046E-001	5.012E-002	7.851E-001
5.623E-002	7.639E-001	6.310E-002	7.410E-001	7.079E-002	7.163E-001
7.943E-002	6.899E-001	8.913E-002	6.616E-001	1.000E-001	6.316E-001
1.122E-001	5.998E-001	1.259E-001	5.664E-001	1.413E-001	5.314E-001
1.585E-001	4.952E-001	1.778E-001	4.580E-001	1.995E-001	4.199E-001
2.239E-001	3.816E-001	2.512E-001	3.432E-001	2.818E-001	3.054E-001
3.162E-001	2.685E-001	3.548E-001	2.332E-001	3.981E-001	1.997E-001
4.467E-001	1.687E-001	5.012E-001	1.404E-001	5.623E-001	1.152E-001
6.310E-001	9.307E-002	7.079E-001	7.421E-002	7.943E-001	5.848E-002
8.913E-001	4.567E-002	1.000E+000	3.548E-002	1.122E+000	2.756E-002
1.259E+000	2.153E-002	1.413E+000	1.701E-002	1.585E+000	1.365E-002
1.778E+000	1.114E-002	1.995E+000	9.266E-003	2.239E+000	7.823E-003
2.512E+000	6.685E-003	2.818E+000	5.761E-003	3.162E+000	4.992E-003
3.548E+000	4.340E-003	3.981E+000	3.783E-003	4.467E+000	3.303E-003
5.012E+000	2.888E-003	5.623E+000	2.531E-003	6.310E+000	2.222E-003
7.079E+000	1.955E-003	7.943E+000	1.724E-003	8.913E+000	1.523E-003

CEF-16-31DD RUN NO. 3



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/08 11:48

Unit# 00001 Test 8

Setups: INPUT 1

Type Level (F)
Mode TOC
I.D. 00000

Reference 0.000
Linearity 0.050
Scale factor 9.990
Offset 0.020
Delay mSEC 50.000

CEF-16-31DD RUN 3

Step 0 11/08 11:09:54

Elapsed Time INPUT 1

0.0000	-0.006
0.0033	0.000
0.0066	1.055
0.0100	1.409
0.0133	1.343
0.0166	1.526
0.0200	1.441
0.0233	0.948
0.0266	1.416
0.0300	2.038
0.0333	1.766
0.0500	1.586
0.0666	0.575
0.0833	-0.272
0.1000	-0.806
0.1166	-0.974
0.1333	-0.825
0.1500	-0.487
0.1666	-0.091
0.1833	0.249
0.2000	0.439
0.2166	0.480
0.2333	0.382
0.2500	0.211
0.2666	0.041
0.2833	-0.094
0.3000	-0.164
0.3166	-0.167
0.3333	-0.117
0.4166	0.117
0.5000	-0.019

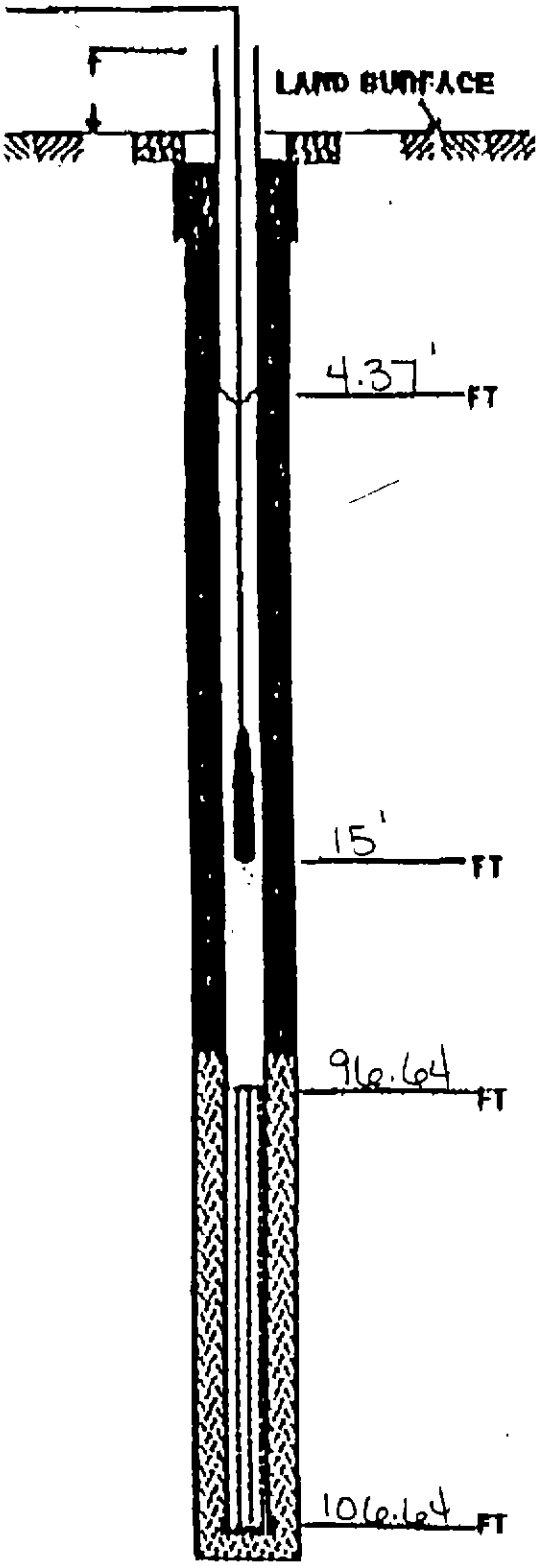
2.038
103.45

CEF-16-31DD RUN 3
(CON'T)

Step 0 11/08 11:09:54

Elapsed Time	INPUT 1
0.5833	0.041
0.6666	0.015
0.7500	0.015
0.8333	0.022
0.9166	0.019
1.0000	0.015
1.0833	0.009
1.1666	0.019
1.2500	0.012
1.3333	0.025
1.4166	0.015
1.5000	0.012
1.5833	0.009
1.6666	0.012
1.7500	0.012
1.8333	0.012
1.9166	0.015
2.0000	0.012
2.5000	0.012
3.0000	0.015
3.5000	0.009
4.0000	0.006
4.5000	0.012
5.0000	0.009
5.5000	0.012
6.0000	0.012
6.5000	0.015
7.0000	0.012
7.5000	0.019
8.0000	0.003
8.5000	0.012
9.0000	0.015
9.5000	0.022
10.0000	0.006
11.0000	0.015
12.0000	0.009

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU'S 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-31DD PUMPING WELL —

DATE 11-8-94 TIME 1025

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE ~~50~~ ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R1-12 R2-12 R3-12

TIME OF INSTALLATION 1025

STATIC DEPTH TO WATER 4.37' FT. — PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 8.51' FT — PSI

14' DEPTH 9.50' FT — PSI

15' DEPTH 10.51' FT — PSI

CLOCKS SYNCHRONIZED? —

STATIC DEPTH TO WATER 4.37' btoc

TIME PUMPING STARTS —

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER — FT — PSI

TIME PUMPING STOPS —

MAXIMUM RECOVERY DEPTH TO WATER — FT — PSI

END RECOVERY —

RECALIBRATION OF TRANSDUCER

DEPTH — FT — PSI

DEPTH — FT — PSI

DEPTH — FT — PSI

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<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

                      A Q T E S O L V    R E S U L T S

                                Version  1.10

02/03/95                                                               10:44:15

==============================================================================
                               TEST DESCRIPTION

Data set...........
Data set title..... CEF-16-32S RUN NO. 3

Knowns and Constants:
   No. of data points................. 43
   Radius of well casing.............. 0.08333
   Radius of well..................... 0.25
   Aquifer saturated thickness........ 100
   Well screen length................. 10
   Static height of water in well..... 9.11
   Log(Re/Rw)......................... 2.268
   A, B, C............................  2.760,  0.448,  0.000

==============================================================================
                              ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

==============================================================================
                    RESULTS FROM STATISTICAL CURVE MATCHING


STATISTICAL MATCH PARAMETER ESTIMATES

           Estimate          Std. Error
   K  =   6.5140E-003 +/-   3.9587E-004
   y0 =   1.6204E+000 +/-   7.4014E-002


ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
   Number of residuals............... 43
   Number of estimated parameters.... 2
   Degrees of freedom................ 41
   Residual mean..................... 0.02016
   Residual standard deviation....... 0.07636
   Residual variance................. 0.00583
```

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.03	1.452	1.2643	0.18772	1
0.0333	1.433	1.2302	0.20277	1
0.05	0.9	1.0715	-0.17149	1
0.0666	0.776	0.934	-0.158	1
0.0833	0.688	0.81348	-0.12548	1
0.1	0.603	0.70851	-0.10551	1
0.1166	0.536	0.6176	-0.081599	1
0.1333	0.499	0.53791	-0.038906	1
0.15	0.435	0.4685	-0.033497	1
0.1666	0.397	0.40838	-0.011382	1
0.1833	0.366	0.35569	0.010314	1
0.2	0.331	0.30979	0.02121	1
0.2166	0.322	0.27004	0.051961	1
0.2333	0.287	0.23519	0.051806	1
0.25	0.277	0.20485	0.072154	1
0.2666	0.255	0.17856	0.076439	1
0.2833	0.227	0.15552	0.07148	1
0.3	0.217	0.13545	0.081547	1
0.3166	0.199	0.11807	0.080928	1
0.3333	0.183	0.10284	0.080164	1
0.4166	0.148	0.051626	0.096374	1
0.5	0.097	0.025896	0.071104	1
0.5833	0.078	0.013	0.065	1
0.6666	0.06	0.0065263	0.053474	1
0.75	0.06	0.0032736	0.056726	1
0.8333	0.044	0.0016434	0.042357	1
0.9166	0.028	0.00082503	0.027175	1
1	0.022	0.00041384	0.021586	1
1.0833	0.022	0.00020775	0.021792	1
1.1666	0.025	0.0001043	0.024896	1
1.25	0.015	5.2315E-005	0.014948	1
1.3333	0.009	2.6263E-005	0.0089737	1
1.4166	0.012	1.3185E-005	0.011987	1
1.5	0.022	6.6135E-006	0.021993	1
1.5833	0.015	3.3201E-006	0.014997	1
1.6666	0.009	1.6667E-006	0.0089983	1
1.75	0.006	8.3605E-007	0.0059992	1
1.8333	0.006	4.1971E-007	0.0059996	1
1.9166	0.012	2.107E-007	0.012	1
2	0.006	1.0569E-007	0.0059999	1
2.5	0.006	1.689E-009	0.006	1
3	0.003	2.6992E-011	0.003	1
3.5	0.003	4.3136E-013	0.003	1

==========

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
K =	6.5140E-003
y0 =	1.6204E+000

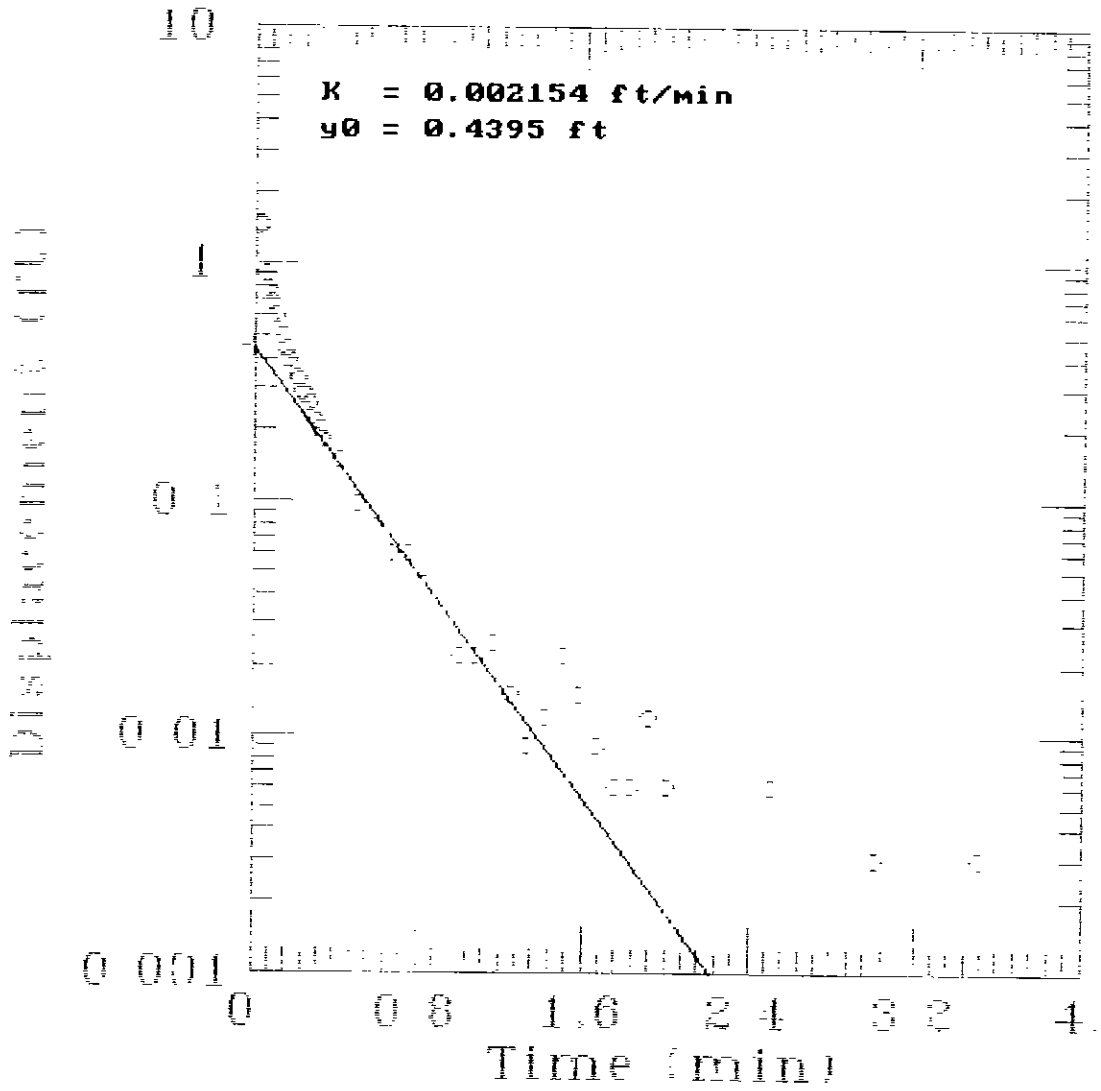
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>

TYPE CURVE DATA

K = 2.15405E-003
y0 = 4.39506E-001

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	4.395E-001	4.000E+000	7.775E-006		

CEF-16-32S RUN NO. 3



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/04 10:08

Unit# 00001 Test 2

Setups: INPUT 1

Type Level (F)
Mode TOC
I.D. 00000

Reference 0.000
Linearity 0.050
Scale factor 9.990
Offset 0.020
Delay mSEC 50.000

CEF-16-32S RUN 3

Step 0 11/04 08:41:23

Elapsed Time INPUT 1

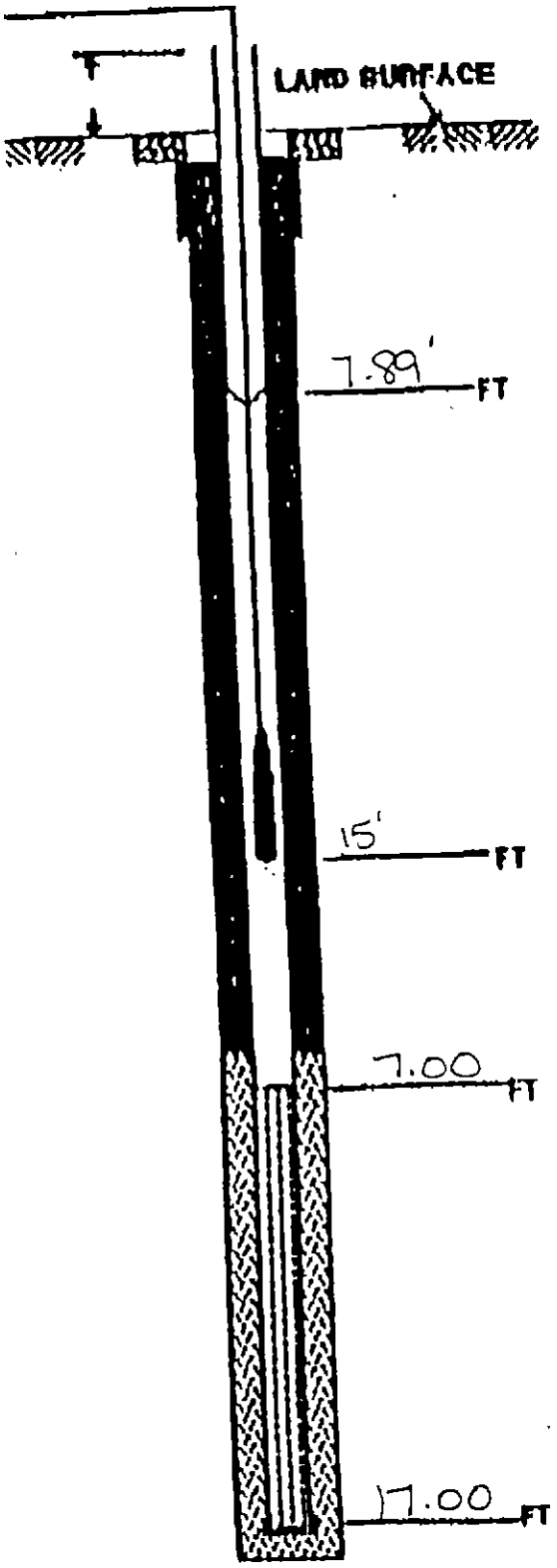
0.0000	0.006
0.0033	0.154
0.0066	0.672
0.0100	0.726
0.0133	0.877
0.0166	0.928
0.0200	1.095
0.0233	0.682
0.0266	0.631
0.0300	1.452
0.0333	1.433
0.0500	0.900
0.0666	0.776
0.0833	0.688
0.1000	0.603
0.1166	0.536
0.1333	0.499
0.1500	0.435
0.1666	0.397
0.1833	0.366
0.2000	0.331
0.2166	0.322
0.2333	0.287
0.2500	0.277
0.2666	0.255
0.2833	0.227
0.3000	0.217
0.3166	0.199
0.3333	0.183
0.4166	0.148
0.5000	0.097

CEF-16-32S RUN 3
(CON'T)

Step 0 11/04 08:41:23

Elapsed Time	INPUT 1
0.5833	0.078
0.6666	0.060
0.7500	0.060
0.8333	0.044
0.9166	0.028
1.0000	0.022
1.0833	0.022
1.1666	0.025
1.2500	0.015
1.3333	0.009
1.4166	0.012
1.5000	0.022
1.5833	0.015
1.6666	0.009
1.7500	0.006
1.8333	0.006
1.9166	0.012
2.0000	0.006
2.5000	0.006
3.0000	0.003
3.5000	0.003
4.0000	0.000
4.5000	0.009
5.0000	0.000
5.5000	-0.003
6.0000	0.012
6.5000	0.000
7.0000	0.000
7.5000	0.003
8.0000	0.000
8.5000	0.009
9.0000	-0.003
9.5000	0.003
10.0000	-0.003

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU's 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-325 PUMPING WELL —

DATE 11-4-94 TIME 0805

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R1-10 MIN R2-10 R3-10

TIME OF INSTALLATION 0805

STATIC DEPTH TO WATER 7.89 FT. — PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 6.03' FT — PSI

14' DEPTH 7.02' FT — PSI

15' DEPTH 8.03' FT — PSI

CLOCKS SYNCHRONIZED? —

STATIC DEPTH TO WATER 7.89' btoc

TIME PUMPING STARTS —

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER — FT — PSI

TIME PUMPING STOPS —

MAXIMUM RECOVERY DEPTH TO WATER — FT — PSI

END RECOVERY —

RECALIBRATION OF TRANSDUCER

DEPTH — FT — PSI

DEPTH — FT — PSI

DEPTH — FT — PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/03/95 10:52:58

TEST DESCRIPTION

Data set...........
Data set title..... CEF-16-33D RUN NO. 2

Knowns and Constants:
- No. of data points.................. 45
- Radius of well casing............... 0.08333
- Radius of well...................... 0.25
- Aquifer saturated thickness......... 100
- Well screen length.................. 10
- Static height of water in well...... 84.75
- Log(Re/Rw).......................... 3.291
- A, B, C............................. 2.760, 0.448, 0.000

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

	Estimate		Std. Error
K =	1.1279E-002	+/-	2.9995E-004
y0 =	2.1109E+000	+/-	4.9447E-002

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
- Number of residuals............... 45
- Number of estimated parameters.... 2
- Degrees of freedom................ 43
- Residual mean..................... 0.02122
- Residual standard deviation....... 0.03623
- Residual variance................. 0.001313

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0333	1.601	1.5196	0.081379	1
0.05	1.31	1.2887	0.021305	1
0.0666	1.036	1.0939	-0.057941	1
0.0833	0.868	0.9277	-0.059703	1
0.1	0.742	0.78673	-0.044726	1
0.1166	0.641	0.66783	-0.026832	1
0.1333	0.549	0.56635	-0.017347	1
0.15	0.451	0.48028	-0.029283	1
0.1666	0.413	0.4077	0.0052998	1
0.1833	0.347	0.34574	0.001255	1
0.2	0.306	0.2932	0.012795	1
0.2166	0.255	0.24889	0.006106	1
0.2333	0.236	0.21107	0.024929	1
0.25	0.199	0.179	0.020004	1
0.2666	0.195	0.15195	0.043054	1
0.2833	0.173	0.12886	0.044144	1
0.3	0.145	0.10927	0.035726	1
0.3166	0.132	0.09276	0.03924	1
0.3333	0.142	0.078664	0.063336	1
0.4166	0.091	0.034571	0.056429	1
0.5	0.063	0.015178	0.047822	1
0.5833	0.053	0.0066703	0.04633	1
0.6666	0.041	0.0029314	0.038069	1
0.75	0.044	0.001287	0.042713	1
0.8333	0.028	0.0005656	0.027434	1
0.9166	0.025	0.00024857	0.024751	1
1	0.028	0.00010913	0.027891	1
1.0833	0.031	4.796E-005	0.030952	1
1.1666	0.022	2.1077E-005	0.021979	1
1.25	0.031	9.2537E-006	0.030991	1
1.3333	0.041	4.0668E-006	0.040996	1
1.4166	0.028	1.7872E-006	0.027998	1
1.5	0.031	7.8466E-007	0.030999	1
1.5833	0.031	3.4484E-007	0.031	1
1.6666	0.025	1.5155E-007	0.025	1
1.75	0.037	6.6535E-008	0.037	1
1.8333	0.022	2.924E-008	0.022	1
1.9166	0.025	1.285E-008	0.025	1
2	0.018	5.6418E-009	0.018	1
2.5	0.025	4.0565E-011	0.025	1
3	0.022	2.9167E-013	0.022	1
3.5	0.025	2.0971E-015	0.025	1
4	0.015	1.5079E-017	0.015	1
4.5	0.018	1.0842E-019	0.018	1
5	0.034	7.7953E-022	0.034	1

==========

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
K =	1.1279E-002
y0 =	2.1109E+000

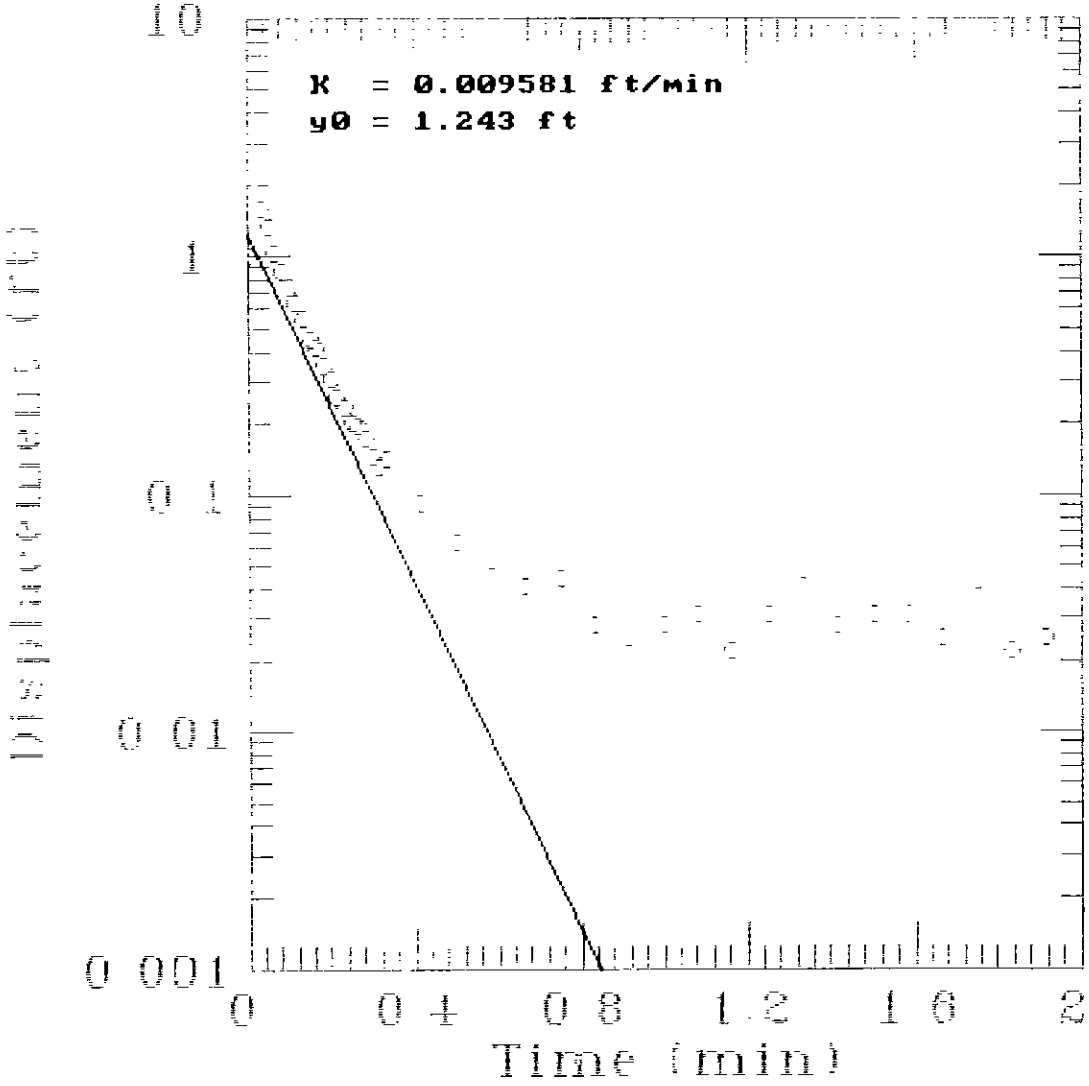
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

TYPE CURVE DATA

K = 9.58076E-003
y0 = 1.24289E+000

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	1.243E+000	2.000E+000	6.488E-008		

CEF-16-33D RUN NO. 2



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/04 10:11

Unit# 00001 Test 4

Setups: INPUT 1

Type Level (F)
Mode TOC
I.D. 00000

Reference 0.000
Linearity 0.050
Scale factor 9.990
Offset 0.020
Delay mSEC 50.000

CEF-16-33D RUN 2

Step 0 11/04 09:18:53

Elapsed Time INPUT 1

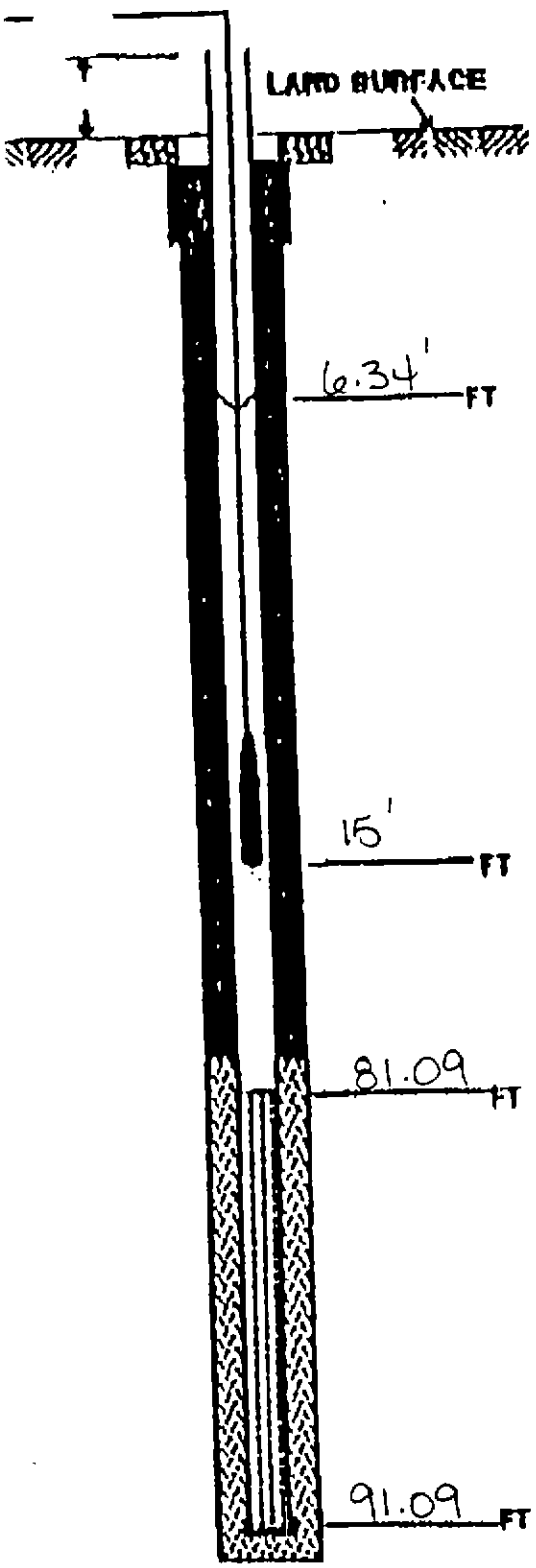
0.0000	0.063
0.0033	0.448
0.0066	0.735
0.0100	0.555
0.0133	0.868
0.0166	0.751
0.0200	0.827
0.0233	0.663
0.0266	0.789
0.0300	1.174
0.0333	1.601
0.0500	1.310
0.0666	1.036
0.0833	0.868
0.1000	0.742
0.1166	0.641
0.1333	0.549
0.1500	0.451
0.1666	0.413
0.1833	0.347
0.2000	0.306
0.2166	0.255
0.2333	0.236
0.2500	0.199
0.2666	0.195
0.2833	0.173
0.3000	0.145
0.3166	0.132
0.3333	0.142
0.4166	0.091
0.5000	0.063

CEF-16-33D RUN 2
(CONT)

Step 0 11/04 09:18:53

Elapsed Time	INPUT 1
0.5833	0.053
0.6666	0.041
0.7500	0.044
0.8333	0.028
0.9166	0.025
1.0000	0.028
1.0833	0.031
1.1666	0.022
1.2500	0.031
1.3333	0.041
1.4166	0.028
1.5000	0.031
1.5833	0.031
1.6666	0.025
1.7500	0.037
1.8333	0.022
1.9166	0.025
2.0000	0.018
2.5000	0.025
3.0000	0.022
3.5000	0.025
4.0000	0.015
4.5000	0.018
5.0000	0.034
5.5000	0.022
6.0000	0.022
6.5000	0.022
7.0000	0.025
7.5000	0.018
8.0000	0.031
8.5000	0.028
9.0000	0.018
9.5000	0.018
10.0000	0.022

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU'S 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-33 D PUMPING WELL —

DATE 11.4.94 TIME 0858

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R1- 10 MIN R2- 11 R3- 10

TIME OF INSTALLATION 0858

STATIC DEPTH TO WATER 6.34' FT. — PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 6.55' FT — PSI

14' DEPTH 7.55' FT — PSI

15' DEPTH 8.55' FT — PSI

CLOCKS SYNCHRONIZED? —

STATIC DEPTH TO WATER 6.34' btoc

TIME PUMPING STARTS —

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER — FT — PSI

TIME PUMPING STOPS —

MAXIMUM RECOVERY DEPTH TO WATER — FT — PSI

END RECOVERY —

RECALIBRATION OF TRANSDUCER

DEPTH — FT — PSI

DEPTH — FT — PSI

DEPTH — FT — PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/03/95 11:06:28

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TEST DESCRIPTION

Data set...........
Data set title..... CEF-16-34DD RUN NO. 3

Knowns and Constants:
   No. of data points.................. 46
   Pumping rate....................... 1
   Radius (distance) to obs. well...... 0.08333

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ANALYTICAL METHOD

Cooper et al. (Confined Aquifer Slug Test)

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RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

		Estimate		Std. Error
T	=	1.8845E-001	+/-	1.0931E+000
S	=	1.0000E-008	+/-	1.0055E-006

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
   Number of residuals............... 46
   Number of estimated parameters.... 2
   Degrees of freedom................ 44
   Residual mean..................... 0.09339
   Residual standard deviation....... 0.5708
   Residual variance................. 0.3258

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0233	2.807	0.85124	1.9558	1
0.0266	2.602	0.83343	1.7686	1
0.03	2.517	0.81563	1.7014	1
0.0333	2.343	0.79885	1.5441	1
0.05	1.633	0.72056	0.91244	1
0.0666	1.004	0.65208	0.35192	1
0.0833	0.556	0.591	-0.034996	1
0.1	0.255	0.5366	-0.2816	1
0.1166	0.097	0.48826	-0.39126	1
0.1333	0.015	0.44467	-0.42967	1
0.15	0.015	0.40552	-0.39052	1
0.1666	0.012	0.37049	-0.35849	1
0.1833	0.003	0.33873	-0.33573	1
0.2	0.018	0.31007	-0.29207	1
0.2166	0.044	0.28431	-0.24031	1
0.2333	0.056	0.26086	-0.20486	1
0.25	0.056	0.23962	-0.18362	1
0.2666	0.06	0.22047	-0.16047	1
0.2833	0.053	0.20299	-0.14999	1
0.3	0.037	0.1871	-0.1501	1
0.3166	0.044	0.17273	-0.12873	1
0.3333	0.028	0.15958	-0.13158	1
0.4166	0.031	0.10935	-0.078349	1
0.5	0.037	0.077121	-0.040121	1
0.5833	0.022	0.056066	-0.034066	1
0.6666	0.015	0.042008	-0.027008	1
0.75	0.015	0.032419	-0.017419	1
0.8333	0.018	0.025757	-0.0077569	1
0.9166	0.018	0.021023	-0.0030235	1
1	0.025	0.017584	0.0074163	1
1.0833	0.018	0.015035	0.0029647	1
1.1666	0.022	0.013103	0.0088971	1
1.25	0.015	0.011604	0.0033956	1
1.3333	0.012	0.010421	0.0015794	1
1.4166	0.018	0.0094653	0.0085347	1
1.5	0.012	0.008679	0.003321	1
1.5833	0.025	0.0080223	0.016978	1
1.6666	0.025	0.0074644	0.017536	1
1.75	0.012	0.0069834	0.0050166	1
1.8333	0.015	0.0065644	0.0084356	1
1.9166	0.009	0.0061952	0.0028048	1
2	0.012	0.0058664	0.0061336	1
2.5	0.015	0.0044542	0.010546	1
3	0.012	0.0035834	0.0084166	1
3.5	0.009	0.0029918	0.0060082	1
4	0.018	0.0025657	0.015434	1

==========

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

		Estimate
T	=	1.8845E-001
S	=	1.0000E-008

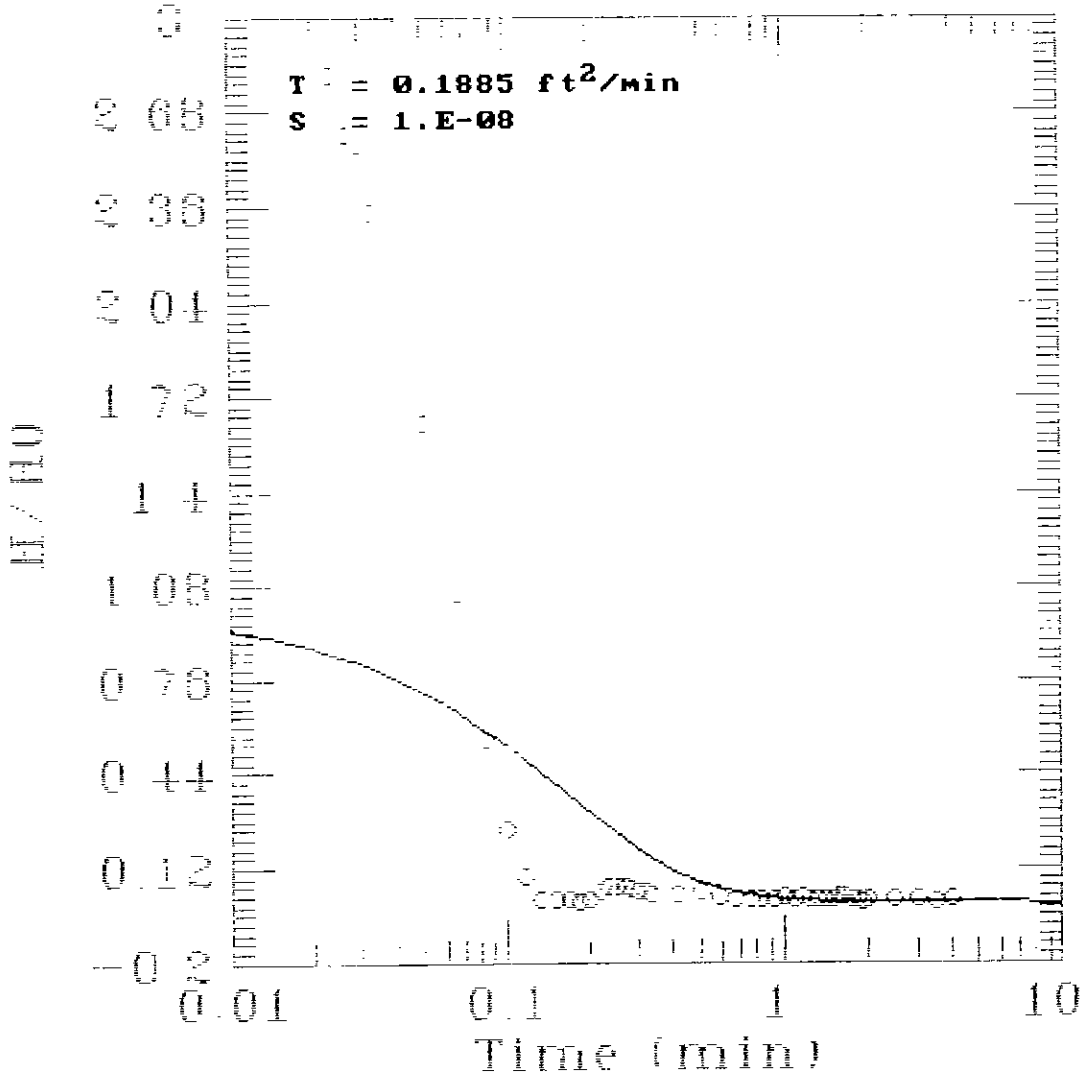
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

TYPE CURVE DATA

T = 1.88451E-001
S = 1.00000E-008

Time	Drawdown	Time	Drawdown	Time	Drawdown
1.000E-002	9.293E-001	1.122E-002	9.217E-001	1.259E-002	9.132E-001
1.413E-002	9.039E-001	1.585E-002	8.936E-001	1.778E-002	8.823E-001
1.995E-002	8.699E-001	2.239E-002	8.563E-001	2.512E-002	8.414E-001
2.818E-002	8.251E-001	3.162E-002	8.073E-001	3.548E-002	7.880E-001
3.981E-002	7.671E-001	4.467E-002	7.444E-001	5.012E-002	7.200E-001
5.623E-002	6.938E-001	6.310E-002	6.658E-001	7.079E-002	6.360E-001
7.943E-002	6.045E-001	8.913E-002	5.713E-001	1.000E-001	5.366E-001
1.122E-001	5.006E-001	1.259E-001	4.634E-001	1.413E-001	4.255E-001
1.585E-001	3.872E-001	1.778E-001	3.488E-001	1.995E-001	3.108E-001
2.239E-001	2.738E-001	2.512E-001	2.382E-001	2.818E-001	2.045E-001
3.162E-001	1.730E-001	3.548E-001	1.443E-001	3.981E-001	1.186E-001
4.467E-001	9.608E-002	5.012E-001	7.676E-002	5.623E-001	6.058E-002
6.310E-001	4.736E-002	7.079E-001	3.681E-002	7.943E-001	2.858E-002
8.913E-001	2.230E-002	1.000E+000	1.758E-002	1.122E+000	1.407E-002
1.259E+000	1.146E-002	1.413E+000	9.508E-003	1.585E+000	8.011E-003
1.778E+000	6.835E-003	1.995E+000	5.884E-003	2.239E+000	5.095E-003
2.512E+000	4.429E-003	2.818E+000	3.859E-003	3.162E+000	3.368E-003
3.548E+000	2.945E-003	3.981E+000	2.580E-003	4.467E+000	2.264E-003
5.012E+000	1.992E-003	5.623E+000	1.756E-003	6.310E+000	1.550E-003
7.079E+000	1.371E-003	7.943E+000	1.215E-003	8.913E+000	1.077E-003

CEF-16-34DD RUN NO. 3



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/07 13:01

Unit# 00001 Test 2

Setups: INPUT 1

Type	Level (F)
Mode	TOC
I.D.	00000

Reference	0.000
Linearity	0.050
Scale factor	9.990
Offset	0.020
Delay mSEC	50.000

CEF-16-34DD RUN 3

Step 0 11/05 08:51:53

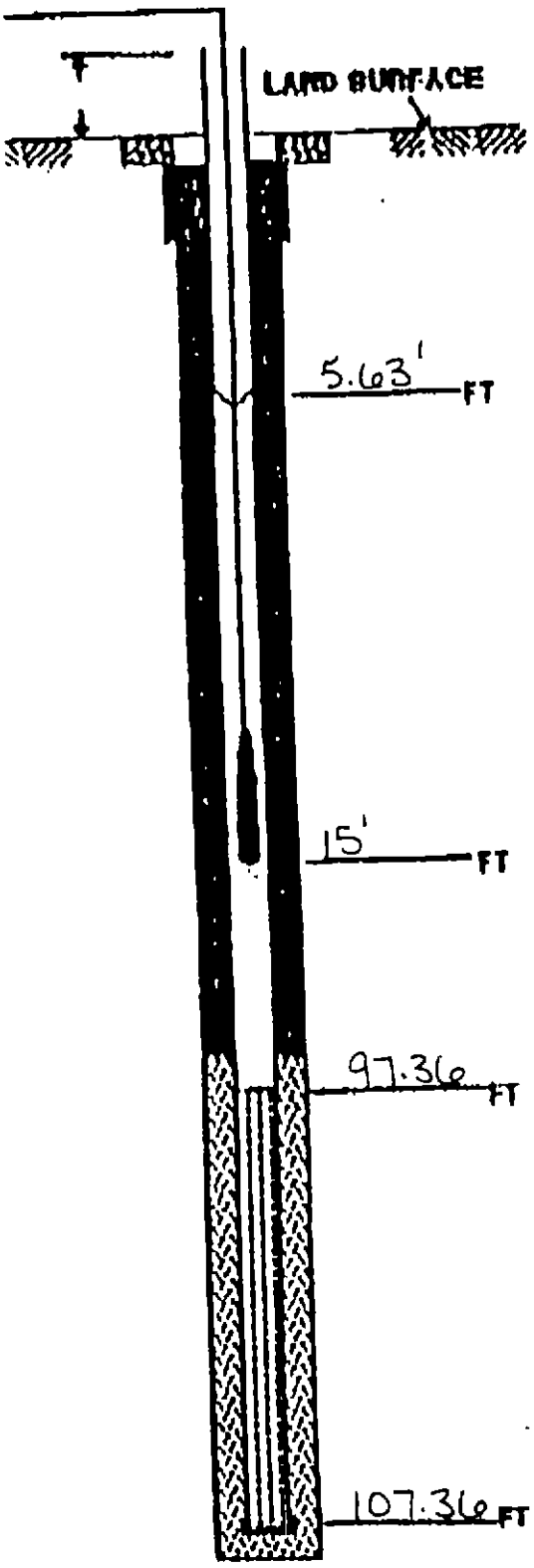
Elapsed Time	INPUT 1
0.0000	0.003
0.0033	0.006
0.0066	0.180
0.0100	2.577
0.0133	1.336
0.0166	3.864
0.0200	-0.701
0.0233	2.807
0.0266	2.602
0.0300	2.517
0.0333	2.343
0.0500	1.633
0.0666	1.004
0.0833	0.556
0.1000	0.255
0.1166	0.097
0.1333	0.015
0.1500	-0.015
0.1666	-0.012
0.1833	0.003
0.2000	0.018
0.2166	0.044
0.2333	0.056
0.2500	0.056
0.2666	0.060
0.2833	0.053
0.3000	0.037
0.3166	0.044
0.3333	0.028
0.4166	0.031
0.5000	0.037

CEF-16-34DD RUN 3
(CON'T)

Step 0 11/05 08:51:53

Elapsed Time	INPUT 1
0.5833	0.022
0.6666	0.015
0.7500	0.015
0.8333	0.018
0.9166	0.018
1.0000	0.025
1.0833	0.018
1.1666	0.022
1.2500	0.015
1.3333	0.012
1.4166	0.018
1.5000	0.012
1.5833	0.025
1.6666	0.025
1.7500	0.012
1.8333	0.015
1.9166	0.009
2.0000	0.012
2.5000	0.015
3.0000	0.012
3.5000	0.009
4.0000	0.018
4.5000	0.015
5.0000	0.012
5.5000	0.015
6.0000	0.022
6.5000	0.006
7.0000	0.009
7.5000	0.009
8.0000	0.015
8.5000	0.009
9.0000	0.028
9.5000	0.015
10.0000	0.015

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU'S 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-34DD PUMPING WELL ——

DATE 11-5-94 TIME 0814

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R1-10 MIN R2-10 R3-10 R4-10

TIME OF INSTALLATION 0814

STATIC DEPTH TO WATER 5.63' FT. —— PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION
13' DEPTH 7.26' FT —— PSI
14' DEPTH 8.25 FT —— PSI
15' DEPTH 9.25' FT —— PSI

CLOCKS SYNCHRONIZED? ——

STATIC DEPTH TO WATER 5.63' btoc

TIME PUMPING STARTS ——

—— VERIFICATION OF DATA ACQUISITION (HR)
—— VERIFICATION OF DATA ACQUISITION (HR)
—— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER —— FT —— PSI

TIME PUMPING STOPS ——

MAXIMUM RECOVERY DEPTH TO WATER —— FT —— PSI

END RECOVERY ——

RECALIBRATION OF TRANSDUCER
DEPTH —— FT —— PSI
DEPTH —— FT —— PSI
DEPTH —— FT —— PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/03/95 11:11:55

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TEST DESCRIPTION

```
Data set...........
Data set title..... CEF-16-35S RUN NO. 2

Knowns and Constants:
   No. of data points.................. 49
   Radius of well casing............... 0.08333
   Radius of well...................... 0.25
   Aquifer saturated thickness......... 100
   Well screen length.................. 10
   Static height of water in well...... 8.48
   Log(Re/Rw).......................... 2.236
   A, B, C............................. 2.760,  0.448,  0.000
```

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ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

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RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

	Estimate		Std. Error
K =	8.2633E-003	+/-	2.8953E-004
y0 =	1.8801E+000	+/-	4.0366E-002

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

```
Weighted Residual Statistics:
   Number of residuals............... 49
   Number of estimated parameters.... 2
   Degrees of freedom................ 47
   Residual mean..................... 0.02613
   Residual standard deviation....... 0.05209
   Residual variance................. 0.002713
```

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.02	1.666	1.5196	0.14637	1
0.0233	1.47	1.4672	0.0028214	1
0.0266	1.426	1.4165	0.0094624	1
0.03	1.341	1.3662	-0.02519	1
0.0333	1.274	1.319	-0.045034	1
0.05	1.057	1.1042	-0.047224	1
0.0666	0.893	0.92538	-0.032381	1
0.0833	0.732	0.77468	-0.042679	1
0.1	0.599	0.64852	-0.049519	1
0.1166	0.501	0.54348	-0.042483	1
0.1333	0.41	0.45497	-0.044975	1
0.15	0.353	0.38088	-0.02788	1
0.1666	0.303	0.31919	-0.016192	1
0.1833	0.268	0.26721	0.00078977	1
0.2	0.246	0.22369	0.022306	1
0.2166	0.224	0.18746	0.036536	1
0.2333	0.202	0.15693	0.045065	1
0.25	0.186	0.13138	0.054623	1
0.2666	0.179	0.1101	0.068901	1
0.2833	0.167	0.092169	0.074831	1
0.3	0.16	0.077159	0.082841	1
0.3166	0.148	0.064662	0.083338	1
0.3333	0.138	0.054131	0.083869	1
0.4166	0.116	0.022304	0.093696	1
0.5	0.097	0.0091801	0.08782	1
0.5833	0.091	0.0037825	0.087218	1
0.6666	0.072	0.0015585	0.070441	1
0.75	0.066	0.00064147	0.065359	1
0.8333	0.063	0.00026431	0.062736	1
0.9166	0.05	0.0001089	0.049891	1
1	0.047	4.4823E-005	0.046955	1
1.0833	0.047	1.8469E-005	0.046982	1
1.1666	0.041	7.6097E-006	0.040992	1
1.25	0.034	3.1321E-006	0.033997	1
1.3333	0.034	1.2905E-006	0.033999	1
1.4166	0.028	5.3173E-007	0.027999	1
1.5	0.031	2.1886E-007	0.031	1
1.5833	0.025	9.0176E-008	0.025	1
1.6666	0.022	3.7155E-008	0.022	1
1.75	0.022	1.5293E-008	0.022	1
1.8333	0.018	6.3012E-009	0.018	1
1.9166	0.022	2.5963E-009	0.022	1
2	0.012	1.0686E-009	0.012	1
2.5	0.015	5.2176E-012	0.015	1
3	0.012	2.5476E-014	0.012	1
3.5	0.003	1.2439E-016	0.003	1
4	0.003	6.0736E-019	0.003	1
4.5	0.006	2.9655E-021	0.006	1
5	0.003	1.448E-023	0.003	1

==

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
K =	8.2633E-003
y0 =	1.8801E+000

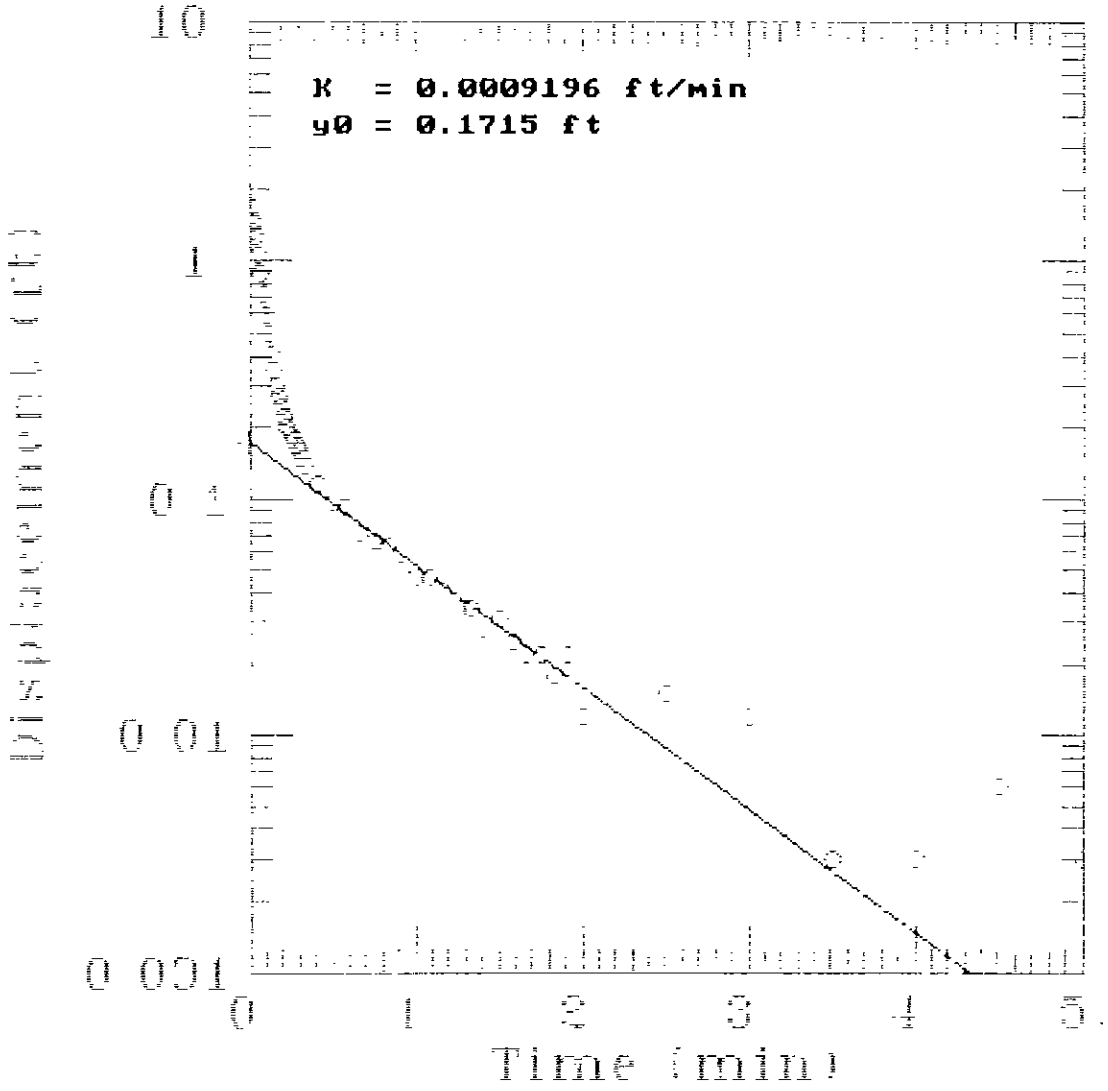
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

K = 9.19566E-004
y0 = 1.71455E-001

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	1.715E-001	5.000E+000	4.592E-004		

CEF-16-35S RUN NO. 2



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/03 10:51

Unit# 00001 Test 1

Setups: INPUT 1

Type Level (F)
Mode TOC
I.D. 00000

Reference 0.000
Linearity 0.050
Scale factor 9.990
Offset 0.020
Delay mSEC 50.000

CEF-16-35S RUN 2

Step 0 11/03 08:03:34

Elapsed Time INPUT 1

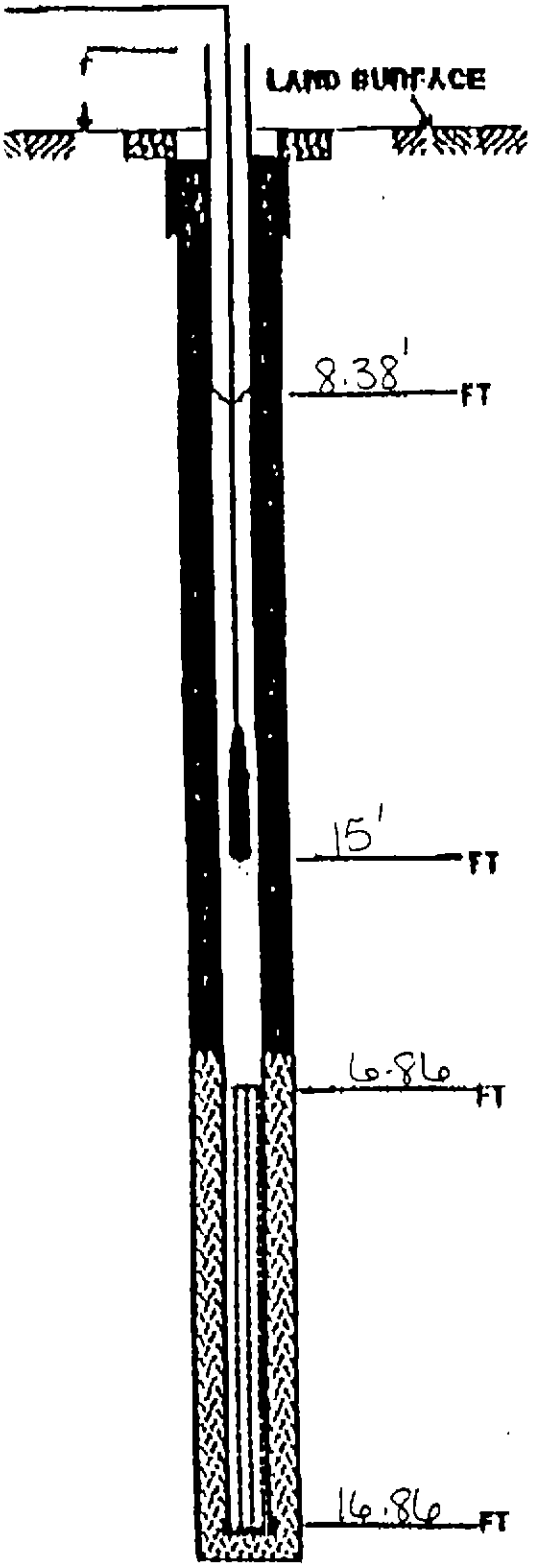
0.0000	0.003
0.0033	0.337
0.0066	1.132
0.0100	1.640
0.0133	0.669
0.0166	0.744
0.0200	1.666
0.0233	1.470
0.0266	1.426
0.0300	1.341
0.0333	1.274
0.0500	1.057
0.0666	0.893
0.0833	0.732
0.1000	0.599
0.1166	0.501
0.1333	0.410
0.1500	0.353
0.1666	0.303
0.1833	0.268
0.2000	0.246
0.2166	0.224
0.2333	0.202
0.2500	0.186
0.2666	0.179
0.2833	0.167
0.3000	0.160
0.3166	0.148
0.3333	0.138
0.4166	0.116
0.5000	0.097

CEF-16-35S RUN 2
(CON'T)

Step 0 11/03 08:03:34

Elapsed Time	INPUT 1
0.5833	0.091
0.6666	0.072
0.7500	0.066
0.8333	0.063
0.9166	0.050
1.0000	0.047
1.0833	0.047
1.1666	0.041
1.2500	0.034
1.3333	0.034
1.4166	0.028
1.5000	0.031
1.5833	0.025
1.6666	0.022
1.7500	0.022
1.8333	0.018
1.9166	0.022
2.0000	0.012
2.5000	0.015
3.0000	0.012
3.5000	0.003
4.0000	0.003
4.5000	0.006
5.0000	0.003
5.5000	0.000
6.0000	0.003
6.5000	0.003
7.0000	0.000
7.5000	0.006
8.0000	0.000
8.5000	0.000
9.0000	0.003
9.5000	0.000
10.0000	0.012

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU's 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-35S PUMPING WELL —

DATE 11.3.94 TIME 0733

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R1- 10 MIN. R2- 10 R3- 10

TIME OF INSTALLATION 0733

STATIC DEPTH TO WATER 8.38' FT. — PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 4.65' FT — PSI

14' DEPTH 5.64' FT — PSI

15' DEPTH 6.64' FT — PSI

CLOCKS SYNCHRONIZED? —

STATIC DEPTH TO WATER 8.38' btoc

TIME PUMPING STARTS —

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER — FT — PSI

TIME PUMPING STOPS —

MAXIMUM RECOVERY DEPTH TO WATER — FT — PSI

END RECOVERY —

RECALIBRATION OF TRANSDUCER

DEPTH — FT — PSI

DEPTH — FT — PSI

DEPTH — FT — PSI

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<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
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A Q T E S O L V   R E S U L T S

Version 1.10

02/03/95 11:26:14

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================================================================================
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TEST DESCRIPTION

```
Data set...........
Data set title..... CEF-16-36I RUN NO. 3

Knowns and Constants:
   No. of data points.................. 38
   Radius of well casing............... 0.08333
   Radius of well...................... 0.25
   Aquifer saturated thickness......... 100
   Well screen length.................. 10
   Static height of water in well...... 46.58
   Log(Re/Rw).......................... 2.946
   A, B, C.............................  2.760,  0.448,  0.000
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ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

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RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

```
          Estimate          Std. Error
   K  =   1.6424E-002 +/-   3.0392E-004
   y0 =   2.1542E+000 +/-   2.8910E-002
```

ANALYSIS OF MODEL RESIDUALS

```
residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
   Number of residuals............... 38
   Number of estimated parameters.... 2
   Degrees of freedom................ 36
   Residual mean..................... 0.01027
   Residual standard deviation....... 0.02241
   Residual variance................. 0.0005023
```

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0233	1.527	1.4818	0.045221	1
0.0266	1.388	1.4053	-0.017298	1
0.03	1.35	1.3306	0.019375	1
0.0333	1.271	1.2619	0.0090553	1
0.05	0.909	0.96509	-0.056093	1
0.0666	0.694	0.73926	-0.045257	1
0.0833	0.546	0.56536	-0.019359	1
0.1	0.423	0.43237	-0.0093675	1
0.1166	0.337	0.33119	0.0058084	1
0.1333	0.262	0.25328	0.0087158	1
0.15	0.217	0.1937	0.023297	1
0.1666	0.167	0.14838	0.018624	1
0.1833	0.135	0.11347	0.021527	1
0.2	0.116	0.08678	0.02922	1
0.2166	0.088	0.066473	0.021527	1
0.2333	0.078	0.050837	0.027163	1
0.25	0.063	0.038878	0.024122	1
0.2666	0.056	0.02978	0.02622	1
0.2833	0.053	0.022775	0.030225	1
0.3	0.041	0.017418	0.023582	1
0.3166	0.044	0.013342	0.030658	1
0.3333	0.031	0.010203	0.020797	1
0.4166	0.015	0.0026778	0.012322	1
0.5	0.009	0.00070166	0.0082983	1
0.5833	0.018	0.00018415	0.017816	1
0.6666	0.003	4.8328E-005	0.0029517	1
0.75	0.015	1.2663E-005	0.014987	1
0.8333	0.015	3.3234E-006	0.014997	1
1	0.018	2.2854E-007	0.018	1
1.0833	0.015	5.9979E-008	0.015	1
1.25	0.003	4.1246E-009	0.003	1
1.4166	0.003	2.8409E-010	0.003	1
1.75	0.012	1.3434E-012	0.012	1
1.8333	0.006	3.5258E-013	0.006	1
1.9166	0.003	9.2533E-014	0.003	1
2.5	0.003	7.8973E-018	0.003	1
3	0.003	2.5723E-021	0.003	1
3.5	0.015	8.3783E-025	0.015	1

==========

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
K =	1.6424E-002
y0 =	2.1542E+000

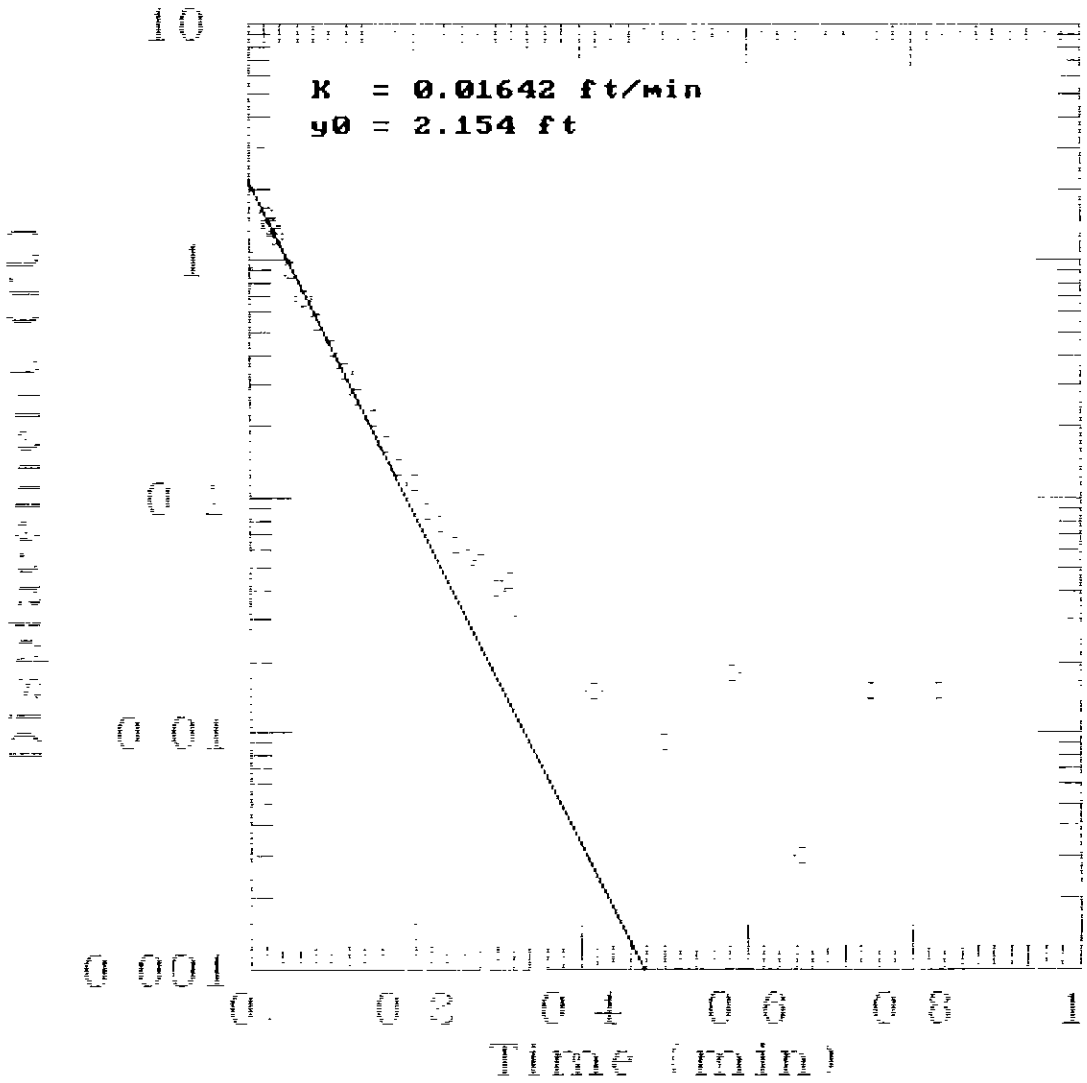
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

K = 1.64237E-002
y0 = 2.15420E+000

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	2.154E+000	1.000E+000	2.285E-007		

CEF-16-36I RUN NO. 3



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/03 10:56

Unit# 00001 Test 5

Setups: INPUT 1

Type Level (F)
Mode TOC
I.D. 00000

Reference 0.000
Linearity 0.050
Scale factor 9.990
Offset 0.020
Delay mSEC 50.000

CEF-16-36I RUN 3

Step 0 11/03 09:24:47

Elapsed Time INPUT 1

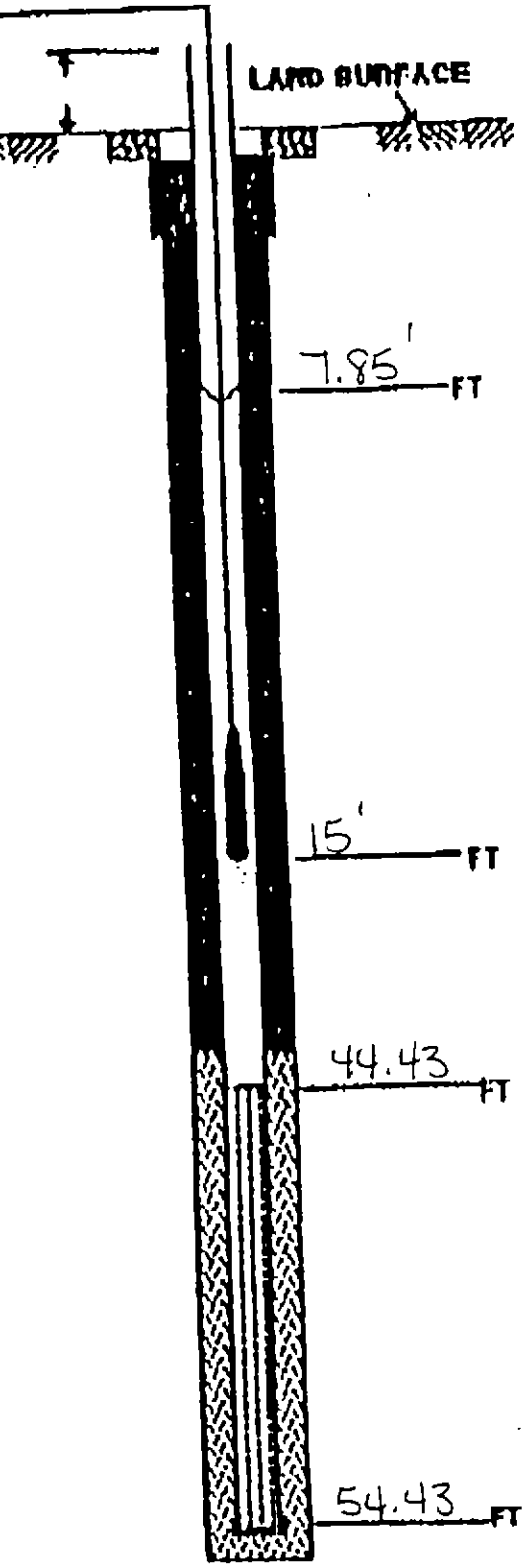
0.0000	0.123
0.0033	0.871
0.0066	0.508
0.0100	0.969
0.0133	0.514
0.0166	0.823
0.0200	1.076
0.0233	1.527
0.0266	1.388
0.0300	1.350
0.0333	1.271
0.0500	0.909
0.0666	0.694
0.0833	0.546
0.1000	0.423
0.1166	0.337
0.1333	0.262
0.1500	0.217
0.1666	0.167
0.1833	0.135
0.2000	0.116
0.2166	0.088
0.2333	0.078
0.2500	0.063
0.2666	0.056
0.2833	0.053
0.3000	0.041
0.3166	0.044
0.3333	0.031
0.4166	0.015
0.5000	0.009

CEF-16-36I RUN 3
(CON'T)

Step 0 11/03 09:24:47

Elapsed Time	INPUT 1
0.5833	0.018
0.6666	0.003
0.7500	0.015
0.8333	0.015
0.9166	0.000
1.0000	0.018
1.0833	0.015
1.1666	0.000
1.2500	-0.003
1.3333	0.000
1.4166	-0.003
1.5000	0.000
1.5833	0.000
1.6666	0.000
1.7500	0.012
1.8333	0.006
1.9166	0.003
2.0000	0.000
2.5000	-0.003
3.0000	-0.003
3.5000	0.015
4.0000	-0.006
4.5000	-0.006
5.0000	0.012
5.5000	-0.003
6.0000	0.015
6.5000	0.003
7.0000	-0.006
7.5000	-0.003
8.0000	0.006
8.5000	-0.006
9.0000	-0.006
9.5000	0.015
10.0000	0.018

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU'S 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-36I PUMPING WELL —

DATE 11.3.94 TIME 0843

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE (15) ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R1-12 MIN R2-10 R3-10

TIME OF INSTALLATION 0843

STATIC DEPTH TO WATER 7.85' FT. — PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 4.95' FT — PSI

14' DEPTH 5.95' FT — PSI

15' DEPTH 6.95' FT — PSI

CLOCKS SYNCHRONIZED? —

STATIC DEPTH TO WATER 7.85' btoc

TIME PUMPING STARTS —

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER — FT — PSI

TIME PUMPING STOPS —

MAXIMUM RECOVERY DEPTH TO WATER — FT — PSI

END RECOVERY —

RECALIBRATION OF TRANSDUCER

DEPTH — FT — PSI

DEPTH — FT — PSI

DEPTH — FT — PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/03/95 13:22:52

TEST DESCRIPTION

Data set...........
Data set title..... CEF-16-37D RUN NO.2

Knowns and Constants:

```
   No. of data points.................. 49
   Radius of well casing............... 0.08333
   Radius of well...................... 0.25
   Aquifer saturated thickness......... 100
   Well screen length.................. 10
   Static height of water in well...... 84.05
   Log(Re/Rw).......................... 3.283
   A, B, C.............................  2.760,  0.448,  0.000
```

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

	Estimate		Std. Error
K =	1.1913E-002	+/-	5.5016E-004
y0 =	1.8268E+000	+/-	5.1564E-002

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:

```
   Number of residuals............... 49
   Number of estimated parameters.... 2
   Degrees of freedom................ 47
   Residual mean..................... 0.0226
   Residual standard deviation....... 0.06742
   Residual variance................. 0.004545
```

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.02	1.578	1.4822	0.095764	1
0.0233	1.493	1.432	0.061017	1
0.0266	1.436	1.3834	0.052566	1
0.03	1.382	1.3351	0.046865	1
0.0333	1.335	1.2899	0.045131	1
0.05	0.947	1.0833	-0.13628	1
0.0666	0.726	0.91073	-0.18473	1
0.0833	0.599	0.76486	-0.16586	1
0.1	0.53	0.64236	-0.11236	1
0.1166	0.489	0.54004	-0.051043	1
0.1333	0.448	0.45355	-0.0055484	1
0.15	0.394	0.38091	0.013093	1
0.1666	0.356	0.32023	0.035766	1
0.1833	0.315	0.26894	0.046056	1
0.2	0.284	0.22587	0.05813	1
0.2166	0.265	0.18989	0.075108	1
0.2333	0.239	0.15948	0.079522	1
0.25	0.221	0.13394	0.087064	1
0.2666	0.202	0.1126	0.089398	1
0.2833	0.189	0.094567	0.094433	1
0.3	0.176	0.079421	0.096579	1
0.3166	0.164	0.06677	0.09723	1
0.3333	0.151	0.056076	0.094924	1
0.4166	0.116	0.023478	0.092522	1
0.5	0.082	0.0098195	0.07218	1
0.5833	0.059	0.0041113	0.054889	1
0.6666	0.053	0.0017213	0.051279	1
0.75	0.05	0.00071992	0.04928	1
0.8333	0.034	0.00030142	0.033699	1
0.9166	0.025	0.0001262	0.024874	1
1	0.028	5.2781E-005	0.027947	1
1.0833	0.018	2.2099E-005	0.017978	1
1.1666	0.022	9.2522E-006	0.021991	1
1.25	0.015	3.8697E-006	0.014996	1
1.3333	0.015	1.6202E-006	0.014998	1
1.4166	0.025	6.7833E-007	0.024999	1
1.5	0.009	2.8371E-007	0.0089997	1
1.5833	0.006	1.1878E-007	0.0059999	1
1.6666	0.006	4.9732E-008	0.006	1
1.75	0.015	2.08E-008	0.015	1
1.8333	0.012	8.7086E-009	0.012	1
1.9166	0.003	3.6461E-009	0.003	1
2	0.006	1.525E-009	0.006	1
2.5	0.003	8.1969E-012	0.003	1
3	0.006	4.406E-014	0.006	1
3.5	0.009	2.3683E-016	0.009	1
4	0.009	1.273E-018	0.009	1
4.5	0.003	6.8424E-021	0.003	1
5	0.006	3.6779E-023	0.006	1

==

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
K =	1.1913E-002
y0 =	1.8268E+000

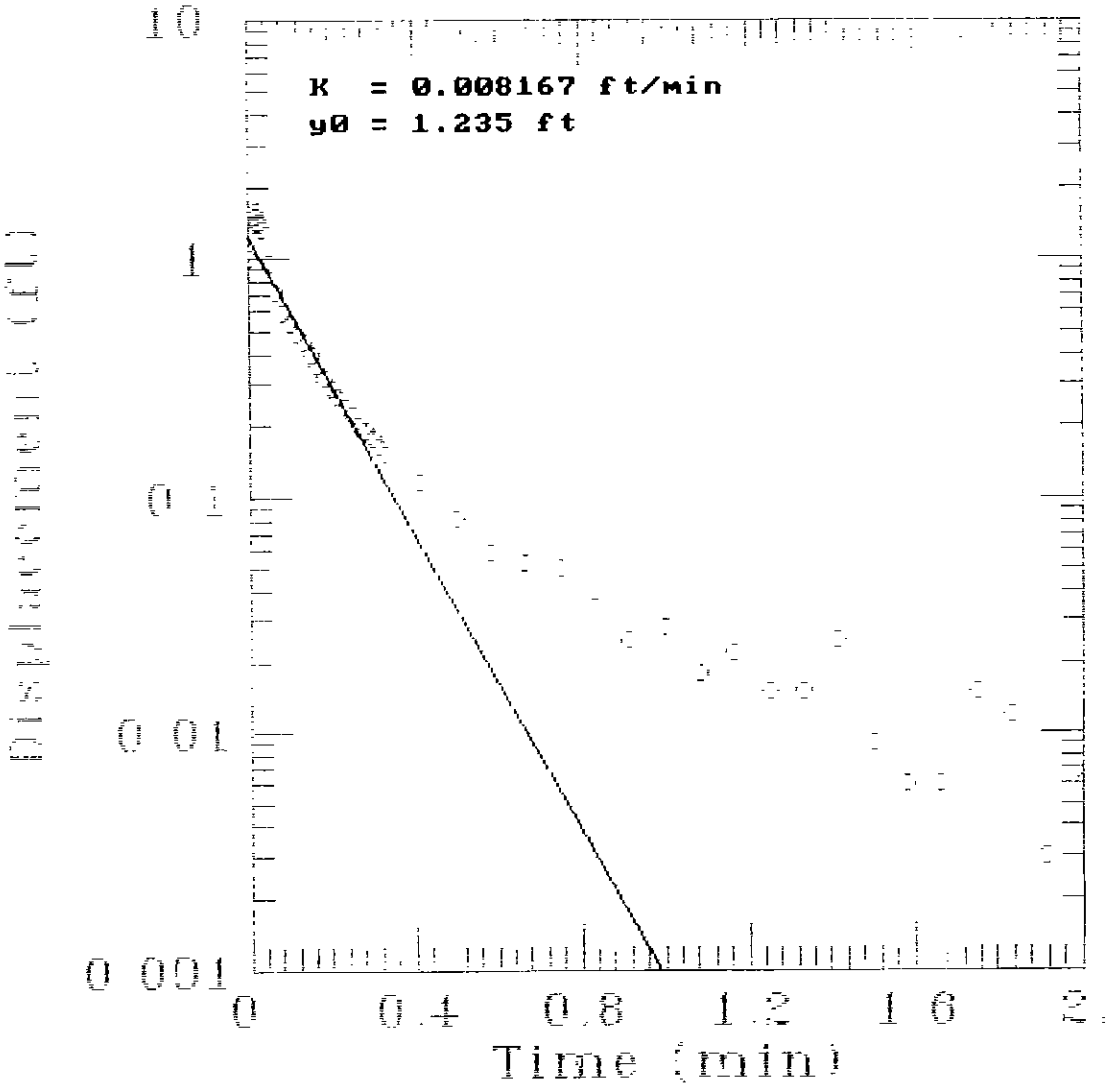
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

K = 8.16679E-003
y0 = 1.23500E+000

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	1.235E+000	2.000E+000	7.385E-007		

CEF-16-37D RUN NO.2



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/03 10:59

Unit# 00001 Test 7

Setups: INPUT 1

Type Level (F)
Mode TOC
I.D. 00000

Reference 0.000
Linearity 0.050
Scale factor 9.990
Offset 0.020
Delay mSEC 50.000

CEF-16-37D RUN 2

Step 0 11/03 10:08:56

Elapsed Time INPUT 1

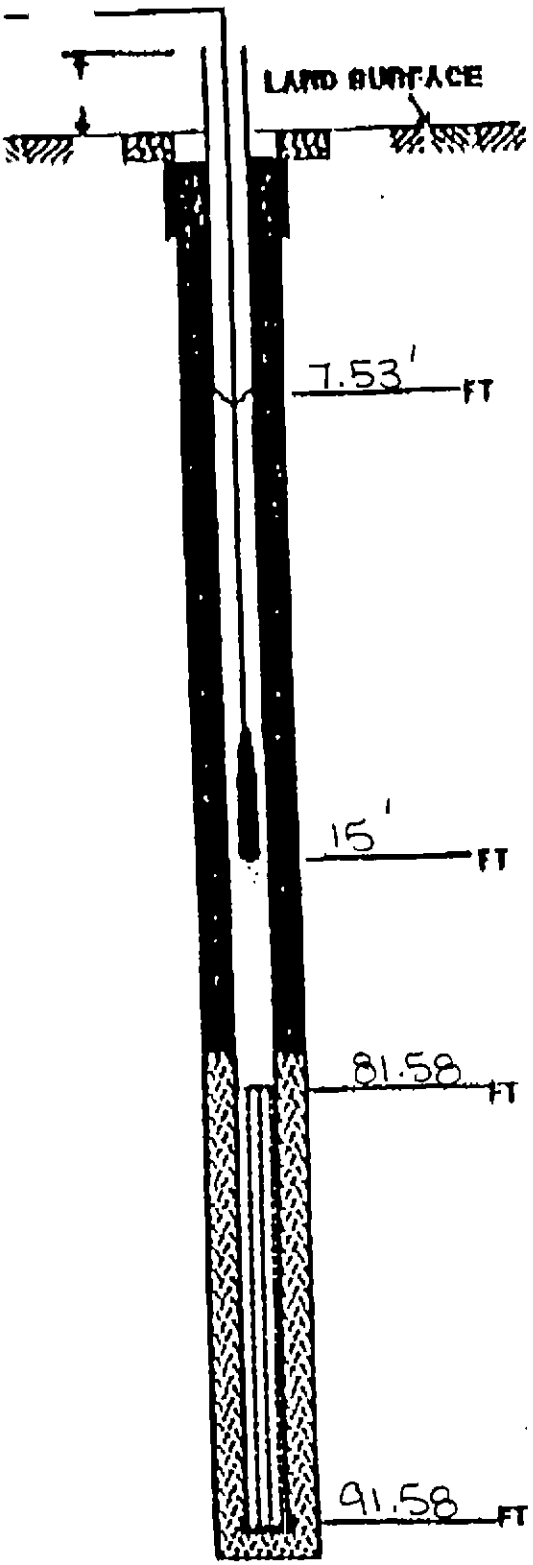
0.0000	-0.006
0.0033	0.262
0.0066	1.085
0.0100	1.515
0.0133	0.644
0.0166	0.988
0.0200	1.578
0.0233	1.493
0.0266	1.436
0.3000	1.382
0.0333	1.335
0.0500	0.947
0.0666	0.727
0.0833	0.599
0.1000	0.530
0.1166	0.489
0.1333	0.448
0.1500	0.394
0.1666	0.356
0.1833	0.315
0.2000	0.284
0.2166	0.265
0.2333	0.239
0.2500	0.221
0.2666	0.202
0.2833	0.189
0.3000	0.176
0.3166	0.164
0.3333	0.151
0.4166	0.116
0.5000	0.082

CEF-16-37D RUN 2
(CON'T)

Step 0 11/03 10:08:56

Elapsed Time	INPUT 1
0.5833	0.059
0.6666	0.053
0.7500	0.050
0.8333	0.034
0.9166	0.025
1.0000	0.028
1.0833	0.018
1.1666	0.022
1.2500	0.015
1.3333	0.015
1.4166	0.025
1.5000	0.009
1.5833	0.006
1.6666	0.006
1.7500	0.015
1.8333	0.012
1.9166	0.003
2.0000	0.006
2.5000	0.003
3.0000	0.006
3.5000	0.009
4.0000	0.009
4.5000	-0.003
5.0000	0.006
5.5000	0.012
6.0000	0.009
6.5000	0.003
7.0000	0.003
7.5000	-0.003
8.0000	-0.006
8.5000	0.003
9.0000	-0.003
9.5000	-0.003
10.0000	0.009

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU'S 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-37D PUMPING WELL —

DATE 11.3.94 TIME 0943

DATA LOGGER SERIAL NO. 1KC015916

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE (B) ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R1- 10 MIN. R2- 10 R3- 10

TIME OF INSTALLATION 0943

STATIC DEPTH TO WATER 7.53' FT. — PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION (B)

13' DEPTH 5.35' FT — PSI

14' DEPTH 6.35' FT — PSI

15' DEPTH 7.34' FT — PSI

CLOCKS SYNCHRONIZED? —

STATIC DEPTH TO WATER 7.53' btoc

TIME PUMPING STARTS —

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER — FT — PSI

TIME PUMPING STOPS —

MAXIMUM RECOVERY DEPTH TO WATER — FT — PSI

END RECOVERY —

RECALIBRATION OF TRANSDUCER

DEPTH — FT — PSI

DEPTH — FT — PSI

DEPTH — FT — PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/03/95 13:32:07

```
===============================================================================
```

TEST DESCRIPTION

```
Data set...........
Data set title..... CEF-16-38S RUN NO.2

Knowns and Constants:
   No. of data points.................. 43
   Radius of well casing............... 0.08333
   Radius of well...................... 0.25
   Aquifer saturated thickness......... 100
   Well screen length.................. 10
   Static height of water in well...... 84.05
   Log(Re/Rw).......................... 3.283
   A, B, C.............................  2.760,  0.448,  0.000
```

```
===============================================================================
```

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

```
===============================================================================
```

RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

```
           Estimate          Std. Error
   K  =   1.3654E-002 +/-   4.5288E-004
   y0 =   1.9382E+000 +/-   4.3526E-002
```

ANALYSIS OF MODEL RESIDUALS

```
residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
   Number of residuals............... 43
   Number of estimated parameters.... 2
   Degrees of freedom................ 41
   Residual mean..................... 0.02091
   Residual standard deviation....... 0.04515
   Residual variance................. 0.002039
```

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0233	1.6	1.4662	0.13384	1
0.0266	1.363	1.4093	-0.046334	1
0.03	1.335	1.3531	-0.018087	1
0.0333	1.331	1.3006	0.030358	1
0.05	1.016	1.0648	-0.048824	1
0.0666	0.814	0.87281	-0.058807	1
0.0833	0.666	0.71456	-0.048559	1
0.1	0.536	0.585	-0.049003	1
0.1166	0.448	0.47951	-0.031511	1
0.1333	0.372	0.39257	-0.020572	1
0.15	0.315	0.32139	-0.0063949	1
0.1666	0.271	0.26344	0.0075615	1
0.1833	0.233	0.21567	0.017325	1
0.2	0.202	0.17657	0.025429	1
0.2166	0.186	0.14473	0.04127	1
0.2333	0.167	0.11849	0.04851	1
0.25	0.154	0.097006	0.056994	1
0.2666	0.135	0.079513	0.055487	1
0.2833	0.123	0.065097	0.057903	1
0.3	0.123	0.053294	0.069706	1
0.3166	0.11	0.043684	0.066316	1
0.3333	0.101	0.035764	0.065236	1
0.4166	0.085	0.013185	0.071815	1
0.5	0.066	0.0048551	0.061145	1
0.5833	0.056	0.00179	0.05421	1
0.6666	0.047	0.00065991	0.04634	1
0.75	0.047	0.000243	0.046757	1
0.8333	0.034	8.9587E-005	0.03391	1
0.9166	0.034	3.3028E-005	0.033967	1
1	0.028	1.2162E-005	0.027988	1
1.0833	0.022	4.4838E-006	0.021996	1
1.1666	0.018	1.6531E-006	0.017998	1
1.25	0.009	6.0871E-007	0.0089994	1
1.3333	0.018	2.2441E-007	0.018	1
1.4166	0.018	8.2736E-008	0.018	1
1.5	0.009	3.0466E-008	0.009	1
1.5833	0.018	1.1232E-008	0.018	1
1.6666	0.009	4.1409E-009	0.009	1
1.75	0.012	1.5248E-009	0.012	1
1.8333	0.009	5.6216E-010	0.009	1
1.9166	0.015	2.0725E-010	0.015	1
2	0.015	7.6316E-011	0.015	1
2.5	0.003	1.9117E-013	0.003	1

==========

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
K =	1.3654E-002
y0 =	1.9382E+000

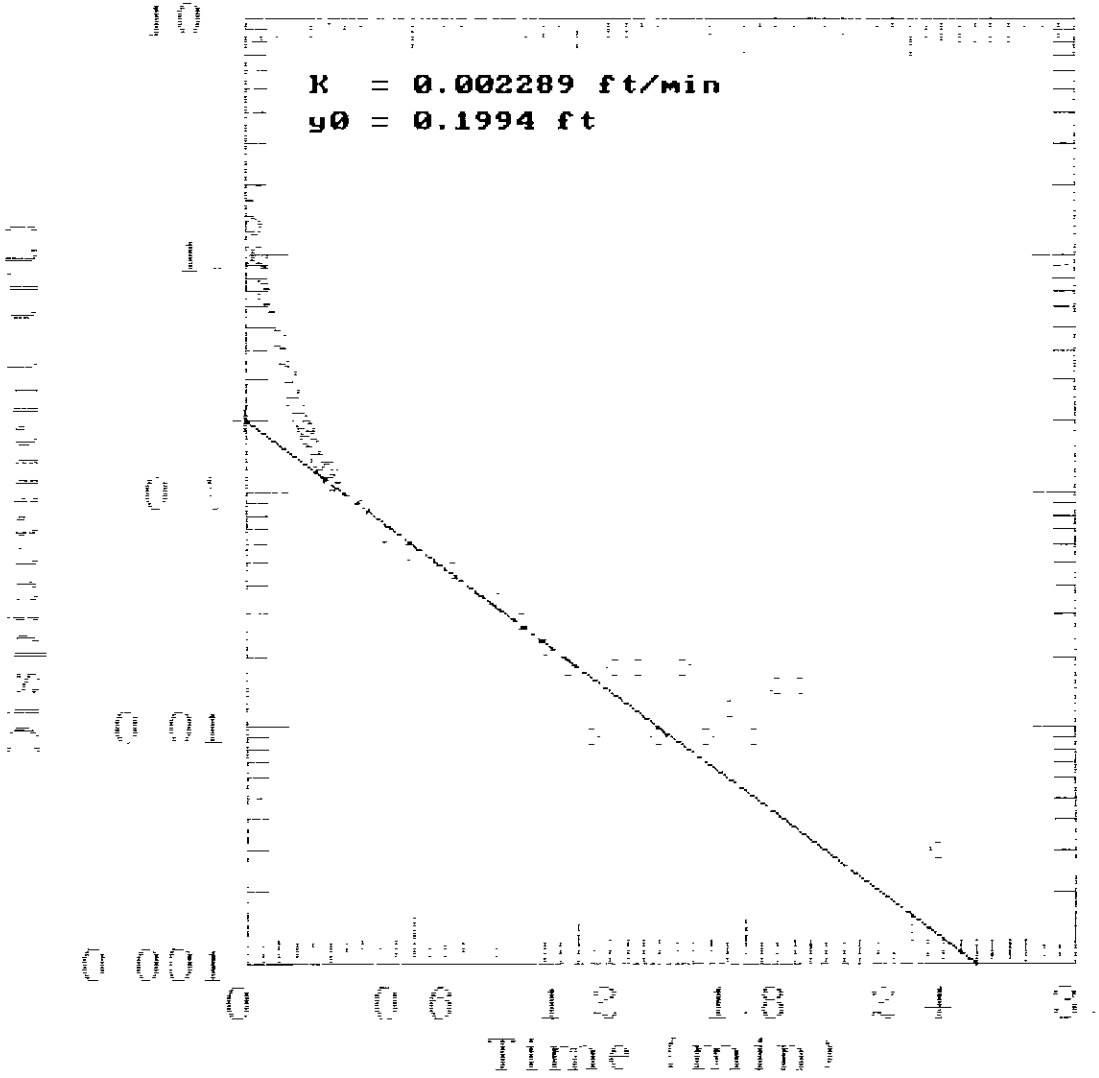
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

TYPE CURVE DATA

K = 2.28874E-003
y0 = 1.99360E-001

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	1.994E-001	3.000E+000	4.825E-004		

CEF-16-38S RUN NO.2



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/03 15:45

Unit# 00001 Test 1

Setups: INPUT 1

Type	Level (F)
Mode	TOC
I.D.	00000
Reference	0.000
Linearity	0.050
Scale factor	9.990
Offset	0.020
Delay mSEC	50.000

CEF-16-38S RUN 2

Step 0 11/03 13:00:54

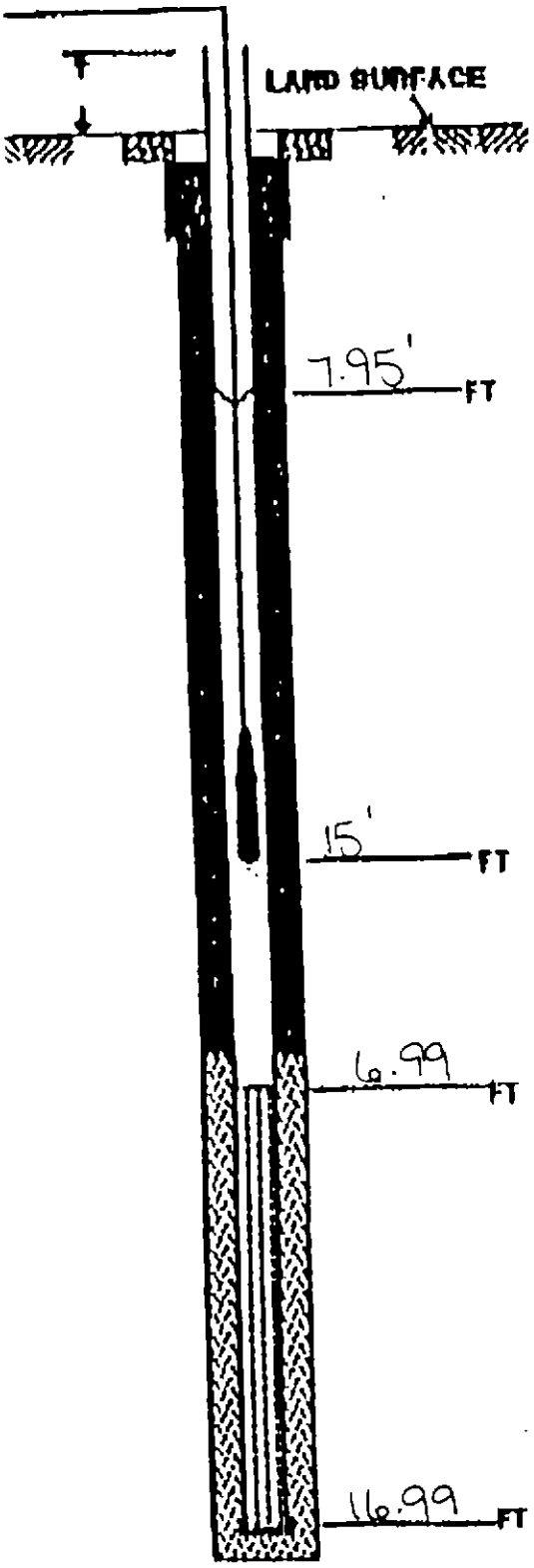
Elapsed Time	INPUT 1
0.0000	-0.003
0.0033	0.501
0.0066	1.571
0.0100	1.540
0.0133	1.350
0.0166	0.340
0.0200	1.082
0.0233	1.600
0.0266	1.363
0.3000	1.335
0.0333	1.331
0.0500	1.016
0.0666	0.814
0.0833	0.666
0.1000	0.536
0.1166	0.448
0.1333	0.372
0.1500	0.315
0.1666	0.271
0.1833	0.233
0.2000	0.202
0.2166	0.186
0.2333	0.167
0.2500	0.154
0.2666	0.135
0.2833	0.123
0.3000	0.123
0.3166	0.110
0.3333	0.101
0.4166	0.085
0.5000	0.066

CEF-16-38S RUN 2
(CON'T)

Step 0 11/03 13:00:54

Elapsed Time	INPUT 1
0.5833	0.056
0.6666	0.047
0.7500	0.047
0.8333	0.034
0.9166	0.034
1.0000	0.028
1.0833	0.022
1.1666	0.018
1.2500	0.009
1.3333	0.018
1.4166	0.018
1.5000	0.009
1.5833	0.018
1.6666	0.009
1.7500	0.012
1.8333	0.009
1.9166	0.015
2.0000	0.015
2.5000	0.003
3.0000	0.000
3.5000	-0.003
4.0000	0.003
4.5000	0.000
5.0000	-0.006
5.5000	0.006
6.0000	0.009
6.5000	-0.006
7.0000	0.003
7.5000	0.000
8.0000	0.009
8.5000	0.000
9.0000	-0.003
9.5000	0.000
10.0000	-0.003

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU'S 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-38S PUMPING WELL —

DATE 11.3.94 TIME 1230

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R1-10 MIN R2-10 R3-10

TIME OF INSTALLATION 1230

STATIC DEPTH TO WATER 7.95' FT. — PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 4.97' FT — PSI

14' DEPTH 5.97' FT — PSI

15' DEPTH 6.97' FT — PSI

CLOCKS SYNCHRONIZED? —

STATIC DEPTH TO WATER 7.95' btoc

TIME PUMPING STARTS —

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER — FT — PSI

TIME PUMPING STOPS —

MAXIMUM RECOVERY DEPTH TO WATER — FT — PSI

END RECOVERY —

RECALIBRATION OF TRANSDUCER

DEPTH — FT — PSI

DEPTH — FT — PSI

DEPTH — FT — PSI

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

A Q T E S O L V   R E S U L T S

Version 1.10

02/03/95

13:41:48

==

TEST DESCRIPTION

Data set...........
Data set title..... CEF-16-39I RUN NO.2

Knowns and Constants:
No. of data points.................. 45
Radius of well casing............... 0.08333
Radius of well...................... 0.25
Aquifer saturated thickness......... 100
Well screen length.................. 10
Static height of water in well...... 47.26
Log(Re/Rw).......................... 2.952
A, B, C............................. 2.760, 0.448, 0.000

==

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

==

RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

	Estimate		Std. Error
K =	1.4508E-002	+/-	3.3824E-004
y0 =	2.0526E+000	+/-	3.6890E-002

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:
Number of residuals................ 45
Number of estimated parameters.... 2
Degrees of freedom................ 43
Residual mean..................... 0.01471
Residual standard deviation....... 0.02818
Residual variance................. 0.0007939

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0266	1.483	1.4086	0.074411	1
0.03	1.335	1.3424	-0.007402	1
0.0333	1.29	1.2811	0.0088626	1
0.05	0.962	1.0114	-0.049421	1
0.0666	0.738	0.79962	-0.061618	1
0.0833	0.602	0.63128	-0.029275	1
0.1	0.476	0.49837	-0.022374	1
0.1166	0.381	0.39401	-0.013009	1
0.1333	0.309	0.31106	-0.0020584	1
0.15	0.252	0.24557	0.0064284	1
0.1666	0.214	0.19415	0.019854	1
0.1833	0.183	0.15327	0.029727	1
0.2	0.151	0.121	0.029996	1
0.2166	0.129	0.095665	0.033335	1
0.2333	0.113	0.075525	0.037475	1
0.25	0.097	0.059624	0.037376	1
0.2666	0.104	0.047138	0.056862	1
0.2833	0.072	0.037214	0.034786	1
0.3	0.066	0.02938	0.03662	1
0.3166	0.053	0.023227	0.029773	1
0.3333	0.053	0.018337	0.034663	1
0.4166	0.037	0.0056396	0.03136	1
0.5	0.028	0.001732	0.026268	1
0.5833	0.018	0.00053266	0.017467	1
0.6666	0.018	0.00016382	0.017836	1
0.75	0.015	5.031E-005	0.01495	1
0.8333	0.015	1.5473E-005	0.014985	1
0.9166	0.012	4.7586E-006	0.011995	1
1	0.012	1.4614E-006	0.011999	1
1.0833	0.012	4.4945E-007	0.012	1
1.1666	0.015	1.3823E-007	0.015	1
1.25	0.015	4.2451E-008	0.015	1
1.3333	0.012	1.3056E-008	0.012	1
1.4166	0.009	4.0152E-009	0.009	1
1.5	0.015	1.2331E-009	0.015	1
1.5833	0.009	3.7924E-010	0.009	1
1.6666	0.015	1.1663E-010	0.015	1
1.75	0.012	3.5819E-011	0.012	1
1.8333	0.012	1.1016E-011	0.012	1
1.9166	0.015	3.388E-012	0.015	1
2	0.018	1.0405E-012	0.018	1
2.5	0.009	8.7794E-016	0.009	1
3	0.012	7.4079E-019	0.012	1
3.5	0.025	6.2507E-022	0.025	1
4	0.025	5.2742E-025	0.025	1

==========

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
K =	1.4508E-002
y0 =	2.0526E+000

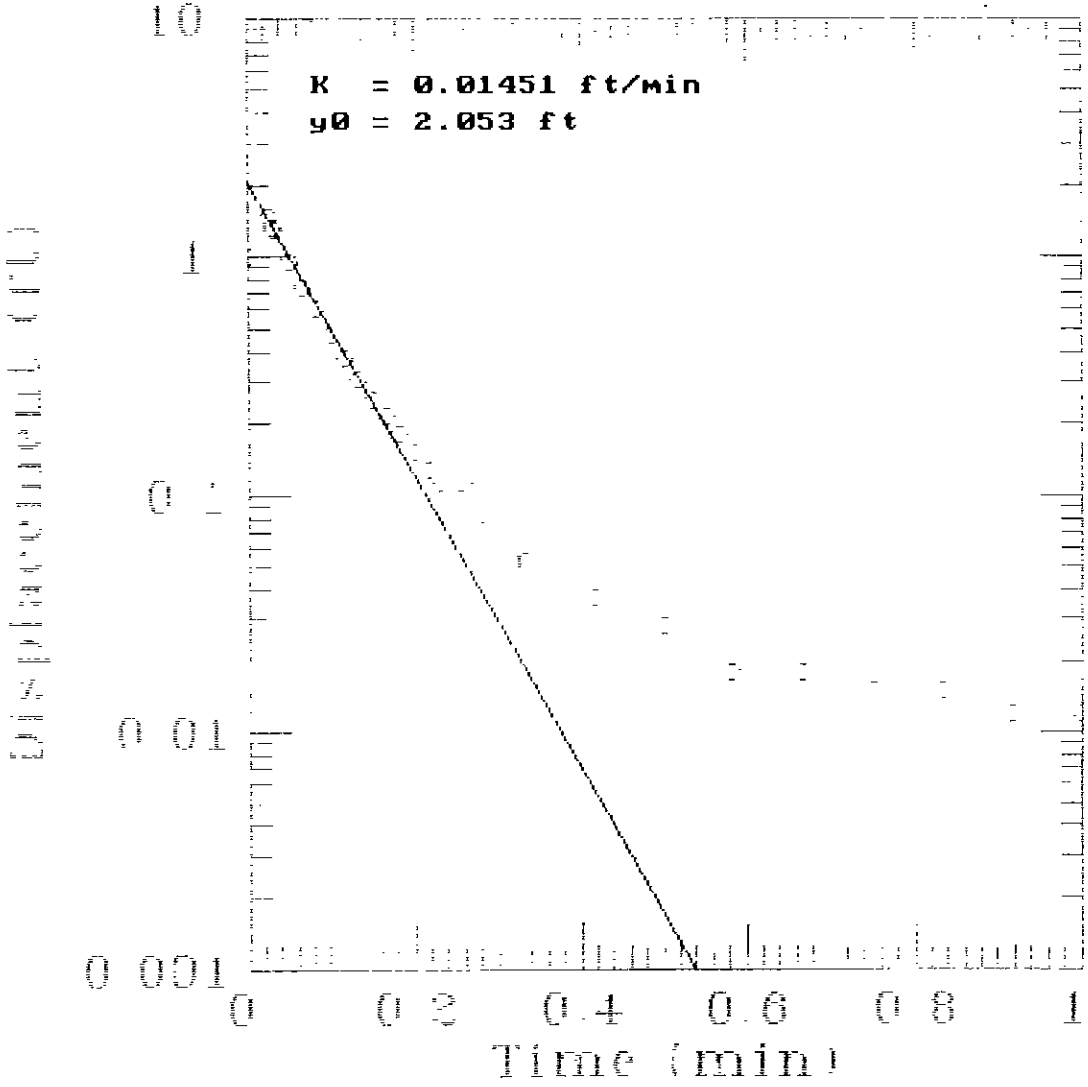
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>

TYPE CURVE DATA

K = 1.45077E-002
y0 = 2.05262E+000

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	2.053E+000	1.000E+000	1.461E-006		

CEF-16-39I RUN NO.2



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/03 15:50

Unit# 00001 Test 4

Setups: INPUT 1

Type Level (F)
Mode TOC
I.D. 00000

Reference 0.000
Linearity 0.050
Scale factor 9.990
Offset 0.020
Delay mSEC 50.000

CEF-16-39I RUN 2

Step 0 11/03 13:53:26

Elapsed Time INPUT 1

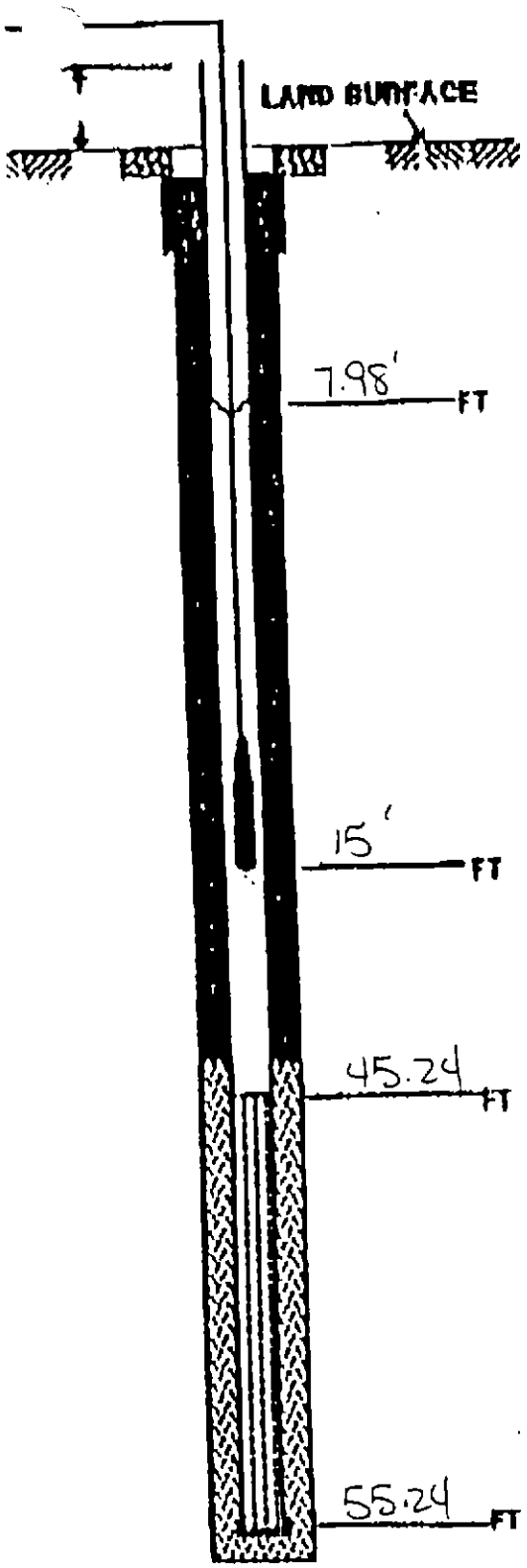
0.0000	0.012
0.0033	0.912
0.0066	0.943
0.0100	1.208
0.0133	0.827
0.0166	0.864
0.0200	1.158
0.0233	1.448
0.0266	1.483
0.0300	1.335
0.0333	1.290
0.0500	0.962
0.0666	0.738
0.0833	0.602
0.1000	0.476
0.1166	0.381
0.1333	0.309
0.1500	0.252
0.1666	0.214
0.1833	0.183
0.2000	0.151
0.2166	0.129
0.2333	0.113
0.2500	0.097
0.2666	0.104
0.2833	0.072
0.3000	0.066
0.3166	0.053
0.3333	0.053
0.4166	0.037
0.5000	0.028

CEF-16-39I RUN 2
(CON'T)

Step 0 11/03 13:53:26

Elapsed Time	INPUT 1
0.5833	0.018
0.6666	0.018
0.7500	0.015
0.8333	0.015
0.9166	0.012
1.0000	0.012
1.0833	0.012
1.1666	0.015
1.2500	0.015
1.3333	0.012
1.4166	0.009
1.5000	0.015
1.5833	0.009
1.6666	0.015
1.7500	0.012
1.8333	0.012
1.9166	0.015
2.0000	0.018
2.5000	0.009
3.0000	0.012
3.5000	0.025
4.0000	0.025
4.5000	0.018
5.0000	0.009
5.5000	0.009
6.0000	0.018
6.5000	0.003
7.0000	0.012
7.5000	0.015
8.0000	0.009
8.5000	0.009
9.0000	0.012
9.5000	0.006
10.0000	0.012

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU'S 1,2,7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-39I PUMPING WELL ___

DATE 11.3.94 TIME 1333

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE 10 PSIG

CHANNEL NO. 1

TEST DURATION R1-10 MIN R2-10 R3-10

TIME OF INSTALLATION 1333

STATIC DEPTH TO WATER 7.98' FT. ___ PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 4.93 FT ___ PSI

14' DEPTH 5.93' FT ___ PSI

15' DEPTH 6.92' FT ___ PSI

CLOCKS SYNCHRONIZED? ___

STATIC DEPTH TO WATER 7.98' btoc

TIME PUMPING STARTS ___

___ VERIFICATION OF DATA ACQUISITION (HR)

___ VERIFICATION OF DATA ACQUISITION (HR)

___ VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER ___ FT ___ PSI

TIME PUMPING STOPS ___

MAXIMUM RECOVERY DEPTH TO WATER ___ FT ___ PSI

END RECOVERY ___

RECALIBRATION OF TRANSDUCER

DEPTH ___ FT ___ PSI

DEPTH ___ FT ___ PSI

DEPTH ___ FT ___ PSI

```
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
```

A Q T E S O L V   R E S U L T S

Version 1.10

02/03/95 13:50:20

```
================================================================================
```

TEST DESCRIPTION

```
Data set...........
Data set title..... CEF-16-40D RUN NO.1

Knowns and Constants:
   No. of data points.................. 51
   Radius of well casing............... 0.08333
   Radius of well...................... 0.25
   Aquifer saturated thickness......... 100
   Well screen length.................. 10
   Static height of water in well...... 82.52
   Log(Re/Rw).......................... 3.266
   A, B, C.............................  2.760,  0.448,  0.000
```

```
================================================================================
```

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

```
================================================================================
```

RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

```
            Estimate          Std. Error
   K  =   1.8795E-002 +/-   5.9606E-004
   y0 =   2.1387E+000 +/-   4.5483E-002
```

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

```
Weighted Residual Statistics:
   Number of residuals............... 51
   Number of estimated parameters.... 2
   Degrees of freedom................ 49
   Residual mean..................... 0.01825
   Residual standard deviation....... 0.03924
   Residual variance................. 0.00154
```

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.02	1.575	1.5352	0.039811	1
0.0233	1.464	1.4535	0.010537	1
0.0266	1.388	1.3761	0.011913	1
0.03	1.319	1.3007	0.018327	1
0.0333	1.256	1.2314	0.024569	1
0.05	0.861	0.93364	-0.072642	1
0.0666	0.602	0.70904	-0.10704	1
0.0833	0.451	0.53758	-0.086578	1
0.1	0.378	0.40758	-0.029579	1
0.1166	0.322	0.30953	0.01247	1
0.1333	0.274	0.23468	0.039322	1
0.15	0.243	0.17793	0.065073	1
0.1666	0.189	0.13512	0.053876	1
0.1833	0.161	0.10245	0.058552	1
0.2	0.135	0.077674	0.057326	1
0.2166	0.126	0.058988	0.067012	1
0.2333	0.107	0.044723	0.062277	1
0.25	0.091	0.033908	0.057092	1
0.2666	0.082	0.025751	0.056249	1
0.2833	0.075	0.019524	0.055476	1
0.3	0.066	0.014803	0.051197	1
0.3166	0.06	0.011242	0.048758	1
0.3333	0.056	0.0085231	0.047477	1
0.4166	0.031	0.0021423	0.028858	1
0.5	0.034	0.0005376	0.033462	1
0.5833	0.018	0.00013513	0.017865	1
0.6666	0.015	3.3966E-005	0.014966	1
0.75	0.022	8.5235E-006	0.021991	1
0.8333	0.022	2.1424E-006	0.021998	1
0.9166	0.012	5.3852E-007	0.011999	1
1	0.025	1.3514E-007	0.025	1
1.0833	0.009	3.3968E-008	0.009	1
1.1666	0.015	8.5381E-009	0.015	1
1.25	0.015	2.1425E-009	0.015	1
1.3333	0.015	5.3855E-010	0.015	1
1.4166	0.015	1.3537E-010	0.015	1
1.5	0.009	3.3969E-011	0.009	1
1.5833	0.018	8.5385E-012	0.018	1
1.6666	0.003	2.1462E-012	0.003	1
1.75	0.009	5.3857E-013	0.009	1
1.8333	0.006	1.3537E-013	0.006	1
1.9166	0.009	3.4027E-014	0.009	1
2	0.009	8.5389E-015	0.009	1
2.5	0.006	2.1464E-018	0.006	1
3	0.018	5.3954E-022	0.018	1
3.5	0.012	1.3562E-025	0.012	1
4	0.015	3.4092E-029	0.015	1
4.5	0.009	8.5696E-033	0.009	1
5	0.009	2.1541E-036	0.009	1
5.5	0.009	5.4149E-040	0.009	1
6	0.003	1.3611E-043	0.003	1

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

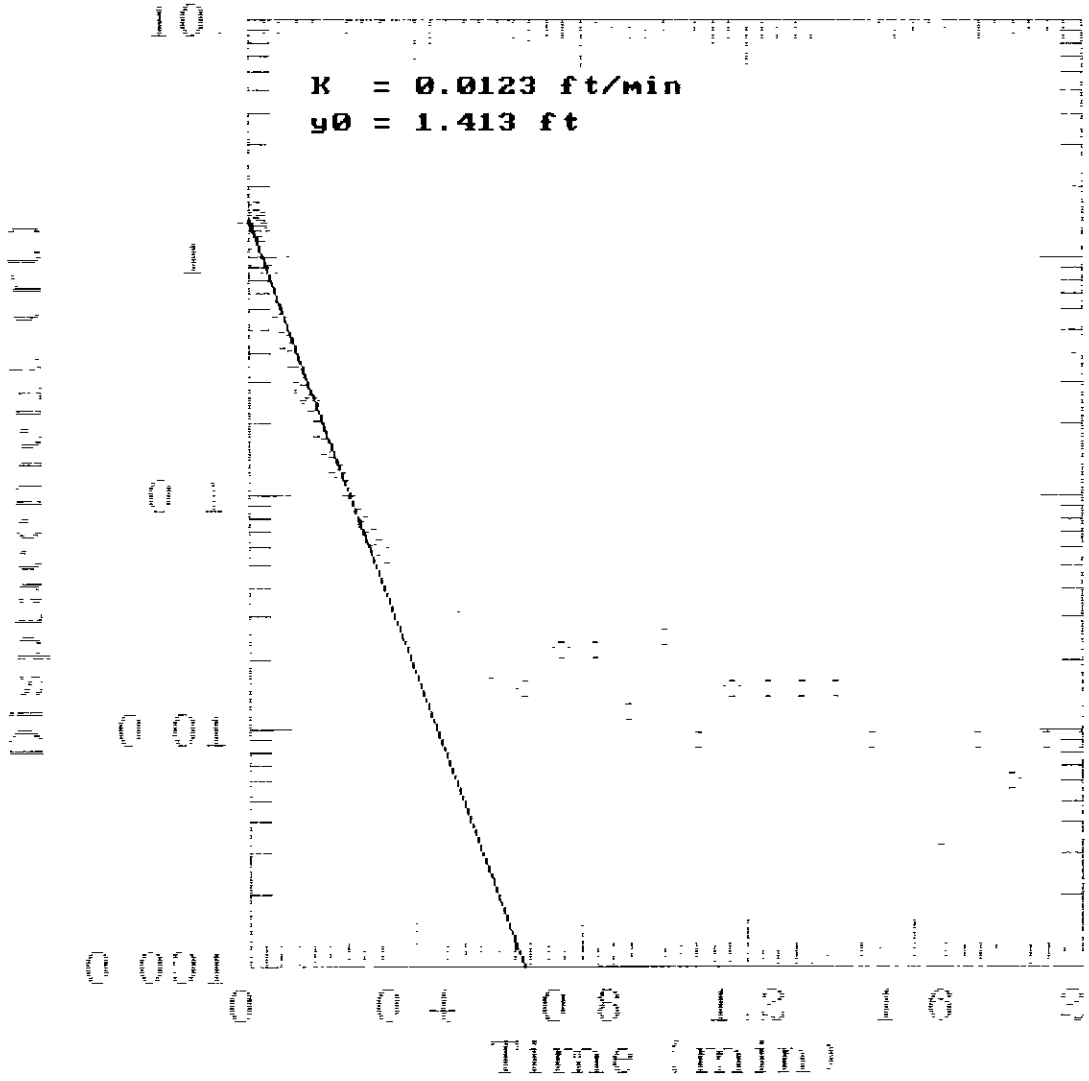
	Estimate
K =	1.8795E-002
y0 =	2.1387E+000

TYPE CURVE DATA

K = 1.22991E-002
y0 = 1.41254E+000

Time	Drawdown	Time	Drawdown	Time	Drawdown
0.000E+000	1.413E+000	2.000E+000	5.342E-010		

CEF-16-40D RUN NO.1



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SE1000C
Environmental Logger
11/03 15:53

Unit# 00001 Test 6

Setups: INPUT 1

Type	Level (F)
Mode	TOC
I.D.	00000

Reference	0.000
Linearity	0.050
Scale factor	9.990
Offset	0.020
Delay mSEC	50.000

CEF-16-40D RUN 1

Step 0 11/03 14:32:35

Elapsed Time INPUT 1

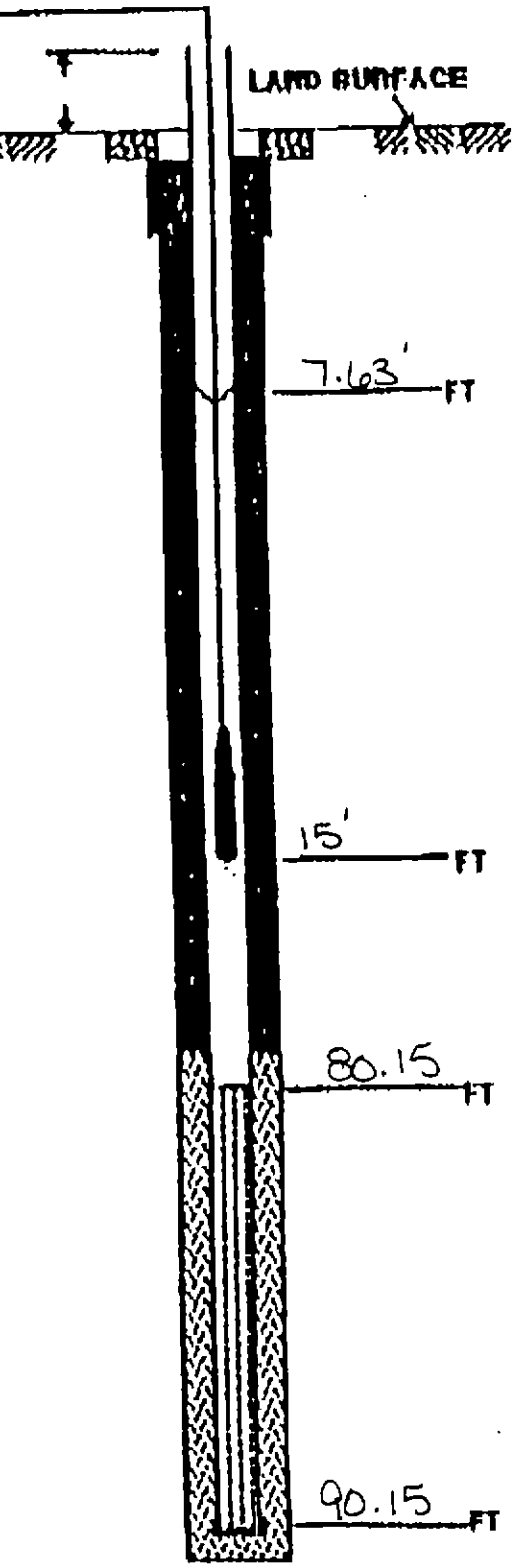
0.0000	0.003
0.0033	1.224
0.0066	0.962
0.0100	0.820
0.0133	0.782
0.0166	1.161
0.0200	1.575
0.0233	1.464
0.0266	1.388
0.0300	1.319
0.0333	1.256
0.0500	0.861
0.0666	0.602
0.0833	0.451
0.1000	0.378
0.1166	0.322
0.1333	0.274
0.1500	0.243
0.1666	0.189
0.1833	0.161
0.2000	0.135
0.2166	0.126
0.2333	0.107
0.2500	0.091
0.2666	0.082
0.2833	0.075
0.3000	0.066
0.3166	0.060
0.3333	0.056
0.4166	0.031
0.5000	0.034

CEF-16-40D RUN 1
(CON'T)

Step 0 11/03 14:32:35

Elapsed Time	INPUT 1
0.5833	0.018
0.6666	0.015
0.7500	0.022
0.8333	0.022
0.9166	0.012
1.0000	0.025
1.0833	0.009
1.1666	0.015
1.2500	0.015
1.3333	0.015
1.4166	0.015
1.5000	0.009
1.5833	0.018
1.6666	0.003
1.7500	0.009
1.8333	0.006
1.9166	0.009
2.0000	0.009
2.5000	0.006
3.0000	0.018
3.5000	0.012
4.0000	0.015
4.5000	0.009
5.0000	0.009
5.5000	0.009
6.0000	0.003
6.5000	0.000
7.0000	0.003
7.5000	0.003
8.0000	0.006
8.5000	0.012
9.0000	0.003
9.5000	0.015
10.0000	0.006

AQUIFER PERFORMANCE TEST
TRANSDUCER CALIBRATION LOG



PROJECT RI OU'S 1,2 & 7

PROJECT NUMBER 8500.09

WELL NO. CEF-16-40D PUMPING WELL —

DATE 11-3-94 TIME 1430

DATA LOGGER SERIAL NO. 1KC01596

TRANSDUCER SERIAL NO. 203736

TRANSDUCER RANGE ~~20~~ 10 PSIG

CHANNEL NO. 1

TEST DURATION R1-10 MIN. R2-10 R3-10

TIME OF INSTALLATION 1430

STATIC DEPTH TO WATER 7.63' FT. — PSI

DEPTH OF TRANSDUCER 15' btoc

CALIBRATION

13' DEPTH 5.25' FT — PSI

14' DEPTH 6.25' FT — PSI

15' DEPTH 7.24' FT — PSI

CLOCKS SYNCHRONIZED? —

STATIC DEPTH TO WATER 7.63' btoc

TIME PUMPING STARTS —

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

— VERIFICATION OF DATA ACQUISITION (HR)

MAXIMUM PUMPING DEPTH TO WATER — FT — PSI

TIME PUMPING STOPS —

MAXIMUM RECOVERY DEPTH TO WATER — FT — PSI

END RECOVERY —

RECALIBRATION OF TRANSDUCER

DEPTH — FT — PSI

DEPTH — FT — PSI

DEPTH — FT — PSI

APPENDIX I

WATER LEVEL MEASUREMENTS

Water Level Data
NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
June 18–20, 1994

Operable Unit Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
CEF–3–24D	61.20	62–72	6.58	67 78	Artesian (ALS)
CEF–3–25S	72.65	84–94	4.96	67.69	
CEF–3–26I	72 44	45–55	4.97	67 47	
CEF–3–27D	72 37	81–91	4.23	68.14	
CEF–3–28S	66.24	20–30	2.65	63.59	
CEF–3–29D	63.30	72–82	4.27	67.57	Artesian (ALS)
CEF–3–30DD	63 50	94–104	3.98	67.48	Artesian (ALS)
CEF–3–31S	58 00	20–30	2.00	56.00	
CEF–3–32D	55.10	56–66	9.00	64 10	* Artesian (ALS)
CEF–3–33DD	76.85	105–115	8.66	68.19	
CEF–3–34S	58.86	25–35	0.00	58.86	
CEF–3–35D	56.50	55–65	9.00	65.50	* Artesian (ALS)
Site 4					
CEF–4–1	73.74	10–15	5.50	68.24	
CEF–4–2	72.51	95–120	4.31	68 20	
CEF–4–3	72.53	8–13	4.09	68.44	
CEF–4–4	75.02	20–50	5.08	69.94	
CEF–4–1S	77.89	4–14	6.35	71 54	
CEF–4–2S	77 29	4–14	5 02	72.27	
Site 5					
CEF–5–3S	71 88	4–14	3.98	67.90	Odor
CEF–5–4S	71 64	4–14	4.00	67 64	
CEF–5–5S	72.26	4–14	4.75	67.51	DTP 4.42 (Ft, TOC)
CEF–5–6S	73 91	4–14	8.24	65.67	DTP 5.08 (Ft, TOC)
CEF–5–7S	73 90	4–14	5.63	68 27	
CEF–5–8S	71 34	2–12	3.02	68.32	
CEF–5–9I	71.60	25–35	3.68	67.92	
CEF–5–10S	71.17	2–12	2.32	68.85	
CEF–5–11I	71 64	25–35	3.15	68.49	
CEF–5–12D	71.69	47–57	3.05	68.64	
CEF–5–13S	74 56	3–13	5.59	68.97	
CEF–5–14I	74 64	25–35	5 35	69.29	
CEF–5–15D	74.79	45–55	5.20	69.59	
CEF–5–16S	72.96	6–16	5.02	67.94	
CEF–5–17I	73.17	25–35	4.79	68.38	
CEF–5–18D	73.50	40–50	5.08	68.42	
CEF–5–19S	72.79	2–12	5.40	67.39	
CEF–5–20S	68.28	2–12	1.37	66.91	
CEF–5–21I	68.34	25–35	1.40	66.94	
CEF–5–22D	68.58	40–50	1 58	67.00	
CEF–5–23S	69.58	4–14	3.32	66.26	
CEF–5–24S	73.12	5–15	5 76	67.36	
CEF–5–25I	73.11	24–34	5.63	67.48	
CEF–5–26D	73.39	45–55	5.85	67 54	
CEF–5–27S	71 70	3–13	4.28	67.42	
CEF–5–28D	71.06	46–56	3.27	67.79	
CEF–5–29S	70 86	3–13	3.96	66.90	
CEF–5–30S	72 03	6–16	4.09	67 94	
Site 7					
CEF–7–1	78.99	20–50	7 26	71 73	
CEF–7–2	78.22	20–50	8.16	70 06	
CEF–7–3	78.74	20–50	8.63	70.11	

Water Level Data
NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
June 18–20 1994

Operable Unit Well No.	Elevation TOC (Ft. NGVD)	Screened Interval (Ft. bls)	Water Level (Ft. below TOC)	Water Level Elevation (Ft. NGVD)	Comments
Site 8					
CEF-8-1	69.10	20-50	9 28	59.82	
CEF-8-2	71.01	20-50	5.17	65.84	
CEF-8-3	72.64	20-50	5.94	66.70	
CEF-8-4	73 42	20-50	5.36	68.06	
Site 10					
CEF-10-1	69.87	95-115	6.52	63.35	
CEF-10-2	50.81	18-38	0.87	49.94	
CEF-10-3	58.62	14-24	4.39	54.23	
CEF-10-4	58.49	10-30	6.25	52.24	
Site 11					
CEF-11-1	78 06	20-50	5.83	72.23	
CEF-11-2	78 23	20-50	5.98	72.25	
Site 16					
CEF-16-1	80.03	20-50	N/A	N/A	Unable to locate
CEF-16-2	81 42	20-50	N/A	N/A	Abandoned
CEF-16-3	80.86	17-47	N/A	N/A	Abandoned
CEF-16-4S	78.14	4-14	N/A	N/A	Destroyed
CEF-16-5S	78.31	4-14	5.92	72.39	
CEF-16-6S	77 95	4-14	N/A	N/A	Destroyed
CEF-16-7S	78.09	4-14	6.20	71.89	
CEF-16-8DD	78.02	105-115	5.91	72.11	
CEF-16-9D	77.92	91-101	6 17	71.75	
CEF-16-10S	77 86	4-14	6.29	71.57	
CEF-16-13S	N/S	6-16	4.89	N/S	
CEF-16-14D	N/S	91-101	4.87	N/S	
CEF-16-15S	N/S	6-16	4.92	N/S	
CEF-16-16D	N/S	91-101	4.96	N/S	
CEF-16-17S	N/S	7-17	5.14	N/S	
CEF-16-18D	N/S	90-100	4 35	N/S	
CEF-16-19S	N/S	7-17	5.99	N/S	
CEF-16-20D	N/S	91-101	6.53	N/S	
CEF-16-21S	N/S	7-17	6 88	N/S	
CEF-16-22I	N/S	25-35	7.01	N/S	
CEF-16-23D	N/S	89-99	7.03	N/S	
CEF-16-24S	N/S	7-17	7.48	N/S	
CEF-16-25D	N/S	84-94	6.19	N/S	
CEF-16-26DD	N/S	108-118	6.21	N/S	
CEF-16-27I	N/S	25-35	7.77	N/S	
CEF-16-28D	N/S	89-99	6.82	N/S	
CEF-16-29S	N/S	7-17	5.63	N/S	
CEF-16-30D	N/S	97-107	5.09	N/S	
CEF-16-31DD	N/S	82-92	3.95	N/S	
CEF-16-32S	N/S	7-17	6.78	N/S	
CEF-16-33D	N/S	80-90	6.16	N/S	
CEF-16-34DD	N/S	97-107	5.31	N/S	
CEF-16-35S	N/S	7-17	8.02	N/S	
CEF-16-36I	N/S	45-55	7 66	N/S	
CEF-16-37D	N/S	81-91	7 18	N/S	
CEF-16-38S	N/S	7-17	7.84	N/S	
CEF-16-39I	N/S	45-55	7.81	N/S	

Water Level Data
NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
June 18–20, 1994

Operable Unit Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
CEF–16–40D	N/S	79–89	7 35	N/S	
Site 17					
CEF–17–1	73.89	10–15	2.25	71 64	
CEF–17–4S	73.20	3–13	3.20	70.00	
CEF–17–5S	72.72	4–14	3.25	69.47	
CEF–17–6S	72.92	5–15	3.32	69.60	
CEF–17–7D	72.44	76–86	4.37	68.07	
CEF–17–8S	70.96	4–14	2.12	68 84	
CEF–17–9S	73 67	4–14	3 87	69.80	
CEF–17–10D	71 01	76–86	2.89	68.12	
CEF–17–11I	71.19	45–55	2.08	69.11	
CEF–17–12D	71.21	75–85	2.90	68.31	
CEF–17–13S	72.74	4–14	3.21	69.53	
CEF–17–14I	72.56	45–55	3 21	69.35	
CEF–17–15D	71 93	76–86	3.66	68.27	
CEF–17–16S	73.53	4–14	3 15	70.38	
CEF–17–17I	73.42	45–55	3.35	70.07	
CEF–17–18D	73.38	74–84	4 98	68.40	
CEF–17–19S	74.61	5–15	3.48	71.13	
CEF–17–20I	74 63	45–55	3.68	70.95	
CEF–17–21I	74 70	45–55	3.41	71.29	
CEF–17–22D	74 51	81–91	6.63	67.88	
CEF–17–23S	71 07	81–91	2.23	68.84	
CEF–17–24S	73.41	4–14	3.00	70.41	
CEF–17–25SI	73.63	30–40	3.22	70.41	
CEF–17–26I	73.79	60–70	3.64	70.15	
CEF–17–27D	74.00	76–86	5.22	68.78	
CEF–17–28DD	73.88	106–116	6.43	67 45	
Site 43	South Fuel Farm				
CEF–43–7	79 38	N/A	N/A	N/A	Reading not taken
CEF–43–8	79.85	N/A	N/A	N/A	Reading not taken
CEF–43–10	80 97	N/A	6 38	74.59	
CEF–43–14	78.66	N/A	N/A	N/A	Reading not taken
CEF–43–15	79.87	N/A	7 32	72.55	
CEF–43–16	79.44	N/A	6.71	72.73	
CEF–43–17	N/A	N/A	N/A	N/A	Reading not taken
CEF–43–18	79 87	N/A	5.09	74 78	
CEF–43–19	80.97	N/A	N/A	N/A	Rusted shut
CEF–43–20	80.95	N/A	6.02	74 93	
CEF–43–21	79.15	N/A	4.50	74.65	
CEF–43–22	79 68	N/A	5.90	73.78	
CEF–43–25	75.38	N/A	4.40	70.98	
CEF–43–26D	79.97	N/A	7.01	72.96	
CEF–43–27D	78.75	N/A	7.21	71.54	
CEF–43–28D	76.14	N/A	4.35	71.79	
CEF–43–29	77 84	N/A	5.02	72.82	
CEF–43–30	N/A	N/A	N/A	N/A	Reading not taken
CEF–43–31	N/A	N/A	N/A	N/A	Reading not taken
Site 76	North Fuel Farm				
CEF–76–1	79.55	N/A	3.62	75.93	DTP 3.26 (Ft, TOC)
CEF–76–3	77.68	N/A	2.01	75.67	

Water Level Data
NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
June 18–20, 1994

Operable Unit Well No.	Elevation TOC (Ft. NGVD)	Screened Interval (Ft. bls)	Water Level (Ft. below TOC)	Water Level Elevation (Ft. NGVD)	Comments
CEF-76-4	77.31	N/A	3.23	74 08	DTP 3 00 (Ft. TOC)
CEF-76-5	77.70	N/A	3.08	74 62	
CEF-76-6	78 05	N/A	3.72	74 33	
CEF-76-7	79 32	N/A	N/A	N/A	Rusted shut
CEF-76-9	78.90	N/A	3 00	75.90	
CEF-76-11	77.74	N/A	3 29	74 45	
CEF-76-12	76 76	N/A	2.15	74 61	
CEF-76-20	77.73	N/A	3.21	74 52	
CEF-76-21	77 94	N/A	3.27	74 67	
CEF-76-24	78.85	N/A	N/A	N/A	Unable to locate
CEF-76-25D	77.94	N/A	3.32	74 62	
CEF-76-26D	78.86	N/A	N/A	N/A	Reading not taken
CEF-76-27D	79.19	N/A	4 65	74.54	
CEF-76-28D	77.77	N/A	3.15	74.62	
CEF-76-29	N/A	N/A	1.94	N/A	
CEF-76-30	N/A	N/A	N/A	N/A	Reading not taken
Site 372	Truck Stand Facility				
CEF-372-4	78 81	N/A	3 62	75.19	
CEF-372-7	78 98	N/A	4.75	74.23	
CEF-372-10D	74.99	N/A	4.29	70.70	
Background*					
CEF-BK-1S	66.77	5–15	5.28	61.49	
CEF-BK-2S	84.09	5–15	4.78	79.31	
CEF-BK-3D	84.06	37–47	4 80	79 26	
CEF-BK-4S	78.17	5–15	5.12	73.05	
CEF-BK-5S	76.96	5–15	5.84	71.12	
CEF-BK-6D	77.15	37–47	5.64	71.51	
CEF-BK-7S	80.28	5–15	3.26	77 02	
CEF-BK-8S	80.19	5–15	7 37	72.82	
CEF-BK-9D	80.09	50–60	7.31	72.78	
USGS					
CEF-USGS-1	N/S	3–13	2.91	N/S	
CEF-USGS-2	N/S	3–13	3.84	N/S	
CEF-USGS-3	N/S	3–13	2.74	N/S	
CEF-USGS-4	N/S	3–13	2.81	N/S	
CEF-USGS-5	N/S	3–13	2.95	N/S	
CEF-USGS-6	N/S	3–13	3.01	N/S	
CEF-USGS-7	N/S	3–13	3.87	N/S	
CEF-USGS-9	N/S	3–13	4.04	N/S	
CEF-USGS-10	N/S	3–13	5.03	N/S	
CEF-USGS-11	N/S	3–13	4.59	N/S	
CEG-USGS-12	N/S	3–13	4.60	N/S	
CEF-USGS-13	N/S	3–13	3.06	N/S	
CEF-USGS-14	N/S	3–13	5.46	N/S	
CEF-USGS-15	N/S	3–13	2.60	N/S	

N/S – Survey data not available
* – Artesian head greater than 9.00' above pad
Artesian well TOC elevations represent ground elevations

N/A – Data not available
ALS – Above land surface
DTP – Depth to product

Water Level Data
NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
July 25–27, 1994

Operable Unit Well No.	Elevation TOC (Ft. NGVD)	Screened Interval (Ft. bls)	Water Level (Ft. below TOC)	Water Level Elevation (Ft. NGVD)	Comments
Site 1					
CEF–1–1	54.58	10–15	7.21	47.37	
CEF–1–4	52.90	8–18	2.72	50.18	
CEF–1–5S	62.02	5–15	5.88	56.14	
CEF–1–6S	53.67	5–15	5.79	47.88	
CEF–1–7DD	55.39	81–91	0.09	55.30	
CEF–1–8D	55.62	52–62	1.59	54.03	
CEF–1–9S	52.96	4–14	4.56	48.40	
CEF–1–10S	58.34	5–15	4.64	53.70	
CEF–1–12D	61.48	36–46	3.22	58.26	
CEF–1–13S	56.05	4–14	4.58	51.47	
CEF–1–14D	51.66	35–45	7.83	59.49	Artesian (ALS)
CEF–1–15S	52.20	4–14	3.43	48.77	
CEF–1–16D	55.40	42–52	6.21	61.61	Artesian (ALS)
CEF–1–17D	50.80	42–52	2.19	52.99	Artesian (ALS)
CEF–1–18S	61.93	4–14	4.12	57.81	
Site 2					
CEF–2–1	61.25	12–22	6.46	54.79	
CEF–2–3S	74.33	5–15	9.00	65.33	
CEF–2–4S	65.77	5–15	8.12	57.65	
CEF–2–5S	57.99	5–15	3.34	54.65	
CEF–2–6S	57.47	3–13	3.77	53.70	
CEF–2–7D	57.34	30–40	2.85	54.49	
CEF–2–8D	61.56	30–40	6.72	54.84	
CEF–2–9D	73.93	65–75	8.53	65.40	
CEF–2–10DD	74.00	106–116	8.40	65.60	
CEF–2–11D	54.90	39–49	8.00	62.90	Artesian (ALS)
Site 3					
CEF–3–1	77.33	30–40	6.42	70.91	
CEF–3–3S	78.53	4–14	7.29	71.24	
CEF–3–4S	77.08	4–14	6.54	70.54	
CEF–3–5S	78.19	4–14	6.42	71.77	
CEF–3–6S	78.24	4–14	7.32	70.92	
CEF–3–7D	78.01	58–68	7.83	70.18	
CEF–3–7DD	77.81	100–110	9.71	68.10	
CEF–3–7S	78.01	4–14	7.55	70.46	
CEF–3–8S	77.17	4–14	5.13	72.04	
CEF–3–9I	76.77	45–55	4.91	71.86	
CEF–3–10D	76.77	88–98	8.48	68.29	
CEF–3–11I	57.10	25–35	2.08	59.18	Artesian (ALS)
CEF–3–12D	57.20	55–65	3.21	60.41	Artesian (ALS)
CEF–3–13S	76.76	8–18	6.63	70.13	
CEF–3–14I	76.63	45–55	6.60	70.03	
CEF–3–15D	76.54	88–98	8.49	68.05	
CEF–3–16S	75.49	6–16	7.19	68.30	
CEF–3–17D	75.37	84–94	8.10	67.27	
CEF–3–18S	64.71	15–25	1.69	63.02	
CEF–3–19D	62.60	66–76	4.58	67.18	Artesian (ALS)
CEF–3–20S	58.37	4–14	7.23	51.14	
CEF–3–21I	55.90	40–50	4.92	60.82	Artesian (ALS)
CEF–3–22D	55.70	60–70	8.00	63.70	* Artesian (ALS)
CEF–3–23S	63.71	15–25	2.15	61.56	

Water Level Data
NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
July 25–27, 1994

Operable Unit Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
CEF-3-24D	61.20	62-72	8.00	69 20	* Artesian (ALS)
CEF-3-25S	72.65	84-94	5 34	67.31	
CEF-3-26I	72 44	45-55	5.38	67.06	
CEF-3-27D	72.37	81-91	4 38	67 99	
CEF-3-28S	66.24	20-30	2.91	63.33	
CEF-3-29D	63.30	72-82	3.98	67.28	Artesian (ALS)
CEF-3-30DD	63.50	94-104	4 08	67 58	Artesian (ALS)
CEF-3-31S	58.00	20-30	2.44	55.56	
CEF-3-32D	55.10	56-66	8.00	63.10	* Artesian (ALS)
CEF-3-33DD	76 85	105-115	8.79	68.06	
CEF-3-34S	58.86	25-35	0.05	58.81	
CEF-3-35D	56 50	55-65	8.00	64.50	* Artesian (ALS)
Site 4					
CEF-4-1	73 74	10-15	5.10	68.64	
CEF-4-2	72.51	95-120	4.75	67.76	
CEF-4-3	72 53	8-13	4.64	67.89	
CEF-4-4	75.02	20-50	6.43	68.59	
CEF-4-1S	77 89	4-14	6.52	71.37	
CEF-4-2S	77.29	4-14	6.44	70.85	
Site 5					
CEF-5-3S	71.88	4-14	4.16	67.72	Odor
CEF-5-4S	71.64	4-14	4.05	67.59	
CEF-5-5S	72.26	4-14	5.24	67.02	DTP 4.94 (Ft, TOC)
CEF-5-6S	73.91	4-14	8.74	65.17	DTP 5.32 (Ft, TOC)
CEF-5-7S	73 90	4-14	5.08	68.82	
CEF-5-8S	71.34	2-12	3.70	67 64	
CEF-5-9I	71.60	25-35	3.83	67.77	
CEF-5-10S	71 17	2-12	2.51	68.66	
CEF-5-11I	71 64	25-35	2.88	68.76	
CEF-5-12D	71.69	47-57	2.92	68 77	
CEF-5-13S	74.56	3-13	4.97	69.59	
CEF-5-14I	74.64	25-35	5 11	69 53	
CEF-5-15D	74.79	45-55	5 25	69 54	
CEF-5-16S	72.96	6-16	4.66	68.30	
CEF-5-17I	73.17	25-35	5.00	68.17	
CEF-5-18D	73.50	40-50	5.33	68.17	
CEF-5-19S	72.79	2-12	5.54	67 25	
CEF-5-20S	68.28	2-12	1.53	66.75	
CEF-5-21I	68.34	25-35	1 54	66.80	
CEF-5-22D	68.58	40-50	1.75	66.83	
CEF-5-23S	69.58	4-14	2.75	66 83	
CEF-5-24S	73.12	5-15	5 86	67.26	
CEF-5-25I	73.11	24-34	5 72	67.39	
CEF-5-26D	73.39	45-55	5.97	67 42	
CEF-5-27S	71.70	3-13	4.43	67.27	
CEF-5-28D	71.06	46-56	3.30	67.76	
CEF-5-29S	70.86	3-13	3.78	67 08	
CEF-5-30S	72.03	6-16	4.32	67 71	
Site 7					
CEF-7-1	78.99	20-50	7.72	71.27	
CEF-7-2	78.22	20-50	8.14	70.08	

Water Level Data
NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
July 25–27, 1994

Operable Unit Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
CEF–7–3	78.74	20–50	8.88	69 86	
Site 8					
CEF–8–1	69.10	20–50	10.03	59.07	
CEF–8–2	71 01	20–50	5.83	65.18	
CEF–8–3	72 64	20–50	6 23	66.41	
CEF–8–4	73 42	20–50	5.86	67.56	
Site 10					
CEF–10–1	69.87	95–115	9 76	60 11	
CEF–10–2	50.81	18–38	0.82	49.99	
CEF–10–3	58.62	14–24	4 50	54.12	
CEF–10–4	58.49	10–30	6.93	51.56	
Site 11					
CEF–11–1	78.06	20–50	6.17	71.89	
CEF–11–2	78.23	20–50	6.34	71 89	
Site 16					
CEF–16–1	80.03	20–50	N/A	N/A	Abandoned
CEF–16–2	81.42	20–50	N/A	N/A	Abandoned
CEF–16–3	80.86	17–47	N/A	N/A	Abandoned
CEF–16–4S	78.14	4–14	N/A	N/A	Destroyed
CEF–16–5S	78.31	4–14	6.20	72.11	
CEF–16–6S	77.95	4–14	N/A	N/A	Destroyed
CEF–16–7S	78.09	4–14	6.28	71 81	
CEF–16–8DD	78.02	105–115	N/A	N/A	Abandoned
CEF–16–9D	77.92	91–101	6.15	71 77	
CEF–16–10S	77.86	4–14	6.21	71.65	
CEF–16–13S	N/S	6–16	4.81	N/S	
CEF–16–14D	N/S	91–101	4.73	N/S	
CEF–16–15S	N/S	6–16	4 82	N/S	
CEF–16–16D	N/S	91–101	4.88	N/S	
CEF–16–17S	N/S	7–17	5.91	N/S	
CEF–16–18D	N/S	90–100	4 26	N/S	
CEF–16–19S	N/S	7–17	8.98	N/S	
CEF–16–20D	N/S	91–101	6.50	N/S	
CEF–16–21S	N/S	7–17	6.89	N/S	
CEF–16–22I	N/S	25–35	6.99	N/S	
CEF–16–23D	N/S	89–99	7.01	N/S	
CEF–16–24S	N/S	7–17	7.24	N/S	
CEF–16–25D	N/S	84–94	6.19	N/S	
CEF–16–26DD	N/S	108–118	6 24	N/S	
CEF–16–27I	N/S	25–35	7.51	N/S	
CEF–16–28D	N/S	89–99	6.55	N/S	
CEF–16–29S	N/S	7–17	8.55	N/S	
CEF–16–30D	N/S	97–107	5.17	N/S	
CEF–16–31DD	N/S	82–92	4.06	N/S	
CEF–16–32S	N/S	7–17	6.88	N/S	
CEF–16–33D	N/S	80–90	6.23	N/S	
CEF–16–34DD	N/S	97–107	8.48	N/S	
CEF–16–35S	N/S	7–17	8.17	N/S	
CEF–16–36I	N/S	45–55	7.86	N/S	
CEF–16–37D	N/S	81–91	7.42	N/S	

Water Level Data
NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
July 25–27, 1994

Operable Unit Well No.	Elevation TOC (Ft. NGVD)	Screened Interval (Ft. bls)	Water Level (Ft. below TOC)	Water Level Elevation (Ft. NGVD)	Comments
CEF-16-38S	N/S	7-17	8.03	N/S	
CEF-16-39I	N/S	45-55	8.08	N/S	
CEF-16-40D	N/S	79-89	7.70	N/S	
Site 17					
CEF-17-1	73.89	10-15	3.19	70.70	
CEF-17-4S	73.20	3-13	3.67	69.53	
CEF-17-5S	72.72	4-14	3.59	69.13	
CEF-17-6S	72.92	5-15	3.83	69.09	
CEF-17-7D	72.44	76-86	4.73	67.71	
CEF-17-8S	70.96	4-14	2.40	68.56	
CEF-17-9S	73.67	4-14	3.84	69.83	
CEF-17-10D	71.01	76-86	3.33	67.68	
CEF-17-11I	71.19	45-55	2.66	68.53	
CEF-17-12D	71.21	75-85	3.35	67.86	
CEF-17-13S	72.74	4-14	3.96	68.78	
CEF-17-14I	72.56	45-55	3.91	68.65	
CEF-17-15D	71.93	76-86	4.11	67.82	
CEF-17-16S	73.53	4-14	3.97	69.56	
CEF-17-17I	73.42	45-55	4.06	69.36	
CEF-17-18D	73.38	74-84	5.41	67.97	
CEF-17-19S	74.61	5-15	4.24	70.37	
CEF-17-20I	74.63	45-55	4.40	70.23	
CEF-17-21I	74.70	45-55	4.19	70.51	
CEF-17-22D	74.51	81-91	6.67	67.84	
CEF-17-23S	71.07	81-91	2.60	68.47	
CEF-17-24S	73.41	4-14	3.69	69.72	
CEF-17-25SI	73.63	30-40	3.90	69.73	
CEF-17-26I	73.79	60-70	4.32	69.47	
CEF-17-27D	74.00	76-86	5.70	68.30	
CEF-17-28DD	73.88	106-116	6.74	67.14	
Site 43	South Fuel Farm				
CEF-43-7	79.38	N/A	N/A	N/A	Reading not taken
CEF-43-8	79.85	N/A	N/A	N/A	Reading not taken
CEF-43-10	80.97	N/A	6.73	74.24	
CEF-43-14	78.66	N/A	N/A	N/A	Reading not taken
CEF-43-15	79.87	N/A	7.28	72.59	
CEF-43-16	79.44	N/A	6.69	72.75	
CEF-43-17	N/A	N/A	6.54	N/A	
CEF-43-18	79.87	N/A	5.13	74.74	
CEF-43-19	80.97	N/A	N/A	N/A	Rusted shut
CEF-43-20	80.95	N/A	5.56	75.39	
CEF-43-21	79.15	N/A	N/A	N/A	Destroyed
CEF-43-22	79.68	N/A	6.92	72.76	
CEF-43-25	75.38	N/A	5.21	70.17	
CEF-43-26D	79.97	N/A	7.69	72.28	
CEF-43-27D	78.75	N/A	7.59	71.16	
CEF-43-28D	76.14	N/A	4.34	71.80	
CEF-43-29	77.84	N/A	4.39	73.45	
CEF-43-30	N/A	N/A	5.08	N/A	
CEF-43-31	N/A	N/A	5.08	N/A	
Site 76	North Fuel Farm				

Water Level Data
NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
July 25–27 1994

Operable Unit Well No.	Elevation TOC (Ft. NGVD)	Screened Interval (Ft. bls)	Water Level (Ft. below TOC)	Water Level Elevation (Ft. NGVD)	Comments
CEF–76–1	79.55	N/A	2.12	77.43	DTP N/A (Ft. TOC)
CEF–76–3	77 68	N/A	N/A	N/A	
CEF–76–4	77.31	N/A	2 39	74 92	DTP N/A (Ft. TOC)
CEF–76–5	77 70	N/A	N/A	N/A	Rusted Shut
CEF–76–6	78.05	N/A	2.18	75.87	
CEF–76–7	79.32	N/A	N/A	N/A	Rusted shut
CEF–76–9	78.90	N/A	2.15	76 75	
CEF–76–11	77.74	N/A	2.23	75.51	
CEF–76–12	76.76	N/A	1.24	75.52	
CEF–76–20	77 73	N/A	1.93	75.80	
CEF–76–21	77 94	N/A	2.08	75 86	
CEF–76–24	78.85	N/A	N/A	N/A	Unable to locate
CEF–76–25D	77.94	N/A	2.24	75 70	
CEF–76–26D	78 86	N/A	4 86	74 00	
CEF–76–27D	79 19	N/A	5 69	73.50	
CEF–76–28D	77 77	N/A	4 70	73.07	
CEF–76–29	N/A	N/A	1.40	N/A	
CEF–76–30	N/A	N/A	1 00	N/A	
Site 372	Truck Stand Facility				
CEF–372–4	78.81	N/A	2.00	76.81	
CEF–372–7	78.98	N/A	3.38	75.60	
CEF–372–10D	74.99	N/A	4.20	70.79	
Background					
CEF–BK–1S	66.77	5–15	7.15	59.62	
CEF–BK–2S	84.09	5–15	5.51	78 58	
CEF–BK–3D	84.06	37–47	5.50	78.56	
CEF–BK–4S	78.17	5–15	5.20	72.97	
CEF–BK–5S	76.96	5–15	8.48	68.48	
CEF–BK–6D	77.15	37–47	8.71	68.44	
CEF–BK–7S	80.28	5–15	3.14	77.14	
CEF–BK–8S	80.19	5–15	7.35	72.84	
CEF–BK–9D	80.09	50–60	7.21	72.88	
USGS					
CEF–USGS–1	N/S	3–13	3.07	N/S	
CEF–USGS–2	N/S	3–13	3.28	N/S	
CEF–USGS–3	N/S	3–13	2.85	N/S	
CEF–USGS–4	N/S	3–13	3.04	N/S	
CEF–USGS–5	N/S	3–13	3.09	N/S	
CEF–USGS–6	N/S	3–13	3 27	N/S	
CEF–USGS–7	N/S	3–13	3.85	N/S	
CEF–USGS–9	N/S	3–13	3.69	N/S	
CEF–USGS–10	N/S	3–13	4.87	N/S	
CEF–USGS–11	N/S	3–13	5.25	N/S	
CEG–USGS–12	N/S	3–13	4.43	N/S	
CEF–USGS–13	N/S	3–13	3.14	N/S	
CEF–USGS–14	N/S	3–13	6.40	N/S	
CEF–USGS–15	N/S	3–13	3.79	N/S	

DTP – Depth to product
* – Artesian head greater than 8.00' above pad
Artesian well TOC elevations represent ground elevations

ALS – Above land surface
N/A – Data not available
N/S – Survey data not available

Water Level Data
NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
August 22–24, 1994

Operable Unit Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
Site 1					
CEF–1–1	54.58	10–15	7.56	47 02	
CEF–1–4	52.90	8–18	2.68	50.22	
CEF–1–5S	62.02	5–15	5.83	56 19	
CEF–1–6S	53.67	5–15	5 65	48.02	
CEF–1–7DD	55.39	81–91	2.83	58.22	Artesian(ALS)
CEF–1–8D	55.62	52–62	1 54	54.08	
CEF–1–9S	52.96	4–14	4.72	48.24	
CEF–1–10S	58.34	5–15	5.03	53.31	
CEF–1–12I	61.48	36–46	3 09	58.39	
CEF–1–13S	56 05	4–14	4 70	51.35	
CEF–1–14D	51 66	35–45	8.21	59.87	Artesian (ALS)
CEF–1–15S	52.20	4–14	3.50	48.70	
CEF–1–16D	55.40	42–52	6.35	61.75	Artesian (ALS)
CEF–1–17D	50.80	42–52	2.46	53.26	Artesian (ALS)
CEF–1–18S	61.93	4–14	4.25	57.68	
Site 2					
CEF–2–1	61.25	12–22	6.67	54 58	
CEF–2–3S	74.33	5–15	8.92	65.41	
CEF–2–4S	65.77	5–15	7.74	58.03	
CEF–2–5S	57.99	5–15	4.13	53.86	
CEF–2–6S	57.47	3–13	3.51	53.96	
CEF–2–7D	57.34	30–40	2.59	54.75	
CEF–2–8D	61 56	30–40	6.70	54.86	
CEF–2–9D	73.93	65–75	8.18	65.75	
CEF–2–10DD	74 00	106–116	7.92	66.08	
CEF–2–11D	54.90	39–49	8.50	63.40	Artesian (ALS)
Site 3					
CEF–3–1	77 33	30–40	5.97	71.36	
CEF–3–3S	78.53	4–14	6.76	71.77	
CEF–3–4S	77.08	4–14	6.06	71.02	
CEF–3–5S	78.19	4–14	5.98	72.21	
CEF–3–6S	78.24	4–14	6.70	71.54	
CEF–3–7D	78.01	58–68	7.41	70.60	
CEF–3–7DD	77.81	100–110	9.28	68.53	
CEF–3–7S	78.01	4–14	7.11	70.90	
CEF–3–8S	77.17	4–14	4.73	72.44	
CEF–3–9I	76.77	45–55	4.48	72.29	
CEF–3–10D	76.77	88–98	8.06	68.71	
CEF–3–11I	57.10	25–35	2.19	59.29	Artesian (ALS)
CEF–3–12D	57.20	55–65	3.27	60.47	Artesian (ALS)
CEF–3–13S	76.76	8–18	6.15	70.61	
CEF–3–14I	76.63	45–55	6.15	70.48	
CEF–3–15D	76.54	88–98	8.01	68.53	
CEF–3–16S	75.49	6–16	6.69	68.80	
CEF–3–17D	75.37	84–94	7 73	67.64	
CEF–3–18S	64.71	15–25	1.53	63.18	
CEF–3–19D	62.60	66–76	4 46	67.06	Artesian (ALS)
CEF–3–20S	58.37	4–14	6.44	51.93	
CEF–3–21I	55.90	40–50	5.63	61.53	Artesian (ALS)
CEF–3–22D	55.70	60–70	8.00	63.70	* Artesian (ALS)
CEF–3–23S	63.71	15–25	2.34	61.37	
CEF–3–24D	61.20	62–72	8 00	69.20	* Artesian (ALS)
CEF–3–25S	72.65	15–25	5.23	67.42	
CEF–3–26I	72.44	45–55	5.27	67.17	
CEF–3–27D	72.37	81–91	3.90	68.47	
CEF–3–28S	66.24	20–30	3.19	63.05	
CEF–3–29D	63.30	72–82	3.81	67.11	Artesian (ALS)

Water Level Data
NAS Cecil Field Operable Units 1 2, 7 and Background
Jacksonville, Florida
August 22–24, 1994

Operable Unit Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
CEF–3–30DD	63 50	94–104	4 00	67.50	Artesian (ALS)
CEF–3–31S	58.00	20–30	1.99	56.01	
CEF–3–32D	55 10	56–66	8 00	63.10	* Artesian (ALS)
CEF–3–33DD	76 85	105–115	8.32	68.53	
CEF–3–34S	58.86	25–35	2.75	61 61	Artesian (ALS)
CEF–3–35D	56 50	55–65	8.00	64.50	* Artesian (ALS)
Site 4					
CEF–4–1	73 74	10–15	4 44	69.30	
CEF–4–2	72.51	95–120	4 24	68.27	
CEF–4–3	72.53	8–13	4 17	68.36	
CEF–4–4	75 02	20–50	5.86	69.16	
CEF–4–1S	77.89	4–14	6.04	71.85	
CEF–4–2S	77 29	4–14	5.76	71.53	
Site 5					
CEF–5–3S	71 88	4–14	4 25	67.63	
CEF–5–4S	71 64	4–14	4 11	67.53	
CEF–5–5S	72.26	4–14	5.08	67.18	DTP4.62(Ft.TOC)
CEF–5–6S	73.91	4–14	8.98	64.93	DTP5 36(Ft.TOC)
CEF–5–7S	73.90	4–14	5.16	68.74	
CEF–5–8S	71.34	2–12	3 66	67.68	
CEF–5–9I	71.60	25–35	3.65	67.95	
CEF–5–10S	71 17	2–12	2.51	68.66	
CEF–5–11I	71 64	25–35	2.83	68.81	
CEF–5–12D	71 69	47–57	2.86	68.83	
CEF–5–13S	74.56	3–13	4.98	69.58	
CEF–5–14I	74 64	25–35	5.12	69.52	
CEF–5–15D	74.79	45–55	5.25	69.54	
CEF–5–16S	72.96	6–16	4.87	68.09	
CEF–5–17I	73.17	25–35	5 08	68.09	
CEF–5–18D	73.50	40–50	5.81	67.69	
CEF–5–19S	72.79	2–12	5.62	67.17	
CEF–5–20S	68.28	2–12	1.48	66.80	
CEF–5–21I	68 34	25–35	1.50	66.84	
CEF–5–22D	68.58	40–50	1.79	66.79	
CEF–5–23S	69.58	4–14	2.59	66.99	
CEF–5–24S	73.12	5–15	5.73	67.39	
CEF–5–25I	73.11	24–34	5 55	67 56	
CEF–5–26D	73.39	45–55	5.79	67.60	
CEF–5–27S	71.70	3–13	4.20	67 50	
CEF–5–28D	71.06	46–56	3.43	67.63	
CEF–5–29S	70.86	3–13	3 61	67.25	
CEF–5–30S	72.03	6–16	4.41	67.62	
Site 7					
CEF–7–1	78 99	20–50	6.52	72.47	
CEF–7–2	78.22	20–50	6.89	71.33	
CEF–7–3	78.74	20–50	7.57	71.17	
Site 8					
CEF–8–1	69.10	20–50	9.00	60.10	
CEF–8–2	71.01	20–50	5.14	65.87	
CEF–8–3	72.64	20–50	5.88	66.76	
CEF–8–4	73.42	20–50	5.42	68.00	
Site 10					
CEF–10–1	69.87	95–115	6.92	62.95	
CEF–10–2	50.81	18–38	1.07	49.74	
CEF–10–3	58.62	14–24	3.76	54.86	

Water Level Data
NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
August 22–24, 1994

Operable Unit Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
CEF–10–4	58.49	10–30	6.50	51.99	
Site 11					
CEF–11–1	78.06	20–50	5.75	72.31	
CEF–11–2	78.23	20–50	5.94	72.29	
Site 16					
CEF–16–1	80.03	20–50	N/A	N/A	Abandoned
CEF–16–2	81.42	20–50	N/A	N/A	Abandoned
CEF–16–3	80.86	17–47	N/A	N/A	Abandoned
CEF–16–4S	78.14	4–14	N/A	N/A	Destroyed
CEF–16–5S	78.31	4–14	5.78	72.53	
CEF–16–6S	77.95	4–14	N/A	N/A	Destroyed
CEF–16–7S	78.09	4–14	5.91	72.18	
CEF–16–8DD	78.02	105–115	N/A	N/A	Abandoned
CEF–16–9D	77.92	91–101	5.39	72.53	
CEF–16–10S	77.86	4–14	5.84	72.02	
CEF–16–11DD	N/S	108–118	5.36	N/S	
CEF–16–12I	N/S	71–81	5.73	N/S	
CEF–16–13S	N/S	6–16	4.43	N/S	
CEF–16–14D	N/S	91–101	4.36	N/S	
CEF–16–15S	N/S	6–16	4.48	N/S	
CEF–16–16D	N/S	91–101	4.50	N/S	
CEF–16–17S	N/S	7–17	3.74	N/S	
CEF–16–18D	N/S	90–100	3.86	N/S	
CEF–16–19S	N/S	7–17	5.62	N/S	
CEF–16–20D	N/S	91–101	6.12	N/S	
CEF–16–21S	N/S	7–17	6.60	N/S	
CEF–16–22I	N/S	25–35	6.64	N/S	
CEF–16–23D	N/S	89–99	6.64	N/S	
CEF–16–24S	N/S	7–17	7.12	N/S	
CEF–16–25D	N/S	84–94	5.73	N/S	
CEF–16–26DD	N/S	108–118	5.75	N/S	
CEF–16–27I	N/S	25–35	7.17	N/S	
CEF–16–28D	N/S	89–99	6.30	N/S	
CEF–16–29S	N/S	7–17	5.54	N/S	
CEF–16–30D	N/S	82–92	4.92	N/S	
CEF–16–31DD	N/S	97–107	3.63	N/S	
CEF–16–32S	N/S	7–17	6.44	N/S	
Site 16					
CEF–16–33D	N/S	80–90	5.80	N/S	
CEF–16–34DD	N/S	97–107	5.03	N/S	
CEF–16–35S	N/S	7–17	7.60	N/S	
CEF–16–36I	N/S	45–55	7.28	N/S	
CEF–16–37D	N/S	81–91	6.86	N/S	
CEF–16–38S	N/S	7–17	7.31	N/S	
CEF–16–39I	N/S	45–55	7.34	N/S	
CEF–16–40D	N/S	79–89	6.98	N/S	
Site 17					
CEF–17–1	73.89	10–15	3.40	70.49	
CEF–17–4S	73.20	3–13	3.89	69.31	
CEF–17–5S	72.72	4–14	3.55	69.17	
CEF–17–6S	72.92	5–15	3.91	69.01	
CEF–17–7D	72.44	76–86	4.48	67.96	
CEF–17–8S	70.96	4–14	2.47	68.49	
CEF–17–9S	73.67	4–14	4.02	69.65	
CEF–17–10D	71.01	76–86	3.19	67.82	
CEF–17–11I	71.19	45–55	2.73	68.46	

Water Level Data
NAS Cecil Field Operable Units 1 2, 7 and Background
Jacksonville, Florida
August 22–24 1994

Operable Unit Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
CEF–17–12D	71 21	75–85	3 22	67 99	
CEF–17–13S	72.74	4–14	4.07	68.67	
CEF–17–14I	72.56	45–55	3 94	68.62	
CEF–17–15D	71 93	76–86	3 97	67 96	
CEF–17–16S	73 53	4–14	4.09	69.44	
CEF–17–17I	73 42	45–55	4.08	69 34	
CEF–17–18D	73 38	74–84	5.21	68.17	
CEF–17–19S	74 61	5–15	4 42	70.19	
CEF–17–20I	74.63	45–55	4 48	70.15	
CEF–17–21I	74 70	45–55	4.30	70 40	
CEF–17–22D	74.51	81–91	5.79	68.72	
CEF–17–23S	71.07	4–14	2.69	68.38	
CEF–17–24S	73.41	4–14	3.84	69.57	
CEF–17–25SI	73.63	30–40	4 02	69.61	
CEF–17–26I	73.79	60–70	4 38	69.41	
CEF–17–27D	74.00	76–86	5.57	68.43	
CEF–17–28DD	73.88	106–116	6.27	67 61	
Site 43	South Fuel Farm				
CEF–43–7	79 38	N/A	6 83	72.55	
CEF–43–8	79.85	N/A	N/A	N/A	Reading not taken
CEF–43–10	80.97	N/A	N/A	N/A	Reading not taken
CEF–43–14	78 66	N/A	N/A	N/A	Reading not taken
CEF–43–15	79 87	N/A	N/A	N/A	Reading not taken
CEF–43–16	79 44	N/A	5 23	74.21	
CEF–43–17	N/A	N/A	5 10	N/A	
CEF–43–18	79 87	N/A	N/A	N/A	Reading not taken
CEF–43–19	80 97	N/A	N/A	N/A	Rusted shut
CEF–43–20	80.95	N/A	N/A	N/A	Reading not taken
CEF–43–21	79.15	N/A	N/A	N/A	Destroyed
CEF–43–22	79 68	N/A	N/A	N/A	Reading not taken
CEF–43–25	75.38	N/A	N/A	N/A	Reading not taken
CEF–43–26D	79 97	N/A	N/A	N/A	Reading not taken
CEF–43–27D	78.75	N/A	6 93	71 82	
CEF–43–28D	76.14	N/A	4 28	71 86	
CEF–43–29	77.84	N/A	4.93	72.91	
CEF–43–30	N/A	N/A	N/A	N/A	Reading not taken
CEF–43–31	N/A	N/A	N/A	N/A	Reading not taken
Site 76	North Fuel Farm				
CEF–76–1	79.55	N/A	2.06	77 49	
CEF–76–3	77.68	N/A	N/A	N/A	Reading not taken
CEF–76–4	77.31	N/A	3.15	74.16	
CEF–76–5	77.70	N/A	N/A	N/A	Rusted Shut
CEF–76–6	78.05	N/A	2.20	75.85	
CEF–76–7	79.32	N/A	N/A	N/A	Rusted shut
CEF–76–9	78.90	N/A	N/A	N/A	Reading not taken
CEF–76–11	77.74	N/A	2.09	75.65	
CEF–76–12	76 76	N/A	0.95	75.81	
CEF–76–20	77.73	N/A	2.06	75.67	
CEF–76–21	77.94	N/A	2.02	75.92	
CEF–76–24	78.85	N/A	N/A	N/A	Unable to locate
CEF–76–25D	77.94	N/A	2.26	75.68	
CEF–76–26D	78.86	N/A	3.60	75.26	
CEF–76–27D	79.19	N/A	4.76	74.43	
CEF–76–28D	77 77	N/A	4 30	73.47	
CEF–76–29	N/A	N/A	N/A	N/A	Reading not taken
CEF–76–30	N/A	N/A	N/A	N/A	Reading not taken

Water Level Data
NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
August 22–24, 1994

Operable Unit Well No.	Elevation TOC (Ft. NGVD)	Screened interval (Ft. bls)	Water Level (Ft. below TOC)	Water Level Elevation (Ft. NGVD)	Comments
Site 372	Truck Stand Facility				
CEF–372–4	78.81	N/A	2.48	76.33	
CEF–372–7	78.98	N/A	N/A	N/A	Reading not taken
CEF–372–10D	74 99	N/A	4 02	70.97	
Background					
CEF–BK–1S	66.77	5–15	5 64	61.13	
CEF–BK–2S	84.09	5–15	5.33	78.76	
CEF–BK–3D	84.06	37–47	5.32	78.74	
CEF–BK–4S	78.17	5–15	NA	78.17	Reading not taken
CEF–BK–5S	76.96	5–15	4 65	72.31	
CEF–BK–6D	77 15	37–47	5.98	71.17	
CEF–BK–7S	80.28	5–15	3.38	76.90	
CEF–BK–8S	80.19	5–15	5.90	74.29	
CEF–BK–9D	80.09	50–60	5.86	74.23	
USGS					
CEF–USGS–1	N/S	3–13	3 06	N/S	
CEF–USGS–2	N/S	3–13	3 92	N/S	
CEF–USGS–3	N/S	3–13	2.75	N/S	
CEF–USGS–4	N/S	3–13	3.29	N/S	
CEF–USGS–5	N/S	3–13	3.54	N/S	
CEF–USGS–6	N/S	3–13	3.35	N/S	
CEF–USGS–7	N/S	3–13	4.59	N/S	
CEF–USGS–9	N/S	3–13	3 92	N/S	
CEF–USGS–10	N/S	3–13	4 93	N/S	
CEF–USGS–11	N/S	3–13	4.98	N/S	
CEG–USGS–12	N/S	3–13	4.56	N/S	
CEF–USGS–13	N/S	3–13	3.25	N/S	
CEF–USGS–14	N/S	3–13	5 54	N/S	
CEF–USGS–15	N/S	3–13	2.96	N/S	
CEF–USGS–16	N/S	3–13	3.40	N/A	
CEF–USCS–17	N/S	3–13	3.24	N/A	
CEF–USGS–18	N/S	35–45	3.36	N/A	
CEF–USGS–19	N/S	210–220	9.09	N/A	
CEF–USGS–20	N/S	97–107	N/A	N/A	
CEF–USGS–21	N/S	79–89	4 49	N/A	
CEF–USGS–22	N/S	30–50	4 23	N/A	
CEF–USGS–23	N/S	90–110	4 83	N/A	
CEF–USGS–24	N/S	202–235	8.36	N/A	

N/A – Data not available
* – Artesian head greater than 8.00' above pad
Artesian well TOC elevations represent ground elevations

N/S – Survey data not available
ALS – Above land surface
DTP – Depth to product

NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
September 22–24, 1994

Site No. Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
Site 1					
CEF–1–1	54.58	10–15	7.36	47.22	
CEF–1–4	52.90	8–18	2.74	50.16	
CEF–1–5S	62.02	5–15	4.20	57.82	
CEF–1–6S	53.67	5–15	5.84	47.83	
CEF–1–7DD	52.50	81–91	0.01	52.51	Artesian(ALS)
CEF–1–8D	55.62	52–62	1.05	54.57	
CEF–1–9S	52.96	4–14	4.38	48.58	
CEF–1–10S	58.34	5–15	4.63	53.71	
CEF–1–12I	61.48	36–46	1.96	59.52	
CEF–1–13S	56.05	4–14	3.82	52.23	
CEF–1–14D	49.90	35–45	8.00	57.90	*Artesian(ALS)
CEF–1–15S	52.20	4–14	3.15	49.05	
CEF–1–16D	55.40	42–52	7.00	62.40	Artesian (ALS)
CEF–1–17D	50.80	42–52	3.08	53.88	Artesian (ALS)
CEF–1–18S	61.93	4–14	2.71	59.22	
Site 2					
CEF–2–1	61.25	12–22	6.28	54.97	
CEF–2–3S	74.33	5–15	7.01	67.32	
CEF–2–4S	65.77	5–15	6.64	59.13	
CEF–2–5S	57.99	5–15	3.32	54.67	
CEF–2–6S	57.47	3–13	3.09	54.38	
CEF–2–7D	57.34	30–40	2.11	55.23	
CEF–2–8D	61.56	30–40	6.36	55.20	
CEF–2–9D	73.93	65–75	7.03	66.90	
CEF–2–10DD	74.00	106–116	7.19	66.81	
CEF–2–11D	54.90	39–49	8.00	62.90	*Artesian(ALS)
Site 3					
CEF–3–1	77.33	30–40	4.66	72.67	
CEF–3–3S	78.53	4–14	5.03	73.50	
CEF–3–4S	77.08	4–14	4.75	72.33	
CEF–3–5S	78.19	4–14	4.20	73.99	
CEF–3–6S	78.24	4–14	5.48	72.76	
CEF–3–7D	78.01	58–68	5.95	72.06	
CEF–3–7DD	77.81	100–110	8.57	69.24	
CEF–3–7S	78.01	4–14	5.44	72.57	
CEF–3–8S	77.17	4–14	3.60	73.57	
CEF–3–9I	76.77	45–55	3.47	73.30	
CEF–3–10D	76.77	88–98	6.98	69.79	
CEF–3–11I	57.10	25–35	2.50	59.60	Artesian (ALS)
CEF–3–12D	57.20	55–65	3.59	60.79	Artesian (ALS)
CEF–3–13S	76.76	8–18	4.73	72.03	
CEF–3–14I	76.63	45–55	4.73	71.90	
CEF–3–15D	76.54	88–98	7.35	69.19	
CEF–3–16S	75.49	6–16	5.35	70.14	
CEF–3–17D	75.37	84–94	5.02	70.35	
CEF–3–18S	64.71	15–25	1.35	63.36	
CEF–3–19D	62.60	66–76	4.70	67.30	Artesian (ALS)
CEF–3–20S	58.37	4–14	7.04	51.33	
CEF–3–21I	55.90	40–50	5.91	61.81	Artesian (ALS)
CEF–3–22D	55.70	60–70	8.00	63.70	* Artesian (ALS)
CEF–3–23S	63.71	15–25	2.10	61.61	
CEF–3–24D	61.20	62–72	8.00	69.20	* Artesian (ALS)
CEF–3–25S	72.65	15–25	4.09	68.56	
CEF–3–26I	72.44	45–55	4.21	68.23	
CEF–3–27D	72.37	81–91	3.24	69.13	
CEF–3–28S	66.24	20–30	2.72	63.52	
CEF–3–29D	63.30	72–82	4.00	67.30	Artesian (ALS)

Water Level Data
NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
September 22–24, 1994

Site No. Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
CEF-3-30DD	63.50	94-104	4.52	68.02	Artesian (ALS)
CEF-3-31S	58.00	20-30	1.84	56.16	
CEF-3-32D	55.10	56-66	8.00	63.10	* Artesian (ALS)
CEF-3-33DD	76.85	105-115	N/A	N/A	Transducer in Well
CEF-3-34S	58.86	25-35	3.01	61.87	Artesian (ALS)
CEF-3-35D	56.50	55-65	8.00	64.50	* Artesian (ALS)
Site 4					
CEF-4-1	73.74	10-15	3.25	70.49	
CEF-4-2	72.51	95-120	3.66	68.85	
CEF-4-3	72.53	8-13	2.64	69.89	
CEF-4-4	75.02	20-50	4.32	70.70	
CEF-4-1S	77.89	4-14	4.32	73.57	
CEF-4-2S	77.29	4-14	4.09	73.20	
Site 5					
CEF-5-3S	71.88	4-14	3.80	68.08	
CEF-5-4S	71.64	4-14	3.67	67.97	
CEF-5-5S	72.26	4-14	4.63	67.63	DTP4.17(Ft.TOC)
CEF-5-6S	73.91	4-14	8.39	65.52	DTP4.80(Ft.TOC)
CEF-5-7S	73.90	4-14	4.68	69.22	
CEF-5-8S	71.34	2-12	3.23	68.11	
CEF-5-9I	71.60	25-35	3.12	68.48	
CEF-5-10S	71.17	2-12	1.86	69.31	
CEF-5-11I	71.64	25-35	2.20	69.44	
CEF-5-12D	71.69	47-57	2.23	69.46	
CEF-5-13S	74.56	3-13	4.24	70.32	
CEF-5-14I	74.64	25-35	4.42	70.22	
CEF-5-15D	74.79	45-55	4.55	70.24	
CEF-5-16S	72.96	6-16	4.30	68.66	
CEF-5-17I	73.17	25-35	4.59	68.58	
CEF-5-18D	73.50	40-50	4.92	68.58	
CEF-5-19S	72.79	2-12	4.96	67.83	
CEF-5-20S	68.28	2-12	1.23	67.05	
CEF-5-21I	68.34	25-35	1.01	67.33	
CEF-5-22D	68.58	40-50	1.45	67.13	
CEF-5-23S	69.58	4-14	2.03	67.55	
CEF-5-24S	73.12	5-15	5.04	68.08	
CEF-5-25I	73.11	24-34	4.89	68.22	
CEF-5-26D	73.39	45-55	5.11	68.28	
CEF-5-27S	71.70	3-13	3.74	67.96	
CEF-5-28D	71.06	46-56	3.09	67.97	
CEF-5-29S	70.86	3-13	3.27	67.59	
CEF-5-30S	72.03	6-16	3.82	68.21	
Site 7					
CEF-7-1	78.99	20-50	6.52	72.47	
CEF-7-2	78.22	20-50	6.89	71.33	
CEF-7-3	78.74	20-50	7.57	71.17	
Site 8					
CEF-8-1	69.10	20-50	9.00	60.10	
CEF-8-2	71.01	20-50	5.14	65.87	
CEF-8-3	72.64	20-50	5.88	66.76	
CEF-8-4	73.42	20-50	5.42	68.00	
Site 10					
CEF-10-1	69.87	95-115	6.92	62.95	
CEF-10-2	50.81	18-38	1.07	49.74	
CEF-10-3	58.62	14-24	3.76	54.86	

NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
September 22–24, 1994

Site No. Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
CEF–10–4	58.49	10–30	6.50	51.99	
Site 11					
CEF–11–1	78.06	20–50	5.75	72.31	
CEF–11–2	78.23	20–50	5.94	72.29	
Site 16					
CEF–16–5S	78.31	4–14	5.78	72.53	
CEF–16–7S	78.09	4–14	5.91	72.18	
CEF–16–9D	77.92	91–101	5.39	72.53	
CEF–16–10S	77.86	4–14	5.84	72.02	
CEF–16–11DD	78.03	108–118	5.36	72.67	
CEF–16–12I	77.96	71–81	5.73	72.23	
CEF–16–13S	77.79	6–16	4.43	73.36	
CEF–16–14D	77.53	91–101	4.36	73.17	
CEF–16–15S	77.04	6–16	4.48	72.56	
CEF–16–16D	77.08	91–101	4.50	72.58	
CEF–16–17S	76.44	7–17	3.74	72.70	
CEF–16–18D	76.35	90–100	3.86	72.49	
CEF–16–19S	77.61	7–17	5.62	71.99	
CEF–16–20D	77.95	91–101	6.12	71.83	
CEF–16–21S	77.73	7–17	6.60	71.13	
CEF–16–22I	77.69	25–35	6.64	71.05	
CEF–16–23D	77.96	89–99	6.64	71.32	
CEF–16–24S	77 33	7–17	7.12	70.21	
CEF–16–25D	77.11	84–94	5.73	71.38	
CEF–16–26DD	77.31	108–118	5.75	71.56	
CEF–16–27I	77.12	25–35	7.17	69.95	
CEF–16–28D	77 30	89–99	6.30	71.00	
CEF–16–29S	75.40	7–17	5 54	69.86	
CEF–16–30D	75.34	82–92	4 92	70.42	
CEF–16–31DD	75.18	97–107	3.63	71 55	
CEF–16–32S	76.08	7–17	6 44	69.64	
Site 16					
CEF–16–33D	75 98	80–90	5.80	70.18	
CEF–16–34DD	75 97	97–107	5.03	70.94	
CEF–16–35S	77.37	7–17	7 60	69.77	
CEF–16–36I	77.15	45–55	7.28	69 87	
CEF–16–37D	77 08	81–91	6 86	70.22	
CEF–16–38S	76.70	7–17	7.31	69 39	
CEF–16–39I	76.69	45–55	7 34	69.35	
CEF–16–40D	76 65	79–89	6.98	69.67	
Site 17					
CEF–17–1	73.89	10–15	3.40	70.49	
CEF–17–4S	73.20	3–13	3.89	69.31	
CEF–17–5S	72.72	4–14	3.55	69.17	
CEF–17–6S	72 92	5–15	3.91	69.01	
CEF–17–7D	72.44	76–86	4.48	67 96	
CEF–17–8S	70 96	4–14	2.47	68.49	
CEF–17–9S	73 67	4–14	4 02	69.65	
CEF–17–10D	71.01	76–86	3.19	67 82	
CEF–17–11I	71.19	45–55	2.73	68.46	
CEF–17–12D	71 21	75–85	3.22	67.99	
CEF–17–13S	72 74	4–14	4 07	68.67	
CEF–17–14I	72.56	45–55	3 94	68 62	
CEF–17–15D	71 93	76–86	3.97	67.96	
CEF–17–16S	73 53	4–14	4 09	69.44	
CEF–17–17I	73 42	45–55	4 08	69.34	

NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
September 22–24, 1994

Site No. Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
CEF–17–18D	73.38	74–84	5.21	68.17	
CEF–17–19S	74.61	5–15	4.42	70.19	
CEF–17–20I	74.63	45–55	4.48	70.15	
CEF–17–21I	74.70	45–55	4.30	70.40	
CEF–17–22D	74.51	81–91	5.79	68.72	
CEF–17–23S	71.07	4–14	2.69	68.38	
CEF–17–24S	73.41	4–14	3.84	69.57	
CEF–17–25SI	73.63	30–40	4.02	69.61	
CEF–17–26I	73.79	60–70	4.38	69.41	
CEF–17–27D	74.00	76–86	5.57	68.43	
CEF–17–28DD	73.88	106–116	6.27	67.61	
South Fuel Farm					
Site 43					
CEF–43–7	79.38	N/A	N/A	N/A	Reading not taken
CEF–43–8	79.85	N/A	N/A	N/A	Reading not taken
CEF–43–10	80.97	N/A	N/A	N/A	Reading not taken
CEF–43–14	78.66	N/A	N/A	N/A	Reading not taken
CEF–43–15	79.87	N/A	5.43	74.44	
CEF–43–16	79.44	N/A	4.79	74.65	
CEF–43–17	N/A	N/A	4.68	N/A	
CEF–43–18	79.87	N/A	3.73	76.14	
CEF–43–19	80.97	N/A	N/A	N/A	Rusted shut
CEF–43–20	80.95	N/A	N/A	N/A	Reading not taken
CEF–43–21	79.15	N/A	N/A	N/A	Destroyed
CEF–43–22	79.68	N/A	5.01	74.67	
CEF–43–25	75.38	N/A	5.09	70.29	
CEF–43–26D	79.97	N/A	7.09	72.88	
CEF–43–27D	78.75	N/A	6.50	72.25	
CEF–43–28D	76.14	N/A	4.18	71.96	
CEF–43–29	77.84	N/A	4.52	73.32	
CEF–43–30	N/A	N/A	4.09	N/A	
CEF–43–31	N/A	N/A	4.21	N/A	
North Fuel Farm					
Site 76					
CEF–76–1	79.55	N/A	1.83	77.72	
CEF–76–3	77 68	N/A	1.66	76.02	
CEF–76–4	77.31	N/A	2 63	74.68	
CEF–76–5	77.70	N/A	N/A	N/A	Rusted Shut
CEF–76–6	78.05	N/A	1.74	76 31	
CEF–76–7	79 32	N/A	N/A	N/A	Rusted shut
CEF–76–9	78.90	N/A	N/A	N/A	Reading not taken
CEF–76–11	77.74	N/A	1 63	76.11	
CEF–76–12	76.76	N/A	0.52	76.24	
CEF–76–20	77.73	N/A	1 69	76.04	
CEF–76–21	77.94	N/A	1.50	76.44	
CEF–76–24	78 85	N/A	N/A	N/A	Unable to locate
CEF–76–25D	77.94	N/A	1.75	76.19	
CEF–76–26D	78.86	N/A	3.30	75.56	
CEF–76–27D	79.19	N/A	4.15	75.04	
CEF–76–28D	77.77	N/A	3.78	73.99	
CEF–76–29	N/A	N/A	0.08	N/A	
CEF–76–30	N/A	N/A	1.30	N/A	
Truck Stand Facility					
Site 372					
CEF–372–4	78.81	N/A	1 82	76.99	
CEF–372–7	78.98	N/A	2 30	76 68	
CEF–372–10D	74 99	N/A	3 48	71 51	

Water Level Data
NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
September 22–24, 1994

Site No. Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
Background					
CEF–BK–1S	66.77	5–15	3.66	63.11	
CEF–BK–2S	84.09	5–15	4.99	79.10	
CEF–BK–3D	84.06	37–47	4.99	79.07	
CEF–BK–4S	78.17	5–15	3.36	74.81	
CEF–BK–5S	76.96	5–15	3.37	73.59	
CEF–BK–6D	77.15	37–47	3.77	73.38	
CEF–BK–7S	80.28	5–15	3.34	76.94	
CEF–BK–8S	80.19	5–15	5.21	74.98	
CEF–BK–9D	80.09	50–60	5.14	74.95	
USGS					
CEF–USGS–1	79.98	3–13	2.86	77.12	
CEF–USGS–2	84.78	3–13	3.31	81.47	
CEF–USGS–3	85.47	3–13	2.55	82.92	
CEF–USGS–4	88.03	3–13	2.93	85.10	
CEF–USGS–5	88.81	3–13	3.18	85.63	
CEF–USGS–6	86.03	3–13	3.17	82.86	
CEF–USGS–7	84.92	3–13	3 90	81.02	
CEF–USGS–9	86.85	3–13	3.90	82.95	
CEF–USGS–10	73.81	3–13	4.61	69.20	
CEF–USGS–11	63.73	3–13	5.43	58.30	
CEG–USGS–12	80.99	3–13	4 07	76.92	
CEF–USGS–13	67.76	3–13	2.92	64.84	
CEF–USGS–14	78.27	3–13	5.45	72.82	
CEF–USGS–15	86.13	3–13	2.76	83.37	
CEF–USGS–16	79 87	3–13	N/A	N/A	
CEF–USCS–17	79.65	3–13	N/A	N/A	
CEF–USGS–18	79.75	35–45	N/A	N/A	
CEF–USGS–19	80.21	210–220	N/A	N/A	
CEF–USGS–20	79.66	97–107	N/A	N/A	
CEF–USGS–21	79.97	79–89	N/A	N/A	
CEF–USGS–22	80.76	30–50	N/A	N/A	
CEF–USGS–23	80.29	90–110	N/A	N/A	
CEF–USGS–24	79 93	202–235	N/A	N/A	

* – Artesian head greater than 8 00' above pad
Artesian well TOC elevations represent ground elevations
ALS – Above land surface
DTP – Depth to product
N/A – Data not available

Field Level Data
NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
October 19–20, 1994

Site No. Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
Site 1					
CEF–1–1	54.58	10–15	7.04	47.54	
CEF–1–4	52.90	8–18	2.71	50.19	
CEF–1–5S	62.02	5–15	4.65	57.37	
CEF–1–6S	53.67	5–15	5.65	48.02	
CEF–1–7DD	52.50	81–91	2.51	55.01	Artesian(ALS)
CEF–1–8D	55.62	52–62	1.00	54.62	
CEF–1–9S	52.96	4–14	4.20	48.76	
CEF–1–10S	58.34	5–15	4.73	53.61	
CEF–1–12I	61.48	36–46	2.10	59.38	
CEF–1–13S	56.05	4–14	4.26	51.79	
CEF–1–14D	49.90	35–45	8.00	57.90	*Artesian(ALS)
CEF–1–15S	52.20	4–14	3.09	49.11	
CEF–1–16D	55.40	42–52	8.00	63.40	*Artesian(ALS)
CEF–1–17D	50.80	42–52	3.81	54.61	Artesian (ALS)
CEF–1–18S	61.93	4–14	2.98	58.95	
Site 2					
CEF–2–1	61.25	12–22	6.25	55.00	
CEF–2–3S	74.33	5–15	6.35	67.98	
CEF–2–4S	65.77	5–15	6.37	59.40	
CEF–2–5S	57.99	5–15	3.38	54.61	
CEF–2–6S	57.47	3–13	3.82	53.65	
CEF–2–7D	57.34	30–40	2.42	54.92	
CEF–2–8D	61.56	30–40	6.46	55.10	
CEF–2–9D	73.93	65–75	6.68	67.25	
CEF–2–10DD	74.00	106–116	6.93	67.07	
CEF–2–11D	54.90	39–49	8.00	62.90	*Artesian(ALS)
Site 3					
CEF–3–1	77.33	30–40	4.69	72.64	
CEF–3–3S	78.53	4–14	5.16	73.37	
CEF–3–4S	77.08	4–14	4.74	72.34	
CEF–3–5S	78.19	4–14	4.24	73.95	
CEF–3–6S	78.24	4–14	5.52	72.72	
CEF–3–7D	78.01	58–68	5.92	72.09	
CEF–3–7DD	77.81	100–110	8.44	69.37	
CEF–3–7S	78.01	4–14	5.45	72.56	
CEF–3–8S	77.17	4–14	2.99	74.18	
CEF–3–9I	76.77	45–55	3.08	73.69	
CEF–3–10D	76.77	88–98	7.18	69.59	
CEF–3–11I	57.10	25–35	3.17	60.27	Artesian (ALS)
CEF–3–12D	57.20	55–65	3.50	60.70	Artesian (ALS)
CEF–3–13S	76.76	8–18	4.69	72.07	
CEF–3–14I	76.63	45–55	4.68	71.95	
CEF–3–15D	76.54	88–98	7.21	69.33	
CEF–3–16S	75.49	6–16	5.20	70.29	
CEF–3–17D	75.37	84–94	6.85	68.52	
CEF–3–18S	64.71	15–25	1.32	63.39	
CEF–3–19D	62.60	66–76	5.92	68.52	Artesian (ALS)
CEF–3–20S	58.37	4–14	6.94	51.43	
CEF–3–21I	55.90	40–50	5.75	61.65	Artesian (ALS)
CEF–3–22D	55.70	60–70	8.00	63.70	* Artesian (ALS)
CEF–3–23S	63.71	15–25	2.13	61.58	
CEF–3–24D	61.20	62–72	8.00	69.20	* Artesian (ALS)
CEF–3–25S	72.65	15–25	4.13	68.52	
CEF–3–26I	72.44	45–55	4.23	68.21	
CEF–3–27D	72.37	81–91	3.11	69.26	
CEF–3–28S	66.24	20–30	2.68	63.56	
CEF–3–29D	63.30	72–82	5.37	68.67	Artesian (ALS)

NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
October 19–20, 1994

Site No. Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
CEF–3–30DD	63.50	94–104	8.00	71.50	* Artesian (ALS)
CEF–3–31S	58.00	20–30	1.59	56.41	
CEF–3–32D	55.10	56–66	8.00	63.10	* Artesian (ALS)
CEF–3–33DD	76.85	105–115	N/A	N/A	Transducer in Well
CEF–3–34S	58.86	25–35	3.08	61.94	Artesian (ALS)
CEF–3–35D	56.50	55–65	8.00	64.50	* Artesian (ALS)
Site 4					
CEF–4–1	73.74	10–15	2.76	70.98	
CEF–4–2	72.51	95–120	3.50	69.01	
CEF–4–3	72.53	8–13	2.76	69.77	
CEF–4–4	75.02	20–50	4.19	70.83	
CEF–4–1S	77.89	4–14	4.52	73.37	
CEF–4–2S	77.29	4–14	3.82	73.47	
Site 5					
CEF–5–3S	71.88	4–14	3.77	68.11	
CEF–5–4S	71.64	4–14	3.72	67.92	
CEF–5–5S	72.26	4–14	4 87	67.39	DTP4.34(Ft,TOC)
CEF–5–6S	73.91	4–14	8.71	65.20	DTP5.19(Ft,TOC)
CEF–5–7S	73.90	4–14	5.03	68.87	
CEF–5–8S	71.34	2–12	3.40	67.94	
CEF–5–9I	71.60	25–35	3.20	68.40	
CEF–5–10S	71.17	2–12	2.23	68.94	
CEF–5–11I	71.64	25–35	2.54	69.10	
CEF–5–12D	71.69	47–57	2.57	69.12	
CEF–5–13S	74.56	3–13	4.73	69.83	
CEF–5–14I	74.64	25–35	4 86	69.78	
CEF–5–15D	74.79	45–55	5 00	69.79	
CEF–5–16S	72 96	6–16	4.58	68.38	
CEF–5–17I	73.17	25–35	4 82	68.35	
CEF–5–18D	73 50	40–50	5.14	68.36	
CEF–5–19S	72.79	2–12	5.43	67.36	
CEF–5–20S	68.28	2–12	1.20	67.08	
CEF–5–21I	68.34	25–35	1.17	67.17	
CEF–5–22D	68.58	40–50	1.35	67.23	
CEF–5–23S	69.58	4–14	2 23	67.35	
CEF–5–24S	73.12	5–15	4.97	68.15	
CEF–5–25I	73.11	24–34	4 83	68.28	
CEF–5–26D	73.39	45–55	5 04	68.35	
CEF–5–27S	71.70	3–13	3 95	67.75	
CEF–5–28D	71 06	46–56	2 83	68.23	
CEF–5–29S	70.86	3–13	3 47	67.39	
CEF–5–30S	72.03	6–16	4 09	67.94	
Site 7					
CEF–7–1	78.99	20–50	5.52	73.47	
CEF–7–2	78.22	20–50	5 66	72.56	
CEF–7–3	78 74	20–50	6.35	72.39	
Site 8					
CEF–8–1	69.10	20–50	7 33	61.77	
CEF–8–2	71 01	20–50	N/A	N/A	
CEF–8–3	72.64	20–50	4 89	67.75	
CEF–8–4	73.42	20–50	4.53	68.89	
Site 10					
CEF–10–1	69.87	95–115	6 00	63.87	
CEF–10–2	50.81	18–38	0 47	50 34	
CEF–10–3	58 62	14–24	3 98	54 64	

Site No. Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
CEF–10–4	58.49	10–30	5.33	53.16	
Site 11					
CEF–11–1	78.06	20–50	5.07	72.99	
CEF–11–2	78.23	20–50	5.26	72.97	
Site 16					
CEF–16–5S	78.31	4–14	5.31	73.00	
CEF–16–7S	78.09	4–14	4.49	73.60	
CEF–16–9D	77.92	91–101	5.21	72.71	
CEF–16–10S	77.86	4–14	5.40	72.46	
CEF–16–11DD	78.03	108–118	5.07	72.96	
CEF–16–12I	77.96	71–81	5.37	72.59	
CEF–16–13S	77.79	6–16	3.95	73.84	
CEF–16–14D	77.53	91–101	3.93	73.60	
CEF–16–15S	77.04	6–16	3.92	73.12	
CEF–16–16D	77.08	91–101	5.13	71.95	
CEF–16–17S	76.44	7–17	4.41	72.03	
CEF–16–18D	76.35	90–100	3.52	72.83	
CEF–16–19S	77.61	7–17	5.24	72.37	
CEF–16–20D	77.95	91–101	5.81	72.14	
CEF–16–21S	77.73	7–17	6.33	71.40	
CEF–16–22I	77.69	25–35	6.38	71.31	
CEF–16–23D	77.96	89–99	6.37	71.59	
CEF–16–24S	77.33	7–17	6.89	70.44	
CEF–16–25D	77.11	84–94	5.44	71.67	
CEF–16–26DD	77.31	108–118	5.45	71.86	
CEF–16–27I	77.12	25–35	7.00	70.12	
CEF–16–28D	77.30	89–99	6.23	71.07	
CEF–16–29S	75.40	7–17	5.69	69.71	
CEF–16–30D	75.34	82–92	4.78	70.56	
CEF–16–31DD	75.18	97–107	3.38	71.80	
CEF–16–32S	76.08	7–17	6.20	69.88	
CEF–16–33D	75.98	80–90	5.53	70.45	
CEF–16–34DD	75.97	97–107	4.69	71.28	
CEF–16–35S	77.37	7–17	7.47	69.90	
CEF–16–36I	77.15	45–55	7.13	70.02	
CEF–16–37D	77.08	81–91	6.70	70.38	
CEF–16–38S	76.70	7–17	7.10	69.60	
CEF–16–39I	76.69	45–55	7.14	69.55	
CEF–16–40D	76.65	79–89	6.81	69.84	
Site 17					
CEF–17–1	73.89	10–15	2.33	71.56	
CEF–17–4S	73.20	3–13	3.20	70.00	
CEF–17–5S	72.72	4–14	3.11	69.61	
CEF–17–6S	72.92	5–15	3.25	69.67	
CEF–17–7D	72.44	76–86	3.52	68.92	
CEF–17–8S	70.96	4–14	2.10	68.86	
CEF–17–9S	73.67	4–14	3.15	70.52	
CEF–17–10D	71.01	76–86	2.17	68.84	
CEF–17–11I	71.19	45–55	1.86	69.33	
CEF–17–12D	71.21	75–85	2.19	69.02	
CEF–17–13S	72.74	4–14	3.02	69.72	
CEF–17–14I	72.56	45–55	2.88	69.68	
CEF–17–15D	71.93	76–86	2.87	69.06	
CEF–17–16S	73.53	4–14	3.93	69.60	
CEF–17–17I	73.42	45–55	2.87	70.55	
CEF–17–18D	73.38	74–84	4.10	69.28	
CEF–17–19S	74.61	5–15	3.28	71.33	

NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
October 19–20, 1994

Site No. Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
CEF–17–20I	74.63	45–55	3.38	71.25	
CEF–17–21I	74.70	45–55	3.29	71.41	
CEF–17–22D	74.51	81–91	4.74	69.77	
CEF–17–23S	71.07	4–14	2.17	68.90	
CEF–17–24S	73.41	4–14	2.94	70.47	
CEF–17–25SI	73.63	30–40	3.09	70.54	
CEF–17–26I	73.79	60–70	3.43	70.36	
CEF–17–27D	74.00	76–86	4.54	69.46	
CEF–17–28DD	73.88	106–116	5.30	68.58	
South Fuel Farm					
Site 43					
CEF–43–7	79.38	N/A	N/A	N/A	Reading not taken
CEF–43–8	79.85	N/A	N/A	N/A	Reading not taken
CEF–43–10	80.97	N/A	N/A	N/A	Reading not taken
CEF–43–14	78.66	N/A	N/A	N/A	Reading not taken
CEF–43–15	79.87	N/A	4.80	75.07	
CEF–43–16	79.44	N/A	4.01	75.43	
CEF–43–17	N/A	N/A	4.05	N/A	
CEF–43–18	79.87	N/A	2.92	76.95	
CEF–43–19	80.97	N/A	N/A	N/A	Rusted shut
CEF–43–20	80.95	N/A	N/A	N/A	Reading not taken
CEF–43–21	79.15	N/A	N/A	N/A	Destroyed
CEF–43–22	79.68	N/A	4.86	74.82	
CEF–43–25	75.38	N/A	4.89	70.49	
CEF–43–26D	79.97	N/A	6.37	73.60	
CEF–43–27D	78.75	N/A	6.35	72.40	
CEF–43–28D	76.14	N/A	4.01	72.13	
CEF–43–29	77.84	N/A	4.58	73.26	
CEF–43–30	N/A	N/A	3.73	N/A	
CEF–43–31	N/A	N/A	4.08	N/A	
North Fuel Farm					
Site 76					
CEF–76–1	79.55	N/A	1.89	77.66	
CEF–76–3	77.68	N/A	1.96	75.72	
CEF–76–4	77.31	N/A	1.77	75.54	
CEF–76–5	77.70	N/A	N/A	N/A	Rusted Shut
CEF–76–6	78.05	N/A	1.73	76.32	
CEF–76–7	79.32	N/A	N/A	N/A	Rusted shut
CEF–76–9	78.90	N/A	N/A	N/A	Rusted shut
CEF–76–11	77.74	N/A	1.78	75.96	
CEF–76–12	76.76	N/A	0.50	76.26	
CEF–76–20	77.73	N/A	1.43	76.30	
CEF–76–21	77.94	N/A	1.40	76.54	
CEF–76–24	78.85	N/A	N/A	N/A	Unable to locate
CEF–76–25D	77.94	N/A	1.90	76.04	
CEF–76–26D	78.86	N/A	3.05	75.81	
CEF–76–27D	79.19	N/A	4.44	74.75	
CEF–76–28D	77.77	N/A	3.89	73.88	
CEF–76–29	N/A	N/A	0.11	N/A	
CEF–76–30	N/A	N/A	1.47	N/A	
Truck Stand Facility					
Site 372					
CEF–372–4	78.81	N/A	1.98	76.83	
CEF–372–7	78.98	N/A	2.24	76.74	
CEF–372–10D	74.99	N/A	3.81	71.18	
Background					
CEF–BK–1S	66.77	5–15	3.82	62.95	

Water Level Data
NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
October 19–20, 1994

Site No. Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
CEF–BK–2S	84.09	5–15	4.51	79.58	
CEF–BK–3D	84.06	37–47	4.54	79.52	
CEF–BK–4S	78.17	5–15	3.89	74.28	
CEF–BK–5S	76.96	5–15	3.88	73.08	
CEF–BK–6D	77.15	37–47	4.11	73.04	
CEF–BK–7S	80.28	5–15	3.39	76.89	
CEF–BK–8S	80.19	5–15	4.88	75.31	
CEF–BK–9D	80.09	50–60	4.82	75.27	
USGS					
CEF–USGS–1	79.98	3–13	3.02	76.96	
CEF–USGS–2	84.78	3–13	3.52	81.26	
CEF–USGS–3	85.47	3–13	2.66	82.81	
CEF–USGS–4	88.03	3–13	3.05	84.98	
CEF–USGS–5	88.81	3–13	3.30	85.51	
CEF–USGS–6	86.03	3–13	3.11	82.92	
CEF–USGS–7	84.92	3–13	4.15	80.77	
CEF–USGS–9	86.85	3–13	3.94	82.91	
CEF–USGS–10	73.81	3–13	4.93	68.88	
CEF–USGS–11	63.73	3–13	4.45	59.28	
CEG–USGS–12	80.99	3–13	4.57	76.42	
CEF–USGS–13	67.76	3–13	3.20	64.56	
CEF–USGS–14	78.27	3–13	4.89	73.38	
CEF–USGS–15	86.13	3–13	3.01	83.12	
CEF–USGS–16	79.87	3–13	3.18	76.69	
CEF–USCS–17	79.65	3–13	N/A	79.65	
CEF–USGS–18	79.75	35–45	N/A	79.75	
CEF–USGS–19	80.21	210–220	8.78	71.43	
CEF–USGS–20	79.66	97–107	N/A	79.66	
CEF–USGS–21	79.97	79–89	N/A	79.97	
CEF–USGS–22	80.76	30–50	3.91	76.85	
CEF–USGS–23	80.29	90–110	4.33	75.96	
CEF–USGS–24	79.93	202–235	8.17	71.76	

* – Artesian head greater than 8.00' above pad
Artesian well TOC elevations represent ground elevations
ALS – Above land surface
DTP – Depth to product
N/A – Data not available

NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
November 14–16, 1994

Site No. Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
Site 1					
CEF–1–1	54.58	10–15	6.98	47.60	
CEF–1–4	52.90	8–18	2.36	50.54	
CEF–1–5S	62.02	5–15	4.31	57.71	
CEF–1–6S	53.67	5–15	5.27	48.40	
CEF–1–7DD	52.50	81–91	2.89	55.39	Artesian(ALS)
CEF–1–8D	55.62	52–62	0.98	54.64	
CEF–1–9S	52.96	4–14	3.79	49.17	
CEF–1–10S	58.34	5–15	4.40	53.94	
CEF–1–12I	61.48	36–46	1.87	59.61	
CEF–1–13S	56.05	4–14	3.74	52.31	
CEF–1–14D	49.90	35–45	8.00	57.90	*Artesian(ALS)
CEF–1–15S	52.20	4–14	2.81	49.39	
CEF–1–16D	55.40	42–52	8.00	63.40	*Artesian(ALS)
CEF–1–17D	50.80	42–52	4.25	55.05	Artesian (ALS)
CEF–1–18S	61.93	4–14	2.65	59.28	
Site 2					
CEF–2–1	61.25	12–22	5.88	55.37	
CEF–2–3S	74.33	5–15	5.98	68.35	
CEF–2–4S	65.77	5–15	6.00	59.77	
CEF–2–5S	57.99	5–15	2.94	55.05	
CEF–2–6S	57.47	3–13	3.49	53.98	
CEF–2–7D	57.34	30–40	2.03	55.31	
CEF–2–8D	61.56	30–40	6.16	55.40	
CEF–2–9D	73.93	65–75	6.42	67.51	
CEF–2–10DD	74.00	106–116	6 61	67.39	
CEF–2–11D	54.90	39–49	8.00	62.90	*Artesian(ALS)
Site 3					
CEF–3–1	77.33	30–40	4.40	72.93	
CEF–3–3S	78.53	4–14	5.04	73.49	
CEF–3–4S	77.08	4–14	4.50	72.58	
CEF–3–5S	78.19	4–14	4.13	74.06	
CEF–3–6S	78.24	4–14	5.28	72.96	
CEF–3–7D	78 01	58–68	5.72	72.29	
CEF–3–7DD	77.81	100–110	8.77	69.04	
CEF–3–7S	78 01	4–14	5.35	72.66	
CEF–3–8S	77.17	4–14	2.46	74.71	
CEF–3–9I	76.77	45–55	2.54	74.23	
CEF–3–10D	76.77	88–98	6 57	70.20	
CEF–3–11I	57.10	25–35	3.40	60.50	Artesian (ALS)
CEF–3–12D	57.20	55–65	3.72	60.92	Artesian (ALS)
CEF–3–13S	76.76	8–18	4.45	72.31	
CEF–3–14I	76.63	45–55	4.43	72.20	
CEF–3–15D	76.54	88–98	7.55	68.99	
CEF–3–16S	75.49	6–16	5.20	70.29	
CEF–3–17D	75.37	84–94	7.08	68.29	
CEF–3–18S	64.71	15–25	1 01	63.70	
CEF–3–19D	62.60	66–76	6.50	69.10	Artesian (ALS)
CEF–3–20S	58.37	4–14	6 48	51.89	
CEF–3–21I	55.90	40–50	6 08	61.98	Artesian (ALS)
CEF–3–22D	55.70	60–70	8.00	63.70	* Artesian (ALS)
CEF–3–23S	63.71	15–25	1 76	61.95	
CEF–3–24D	61.20	62–72	8 00	69.20	* Artesian (ALS)
CEF–3–25S	72.65	15–25	3 36	69.29	
CEF–3–26I	72.44	45–55	3.66	68.78	
CEF–3–27D	72.37	81–91	3 45	68.92	
CEF–3–28S	66.24	20–30	2.32	63.92	
CEF–3–29D	63 30	72–82	5 85	69.15	Artesian (ALS)

Water Level Data
NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
November 14–16, 1994

Site No. Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
CEF-3-30DD	63.50	94–104	8.00	71.50	* Artesian (ALS)
CEF-3-31S	58.00	20–30	1.28	56.72	
CEF-3-32D	55.10	56–66	8.00	63.10	* Artesian (ALS)
CEF-3-33DD	76.85	105–115	7.87	84.72	
CEF-3-34S	58.86	25–35	3.21	62.07	Artesian (ALS)
CEF-3-35D	56.50	55–65	8.00	64.50	* Artesian (ALS)
Site 4					
CEF-4-1	73.74	10–15	3.48	70.26	
CEF-4-2	72.51	95–120	3.92	68.59	
CEF-4-3	72.53	8–13	2.99	69.54	
CEF-4-4	75.02	20–50	4.75	70.27	
CEF-4-1S	77.89	4–14	4 69	73.20	
CEF-4-2S	77.29	4–14	4.53	72.76	
Site 5					
CEF-5-3S	71.88	4–14	3.10	68.78	
CEF-5-4S	71.64	4–14	N/A	N/A	
CEF-5-5S	72.26	4–14	N/A	N/A	DTP3.71(Ft,TOC)
CEF-5-6S	73.91	4–14	N/A	N/A	DTP4.50(Ft,TOC)
CEF-5-7S	73.90	4–14	4.25	69.65	
CEF-5-8S	71.34	2–12	2 65	68.69	
CEF-5-9I	71.60	25–35	2.79	68.81	
CEF-5-10S	71.17	2–12	1.51	69.66	
CEF-5-11I	71.64	25–35	1.79	69.85	
CEF-5-12D	71.69	47–57	1.82	69.87	
CEF-5-13S	74.56	3–13	4.19	70.37	
CEF-5-14I	74.64	25–35	4.31	70.33	
CEF-5-15D	74.79	45–55	4.44	70.35	
CEF-5-16S	72.96	6–16	3.93	69.03	
CEF-5-17I	73.17	25–35	4.09	69.08	
CEF-5-18D	73.50	40–50	4.22	69.28	
CEF-5-19S	72.79	2–12	4 68	68.11	
CEF-5-20S	68.28	2–12	0.73	67.55	
CEF-5-21I	68.34	25–35	0.71	67.63	
CEF-5-22D	68.58	40–50	0 98	67.60	
CEF-5-23S	69.58	4–14	1 59	67.99	
CEF-5-24S	73.12	5–15	4 57	68.55	
CEF-5-25I	73.11	24–34	4 65	68.46	
CEF-5-26D	73.39	45–55	4 77	68.62	
CEF-5-27S	71.70	3–13	3.26	68.44	
CEF-5-28D	71 06	46–56	2.26	68.80	
CEF-5-29S	70.86	3–13	2 82	68.04	
CEF-5-30S	72.03	6–16	3.37	68.66	
Site 7					
CEF-7-1	78.99	20–50	6 31	72.68	
CEF-7-2	78.22	20–50	6.72	71.50	
CEF-7-3	78.74	20–50	7 73	71.01	
Site 8					
CEF-8-1	69.10	20–50	8 32	60.78	
CEF-8-2	71.01	20–50	4.26	66.75	
CEF-8-3	72.64	20–50	5.23	67.41	
CEF-8-4	73.42	20–50	4 68	68.74	
Site 10					
CEF-10-1	69 87	95–115	6 35	63.52	
CEF-10-2	50 81	18–38	0 72	50.09	

Water Level Data
NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
November 14–16, 1994

Site No. Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
CEF–10–3	58.62	14–24	2.99	55.63	
CEF–10–4	58.49	10–30	6.01	52.48	
Site 11					
CEF–11–1	78.06	20–50	4.63	73.43	
CEF–11–2	78.23	20–50	4.79	73.44	
Site 16					
CEF–16–5S	78.31	4–14	5.51	72.80	
CEF–16–7S	78.09	4–14	5.65	72.44	
CEF–16–9D	77.92	91–101	5.66	72.26	
CEF–16–10S	77.86	4–14	5.58	72.28	
CEF–16–11DD	78.03	108–118	5.25	72.78	
CEF–16–12I	77.96	71–81	5.54	72.42	
CEF–16–13S	77.79	6–16	4.15	73.64	
CEF–16–14D	77.53	91–101	4.07	73.46	
CEF–16–15S	77.04	6–16	3.99	73.05	
CEF–16–16D	77.08	91–101	5.21	71.87	
CEF–16–17S	76.44	7–17	4.60	71.84	
CEF–16–18D	76.35	90–100	3.65	72.70	
CEF–16–19S	77.61	7–17	5.42	72.19	
CEF–16–20D	77.95	91–101	5.97	71.98	
CEF–16–21S	77.73	7–17	6.21	71.52	
CEF–16–22I	77.69	25–35	6.48	71.21	
CEF–16–23D	77.96	89–99	6.52	71.44	
CEF–16–24S	77.33	7–17	7.00	70.33	
CEF–16–25D	77.11	84–94	5.65	71.46	
CEF–16–26DD	77.31	108–118	5.68	71.63	
CEF–16–27I	77.12	25–35	7.21	69.91	
CEF–16–28D	77 30	89–99	6.33	70.97	
CEF–16–29S	75.40	7–17	5.85	69.55	
CEF–16–30D	75.34	82–92	4.97	70.37	
CEF–16–31DD	75.18	97–107	3 55	71.63	
CEF–16–32S	76.08	7–17	6.38	69.70	
CEF–16–33D	75.98	80–90	5.71	70.27	
CEF–16–34DD	75.97	97–107	4 91	71 06	
CEF–16–35S	77.37	7–17	7.73	69.64	
CEF–16–36I	77.15	45–55	7 40	69.75	
CEF–16–37D	77.08	81–91	6.97	70.11	
CEF–16–38S	76.70	7–17	7.31	69.39	
CEF–16–39I	76.69	45–55	7 38	69.31	
CEF–16–40D	76.65	79–89	7.09	69.56	
Site 17					
CEF–17–1	73.89	10–15	1.92	71.97	
CEF–17–4S	73.20	3–13	N/A	N/A	Abandoned
CEF–17–5S	72.72	4–14	N/A	N/A	Abandoned
CEF–17–6S	72.92	5–15	2 89	70.03	
CEF–17–7D	72.44	76–86	3.16	69.28	
CEF–17–8S	70.96	4–14	1 50	69.46	
CEF–17–9S	73 67	4–14	2.77	70.90	
CEF–17–10D	71 01	76–86	1 59	69.42	
CEF–17–11I	71.19	45–55	1 48	69.71	
CEF–17–12D	71.21	75–85	1 55	69.66	
CEF–17–13S	72.74	4–14	2 69	70.05	
CEF–17–14I	72 56	45–55	2 52	70.04	
CEF–17–15D	71.93	76–86	2 46	69.47	
CEF–17–16S	73.53	4–14	3 55	69.98	

NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
November 14–16, 1994

Site No. Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
CEF–17–17I	73.42	45–55	2.49	70.93	
CEF–17–18D	73.38	74–84	3.67	69.71	
CEF–17–19S	74.61	5–15	N/A	N/A	Abandoned
CEF–17–20I	74.63	45–55	N/A	N/A	Abandoned
CEF–17–21I	74.70	45–55	2.80	71.90	
CEF–17–22D	74.51	81–91	3.39	71.12	
CEF–17–23S	71.07	4–14	1.82	69.25	
CEF–17–24S	73.41	4–14	N/A	N/A	Abandoned
CEF–17–25SI	73.63	30–40	N/A	N/A	Abandoned
CEF–17–26I	73.79	60–70	N/A	N/A	Abandoned
CEF–17–27D	74.00	76–86	N/A	N/A	Abandoned
CEF–17–28DD	73.88	106–116	N/A	N/A	Abandoned
South Fuel Farm					
Site 43					
CEF–43–7	79.38	N/A	N/A	N/A	Reading not taken
CEF–43–8	79.85	N/A	N/A	N/A	Reading not taken
CEF–43–10	80.97	N/A	N/A	N/A	Reading not taken
CEF–43–14	78.66	N/A	N/A	N/A	Reading not taken
CEF–43–15	79.87	N/A	4.92	74.95	
CEF–43–16	79.44	N/A	3.94	75.50	
CEF–43–17	N/A	N/A	3 60	N/A	
CEF–43–18	79.87	N/A	2.88	76.99	
CEF–43–19	80.97	N/A	N/A	N/A	Rusted shut
CEF–43–20	80.95	N/A	N/A	N/A	Reading not taken
CEF–43–21	79.15	N/A	N/A	N/A	Destroyed
CEF–43–22	79.68	N/A	3 99	75.69	
CEF–43–25	75.38	N/A	4.87	70.51	
CEF–43–26D	79.97	N/A	5.45	74.52	
CEF–43–27D	78.75	N/A	5.81	72.94	
CEF–43–28D	76.14	N/A	3.95	72.19	
CEF–43–29	77.84	N/A	4 59	73.25	
CEF–43–30	N/A	N/A	3.70	N/A	
CEF–43–31	N/A	N/A	3.15	N/A	
North Fuel Farm					
Site 76					
CEF–76–1	79 55	N/A	1 26	78.29	
CEF–76–3	77.68	N/A	1 38	76.30	
CEF–76–4	77 31	N/A	1.12	76.19	
CEF–76–5	77 70	N/A	N/A	N/A	Rusted shut
CEF–76–6	78 05	N/A	1 07	76.98	
CEF–76–7	79.32	N/A	N/A	N/A	Rusted shut
CEF–76–9	78.90	N/A	N/A	N/A	Rusted shut
CEF–76–11	77.74	N/A	1 04	76.70	
CEF–76–12	76.76	N/A	0.25	76.51	
CEF–76–20	77.73	N/A	1.09	76.64	
CEF–76–21	77.94	N/A	0.76	77.18	
CEF–76–24	78.85	N/A	N/A	N/A	Unable to locate
CEF–76–25D	77.94	N/A	1.15	76.79	
CEF–76–26D	78.86	N/A	2.60	76.26	
CEF–76–27D	79.19	N/A	4.15	75.04	
CEF–76–28D	77 77	N/A	3.20	74.57	
CEF–76–29	N/A	N/A	N/A	N/A	Flowing
CEF–76–30	N/A	N/A	0 61	N/A	
Truck Stand Facility					
Site 372					
CEF–372–4	78.81	N/A	1 56	77.25	
CEF–372–7	78.98	N/A	2 09	76 89	

NAS Cecil Field Operable Units 1, 2, 7 and Background
Jacksonville, Florida
November 14–16, 1994

Site No. Well No.	Elevation TOC (Ft, NGVD)	Screened Interval (Ft, bls)	Water Level (Ft, below TOC)	Water Level Elevation (Ft, NGVD)	Comments
CEF–372–10D	74.99	N/A	3.38	71.61	
Background					
CEF–BK–1S	66.77	5–15	3.37	63.40	
CEF–BK–2S	84.09	5–15	5.06	79.03	
CEF–BK–3D	84.06	37–47	5.04	79.02	
CEF–BK–4S	78.17	5–15	2.77	75.40	
CEF–BK–5S	76.96	5–15	2.96	74.00	
CEF–BK–6D	77.15	37–47	3.21	73.94	
CEF–BK–7S	80.28	5–15	3.31	76.97	
CEF–BK–8S	80.19	5–15	5.32	74.87	
CEF–BK–9D	80.09	50–60	5.19	74.90	
USGS					
CEF–USGS–1	79.98	3–13	3.54	76.44	
CEF–USGS–2	84.78	3–13	3.94	80.84	
CEF–USGS–3	85.47	3–13	2.93	82.54	
CEF–USGS–4	88 03	3–13	3.35	84.68	
CEF–USGS–5	88.81	3–13	3.56	85.25	
CEF–USGS–6	86 03	3–13	3.36	82.67	
CEF–USGS–7	84.92	3–13	3 70	81.22	
CEF–USGS–9	86.85	3–13	3 87	82.98	
CEF–USGS–10	73.81	3–13	4.66	69.15	
CEF–USGS–11	63.73	3–13	4 85	58.88	
CEG–USGS–12	80 99	3–13	4.11	76.88	
CEF–USGS–13	67.76	3–13	2 86	64.90	
CEF–USGS–14	78.27	3–13	5 49	72.78	
CEF–USGS–15	86.13	3–13	N/A	86.13	
CEF–USGS–16	79 87	3–13	2.85	77 02	
CEF–USCS–17	79 65	3–13	2 66	76.99	
CEF–USGS–18	79 75	35–45	2 98	76.77	
CEF–USGS–19	80.21	210–220	8.95	71.26	
CEF–USGS–20	79 66	97–107	4 50	75.16	
CEF–USGS–21	79 97	79–89	4.54	75.43	
CEF–USGS–22	80.76	30–50	N/A	80.76	
CEF–USGS–23	80 29	90–110	N/A	80.29	
CEF–USGS–24	79.93	202–235	N/A	79 93	

* – Artesian head greater than 8 00' above pad
Artesian well TOC elevations represent ground elevations
ALS – Above land surface
DTP – Depth to product
N/A – Data not available

APPENDIX J

BACKGROUND SAMPLING PROGRAM

LIST OF FIGURES

J-1 Background Media Locations for Soil and Groundwater
J-2 Background Media Locations at East 1 (E1)
J-3 Background Media Locations at East 2 (E2)
J-4 Background Media Locations at South 1 (S1)
J-5 Background Media Locations at South 2 (S2)
J-6 Background Media Locations at West 1 (W1)
J-7 Background Media Locations at West 2 (W2)

LIST OF TABLES

J-1 Soil Units at OUs 1, 2, 7, and 8
J-2 Background Soil and Groundwater Sampling Program
J-3 Background Monitoring Well Construction Details
J-4 Background Surface Soil Summary
J-5 Descriptive Statistics for Background Surface Soil
J-6 Descriptive Statistics for Surface Soil from S1 Location
J-7 Background Subsurface Soil Summary
J-8 Descriptive Statistics for Background Subsurface Soil
J-9 Background Groundwater Analytical Summary
J-10 Descriptive Statistics for Groundwater, Upper Surficial aquifer Wells
J-11 Descriptive Statistics for Groundwater, Lower Surficial aquifer Wells

APPENDICES

J-1 Lithologic Boring Logs for Background Wells
J-2 Background Monitoring Well Construction Diagrams
J-3 Complete Background Chemical Analytical Data Set
J-4 Precision, Accuracy, Representativeness, Completeness, Comparative (PARCCs) Summary Report for Background Samples
J-5 Population Statistics for Background Surface Soil
J-6 Background Geotechnical Testing Results
J-7 Background Groundwater Sampling Logs
J-8 Wet Chemistry Analyses for Background Groundwater

Surface soil, subsurface soil, and groundwater samples were collected during the 1993 sampling program to characterize existing background conditions for the first investigative set to be considered at Naval Air Station (NAS) Cecil Field (Operable Units [OUs] 1, 2, 7, and 8). OU 1 includes Sites 1 and 2. OU 2 includes Sites 5 and 17. (PSC 4 is currently classified as requiring site screening and has not been assigned to an OU; PSC 4 was, however, included in this evaluation because the site is currently under investigation.) Site 16 has been identified as OU 7. Site 3 has been identified as OU 8.

The purpose of the background monitoring network is to establish concentrations (or concentration ranges) for inorganic parameters (metals) that occur naturally in soil and groundwater. It is first necessary to assess, to the extent possible, if the locations selected have been affected by past waste disposal or handling practices. If the locations have not been affected by past activities, the metals concentrations at a particular location are considered to be representative of existing background conditions. To provide a higher level of confidence in the representativeness of the background locations selected, full target compound list (TCL) organics, in addition to target analyte list (TAL) metals analyses, were completed for all soil samples collected above the water table and all groundwater samples (soil samples from below the water table were also submitted for geotechnical testing, but not for chemical analytical testing).

Discussion of the soil and groundwater background investigation is divided into two subsections. The sampling program, including the rationale for the selection of sampling locations, is discussed in Section J.1. A summary of the findings of the background sampling is presented in Subsection J.2. The approach for selecting background locations consisted of (1) identifying the soil types present at sites in OUs 1, 2, and 7; (2) targeting areas (with those soil types) that appear to be representative of background conditions, via aerial photograph review; and (3) distributing the background surface soil samples, subsurface soil samples, and monitoring wells between those locations.

J.1 SAMPLING PROGRAM.

Surface Soil A detailed review of the *Soil Survey of the City of Jacksonville, Duval County, Florida* (U.S. Department of Agriculture [USDA], Soil Conservation Service, 1978) was completed to guide the selection of background surface soil sampling locations.

The soil survey (USDA, 1978) presents a general soil map for Duval County. Soil in Duval County have been divided into four groups: soil of the sand ridges, soil of the flatwoods, soil of the hardwood and cypress swamps, and soil of the tidal marsh. Cecil Field, located in southwestern Duval County, is on the soil of the flatwoods.

Flatwoods soil is comprised of the (1) Leon-Ortega, (2) Leon-Ridgeland-Wesconnett, and (3) Pelham-Mascotte-Sapelo map units. Only the Leon-Ridgeland-Wesconnett series and the Pelham-Mascotte-Sapelo series are present at NAS Cecil Field. Some isolated areas of the Leon-Ortega are present in southwestern Duval County, but these lie to the east of NAS Cecil Field.

The spatial distribution of the Leon-Ridgeland-Wesconnett and the Pelham-Mascotte-Sapelo soil in the vicinity of NAS Cecil Field is not complicated. The mapped contact between the two soil units trends north to south (with the Pelham-Mascotte-Sapelo lying to the west of the contact) and passes through the intersection of Normandy Boulevard and 103rd Street near the main entrance to the facility. South of the intersection of these streets, the contact moves slightly to the west to follow Rowell Creek south to Sal Taylor Creek and continues southward.

The Leon-Ridgeland-Wesconnett, therefore, occupies the eastern part of NAS Cecil Field and the Pelham-Mascotte-Sapelo occupies the western. The majority of the potential sources of contamination (PSCs) identified at NAS Cecil Field are located on the western part of the facility and are mapped as Pelham-Mascotte-Sapelo.

The soil survey (USDA, 1978) has further divided the Leon-Ridgeland-Wesconnett and the Pelham-Mascotte-Sapelo into specific soil types based on soil characteristics. These characteristics include the inclination of slopes formed by the soil, the permeability of the soil, and the composition (e.g., sandy, loamy, etc.) of the soil horizons present. Five specific soil units have been identified at OUs 1, 2, 7, and 8. Arents and Arents-Sanitary Landfill are considered as one specific soil unit as both are disturbed soil. These specific soil units include:

- Albany Fine Sand,
- Arents and Arents-Sanitary Landfill,
- Ridgeland Fine Sand,
- Urban Land, and
- Wesconnett Fine Sand.

As presented in the Technical Memorandum for Supplemental Sampling (TMSS) (ABB-ES, 1992) at OUs 1, 2, 7, and 8, a total 15 samples (excluding quality assurance and quality control [QA/QC] samples) were collected to generate a database for the concentrations of naturally occurring inorganic parameters (metals) in the surficial soil at NAS Cecil Field. Three general locations were selected (in the TMSS) for the collection of the background samples, one east of the facility, one to the west, and one south of the facility. A brief discussion of the selection of the sampling locations follows.

The Unified Soil Classification System (USCS) soil maps were used to estimate the percentage of each site occupied by a particular soil unit. Table J-1 presents the sites included in OUs 1, 2, 7, and 8 and the percentage of each site's area occupied by a specific soil unit.

One of the five specific soil units, Urban Land, was not considered during the selection of background soil sampling locations. OU 7, Site 16, is mapped as being on the Urban Land specific soil unit. The composition of the individual soil mapped as Urban Land is not known, but may vary greatly based on the land use in developed parts of the facility. For this reason, site-specific background samples were used to characterize existing background concentrations for inorganic parameters at Site 16.

Table J-1

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Site	Soil (Percentage)				
	Albany Fine Sand	Arents	Ridgeland Fine Sand	Urban Land	Wensconnett Fine Sand
1		85	5		10
2		95			5
3	85	5	10		
4	90		10		
5		50	50		
17			100		
16				100	

As shown by the percentages in Table J-1, Site 5 is half Arents and half Ridgeland Fine Sand. Due to the presence of rubble and debris north of the pit it is possible that more than 50 percent of the soil at site 5 is Arents. Soil at Site 17 is shown to be 100 percent Ridgeland Fine Sand. Aerial photographs, however, show parts of the site to have been excavated and it is reasonable to assume that the pit area is now composed of Arents.

The final locations for collection of background surface soil samples were selected in the following manner. Analyses of the percentage data (Table J-1) showed that the area occupied by the sites of OUs 1, 2, and 8 (OU 7 was removed) was distributed more or less evenly between the Albany Fine Sand, Arents, and Ridgeland Fine Sand with minor representation of the Wesconnett Fine Sand (at OU 1). Based on this distribution, the 15 samples were distributed among the soil units in the following manner:

- Albany Fine Sand, five samples;
- Arents, four samples;
- Ridgeland Fine Sand, five samples; and
- Wesconnett Fine Sand, one sample.

Following the determination of background sample distribution between the various soil units present, the maps presented in the Duval County soil survey (USDA, 1978) were evaluated in conjunction with the three general background sampling locations from the TMSS (east, west, and south). Tentative sampling locations from each of the soil units were selected. Following the selection of the tentative locations, historical aerial photographs were reviewed to look for obvious signs of human activities in the targeted areas. The only area that showed obvious signs of activity was the Arents locations; soil must be reworked to be designated as Arents (the Arents background locations are discussed below).

Finally, field reconnaissance of the selected locations was completed to check for recent activity and evaluate the accessibility of the locations. The

accessibility of the locations was important as wells would be installed in the immediately vicinity of the surface soil samples.

Figure J-1 shows the locations selected for inclusion in the background soil and groundwater monitoring network. Figures J-2 through J-7 show the individual sampling locations and the media sampled at each. Table J-2 summarizes the laboratory analytical program completed for the media sampled. All surface soil samples were collected from a depth of 0 to 12 inches below land surface (bls).

Subsurface Soil and Groundwater The historical aerial photograph review had established that the general locations selected for surface soil samples did not show obvious signs of human activity. Following the selection of the surface soil sampling locations for the background network (described above), the monitoring wells were divided among the background locations selected. Subsurface soil samples were then collected during the installation of each monitoring well.

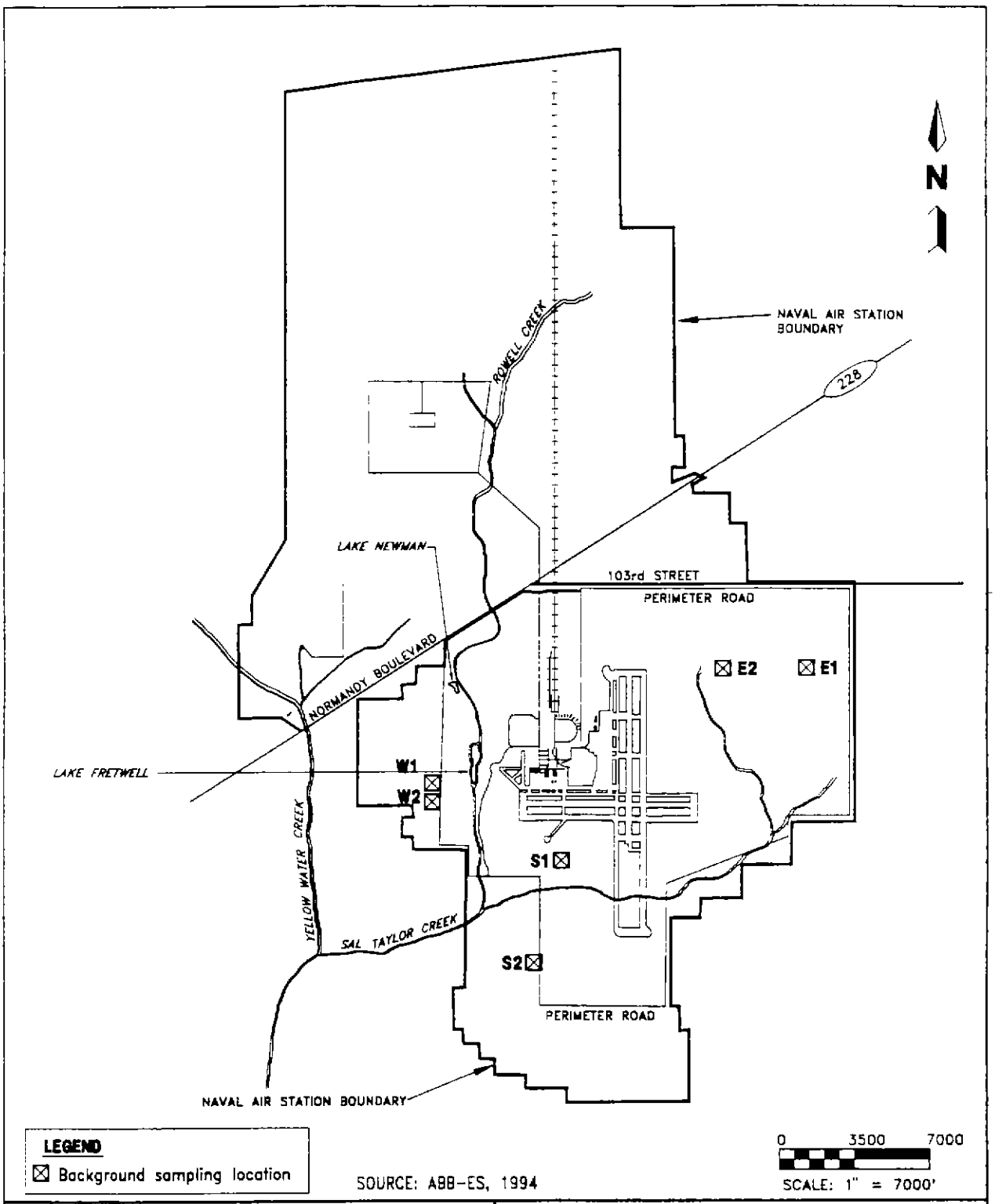
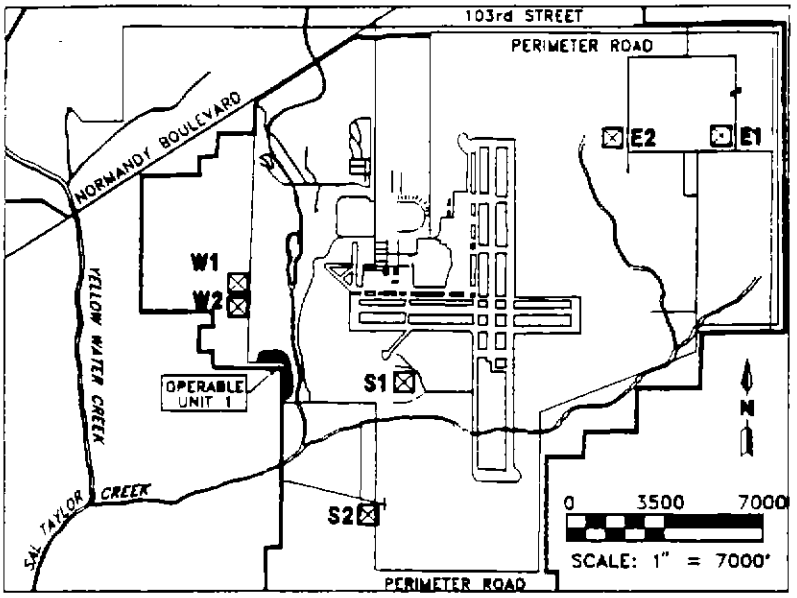


FIGURE J-1
BACKGROUND MEDIA LOCATIONS, SOIL AND GROUNDWATER

CECIL/FFSFACIL/NP-WDW/10-13-94

REMEDIAL INVESTIGATION

NAS CECIL FIELD
JACKSONVILLE, FLORIDA



N

△CEFBKSS9

CEFBK7S
BBMS7S0
BBMS7S4
BBMS7S6

LEGEND

△CEFBKSS14	Surface soil sample
CEFBK5S	Monitoring well location with subsurface soil samples
BBMS7S0	Surface soil sample at 0 to 2 feet below land surface

0 50 100
SCALE: 1" = 100'

FIGURE J-2
BACKGROUND MEDIA LOCATIONS AT EAST 1 (E1)

REMEDIAL INVESTIGATION

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

H/CECIL/BML1/MAH-WDW/10-27-94

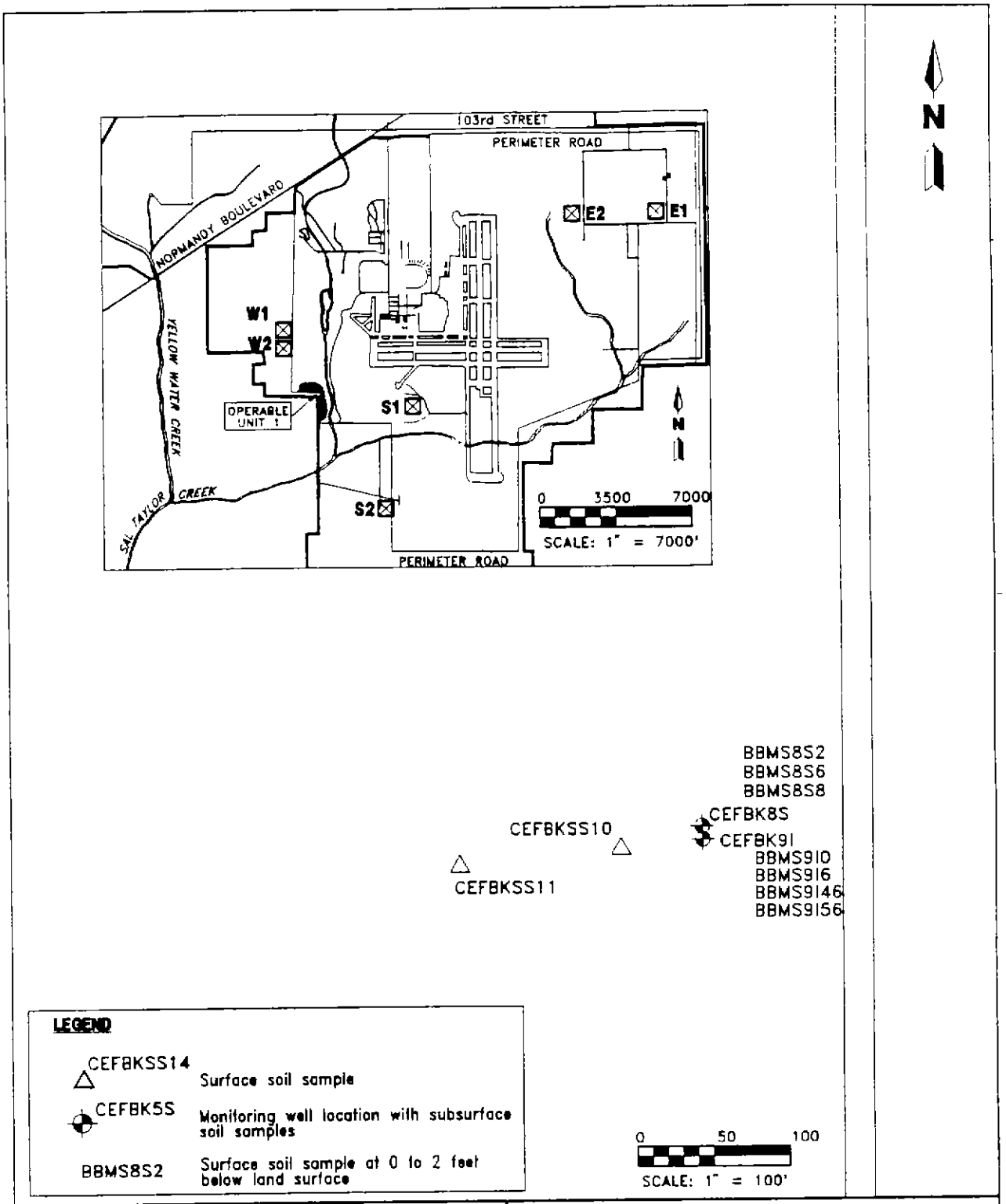
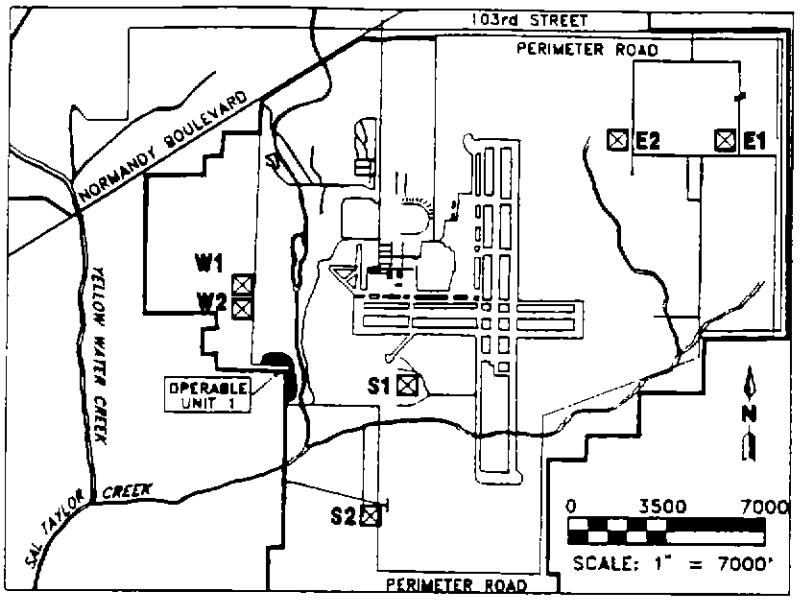


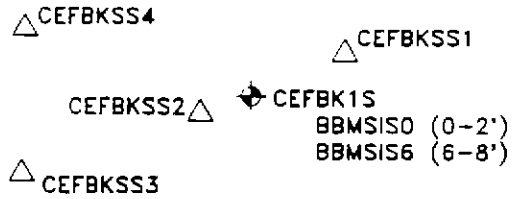
FIGURE J-3
BACKGROUND MEDIA LOCATIONS AT EAST 2 (E2)

H/CECIL/BML1/MAH-WDW/10-27-94

REMEDIAL INVESTIGATION

NAS CECIL FIELD
JACKSONVILLE, FLORIDA





LEGEND

△ CEFBKSS14	Surface soil sample
⊕ CEFBK5S	Monitoring well location with subsurface soil samples
BBMS1S0	Surface soil sample at 0 to 2 feet below land surface

0 50 100
SCALE: 1" = 100'

FIGURE J-4
BACKGROUND MEDIA LOCATIONS AT SOUTH 1 (S1)

H/CECIL/BML1/MAH-WDW/10-27-94

REMEDIAL INVESTIGATION

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

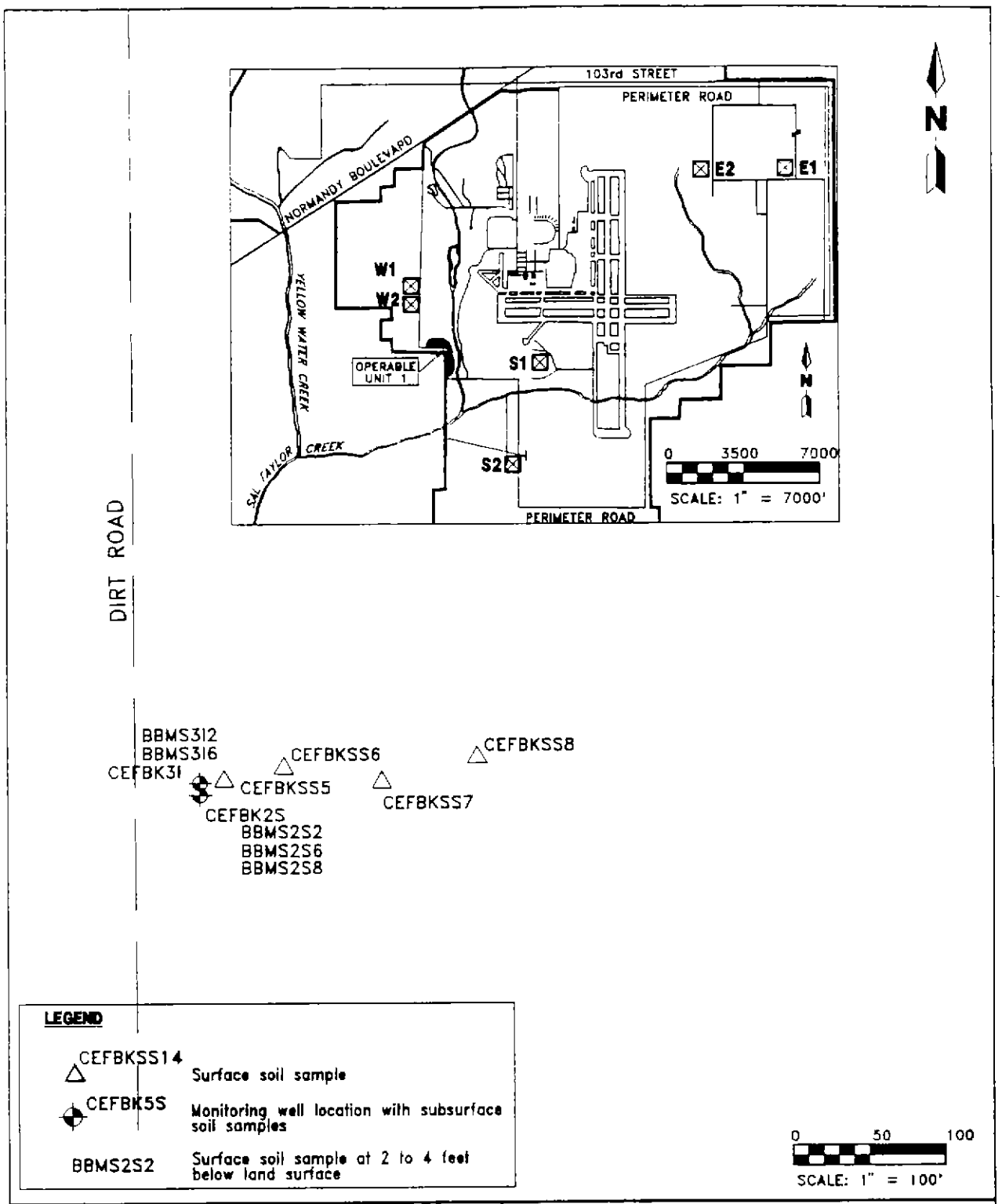


FIGURE J-5
BACKGROUND MEDIA LOCATIONS AT SOUTH 2 (S2)

H/CECIL/BML1/MAH-WDW/10-27-94

REMEDIAL INVESTIGATION

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

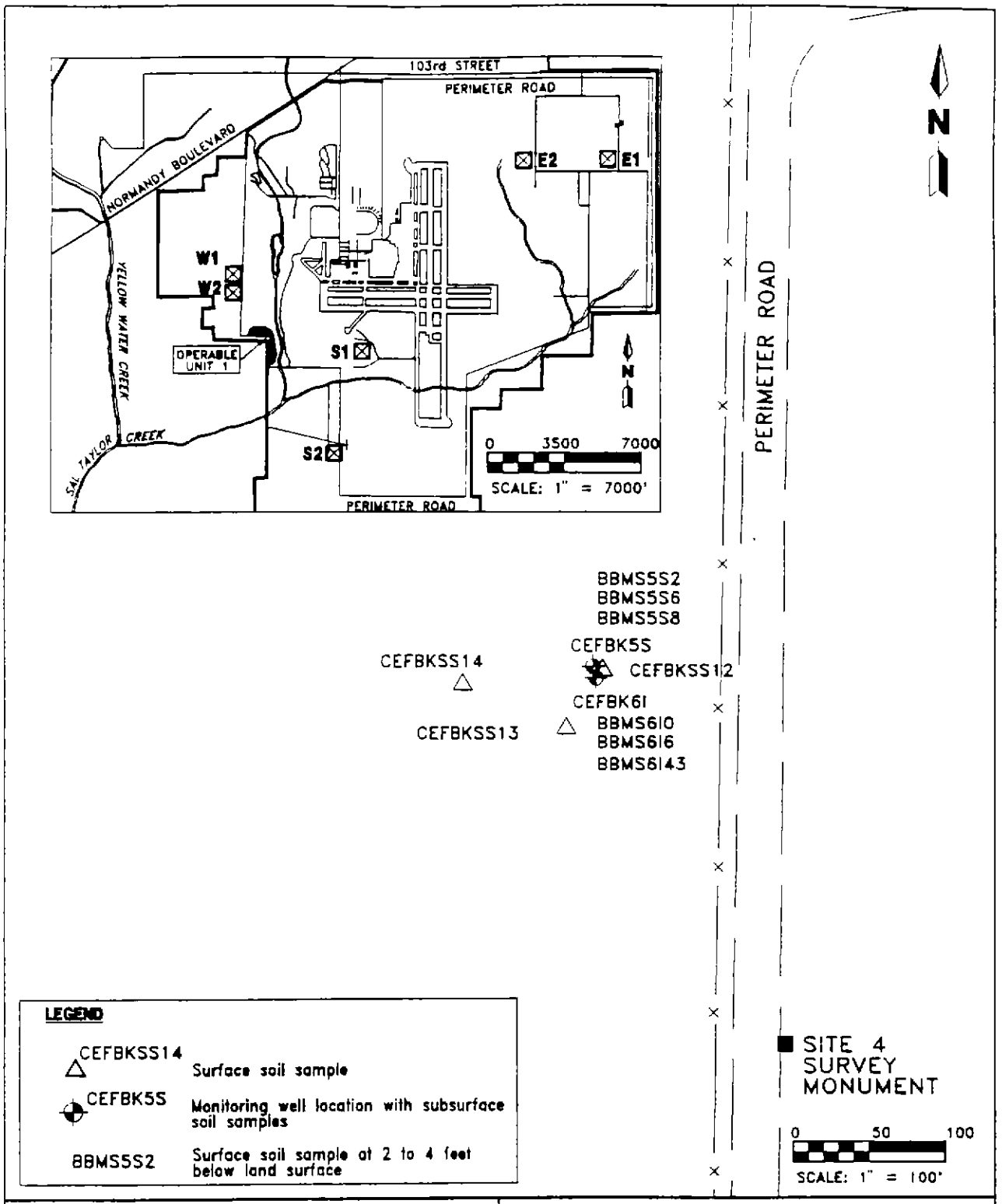


FIGURE J-6
BACKGROUND MEDIA LOCATIONS AT WEST 1 (W1)

REMEDIAL INVESTIGATION,

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

H/CECIL/BML1/MAH-WDW/10-27-94

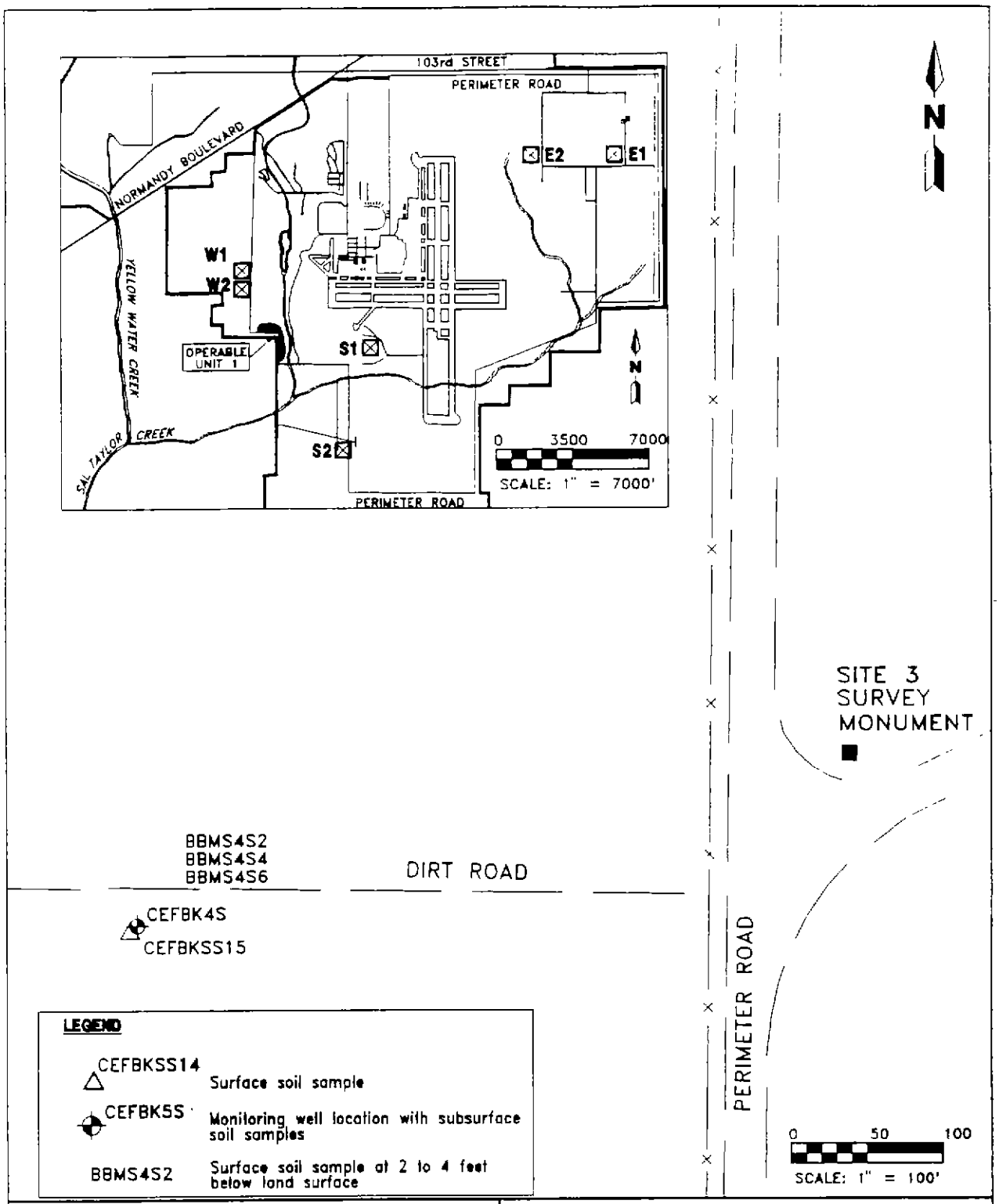


FIGURE J-7
BACKGROUND MEDIA LOCATIONS AT WEST 2 (W2)

H:/CECIL/BML1/MAH-WDW/10-27-94

REMEDIAL INVESTIGATION

NAS CECIL FIELD
JACKSONVILLE, FLORIDA

Table J-2
Background Soil and Groundwater Sampling Program

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Sample Identification	TCL	TAL	TPH	TOC	WET CHEM	GEOTECH
Surface Soil						
CEFBSS01	X	X	X			
CEFBSS02	X	X	X			
CEFBSS03	X	X	X			
CEFBSS04	X	X	X			
CEFBSS05	X	X	X			
CEFBSS06	X	X	X			
CEFBSS07	X	X	X			
CEFBSS08	X	X	X			
CEFBSS09	X	X	X			
CEFBSS10	X	X	X			
CEFBSS11	X	X	X			
CEFBSS12	X	X	X			
CEFBSS13	X	X	X			
CEFBSS14	X	X	X			
CEFBSS15	X	X	X			
Subsurface Soil						
CFBBMS1S0	X	X	X			
CFBBMS1S6	X	X	X			
CFBBMS1S8						X
CFBBMS2S2	X	X	X			
CFBBMS2S6						X
CFBBMS2S8				X		X
CFBBMS3I2	X	X	X			
CFBBMS3I6	X	X	X			
CFBBMS4S2	X	X	X			

See notes at end of table.

Table J-2 (Continued)
Background Soil and Groundwater Sampling Program

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Sample Identification	TCL	TAL	TPH	TOC	WET CHEM	GEOTECH
Subsurface Soil (Continued)						
CFBBMS4S4	X	X	X			X
CFBBMS4S6						X
CFBBMS5S2	X	X	X			
CFBBMS5S6	X	X	X			X
CFBBMS5S8						X
CFBBMS6I0	X	X	X			
CFBBMS6I6	X	X	X			
CFBBMS6I43				X		X
CFBBMS7S0	X	X	X			
CFBBMS7S4	X	X	X			X
CFBBMS7S6				X		X
CFBBMS8S2	X	X	X			
CFBBMS8S6	X	X	X			X
CFBBMS8S8						X
CFBBMS9I0	X	X	X			
CFBBMS9I6	X	X	X			
CFBBMS9I46				X		
CFBBMS9I56				X		X
Groundwater						
CFBK1S	X	X	X		X	
CFBK2S	X	X	X		X	
CFBK3I	X	X	X		X	
CFBK4S	X	X	X		X	
CFBK5S	X	X	X		X	

See notes at end of table.

Table J-2 (Continued)
Background Soil and Groundwater Sampling Program

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Sample Identification	TCL	TAL	TPH	TOC	WET CHEM	GEOTECH
Groundwater (Continued)						
CFBK6I	X	X	X		X	
CFBK7S	X	X	X		X	
CFBK8S	X	X	X		X	
CFBK9I	X	X	X		X	

Notes: TCL = U.S. Environmental Protection Agency (USEPA) Contract Laboratory Program target compound list.
TAL = USEPA Contract Laboratory Program target analyte list.
TPH = total petroleum hydrocarbons (USEPA Method 418.1).
TOC = total organic carbon.
WET CHEM includes hardness, cations, anions, sulfides, chromium^{+3}, and chromium^{+6}.
GEOTECH includes grain size, moisture content, and Atterberg limits.
CEF/CF = NAS Cecil Field.
MS1S0 = boring from monitoring well.
BB/BK = background well CFBK1S.
SS = surface soil.
0 = top of 2-foot below land surface interval sample.

The monitoring well network consists of six upper surficial aquifer monitoring wells and three lower surficial aquifer monitoring wells. Monitoring wells completed in the upper part of the surficial aquifer are identified by "S" at the end of the well designator; lower surficial aquifer wells are indicated by "I" at the end of the designator. Table J-2 summarizes the groundwater analytical program. Table J-3 presents monitoring well construction details for background wells. Figures J-2 through J-7 show the locations at which monitoring wells were installed. Appendix J-1 presents lithologic descriptions of the subsurface encountered at each monitoring well location. Appendix J-2 presents construction diagrams for background wells.

Subsurface soil samples were collected during the installation of groundwater monitoring wells. Subsurface soil sample refers to a sample that was collected from a depth of greater 1 foot bls (i.e., 0 to 2 feet bls and deeper). Soil borings, separate from those for monitoring wells, were not completed during the background sampling program. All subsurface soil samples were collected from split-spoon samplers and represent 2-foot intervals. Subsurface soil sampling designators indicate (1) the completed well number from which the sample was collected and (2) the depth of the top of the interval sampled (e.g., for sample CFBBMS1S6, "BBMS" indicates that the sample was collected during installation of background well, "1S" (CFBK1S), from a depth of 6 to 8 feet bls. Table J-2 summarizes the subsurface soil analytical program. Sampling locations and the depths from which subsurface soil samples were collected are shown on Figures J-2 through J-7.

J.2 RESULTS OF BACKGROUND SAMPLING.

J.2.1 **Surface Soil** Chemical analytical data from the collection and analyses of background surface soil samples is summarized (detections only) in Table J-4. Complete analytical data from the analyses of surface soil samples are presented in Appendix J-3. Appendix J-4 presents the precision, accuracy, representativeness, completeness, comparability (PARCCs) summary report for background samples. The PARCC report assesses quality control measures taken during the sampling and analytical efforts and comments on the suitability of the data for interpretative uses. Two duplicate samples were collected; the sample designator ends with "D" for duplicate samples.

Volatile organics compounds (VOCs) were not detected in any of the samples analyzed (VOCs, therefore, do not appear in Table J-4). Four semivolatile organic compounds (SVOCs) were reported. Three of the SVOCs reported (diethylphthalate, di-n-butylphthalate, and bis(2-ethylhexyl)phthalate) are phthalate esters. These phthalate esters are common laboratory contaminants and may not be representative of existing site conditions at the background locations. The fourth SVOC detected, phenol, was detected at 5 of the 15 background locations sampled at concentrations ranging from 190 J μg/kg (micrograms per kilogram) to 21 J μg/kg. The presence of phenol in the surface soil at background locations is not unexpected as phenol (in the low microgram per kilogram levels) is produced by the decomposition of leaf litter.

Surface soil samples were analyzed for TCL pesticides and polychlorinated biphenyls (PCBs). No detections of PCBs were reported during the analyses of

Table J-3
Background Monitoring Well Construction Details

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Well Number	Date Installed	Top of Casing Elevation (feet, msl)	Length of Casing Above Land Surface[1] (feet)	Land Surface Elevation[2] (feet, msl)	Length of Screen (feet)	Total Depth of Well[3] (feet)	Screen Slot Size (inches)	Construction/Remarks	Drilling Method
Background									
CEF-BK-1S	08/05/93	66.77	2.47	64.30	10	16.0	0.010	2" PVC Silica Sand Pack 20/30	HSA
CEF-BK-2S	08/05/93	84.09	2 36	81.73	10	16.0	0.010	2" PVC Silica Sand Pack 20/30	HSA
CEF-BK-3I	08/09/93	84.06	2.33	81.73	10	48 0	0.010	2" PVC Silica Sand Pack 20/30	HSA/ODEX
CEF-BK-4S	08/08/93	78.17	2.47	75 70	10	16.0	0.010	2" PVC Silica Sand Pack 20/30	HSA
CEF-BK-5S	08/08/93	76.96	2.26	74.70	10	16 0	0.010	2" PVC Silica Sand Pack 20/30	HSA
CEF-BK-6I	08/10/93	77.15	2.22	74.93	10	48.5	0.010	2" PVC Silica Sand Pack 20/30	HSA/ODEX
CEF-BK-7S	08/09/93	80.28	2.40	77.88	10	16.0	0.010	2" PVC Silica Sand Pack 20/30	HSA
CEF-BK-8S	08/09/93	80.19	2.39	77.80	10	16.0	0.010	2" PVC Silica Sand Pack 20/30	HSA
CEF-BK-9I	08/16/93	80.09	3.37	76.72	10	63.0	0.010	2" PVC Silica Sand Pack 20/30	HSA/ODEX

[1]Measured from land surface elevation.
[2]Elevation of northeast corner of concrete pad.
[3]Measured from land surface elevation; includes any sump

Notes: msl = mean sea level datum.
" = inch.
PVC = polyvinyl chloride.
HSA = hollow-stem auger.
ODEX = reverse circulation.

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Table J-4
Background Surface Soil Analytical Summary

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Locator:	CEFBSS01	CEFBSS02	CEFBSS02D	CEFBSS03	CEFBSS04	CEFBSS05	CEFBSS06	CEFBSS07	CEFBSS08	CEFBSS09
Collect Date:	19-Jul-93	19-Jul-93	19-Jul-93	19-Jul-93	19-Jul-93	20-Jul-93	20-Jul-93	20-Jul-93	20-Jul-93	20-Jul-93
Semivolatiles Organic Compounds (SVOCs) (µg/kg)										
Phenol	52 J	--	--	--	--	--	190 J	--	--	22 J
Diethylphthalate	--	--	--	--	--	--	--	--	--	--
Di-n-butylphthalate	34 J	--	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	48 J	51 J	42 J	--	--	--	--	48 J	52 J	--
Pesticides and PCBs (µg/kg)										
4,4'-DDE	--	--	--	--	--	--	--	--	--	--
Endrin	--	--	.32 J	--	--	--	--	--	--	.97 J
Endosulfan II	--	--	--	--	--	--	--	--	--	--
Endrin aldehyde	--	--	--	0.45	--	--	--	--	--	--
Inorganic Compounds (mg/kg)										
Aluminum	4,720	18,500	23,600	24,000	8,400	680	344	284	2,130	442
Arsenic	--	1.4 J	--	2.2 J	--	--	--	--	--	--
Barium	5.4 J	13.4 J	19.3 J	13.4 J	6.8 J	2.4 J	--	--	2.9 J	--
Calcium	--	--	--	--	--	--	--	--	--	--
Chromium	5.9	18.4	23.6	24.9	10.6	--	--	--	--	--
Iron	716	6,090	7,440	7,140	1,500	252	194	136	454	119
Lead	4.8	10.3	10.6	8.3	7.6	2.4	2.7	--	3.6	--
Magnesium	123 J	326 J	425 J	319 J	129 J	24.4 J	--	--	55.7 J	--
Manganese	8.8	9	10.1	10.9	4.8	4.1	4.1	3.6	3.7	--
Nickel	2 J	5.2 J	6.1 J	5.4 J	1 5 J	--	--	--	--	--
Potassium	69.7 J	199 J	255 J	236 J	87.5 J	--	--	--	--	--
Vanadium	4.9 J	20.2	23.8	30.7	10.9	1.9 J	1.6 J	1.3 J	3 J	1.3 J
TPH (mg/kg)	--	--	--	--	14	--	--	13	23	--

See notes at end of table.

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Table J-4 (Continued)
Background Surface Soil Summary

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Locator:	CEFBSS09D	CEFBSS10	CEFBSS11	CEFBSS12	CEFBSS13	CEFBSS14	CEFBSS15
Collect Date:	20-Jul-93	20-Jul-93	20-Jul-93	20-Jul-93	20-Jul-93	20-Jul-93	20-Jul-93
SVOCs (µg/kg)							
Phenol	21 J	--	--	--	23 J	--	--
Diethylphthalate	--	--	19 J	--	--	--	--
Di-n-butylphthalate	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	--	--	--	17 J	--	--	--
Pesticides and PCBs (µg/kg)							
4,4'-DDE	--	0.51	.21 J	--	--	.26 J	--
Endrin	--	--	--	--	--	--	--
Endosulfan II	--	--	--	--	--	--	.33 J
Endrin aldehyde	--	--	--	--	--	--	--
Inorganic Compounds (mg/kg)							
Aluminum	557	183	195	2,350	2,770	2,170	1,430
Arsenic	--	--	--	--	--	--	.22 UJB
Barium	2.4 J	2.1 J	2.6 J	3.7 J	4.1 J	4.8 J	6.8 JB
Calcium	--	269 J	211 J	--	220 J	--	217 J
Chromium	--	--	--	--	--	2.3	--
Iron	154	102	69.6	480	734	636	367
Lead	4	2.3	2.5	3.5	5.1	3.7	3.5
Magnesium	--	50.4 J	36.1 J	69 8 J	69.1 J	75.9 J	50 J
Manganese	--	5.2	2.5 J	5.5	5	5.9	3.8
Nickel	--	--	--	--	--	--	--
Potassium	--	--	--	--	--	--	--
Vanadium	1.4 J	1.5 J	1.3 J	3.3 J	3.9 J	3.3 J	2.6 J
TPH (mg/kg)	--	35	18	11	25	58	12

Notes: µg/kg = micrograms per kilogram.
-- = not detected.
J = estimated.
4,4'-DDE = 4,4-dichlorodiphenyldichloroethene.
PCBs = polychlorinated biphenyls.
TPH = total petroleum hydrocarbons.
mg/kg = milligrams per kilogram.

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background surface soil samples. Four pesticides were reported during the analyses of surface soil samples: 6 of the 15 locations sampled had reported detections. Pesticide detections ranged from a high of 0.97 J μg/kg of Endrin to a low of 0.21 J μg/kg of 4,4'-dichlorodiphenyl dichloroethene (DDE). No sampling location had more than one pesticide detection reported.

TAL metals analyses were completed on each surface soil sample. Inorganics analyses are presented in Table J-4. Table J-5 presents descriptive statistics for inorganics in surface soil (data from all 15 sampling locations are included in Table J-5).

Because of the various soil types sampled and the various parts of the base present in the background surface soil database, the surface soil data were analyzed to determine if separate populations were present or if the surface soil data should be considered as a single population. The statistical population analysis consisted of running a Student T-Test using a 95 percent confidence interval and comparing soil units from the E, S, and W locations (Figure J-1) in several different combinations. The results of this analysis, presented in Appendix J-4, indicated that the S1 location represented a distinct population and the remaining locations (E1, E2, S2, W1, and W2) could be considered be as a single population. The S1 location (Figure J-4) is the Arents background location; Arents was the soil unit mapped for part of Site 5.

To assess if the S1 location represented soil native to the facility or consisted of imported fill, the analyses of surface soil samples from the S1 location were compared with subsurface soil samples. The comparison was completed for analytical results from all intervals sampled (0 to 2, 2 to 4, 4 to 6, and 6 to 8 feet bls). This analysis, presented in Appendix J-4, indicated that the S1 location was not significantly different from the subsurface soil at the site, with the comparison to the 4 to 6 and 6 to 8 feet bls intervals being the best match to the S1 surface soil population. Therefore, the S1 location is considered to represent surface soil that has been disturbed, as the Arent designation by the soil survey implies, and that it could be derived from within the facility by reworking existing soil from deeper depths (0 to 8 feet bls).

The soil from each pit at Site 5 and Site 17 was excavated, and probably set to one side of the pit or removed from the site. After operations ceased either the soil from the pit or soil from an offsite source was placed back into the pit. In either case, the excavation and replacement of the soil would destroy any soil profile, creating in its stead characteristics similar to that of Arents. For this reason, the S1 background surface soil sampling location was selected as the background location for surface soil at Sites and 5 and 17. Table J-6 presents descriptive statistics for inorganics for surface soil from the S1 location.

J.2.2 Subsurface Soil Subsurface soil samples were collected during the installation of background groundwater monitoring wells. Samples were collected from above the water table and from the screened interval of monitoring wells. Samples collected above the water table (total of 19) were analyzed for full TCL organics and TAL metals and other samples were only submitted for sieve or total organic carbon analysis. Table J-2 summarizes the chemical analytical program

Table J-5
Descriptive Statistics for Background Surface Soil[1]

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Chem.name	Min.dl	Max.dl	Min.lv	Max.lv	ADL.Avg	Median	Num.Det/ Tot.Sample
Aluminum	N/A	N/A	183	24,000	5,456.18	2,130	17/17
Antimony	3.2	3.7	N/A	N/A	N/A	U 3.3	0/17
Arsenic	0.21	0.86	1.4	2.2	1.8	UJ 0.25	2/17
Barium	1.2	2	2.1	19.3	6.44	J 3.7	14/17
Beryllium	0.21	0.25	N/A	N/A	N/A	U 0.22	0/17
Cadmium	0.84	0.99	N/A	N/A	N/A	U 0.88	0/17
Calcium	67.7	198	211	269	229.25	U 119	4/17
Chromium	1.7	1.8	2.3	24.9	14.28	U 1.8	6/17
Cobalt	1.3	1.5	N/A	N/A	N/A	U 1.3	0/17
Copper	0.43	2.3	N/A	N/A	N/A	U 0.7	0/17
Cyanide	0.48	0.6	N/A	N/A	N/A	U 0.53	0/17
Iron	N/A	N/A	69.6	7,440	1,563.74	454	17/17
Lead	2	2.1	2.3	10.6	4.99	3.6	15/17
Magnesium	12.6	18.8	24.4	425	134.88	J 55.7	13/17
Manganese	0.69	1.2	2.5	10.9	5.8	4.8	15/17
Mercury	0.1	0.13	N/A	N/A	N/A	U 0.11	0/17
Nickel	1.5	1.6	1.5	6.1	4.04	U 1.5	5/17
Potassium	13.8	39.9	69.7	255	169.44	U 33.9	5/17
Selenium	0.21	0.25	N/A	N/A	N/A	U 0.22	0/17
Silver	0.84	0.99	N/A	N/A	N/A	U 0.88	0/17
Sodium	149	241	N/A	N/A	N/A	U 182	0/17
Thallium	0.41	0.5	N/A	N/A	N/A	U 0.44	0/17
Vanadium	N/A	N/A	1.3	30.7	6.88	J 3	17/17
Zinc	2.4	20.2	N/A	N/A	N/A	U 4.1	0/17

[1]Background surface samples taken at sample locations CEFBSS01, CEFBSS02, CEFBSS03, CEFBSS04, CEFBSS05, CEFBSS06, CEFBSS07, CEFBSS08, CEFBSS09, CEFBSS10, CEFBSS11, CEFBSS12, CEFBSS13, CEFBSS14, and CEFBSS15.

Notes: Chem.name = chemical name.
Min.dl = minimum reported detection level.
Max.dl = maximum reported detection level.
Min.lv = minimum level reported.
Max.lv = maximum level reported.
ADL.Avg = above detection level average value.
Median is median of all values above and below detection level.
Num.Det/Tot.Sample = number of detects / total number sampled.

Table J-6
Descriptive Statistics for Surface Soil from Site 1 Location

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Chem.name	Min.dl	Max.dl	Min.lv	Max.lv	ADL.Avg	ADL.SD	Median	Num.Det/ Tot.Sample
Aluminum	N/A	N/A	4,720.000	24,000.000	15,844.000	8,844.302	18,500.000	5/5
Antimony	3.200	3.700	N/A	N/A	N/A	N/A	3.300 U	0/5
Arsenic	0.250	2.200	1.400	2.200	1.800	0.566	1.400 J	2/5
Barium	N/A	N/A	5.400	19.300	11.660	5.640	13.400 J	5/5
Beryllium	0.210	0.250	N/A	N/A	N/A	N/A	0.220 U	0/5
Cadmium	0.860	0.990	N/A	N/A	N/A	N/A	0.890 U	0/5
Calcium	67.700	167.000	N/A	N/A	N/A	N/A	111.000 U	0/5
Chromium	N/A	N/A	5.900	24.900	16.680	8.240	18.400	5/5
Cobalt	1.300	1.500	N/A	N/A	N/A	N/A	1.300 U	0/5
Copper	0.430	0.950	N/A	N/A	N/A	N/A	0.760 U	0/5
Cyanide	0.490	0.600	N/A	N/A	N/A	N/A	0.540 U	0/5
Iron	N/A	N/A	716.000	7,440.000	4,577.200	3,218.313	6,090.000	5/5
Lead	N/A	N/A	4.800	10.600	8.320	2.347	8.300	5/5
Magnesium	N/A	N/A	123.000	425.000	264.400	133.131	319.000 J	5/5
Manganese	N/A	N/A	4.800	10.900	8.720	2.351	9.000	5/5
Mercury	0.110	0.130	N/A	N/A	N/A	N/A	0.120 U	0/5
Nickel	N/A	N/A	1.500	6.100	4.040	2.124	5.200 J	5/5
Potassium	N/A	N/A	69.700	255.000	169.440	85.567	199.000 J	5/5
Selenium	0.220	0.250	N/A	N/A	N/A	N/A	0.220 U	0/5
Silver	0.860	0.990	N/A	N/A	N/A	N/A	0.890 U	0/5
Sodium	159.000	241.000	N/A	N/A	N/A	N/A	182.000 U	0/5
Thallium	0.430	0.500	N/A	N/A	N/A	N/A	0.440 U	0/5
Vanadium	N/A	N/A	4.900	30.700	18.100	10.268	20.200	5/5
Zinc	4.400	10.100	20.200	20.200	20.200	N/A	8.500 U	1/5

Notes: Chem.name = chemical name.
Min.dl = minimum reported detection level.
Max.dl = maximum reported detection level.
Min.lv = minimum level reported.
Max.lv = maximum level reported.
ADL.Avg = above detection level average value.
Median = median of all values above and below detection level.
Num.Det/Tot.Sample = number of detects / total number sampled.
N/A = not applicable.

completed for subsurface soil. Table J-7 summarizes the detections reported during TCL and TAL analysis of background subsurface soil. Complete analytical data from the analyses of subsurface soil samples is presented in Appendix J-3. Appendix J-4 presents the PARCC summary report for background samples.

VOCs were not reported during the analyses of background subsurface soil samples. One SVOC, pentachlorophenol, was reported in subsurface soil samples. Pentachlorophenol was used widely in the past as a wood preservative. Two detections of pentachlorophenol were reported at concentrations of 180 J and 420 J μg/kg during the installation of background wells CFBK1S and CFBK2S, respectively (Figures J-4 and J-5). Both detections were reported in the sample collected from the 6 to 8 feet bls sampling interval. Pentachlorophenol was not reported in other subsurface soil samples or groundwater samples collected from these two wells. The analytical laboratory re-analyzed these two samples (CFBBMS1S6 and CFBBMS2S6) because of poor surrogate recoveries. Detections of pentachlorophenol were not reported during these re-analyses. The original analyses (with the pentachlorophenol detections), however, were included in the summary table because the re-analyzed samples were extracted outside of holding-time requirements.

TCL pesticide and PCB analyses were also completed on subsurface soil samples. Two pesticides, 4,4'-DDT and 4,4'-DDD (the latter is a breakdown product of 4,4'-DDT) were reported. Both detections were reported in the 0- to 2-foot bls sample I interval collected during the installation of well CFBK1S. The maximum pesticide detection was 0.73 μg/kg of 4,4'-DDT. One PCB, Aroclor-1260, was reported at a concentration of 9.7 J μg/kg in the 2- to 4-feet bls sample interval collected during the installation of background monitoring well CFBK2S.

Table J-7 presents the detections reported during the analyses of background subsurface soil. Table J-8 presents descriptive statistics for inorganics in subsurface soil. Subsurface soil samples were also submitted for geotechnical testing. The results of these analyses are presented in Appendix J-6

Appendix J-5 presents gradation curves for sieve analyses completed on background subsurface soil.

J.2.3 **Groundwater Sampling** Groundwater samples were collected from each of the nine wells in the background monitoring well network. As with surface and subsurface soil, all groundwater samples were analyzed for full TCL inorganics and TAL metals (filtered and unfiltered). Table J-2 summarizes the chemical analytical program completed for groundwater. Groundwater sampling logs, including measurements of temperature, conductivity, pH, and turbidity taken during purging, are presented in Appendix J-7. Table J-9 summarizes the detections reported for the background groundwater samples. Complete analytical data from the analyses of groundwater samples are presented in Appendix J-3. Appendix J-4 presents the PARCC summary report for background samples. Wet chemistry analyses for several parameters (anions, hardness, alkalinity, total dissolved solids, etc.) were also completed for background groundwater samples. Appendix J-8 presents the results of the wet chemistry analyses.

Groundwater monitoring wells were installed only in the surficial aquifer. Six wells were completed in the upper part of the surficial aquifer; screens in these wells were set to intercept the water table. Groundwater monitoring wells were also completed in the lower part of the surficial aquifer. Nine background wells were installed; six were completed across the water table (with an "S" in the well designator) and three wells were completed in the lower part of the surficial aquifer (with an "I" designator). Appendices J-1 and J-2 present lithologic logs and monitoring well construction diagrams (respectively) for background wells.

Four VOCs were reported during the analyses of background groundwater samples (acetone, carbon disulfide, toluene, and xylene). The maximum reported VOC detection was 23 micrograms per liter ($\mu g/\ell$) of acetone in a sample from well CFBK3I (Figure J-5). The other three VOCs were only reported during the analyses of groundwater from one well, CFBK9I (Figure J-3). The maximum reported concentration was 2 $\mu g/\ell$ (for toluene and xylene).

Four SVOCs were reported during the analyses of groundwater samples (phenol, naphthalene, 2-methylnaphthalene, and bis(2-ethylhexyl)phthalate). Bis(2-ethylhexyl)phthalate was the most frequently reported SVOC (present in eight of nine samples) with a maximum concentration of 3 J $\mu g/\ell$ in a sample from well CFBK9I. Phenol was reported in two of the groundwater samples (CFBK3I and CFBK9I) at a maximum concentration of 4 J $\mu g/\ell$ in CFBK3I. Naphthalene and 2-methylnaphthalene were reported only in the sample from CFBK9I; both at concentrations of 0.5 J $\mu g/\ell$.

Groundwater samples were also analyzed for TCL pesticides and PCBs. No detections were reported.

Both filtered and unfiltered groundwater samples from background wells were submitted for TAL metals analyses. Filtering was completed on samples from all wells because the fine-grained nature of the aquifer materials at NAS Cecil Field causes samples collected with a bailer to have a high turbidity. Table J-9 presents the results of the inorganics analyses for groundwater samples. Table J-10 presents descriptive statistics for inorganics in groundwater samples from the upper surficial aquifer wells. Table J-11 presents descriptive statistics for inorganics in groundwater samples from the lower part of the surficial aquifer. Filtered results are indicated in Tables J-10 and J-11 by a "DISS" (indicating dissolved) before the parameter name.

Several rounds of water level measurements have been collected from the background monitoring wells. Water level data from background groundwater monitoring wells are presented in Appendix H (of the OU 2 RI report).

Table J-7
Background Subsurface Soil Summary

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Locator:	CFBBMS1S0	CFBBMS1S6	CFBBMS2S2	CFBBMS2S6	CFBBMS3I2	CFBBMS3I6	CFBBMS4S2	CFBBMS4S4	CFBBMS5S2	CFBBMS5S6
Collect Date:	5-Aug-93	5-Aug-93	6-Aug-93	6-Aug-93	9-Aug-93	9-Aug-93	8-Aug-93	8-Aug-93	8-Aug-93	8-Aug-93
Semivolatiles Organic Compounds (SVOCs) (µg/kg)										
Pentachlorophenol	--	420 J	--	180 J	--	--	--	--	--	--
Pesticides and PCBs (µg/kg)										
4,4'-DDD	0.68 J	--	--	--	--	--	--	--	--	--
4,4'-DDT	0.73 J	--	--	--	--	--	--	--	--	--
Aroclor-1260	--	--	9.7 J	--	--	--	--	--	--	--
Inorganic Compounds (mg/kg)										
Aluminum	5,920	7,040	877	9,630	934 J	15,600 J	1,360 J	7,770 J	1,160 J	10,000 J
Arsenic	0.65 J	--	--	0.98 J	--	--	--	--	--	--
Barium	7.8 J	4.7 J	--	6.8 J	--	7 7	--	10.6 J	--	6.8 J
Calcium	127 J	102 J	103 J	109 J	--	--	--	--	--	--
Chromium	--	--	--	12.2	2.5	15.1	2.7	11.1	2.5	10.4
Copper	--	--	--	--	--	--	--	--	--	--
Iron	4,360	2,100	208	4,270	206 J	5,660 J	418 J	1,080 J	293 J	2,640 J
Lead	6.8 J	3.6 J	1.6 J	5.4 J	--	18.8	2.8	11.6	--	8.3
Magnesium	79.6 J	80.2 J	--	76.8 J	--	185	--	123 J	--	153 J
Manganese	4.5	4.3	--	--	--	--	--	4.1	--	--
Mercury	--	--	--	--	--	--	--	--	--	--
Nickel	--	--	--	--	--	2.6 J	--	1.9 J	--	1.8 J
Potassium	54.1 J	64.9 J	--	50.6 J	17 J	130	--	72.9 J	--	129 J
Sodium	138 J	142 J	117 J	136 J	--	--	--	--	--	--
Vanadium	10.5 J	6.4 J	1.4 J	14	--	15.1	--	--	--	6.6 J
TPH (mg/kg)	--	--	--	--	--	--	--	--	--	--

See notes at end of table.

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Table J-7 (Continued)
Background Subsurface Soil Summary

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Locator:	CFBBMS6I0	CFBBMS6I6	CFBBMS7S0	CFBBMS7S0D	CFBBMS7S4	CFBBMS8S2	CFBBMS8S6	CFBBMS9I0	CFBBMS9I6
Collect Date.	10-Aug-93	10-Aug-93	9-Aug-93	9-Aug-93	9-Aug-93	9-Aug-93	9-Aug-93	16-Aug-93	16-Aug-93
SVOCs (μg/kg)									
Pentachlorophenol	--	--	--	--	--	--	--	--	--
Pesticides and PCBs (μg/kg)									
4,4'-DDD	--	--	--	--	--	--	--	--	--
4,4'-DDT	--	--	--	--	--	--	--	--	--
Aroclor-1260	--	--	--	--	--	--	--	--	--
Inorganic Compounds (mg/kg)									
Aluminum	1,910	15,500	710 J	547 J	3,620 J	1,590 J	9,720 J	2,130	5,680
Arsenic	--	--	--	--	--	--	--	--	--
Barium	2.2 J	9.8 J	4.4 J	--	--	--	10.3 J	--	5.5 J
Calcium	162 J	133 J	312 J	216 J	--	--	--	277 J	--
Chromium	--	17.4	2.2 J	--	6	2.2	12	2.7	6.7
Copper	--	0.58 J	--	--	--	--	--	--	--
Iron	449	1,940	195 J	116 J	104 J	191 J	598 J	207 J	671 J
Lead	3	9.2	3.6	--	3.8	--	13	3 J	6.7 J
Magnesium	--	239 J	11.5 J	--	--	--	90.5 J	--	60.1 J
Manganese	3.6	3.2 J	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--	--	--
Nickel	--	3.3 J	--	--	--	--	3.9 J	--	--
Potassium	17.1 J	158 J	--	--	--	--	70.4 J	--	--
Sodium	--	179 J	--	--	225 J	--	--	--	--
Vanadium	--	11 J	--	--	--	--	6.2 J	1.7 J	4 J

Notes: μg/kg = micrograms per kilogram.
-- = not detected.
J = estimated.
4,4'-DDD = 4,4'-dichlorodiphenyldichloroethane.
4,4'-DDE = 4,4'-dichlorodiphenyldichloroethene.
PCBs = polychlorinated biphenyls.
mg/kg = milligrams per kilogram.
TPH = total petroleum hydrocarbons.

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Table J-8
Descriptive Statistics for Background Subsurface Soil[1]

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Chem.name	Min.dl	Max.dl	Min.lv	Max.lv	ADL.Avg	Median	Num.Det/ Tot.Sample
Aluminum	N/A	N/A	547.000	15,600.000	5,566.313	4,650.000	16/16
Antimony	3.100	3.600	N/A	N/A	N/A	3.400 U	0/16
Arsenic	0.410	1.800	0.650	0.650	0.650	0.465 U	1/16
Barium	1.700	3.100	2.200	10.600	6.980	4.550 B	10/16
Beryllium	0.210	0.240	N/A	N/A	N/A	0.230 U	0/16
Cadmium	0.840	0.970	N/A	N/A	N/A	0.915 U	0/16
Calcium	74.200	107.000	102.000	312.000	175.333	104.500 U	6/16
Chromium	1.700	1.800	2.200	17.400	7.829	6.350	14/16
Cobalt	1.300	1.500	N/A	N/A	N/A	1.400 U	0/16
Copper	0.420	2.400	0.580	1.800	1.227	0.840 U	3/16
Cyanide	0.510	0.600	N/A	N/A	N/A	0.565 U	016
Iron	N/A	N/A	104.000	5,660.000	1,313.813	523.500 J	16/16
Lead	1.200	2.100	2.800	18.800	7.600	3.700	12/16
Magnesium	11.000	41.100	11.500	239.000	113.544	50.600 J	9/16
Manganese	0.660	2.100	3.200	4.500	3.940	1.850 U	5/16
Mercury	0.050	0.130	0.550	0.550	0.550	0.110 UJ	1/16
Nickel	1.500	2.500	1.800	3.900	2.700	1.650 U	5/16
Potassium	14.200	49.500	17.000	158.000	73.470	40.700 U	10/16
Selenium	0.210	0.630	N/A	N/A	N/A	0.295 UJ	0/16
Silver	0.840	0.970	N/A	N/A	N/A	0.915 U	0/16
Sodium	52.000	139.000	138.000	225.000	171.000	133.500 U	4/16
Thallium	0.200	0.240	N/A	N/A	N/A	0.230 UJ	0/16
Vanadium	0.910	5.100	1.700	15.100	7.688	3.550 J	8/16
Zinc	0.980	5.900	6.800	7.200	7.000	3.400 U	2/16

[1]Descriptive statistics for selected inorganic parameters for background subsurface soil taken at sample locations CEFBBMS1S0, CEFBBMS1S6, CEFBBMS2S2, CEFBBMS2S6, CEFBBMS3I2, CEFBBMS3I6, CEFBBMS4S2, CEFBBMS4S4, CEFBBMS5S2, CEFBBMS5S6, CEFBBMS6I0, CEFBBMS6I6, CEFBBMS7S0, CEFBBMS7S4, CEFBBMS8S2, CEFBBMS8S6, CEFBBMS9I0, and CEFBBMS9I6.

Notes: Chem.name = chemical name.
Min.dl = minimum reported detection level.
Max.dl = maximum reported detection level.
Min.lv = minimum level reported.
Max.lv is maximum level reported.
ADL.Avg = above detection level average value.
Median is median of all values above and below detection level.
Num.Det/Tot.Sample = number of detects / total number sampled.

Table J-9
Background Groundwater Analytical Summary

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Locator:	CFBK1S	CFBK1SF	CFBK2S	CFBK2SF	CFBK3I	CFBK3IF	CFBK4S	CFBK4SF	CFBK5S	CFBK5SF
Collect Date:	12-Sep-93	12-Sep-93	12-Sep-93	12-Sep-93	12-Sep-93	12-Sep-93	9-Sep-93	9-Sep-93	9-Sep-93	9-Sep-93
Volatile Organic Compounds (VOCs) (μg/ℓ)										
Acetone	--		--		23 J		--		--	
Carbon disulfide	--		--		--		--		--	
Toluene	--		--		--		--		--	
Xylenes (total)	--		--		--		--		--	
Semivolatile Organic Compounds (SVOCs) (μg/ℓ)										
Phenol	--		--		4 J		--		--	
Naphthalene	--		--		--		--		--	
2-Methylnaphthalene	--		--		--		--		--	
bis(2-Ethylhexyl)phthalate	0.6 J		2 J		1 J		2 J		2 J	
Inorganic Compounds (μg/ℓ)										
Aluminum	168,000 J	1,030 J	275,000 J	--	1,810 J	259 J	313,000 J	233 J	163,000 J	573 J
Arsenic	5.1 J	--	3.4 J	--	12.5 J	9 J	7.1 J	--	--	--
Barium	81.4 J	--	177 J	--	35 J	29.7 J	193 J	--	126 J	--
Calcium	1,300 J	--	2,730 J	942 J	1,720 J	1,210 J	2,730 J	1,170 J	2,080 J	--
Chromium	137 J	--	230 J	--	--	--	218 J	--	119 J	--
Cobalt	9.5 J	--	22.4 J	--	--	--	17.8 J	--	13.7 J	--
Copper	21.1 J	--	33.8	--	--	--	31.1	--	24.2 J	--
Iron	33,600 J	2,460	58,200 J	--	1,320 J	948 J	24,400 J	189 J	21,400 J	--
Lead	26.2 J	1.6 J	42 J	3.5 J	3.5 J	2.2 J	72.5 J	1.3 J	59 2 J	1.7 J
Magnesium	2,740 J	717 J	6,630	741 J	1,000 J	1,020 J	7,100	776 J	4,310 J	391 J
Manganese	35.3	--	70	11.5 J	10.4 J	--	42	--	42.2	--
Mercury	0.14 J	--	0.35	--	--	--	0.49	--	0.33	--
Nickel	42.1	--	103	--	11.1 J	--	84.1	--	52.7	--
Potassium	2,240 J	--	3,690 J	--	1,030 J	1,280 J	5,900	--	3,890 J	--
Selenium	--	--	--	--	1.8 J	--	--	--	--	--
Sodium	7,400	6,350	5,300	3,670 J	5,680	6,310	7,120	5,280	6,890	5,290
Vanadium	130	--	243	--	6.9 J	--	162	4.2 J	118	5.3 J
Zinc	--	--	114	--	--	--	--	--	--	--
TPH (mg/ℓ)	--		--		--		--		--	

See notes at end of table.

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Table J-9 (Continued)
Background Groundwater Analytical Summary

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Locator:	CFBK6I	CFBK6IF	CFBK7S	CFBK7SF	CFBK8S	CFBK8SF	CFBK9I	CFBK9IF
Collect Date:	9-Sep-93	9-Sep-93	9-Sep-93	9-Sep-93	9-Sep-93	9-Sep-93	9-Sep-93	9-Sep-93
VOCs (μg/ℓ)								
Acetone	--		--		--		--	
Carbon disulfide	--		--		--		1	
Toluene	--		--		--		2	
Xylenes (total)	--		--		--		2	
SVOCs (μg/ℓ)								
Phenol	--		--		--		3 J	
Naphthalene	--		--		--		.5 J	
2-Methylnaphthalene	--		--		--		.5 J	
bis(2-Ethylhexyl)phthalate	2 J		--		.6 J		3 J	
Inorganic Compounds (μg/ℓ)								
Aluminum	475 J	--	173,000 J	461 J	493,000 J	5,810 J	2,700 J	--
Arsenic	--	--	4.5 J	2.2 J	--	2.1 J	27.3 J	21.3
Barium	--	--	121 J	17.4 J	241	--	37.1 J	37.1 J
Calcium	--	--	2,740 J	1,030 J	3,340 J	2,820 J	2,280 J	2,660 J
Chromium	--	--	160 J	--	489 J	12.2	--	--
Cobalt	--	--	10.7 J	--	48.6 J	--	59.9	56.3
Copper	--	--	55.1	--	129	--	--	--
Iron	264 J	--	13,200 J	3,010 J	34,400 J	1,100 J	7,830 J	6,110 J
Lead	1.7 J	1.5 J	150 J	1.8 J	115 J	4.4 J	4.5 J	1.3 J
Magnesium	514 J	522 J	3,290 J	1,290 J	8,290	695 J	774 J	735 J
Manganese	--	--	28.7	--	57.6	--	--	10.1 J
Mercury	--	--	1.1	0.12 J	2.3	--	--	--
Nickel	--	--	46.2	--	131	8.7 J	115	110
Potassium	673 J	583 J	1,710 J	158 J	5,450	--	1,110 J	1,130 J
Selenium	--	--	4.6 J	--	13 J	--	--	--
Sodium	4,410 J	4,520 J	9,990	8,290	3,090 J	2,510 J	3,000 J	3,240 J
Vanadium	--	--	167	7.1 J	226	5.2 J	6.9 J	--
Zinc	--	--	--	--	--	--	42.6	--
TPH (mg/ℓ)	0.5		--		--		--	

Notes: μg/ℓ = micrograms per liter.
-- = not detected.
J = estimated.
TPH = total petroleum hydrocarbons.
mg/ℓ = milligrams per liter.

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Table J-10
Descriptive Statistics for Groundwater, Upper Surficial Aquifer Wells

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Chem.name	Min.dl	Max.dl	Min.lv	Max.lv	ADL.Avg	Median	Num.Det/ Tot.Sample
Alkalinity, bicarbonate	5	5	8	14	12	6.5	3/6
Alkalinity, carbonate	5	5	N/A	N/A	N/A	U 5	0/6
Alkalinity, total	20	20	N/A	N/A	N/A	U 20	0/6
Aluminum	N/A	N/A	N/A	493,000	264,166.67	J 224,000	6/6
Antimony	15	15	N/A	N/A	N/A	UJ 15	0/6
Arsenic	2	8	3.4	7.1	5.025	J 4.8	4/6
Barium	N/A	N/A	81.4	241	156.57	J 151.5	6/6
Beryllium	1	3.7	N/A	N/A	N/A	U 2.05	0/6
Cadmium	5.5	12	N/A	N/A	N/A	U 6.6	0/6
Calcium	N/A	N/A	1,300	3,340	2,486.67	J 2,730	6/6
Chloride	N/A	N/A	3	59	15.5	7.5	6/6
Chromium	N/A	N/A	0.12	489	112.86	J 59.745	12/12
Cobalt	N/A	N/A	9.5	48.6	20.45	J 15.75	6/6
Copper	N/A	N/A	21.1	129	49.05	32.45	6/6
Cyanide	5	5	N/A	N/A	N/A	UJ 5	0/6
Diss. aluminum	207	207	233	5,810	1,621.4	J 517	5/6
Diss. antimony	15	15	N/A	N/A	N/A	U 15	0/6
Diss. arsenic	2	2	2.1	2.2	2.15	U 2	2/6
Diss. barium	5.8	15	17.4	17.4	17.4	U 9.65	1/6
Diss. beryllium	1	1	N/A	N/A	N/A	U 1	0/6
Diss. cadmium	4	4.1	N/A	N/A	N/A	U 4	0/6
Diss. calcium	447	692	942	2,820	1,490.5	J 986	4/6
Diss. chromium	8	8	12.2	12.2	12.2	U 8	1/6
Diss. cobalt	6	6	N/A	N/A	N/A	U 6	0/6
Diss. copper	2	5.3	N/A	N/A	N/A	U 2	0/6
Diss. iron	94.5	102	189	3,010	1,689.75	J 644.5	4/6
Diss. lead	N/A	N/A	1.3	4.4	2.38	J 1.75	6/6
Diss. magnesium	N/A	N/A	391	1,290	768.33	J 729	6/6
Diss. manganese	6	8.7	11.5	11.5	11.5	U 7.9	1/6
Diss. mercury	0.1	0.1	0.12	0.12	0.12	U 0.1	1/6
Diss. nickel	7	7	8.7	8.7	8.7	U 7	1/6
Diss. potassium	146	278	158	158	158	U 198.5	1/6
Diss. selenium	1	1	N/A	N/A	N/A	U 1	0/6
Diss. silver	4	6.9	N/A	N/A	N/A	U 4	0/6
Diss. sodium	N/A	N/A	2,510	8,290	5,231.67	5,285	6/6
Diss. thallium	1	1	N/A	N/A	N/A	U 1	0/6
Diss. vanadium	4	4	4.2	7.1	5.45	J 4.7	4/6
Diss. zinc	11.5	45.7	N/A	N/A	N/A	U 22.7	0/6
Hardness	5	62.5	8	220	79.33	U 30	3/6
Hexavalent chromium	0.02	0.02	N/A	N/A	N/A	UJ 0.02	0/6
Iron	N/A	N/A	13,200	58,200	30,866.67	J 29,000	6/6
Lead	N/A	N/A	26.2	150	77.48	J 65.85	6/6
Magnesium	N/A	N/A	2,740	8,290	5,393.33	5,470	6/6
Manganese	N/A	N/A	28.7	70	45.97	42.1	6/6
Mercury	N/A	N/A	0.14	2.3	0.785	0.42	6/6
Nickel	N/A	N/A	42.1	131	76.52	68.4	6/6
Potassium	N/A	N/A	1,710	5,900	3,813.33	J 3,790	6/6
Selenium	5	5	4.6	13	8.8	UJ 5	2/6
Silver	4	6.5	N/A	N/A	N/A	U 4	0/6
Sodium	N/A	N/A	3,090	9,990	6,631.67	7,005	6/6
Sulfate	5	5	11	52	31.5	U 5	2/6
Sulfide	1	1	1	1	1	U 1	1/6
Thallium	1	1	N/A	N/A	N/A	U 1	0/6
Total dissolved solids	N/A	N/A	61	940	254.17	119	6/6
Total organic carbon	N/A	N/A	31	160	95.5	95.5	2/2
Vanadium	N/A	N/A	118	243	174.33	164.5	6/6
Zinc	28.8	86.4	114	114	114	U 58.5	1/6

See notes on next page.

Table J-10 (Continued)
Descriptive Statistics for Groundwater, Upper Surficial Aquifer Wells

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Notes: Chem.name = chemical name.
Min.dl = minimum reported detection level.
Max.dl = maximum reported detection level.
Min.lv = minimum level reported.
Max.lv is maximum level reported.
ADL.Avg = above detection level average value.
Median is median of all values above and below detection level.
Num.Det/Tot.Sample = number of detects / total number sampled.
Diss. = dissolved; results from filtered analysis.

Table J-11
Descriptive Statistics for Groundwater, Lower Surficial Aquifer Wells

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Chem.name	Min.dl	Max.dl	Min.lv	Max.lv	ADL.Avg	Median	Num.Det/ Tot.Sample
Alkalinity, bicarbonate	5	5	6	6	6	U 5	1/3
Alkalinity, carbonate	5	5	N/A	N/A	N/A	U 5	0/3
Alkalinity, total	20	20	N/A	N/A	N/A	U 20	0/3
Aluminum	N/A	N/A	475	2,700	1,661.67	J 1,810	3/3
Antimony	15	15	N/A	N/A	N/A	UJ 15	0/3
Arsenic	2	2	12.5	27.3	19.9	J 12.5	2/3
Barium	13	13	35	37.1	36.05	J 35	2/3
Beryllium	1	1	N/A	N/A	N/A	U 1	0/3
Cadmium	4	4	N/A	N/A	N/A	U 4	0/3
Calcium	595	595	1,720	2,280	2,000	J 1,720	2/3
Chloride	N/A	N/A	2	11	6.33	6	3/3
Chromium	0.02	8	N/A	N/A	N/A	UJ 4.01	0/6
Cobalt	6	6	59.9	59.9	59.9	U 6	1/3
Copper	4.6	6	N/A	N/A	N/A	U 5.8	0/3
Cyanide	5	5	N/A	N/A	N/A	UJ 5	0/3
Diss. aluminum	70.3	123	259	259	259	U 123	1/3
Diss. antimony	15	15	N/A	N/A	N/A	U 15	0/3
Diss. arsenic	2	2	9	21.3	15.15	J 9	2/3
Diss. barium	9.8	9.8	29.7	37.1	33.4	J 29.7	2/3
Diss. beryllium	1	1	N/A	N/A	N/A	U 1	0/3
Diss. cadmium	4	4	N/A	N/A	N/A	U 4	0/3
Diss. calcium	621	621	1,210	2,660	1,935	J 1,210	2/3
Diss. chromium	8	8	N/A	N/A	N/A	U 8	0/3
Diss. cobalt	6	6	56.3	56.3	56.3	U 6	1/3
Diss. copper	2	3.7	N/A	N/A	N/A	U 2	0/3
Diss. iron	78.6	78.6	948	6,110	3,529	J 948	2/3
Diss. lead	N/A	N/A	1.3	2.2	1.67	J 1.5	3/3
Diss. magnesium	N/A	N/A	522	1,020	759	J 735	3/3
Diss. manganese	4.9	8.7	10.1	10.1	10.1	U 8.7	1/3
Diss. mercury	0.1	0.1	N/A	N/A	N/A	U 0.1	0/3
Diss. nickel	7	7	110	110	110	U 7	1/3
Diss. potassium	N/A	N/A	583	1,280	997.67	J 1,130	3/3
Diss. selenium	1	1	N/A	N/A	N/A	U 1	0/3
Diss. silver	4	4	N/A	N/A	N/A	U 4	0/3
Diss. sodium	N/A	N/A	3,240	6,310	4,690	J 4,520	3/3
Diss. thallium	1	1	N/A	N/A	N/A	U 1	0/3
Diss. vanadium	4	4	N/A	N/A	N/A	U 4	0/3
Diss. zinc	38.5	72.7	N/A	N/A	N/A	U 60.5	0/3
Hardness	5	5	7	46	26.5	7	2/3
Hexavalent chromium	0.02	0.02	N/A	N/A	N/A	UJ 0.02	0/3
Iron	N/A	N/A	264	7,830	3,138	J 1,320	3/3
Lead	N/A	N/A	1.7	4.5	3.23	J 3.5	3/3
Magnesium	N/A	N/A	514	1,000	762.67	J 774	3/3
Manganese	3.7	8.4	10.4	10.4	10.4	U 8.4	1/3
Mercury	0.1	0.1	N/A	N/A	N/A	U 0.1	0/3
Nickel	7	7	11.1	115	63.05	J 11.1	2/3
Potassium	N/A	N/A	673	1,110	937.67	J 1,030	3/3
Selenium	1	1	1.8	1.8	1.8	U 1	1/3
Silver	4	7.4	N/A	N/A	N/A	U 4	0/3
Sodium	N/A	N/A	3,000	5,680	4,363.33	J 4,410	3/3
Sulfate	5	5	16	16	16	U 5	1/3
Sulfide	1	1	2	2	2	U 1	1/3
Thallium	1	1	N/A	N/A	N/A	U 1	0/3
Total dissolved solids	N/A	N/A	40	64	48	40	3/3
Total organic carbon	N/A	N/A	8	8	8	8	1/1
Vanadium	4	4	6.9	6.9	6.9	J 6.9	2/3
Zinc	29.2	45.2	42.6	42.6	42.6	42.6	1/3

See notes on next page.

Table J-11 (Continued)
Descriptive Statistics for Groundwater, Lower Surficial Aquifer Wells

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Notes: Chem.name = chemical name.
Min.dl = minimum reported detection level.
Max.dl = maximum reported detection level.
Min.lv = minimum level reported.
Max.lv is maximum level reported.
ADL.Avg = above detection level average value.
Median is median of all values above and below detection level.
Num.Det/Tot.Sample = number of detects / total number sampled.
Diss. = dissolved; results from filtered analysis.

APPENDIX J-1

LITHOLOGIC BORING LOGS FOR BACKGROUND WELLS

TITLE: Nas Cecil Field, RI OUs 1,2,7	**LOG of WELL:** CEF-BK-1S	**BORING NO.**
CLIENT: SOUTHDIVNAVFACENCOM		**PROJECT NO:** 8500-10
CONTRACTOR: Hardin Huber Incorporated	**DATE STARTED:** 8-5-93	**COMPLTD:** 8-6-93
METHOD: Mobil Drill B-53 w/4.25"ID HSA	**CASE SIZE:** 2" **SCREEN INT.:** 5-15	**PROTECTION LEVEL:** D
TOC ELEV.: 66.77 FT.	**MONITOR INST.:** Microtip-PID **TOT DPTH:** 16FT.	**DPTH TO ▽** 6 FT.
LOGGED BY: R. White	**WELL DEVELOPMENT DATE:** 8-6,8-19-93	**SITE:** Background

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN
	0-2 soi		100%	12	0-3.5 *Sand (SW)*, 100%, fine grained, reddish gray to reddish brown.		SW	5-7-12-20
			100%	11.3				10-19-30-33
			100%	0.5	3.5-16.0 *Clayey Silty Sand (SM)*, 100%, reddish yellow to pinkish gray.		SM	11-17-27-23
5			100%					
	6-8 soi 6-8 (v)		90%	6.5	Groundwater encountered.			9-9-11-13
	8-10 (s)		85%	0				6-6-5-6
10			90%	0				140-12-3-3
			75%	0				3-5-6-6
			75%	0				7-7-9-5
15					End of boring.			
20								

WELL DATA

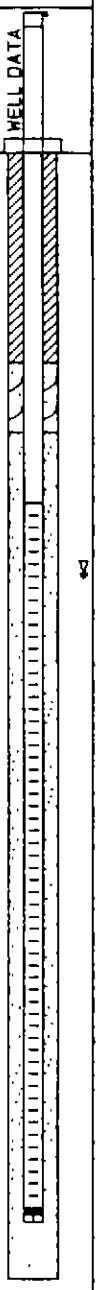


 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field, RI OUs 1,2,7	**LOG of WELL:** CEF-BK-2S	**BORING NO.**
CLIENT: SOUTHNAVFACENCOM		**PROJECT NO:** 8500-10
CONTRACTOR: Hardin Huber Incorporated	**DATE STARTED:** 8-5-93	**COMPLTD:** 8-6-93
METHOD: Mobil Drill B-53 w/4.25"ID HSA	**CASE SIZE:** 2" / **SCREEN INT.:** 5-15	**PROTECTION LEVEL:** D
TOC ELEV.: 84.09 FT.	**MONITOR INST.:** Microtip-PID / **TOT DPTH:** 16FT.	**DPTH TO ▽** 5.5 FT.
LOGGED BY: R. White	**WELL DEVELOPMENT DATE:** 8-6/8-18-93	**SITE:** Background

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN
			100%	0	0-4.0 *Sand (SM)*, 100%, grayish brown to very dark grayish brown, very fine to fine grained, sub-rounded to sub-angular, well sorted, trace phosphate.		SM	3-2-3-3
	2-4 soil		95%	0	very dark grayish brown to pale yellow.			3-4-4-6
5			90%	0	4.0-8.0 *Clayey Sand (SC)*, 100%, yellowish red to light grayish brown, very fine to fine grained, trace phosphate, well sorted.		SC	4-5-6-14
	6-8 soil 6-8 (v)		95%	0	Groundwater encountered.			8-16-17-15
	8-10 (s)		100%	0	8.0-16.0 *Sand (SM)*, 100%, light grayish brown to reddish brown, very fine to fine grained, sub-angular to sub-rounded.		SM	3-4-8-13
10			80%	0				3-3-4-2
			90%	0				3-3-5-3
15			n/a	n/a				2-3-3-5
					End of boring.			
20								

WELL DATA

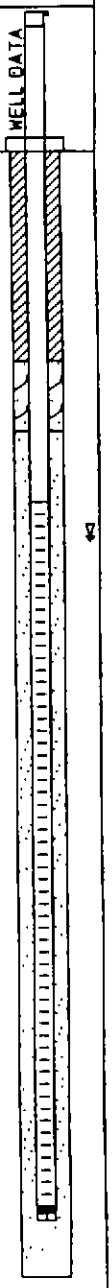


 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field, RI OUs 1,2,7		**LOG of WELL:** CEF-BK-3D	**BORING NO.**
CLIENT: SOUTHNAVFACENCOM			**PROJECT NO:** 8500-10
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 8-9-93	**COMPLTD:** 8-10-93
METHOD: Mobil Drill B-80 odex tools	**CASE SIZE:** 2"	**SCREEN INT.:** 37-47	**PROTECTION LEVEL:** D
TOC ELEV.: 84.06 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 48FT.	**DPTH TO ▽** 7 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 8-10/18/19/22-93		**SITE:** Background

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN
			100%	0	0-5.0 *Silty Sand (SM)*, 100%, gray to dark brown, qtz, very fine to fine grained, sub-angular to sub-rounded, well sorted, dry, loose.		SM	4-4-5-6
	2-4 soil		100%	0	pale yellow, moist.			5-6-10-8
			100%	0				5-4-5-9
5			100%		5.0-48.0 *Clayey Sand (SC)*, 100%, brownish yellow to gray, qtz, very fine to fine grained, well sorted, slightly plastic, moist, compact.		SC	
	6-8 soil		100%	0				10-18-26-19
					Groundwater encountered. Less clay @ 7.5-8.0, yellowish red.			
					begin drilling odex.			
10								
15					pale brown.			
20								

WELL DATA

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field, RI OUs 1,2,7		**LOG of WELL:** CEF-BK-3D	**BORING NO.**
CLIENT: SOUTHNAVFACENCOM			**PROJECT NO:** 8500-10
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 8-9-93	**COMPLTD:** 8-10-93
METHOD: Mobil Drill B-80 odex tools	**CASE SIZE:** 2"	**SCREEN INT.:** 37-47	**PROTECTION LEVEL:** D
TOC ELEV.: 84.06 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 48FT.	**DPTH TO ∇** 7 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 8-10/18/19/22-93		**SITE:** Background

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1				
					Clayey Sand continued.		SC		
25									
30					pale brown.				
35									
40									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field, RI OUs 1,2,7		**LOG of WELL:** CEF-BK-3D	**BORING NO.**
CLIENT: SOUTHNAVFACENCOM			**PROJECT NO:** 8500-10
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 8-9-93	**COMPLTD:** 8-10-93
METHOD: Mobil Drill B-80 odex tools	**CASE SIZE:** 2"	**SCREEN INT.:** 37-47	**PROTECTION LEVEL:** D
TOC ELEV.: 84.06 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 48FT.	**DPTH TO ∇** 7 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 8-10/18/19/22-93		**SITE:** Background

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 2				
					Clayey Sand continued.		SC		
					olive gray to dark olive gray.				
45									
					48.0 *Clay (CH)*, 100%, dark olive gray, plastic, medium soft, moist.		CH		
50					End of boring.				
55									
60									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field, RI OUs 1,2,7	**LOG of WELL:** CEF-BK-4S	**BORING NO.**
CLIENT: SOUTHNAVFACENCOM		**PROJECT NO:** 8500-10
CONTRACTOR: Hardin Huber Incorporated	**DATE STARTED:** 8-8-93	**COMPLTD:** 8-8-93
METHOD: Mobil Drill B-53 w/4.25"ID HSA	**CASE SIZE:** 2" **SCREEN INT.:** 5-15	**PROTECTION LEVEL:** D
TOC ELEV.: 78.17 FT.	**MONITOR INST.:** Microtip-PID **TOT DPTH:** 16FT.	**DPTH TO ∇** 6 FT.
LOGGED BY: R. White	**WELL DEVELOPMENT DATE:** 8-8/22-93	**SITE:** Background

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN
			100%	0	0-16.0 *Sand (SM)*, 100%, very dark gray to dark brown to light yellowish brown, very fine to fine grained, sub-rounded to sub-angular, well sorted.		SM	2-3-3-5
	2-4 soi		100%	0	pale yellow.			3-7-8-5
	4-6 soi		100%	0	wet @ 4', saturated @ 5'.			2-1-1-1
5				n/a	Groundwater encountered.			woh
				n/a				1-1-2-1
10				n/a	light gray to pale yellow.			1-2-2-2
				n/a				1-1-2-1
				n/a				1-1-2-1
15					End of boring.			
20								

WELL DATA

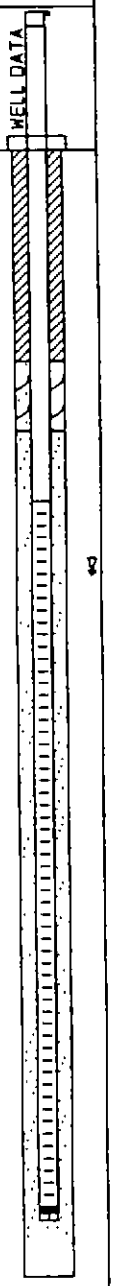


 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field, RI OUs 1,2,7	**LOG of WELL:** CEF-BK-5S	**BORING NO.**
CLIENT: SOUTHNAVFACENCOM		**PROJECT NO:** 8500-10
CONTRACTOR: Hardin Huber Incorporated	**DATE STARTED:** 8-8-93	**COMPLTD:** 8-8-93
METHOD: Mobil Drill B-53 w/4.25"ID HSA	**CASE SIZE:** 2" / **SCREEN INT.:** 5-15	**PROTECTION LEVEL:** D
TOC ELEV.: 76.96 FT.	**MONITOR INST.:** Microtip-PID / **TOT DPTH:** 16FT.	**DPTH TO ∇** 6 FT.
LOGGED BY: R. White	**WELL DEVELOPMENT DATE:** 8-8/22-93	**SITE:** Background

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN
			100%	0	0-5.5 *Sand (SW)*, 100%, dark gray to dark grayish brown, very fine to fine grained, well sorted, rounded to sub-angular.		SW	2-2-3-5
	2-4 soi		100%	0				3-1-17-14
			95%	0	dark gray to white, white to brownish yellow.			3-7-14-7
5								
	6-8 soi		85%	0	5.5-10.0 *Clayey Sand (SC)*, 100%, brownish yellow to yellowish red, very fine to fine grained, well sorted, sub-rounded to sub-angular. Groundwater encountered.		SC	4-7-9-9
	8-10 (s)		85%	n/a	pinkish gray to light gray.			2-3-4-3
10			90%	n/a	10.0-16.0 *Sand (SW)*, 100%, light gray, very fine grained, sub-rounded to sub-angular, well sorted.		SW	3-4-3-5
			90%	n/a				woh-12-3-4
			90%	n/a				woh-4-4-5
15					End of boring.			
20								

WELL DATA

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field, RI OUs 1,2,7		**LOG of WELL:** CEF-BK-6D	**BORING NO.**
CLIENT: SOUTHNAVFACENCOM			**PROJECT NO:** 8500-10
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 8-10-93	**COMPLTD:** 8-11-93
METHOD: Mobil Drill B-80 odex tools	**CASE SIZE:** 2"	**SCREEN INT.:** 37-47	**PROTECTION LEVEL:** D
TOC ELEV.: 77.15 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 48.5FT.	**DPTH TO ∇** 7 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 8-16/22/24/25/30/31-93		**SITE:** Background

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN
	0-2 soi		100%	0	0-5.5 *Sand (SW)*, 100%, very pale brown, qtz, very fine to fine grained, well sorted, loose, dry, rounded to sub-angular.		SW	3-4-4-6
			100%	0	white to light brown.			5-7-10-12
			100%	0	white to dark gray.			26-10-12-9
5			100%		5.5-10 *Clayey Sand (SC)*, 100%, brownish yellow to yellow, qtz, very fine to fine grained, slightly plastic, medium dense, wet to saturated.		SC	
	6-8 soi		100%	0	Groundwater encountered.			3-5-7-9
					Begin odex drilling.			
10					10.0-48.0 *Sand (SW)*, 100%, qtz, brown, very fine to fine grained, well sorted, loose, saturated, rounded to sub-angular.		SW	
15					very pale brown.			
20								

WELL DATA

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field, RI OUs 1,2,7		**LOG of WELL:** CEF-BK-6D	**BORING NO.**
CLIENT: SOUTHNAVFACENCOM			**PROJECT NO:** 8500-10
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 8-10-93	**COMPLTD:** 8-11-93
METHOD: Mobil Drill B-80 odex tools	**CASE SIZE:** 2"	**SCREEN INT.:** 37-47	**PROTECTION LEVEL:** D
TOC ELEV.: 77.15 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 48.5FT.	**DPTH TO ∇** 7 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 8-16/22/24/25/30/31-93		**SITE:** Background

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1		SW		
					Sand continued.				
					brown, some clay content.				
25					grayish brown.				
30					pale brown.				
35									
40									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field, RI OUs 1,2,7		**LOG of WELL:** CEF-BK-6D	**BORING NO.**
CLIENT: SOUTHNAVFACENCOM			**PROJECT NO:** 8500-10
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 8-10-93	**COMPLTD:** 8-11-93
METHOD: Mobil Drill B-80 odex tools	**CASE SIZE:** 2"	**SCREEN INT.:** 37-47	**PROTECTION LEVEL:** D
TOC ELEV.: 77.15 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 48.5FT.	**DPTH TO ∇** 7 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 8-16/22/24/25/30/31-93		**SITE:** Background

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 2				
					Sand continued.		SW		
45									
					48.0-48.5 *Clay (CH)*, 100%, very dark gray, plastic, medium stiff, moist.		CH		
					End of boring.				
50									
55									
60									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field, RI OUs 1,2,7		**LOG of WELL:** CEF-BK-7S	**BORING NO.**
CLIENT: SOUTHNAVFACENCOM			**PROJECT NO:** 8500-10
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 8-9-93	**COMPLTD:** 8-10-93
METHOD: Mobil Drill B-53 w/4.25"ID HSA	**CASE SIZE:** 2"	**SCREEN INT.:** 5-15	**PROTECTION LEVEL:** D
TOC ELEV.: 80.28 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 16FT.	**DPTH TO ▽** 6 FT.
LOGGED BY: R. White	**WELL DEVELOPMENT DATE:** 8-10/23-93		**SITE:** Background

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN
	0-2 soil dup		100%	0	0-16.0 *Sand (SM)*, 100%, black to very dark gray to gray, very fine to fine grained, well sorted, sub-rounded to sub-angular.		SM	6-7-8-7
			100%	0				7-8-12-15
	4-6 soil 4-6 (v)		95%	0	wet @3.8'.			7-8-9-11
5	6-8 (s)		90%	0	black, wet to saturated.			7-5-5-4
			85%	0	vbery silty.			12-15-18-23
10			80%	0	very dark brown.			18-25-33-37
			75%	0				7-12-21-25
15			80%	0				9-9-17-21
					End of boring.			
20								

WELL DATA

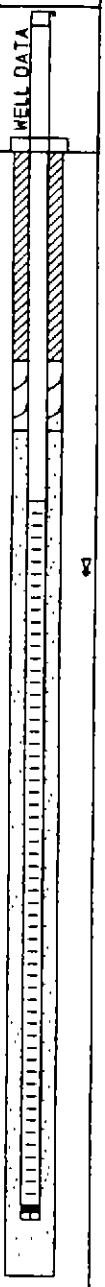


 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field, RI OUs 1,2,7	**LOG of WELL:** CEF-BK-8S	**BORING NO.**
CLIENT: SOUTHNAVFACENCOM		**PROJECT NO:** 8500-10
CONTRACTOR: Hardin Huber Incorporated	**DATE STARTED:** 8-9-93	**COMPLTD:** 8-9-93
METHOD: Mobil Drill B-53 w/4.25"ID HSA	**CASE SIZE:** 2" / **SCREEN INT.:** 5-15	**PROTECTION LEVEL:** D
TOC ELEV.: 80.19 FT.	**MONITOR INST.:** Microtip-PID / **TOT DPTH:** 16FT.	**DPTH TO ▽** 8 FT.
LOGGED BY: R. White	**WELL DEVELOPMENT DATE:** 8-10/23-93	**SITE:** Background

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN
			100%	0	0-4.5 *Sand (SW)*, 100%, light gray to gray to dark red, very fine to fine grained, sub-rounded to subangular, well sorted.		SW	2-2-8-10
	2-4 soi		100%	0	red to yellow red to very pale brown.			6-9-13-16
			80%	0	very damp.			5-7-11-15
5					4.5-7.5 *Clayey Sand (SC)*, 100%, white to pale brown to yellowish brown, very fine to fine grained, sub-rounded to sub-angular, well sorted.		SC	
	6-8 soi 6-8 (v)		100%	0	Groundwater encountered, brown to dark brown.			9-9-10-14
	8-10 (s		90%	0	7.5-16.0 *Sand (SW)*, 100%, brown to dark brown, very fine to fine grained, sub-rounded to sub-angular, well sorted.		SW	8-8-10-10
10			90%	n/a				3-3-2-5
			85%	n/a				5-5-8-8
15			80%	n/a				5-5-7-9
					End of boring.			
20								

WELL DATA

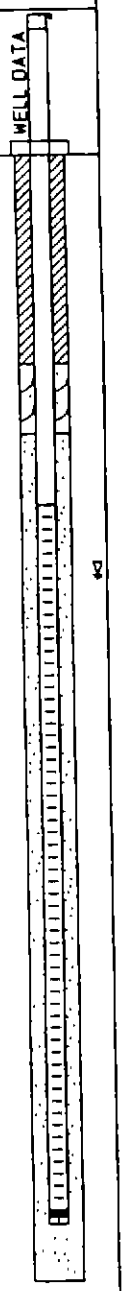


 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field, RI OUs 1,2,7		**LOG of WELL:** CEF-BK-9D	**BORING NO.**
CLIENT: SOUTHNAVFACENCOM			**PROJECT NO:** 8500-10
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 8-16-93	**COMPLTD:** 8-17-93
METHOD: Mobil Drill B-80 odex tools	**CASE SIZE:** 2"	**SCREEN INT.:** 50-60	**PROTECTION LEVEL:** D
TOC ELEV.: 80.09 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 63FT.	**DPTH TO ∇** 7 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 8-17/23-93		**SITE:** Background

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN
	0-2 soil ms,msd		100%	41.4	0-5.0 *Sand (SW)*, 100%, qtz, light gray to gray to dark red, very fine to fine grained, sub-rounded to sub-angular, loose, dry to moist, well sorted.		SW	3-4-13-8
			100%	11.1	red to yellow red to very pale brown.			8-9-15-8
				0				14-13-18-22
5			100%		5.0-8.0 *Clayey Sand (SC)*, 100%, qtz, white to pale brown to yellowish brown, very fine to fine grained, sub-rounded to sub-angular, medium dense, non plastic.		SC	
	6-8 soil			n/a				9-12-18-11
			100%		Groundwater encountered, brown to dark brown.			
					8.0-60.0 *Sand (SW)*, 100%, qtz, brown to dark brown, very fine to fine grained, sub-rounded to sub-angular, well sorted, loose, saturated.		SW	
10								
15								
20								

WELL DATA

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field, RI OUs 1,2,7		**LOG of WELL:** CEF-BK-9D	**BORING NO.**
CLIENT: SOUTHNAVFACENCOM			**PROJECT NO:** 8500-10
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 8-16-93	**COMPLTD:** 8-17-93
METHOD: Mobil Drill B-80 odex tools	**CASE SIZE:** 2"	**SCREEN INT.:** 50-60	**PROTECTION LEVEL:** D
TOC ELEV.: 80.09 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 63FT.	**DPTH TO ∇** 7 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 8-17/23-93		**SITE:** Background

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 1				
					Sand continued.		SW		
25									
30									
35					olive gray.				
40									

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field, RI OUs 1,2,7		**LOG of WELL:** CEF-BK-9D	**BORING NO.**
CLIENT: SOUTHNAVFACENCOM			**PROJECT NO:** 8500-10
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 8-16-93	**COMPLTD:** 8-17-93
METHOD: Mobil Drill B-80 odex tools	**CASE SIZE:** 2"	**SCREEN INT.:** 50-60	**PROTECTION LEVEL:** D
TOC ELEV.: 80.09 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 63FT.	**DPTH TO ∇** 7 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 8-17/23-93		**SITE:** Background

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 2				
					Sand continued, brown.		SW		
45									
50									
55					dark olive gray.				
	56-58 toc								
60	60-62 (s)						CH		

 ABB ENVIRONMENTAL SERVICES, INC.

TITLE: Nas Cecil Field, RI OUs 1,2,7		**LOG of WELL:** CEF-BK-9D	**BORING NO.**
CLIENT: SOUTHNAVFACENCOM			**PROJECT NO:** 8500-10
CONTRACTOR: Hardin Huber Incorporated		**DATE STARTED:** 8-16-93	**COMPLTD:** 8-17-93
METHOD: Mobil Drill B-80 odex tools	**CASE SIZE:** 2"	**SCREEN INT.:** 50-60	**PROTECTION LEVEL:** D
TOC ELEV.: 80.09 FT.	**MONITOR INST.:** Microtip-PID	**TOT DPTH:** 63FT.	**DPTH TO ∇** 7 FT.
LOGGED BY: A. Workman	**WELL DEVELOPMENT DATE:** 8-17/23-93		**SITE:** Background

DEPTH FT.	LABORATORY SAMPLE ID.	SAMPLE	RECOVERY	HEADSPACE (ppm)	SOIL/ROCK DESCRIPTION AND COMMENTS	LITHOLOGIC SYMBOL	SOIL CLASS	BLOWS/6-IN	WELL DATA
					Continued from PAGE 3				
					60.0-63.0 *Clay (CH)*, 100%, dark olive gray, plastic, medium stiff, moist.		CH		
					End of boring.				
65									
70									
75									
80									

 ABB ENVIRONMENTAL SERVICES, INC.

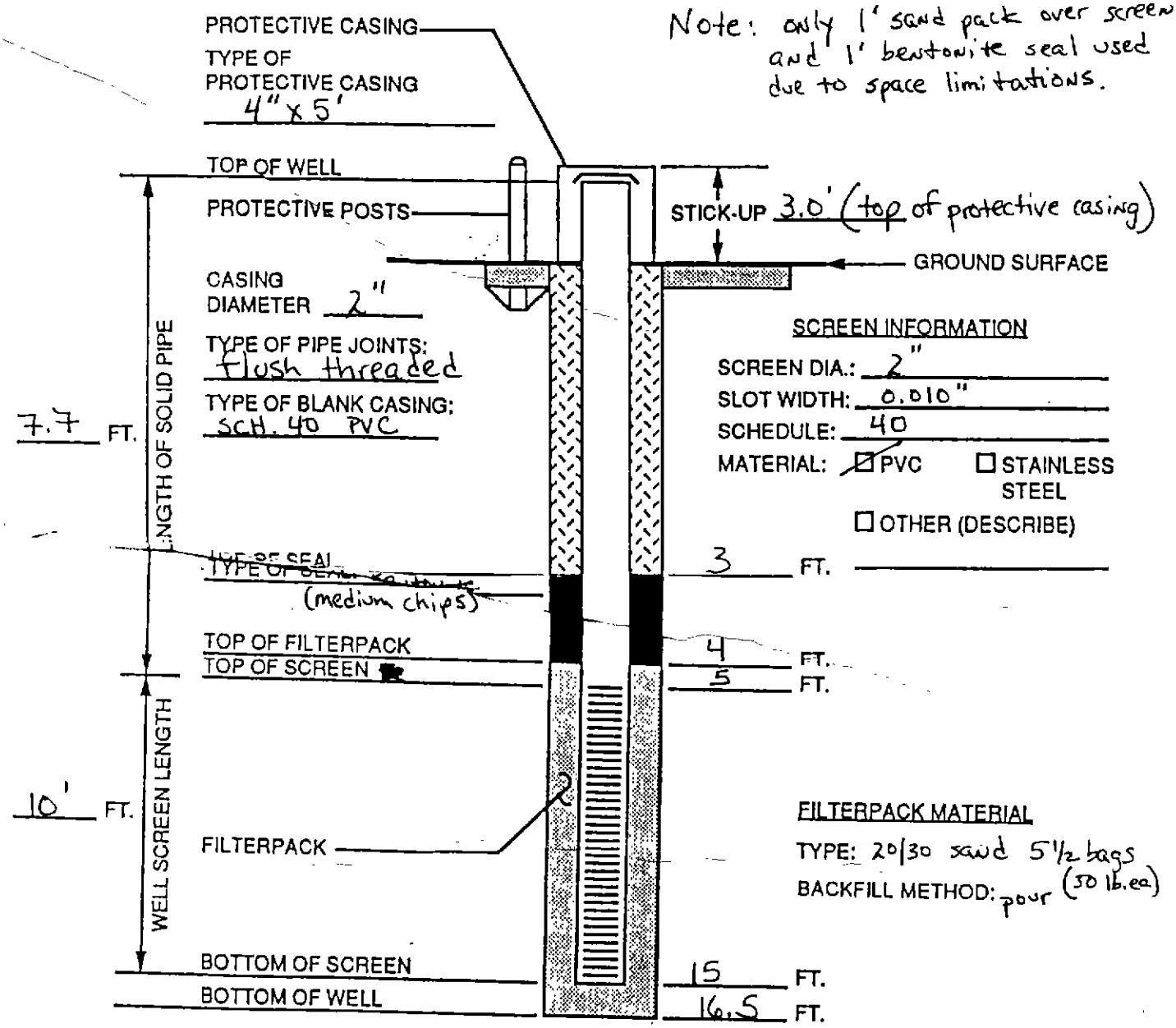
APPENDIX J-2

BACKGROUND MONITORING WELL CONSTRUCTION DIAGRAMS

ELEVATION GROUNDWATER			PROJECT: Cecil Field 8500-27
DATE INSTALLED: 8/6/93	STARTED: 8/5/93	COMPLETED: 8/6/93	LOCATION (Coordinates or Station): Background
ELEVATION TOP OF HOLE			SIGNATURE OF INSPECTOR: Aaron Cohen AJC
TOTAL DEPTH OF HOLE: 16.0'			HOLE NO. (As shown on drawing title and file number): CEF-BB-1S CEF-BK-1S

ABOVE GROUND MONITORING WELL CONSTRUCTION DIAGRAM

Note: only 1' sand pack over screen and 1' bentonite seal used due to space limitations.



WELL DEVELOPMENT

METHOD: Centrifugal Pump

TIME SPENT DEVELOPMENT: 25 min / 5 hrs 20 min

VOLUME OF WATER REMOVED: ~75 gal / 1180 gal

VOLUME OF WATER ADDED: NONE

DESCRIPTION OF PREDEVELOPMENT WATER: silty, cloudy

DESCRIPTION OF POST DEVELOPMENT WATER: clear, sediment free

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

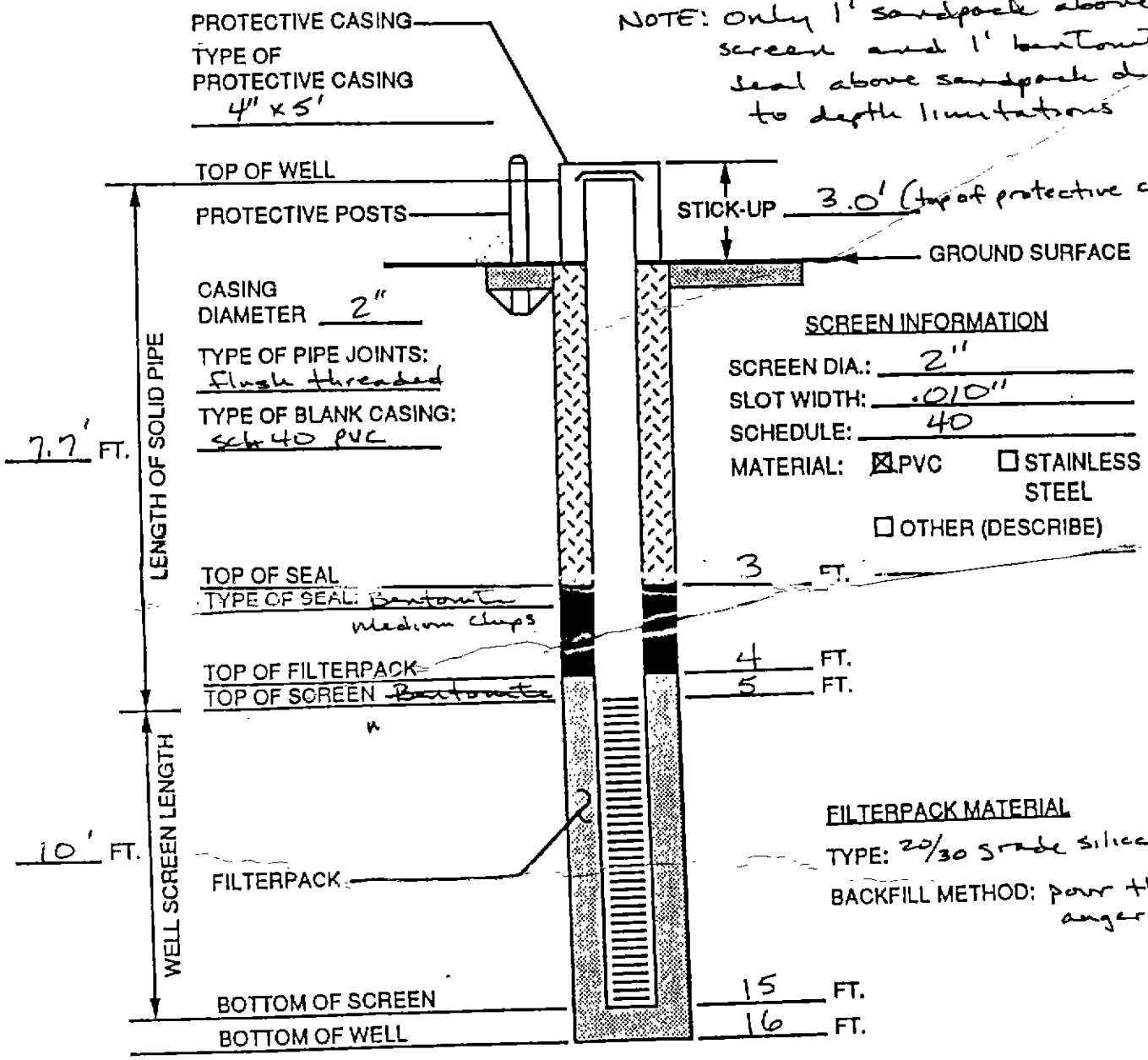
DATE/TIME/LEVEL		
8/6/93	0800	7.3' bls
8/18/93	1350	6.1' bls
Temp 85.8°F	PH 5.14	
Cond. 72.5	NTU 9.87	

DEPTH FROM TOP CASING AFTER DEVELOPMENT: 8/18/93 1700 hrs. 6.4' bls

ELEVATION GROUNDWATER —			PROJECT Cecil Field 8500-27
DATE INSTALLED 8/6/93	STARTED 8/6/93	COMPLETED 8/7/93	LOCATION (Coordinates or Station) OU-1 Background
ELEVATION TOP OF HOLE —			SIGNATURE OF INSPECTOR [signature]
TOTAL DEPTH OF HOLE 16.0'			HOLE NO. (As shown on drawing title and file number) CEF-BB-25 CEF-BK-~~25~~ 20

ABOVE GROUND MONITORING WELL CONSTRUCTION DIAGRAM

NOTE: Only 1' sandpack above screen and 1' bentonite seal above sandpack due to depth limitations



WELL DEVELOPMENT

METHOD: Centrifugal Pump

TIME SPENT DEVELOPMENT: 30 min | 2 hrs 20 min

VOLUME OF WATER REMOVED: ~95 gal | 725 gal

VOLUME OF WATER ADDED: None

DESCRIPTION OF PREDEVELOPMENT WATER: cloudy, silty light pale brown

DESCRIPTION OF POST DEVELOPMENT WATER: clear sediment free

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 8/18/93 1350 hrs 7.48' bls

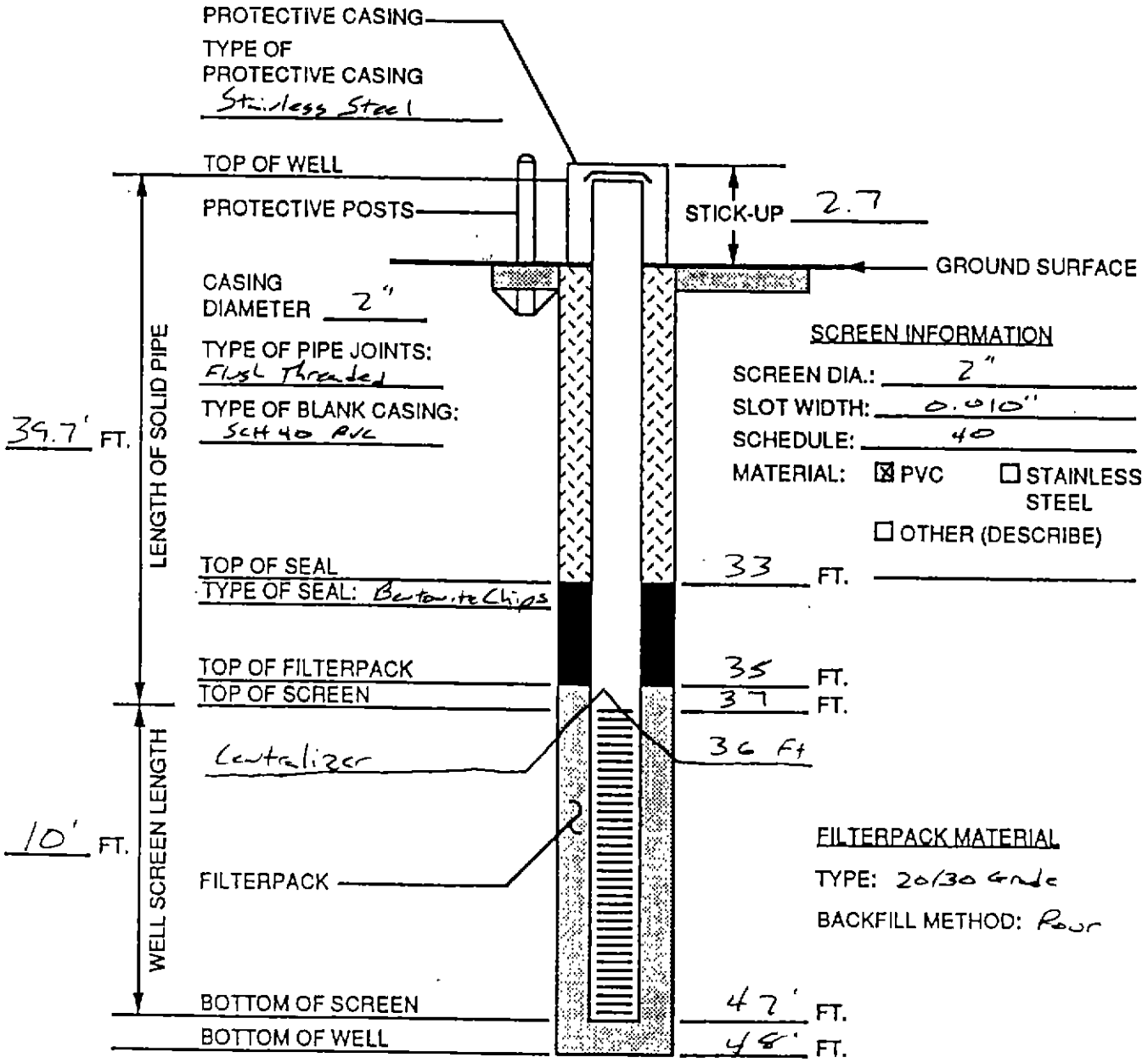
TEMP. 81.3 F Ph 5.12

COND. 33.7 NTU 6.67

DEPTH FROM TOP CASING AFTER DEVELOPMENT: 8/18/93 1700 hrs 7.52' bls

ELEVATION GROUNDWATER —			PROJECT R1 OU5 1,2,7
DATE INSTALLED 8-9-93	STARTED 8-9-93	COMPLETED 8-10-93	LOCATION (Coordinates or Station) Background
ELEVATION TOP OF HOLE —			SIGNATURE OF INSPECTOR [illegible] AR
TOTAL DEPTH OF HOLE 48'			HOLE NO. (As shown on drawing title and file number) CEF-BB-30 CEF-BK-3D

ABOVE GROUND MONITORING WELL CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: Centrifugal Pump

TIME SPENT DEVELOPMENT: 40 min / 19 HRS.

VOLUME OF WATER REMOVED: 600 Gal / 2550 GAL

VOLUME OF WATER ADDED: —

DESCRIPTION OF PREDEVELOPMENT WATER: Very Cloudy

DESCRIPTION OF POST DEVELOPMENT WATER: Very Cloudy

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 8/10/93 0845 5.2' bls.

8/22/93 1630 TEMP. 78.1 F Ph 5.10

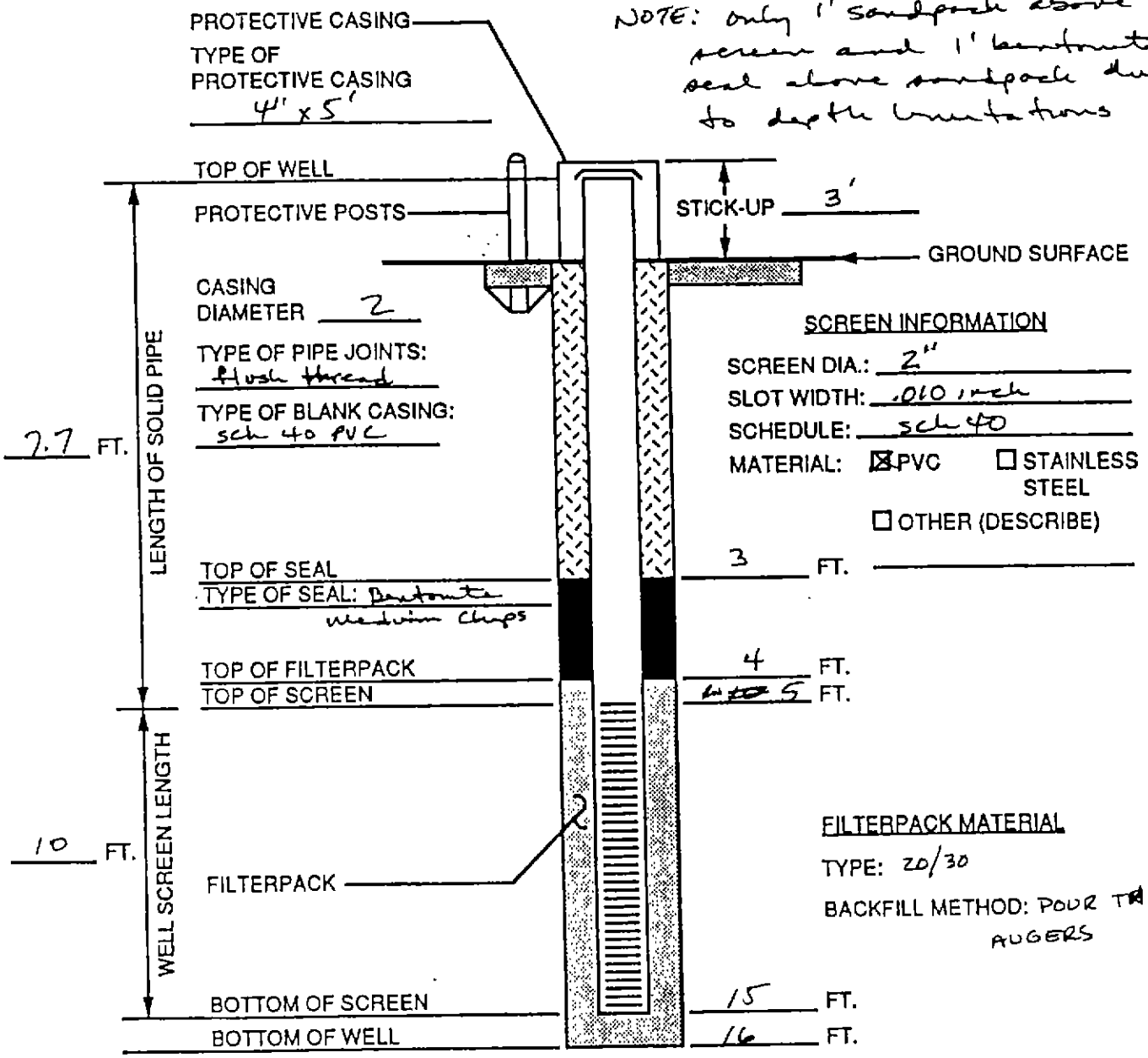
COND. 64.5 NTU 8.22

DEPTH FROM TOP CASING AFTER DEVELOPMENT: —

ELEVATION GROUNDWATER —			PROJECT Cecil Field 8500-27
DATE INSTALLED 8/7/93	STARTED 8/7/93	COMPLETED 8/8/93	LOCATION (Coordinates or Station) OU-1 Background
ELEVATION TOP OF HOLE —			SIGNATURE OF INSPECTOR Tom Holtz ATL
TOTAL DEPTH OF HOLE 16.0'			HOLE NO. (As shown on drawing title and file number) CEF-BB-45 CEF-BK-45

ABOVE GROUND MONITORING WELL CONSTRUCTION DIAGRAM

NOTE: only 1' sandpack above screen and 1' bentonite seal above sandpack due to depth limitations



WELL DEVELOPMENT

METHOD: Centrifugal Pump

TIME SPENT DEVELOPMENT: 25 min | 4 HRS.

VOLUME OF WATER REMOVED: 90 gal | 530 GAL.

VOLUME OF WATER ADDED: NONE

DESCRIPTION OF PREDEVELOPMENT WATER: turbid

DESCRIPTION OF POST DEVELOPMENT WATER: clear, non-turbid

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 8/8/93 1115 hrs 5.8' bls

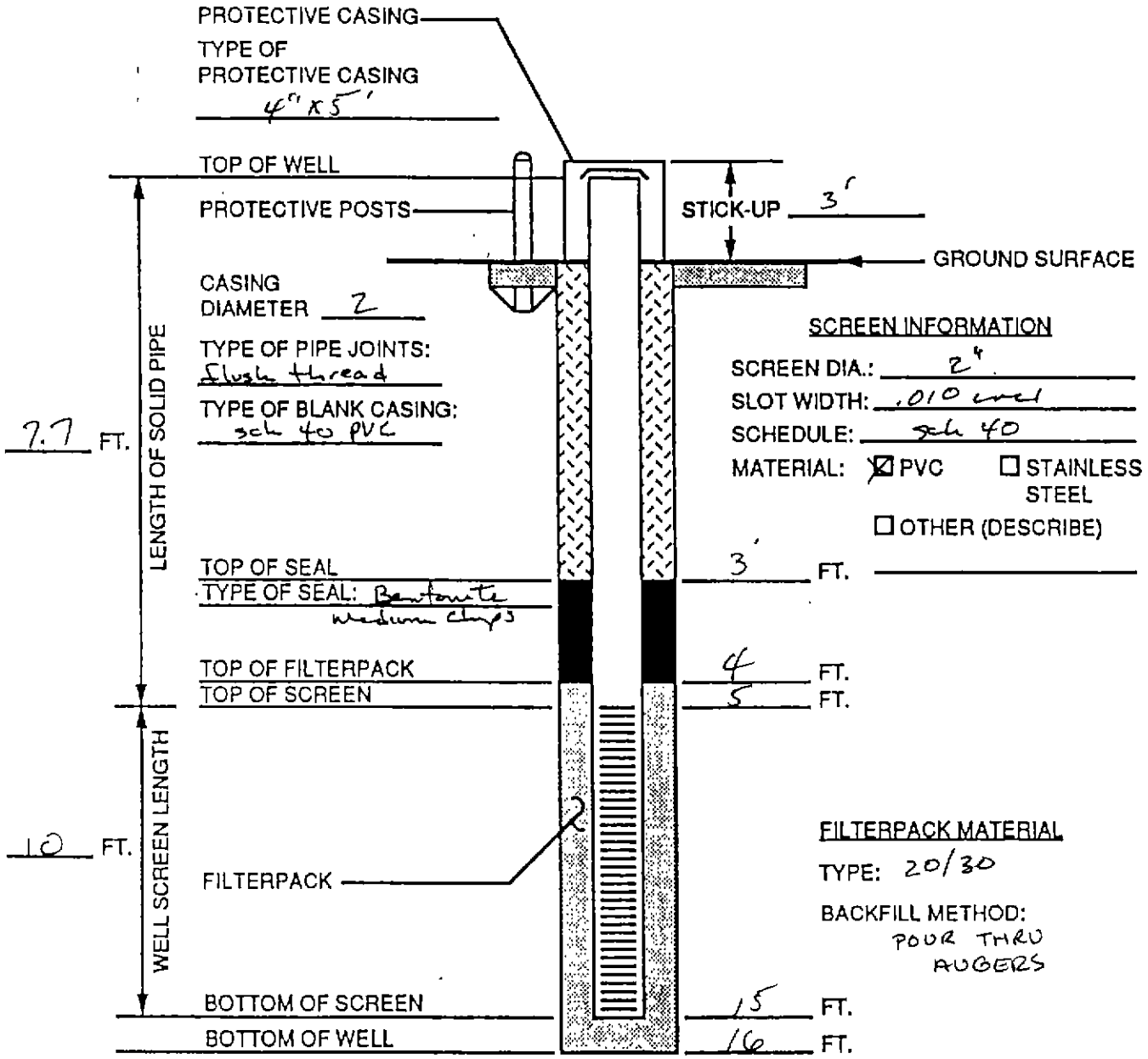
Temp 83.0°F pH 5.22

Cond 39.5 NTU .84

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

ELEVATION GROUNDWATER			PROJECT: Cecil Field 8500-27
DATE INSTALLED: 8/7/93	STARTED: 8/7/93	COMPLETED: 8/8/93	LOCATION (Coordinates or Station): OU-1 Background
ELEVATION TOP OF HOLE: —			SIGNATURE OF INSPECTOR: [signature] AJV
TOTAL DEPTH OF HOLE: 16.0'			HOLE NO. (As shown on drawing title and file number): CEF-BB-55 (MP) CEF-BK-55

ABOVE GROUND MONITORING WELL CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: Centrifugal Pump

TIME SPENT DEVELOPMENT: 25 min / 3.5 HRS

VOLUME OF WATER REMOVED: 55 gal / 145 GAL.

VOLUME OF WATER ADDED: NONE

DESCRIPTION OF PREDEVELOPMENT WATER: turbid

DESCRIPTION OF POST DEVELOPMENT WATER: Clear, non-turbid

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 8/8/93 0915 hrs 5.6' bls.

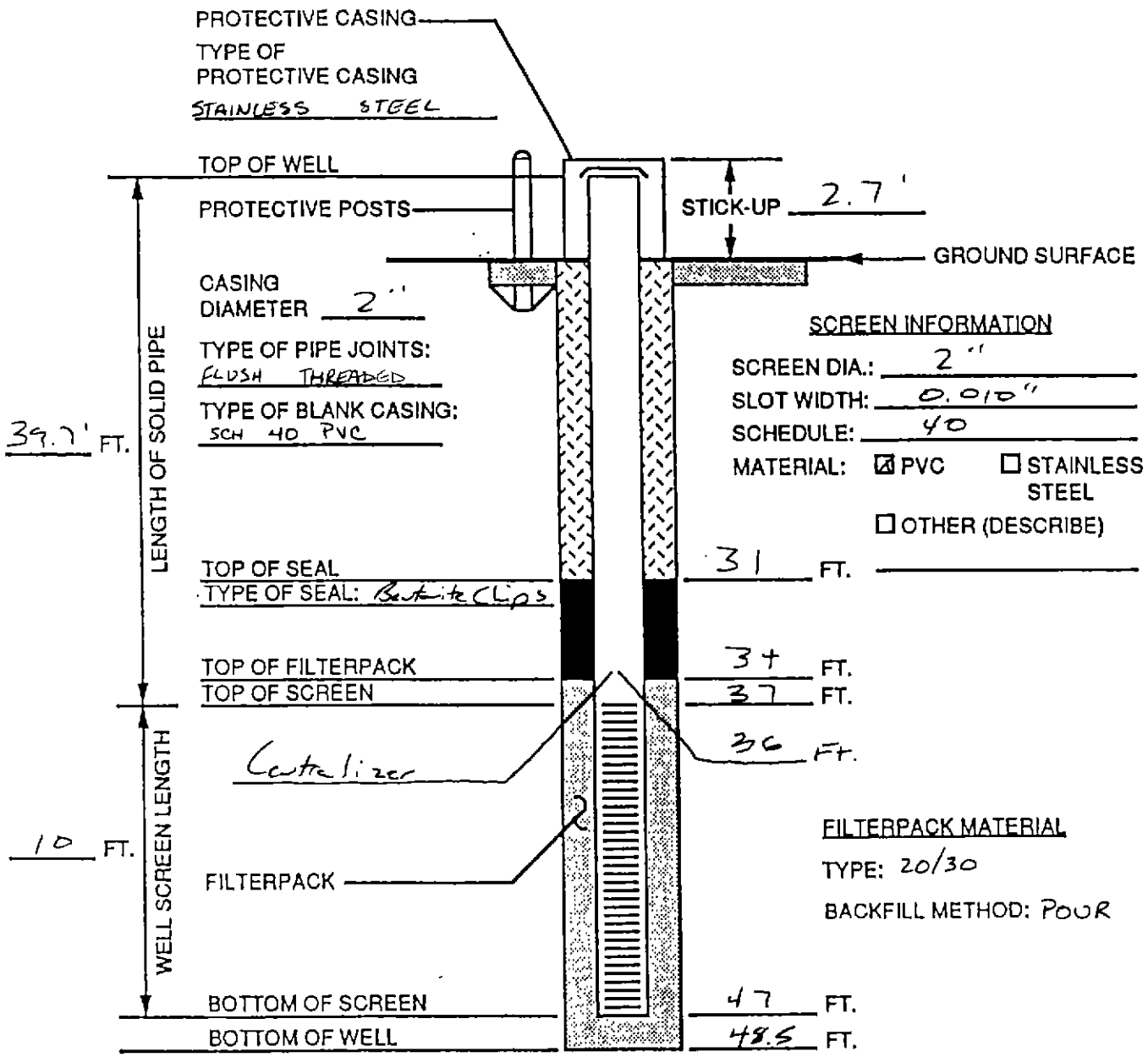
Temp 84.3 PH 5.03

Cond. 46.6 N.T.U. 1.49

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

ELEVATION GROUNDWATER			PROJECT Cecil Field RI ous 1, 2, 7
DATE INSTALLED 8-10-93	STARTED 8-10-93	COMPLETED 8-11-93	LOCATION (Coordinates or Station) Background
ELEVATION TOP OF HOLE			SIGNATURE OF INSPECTOR C. L. K. ATL
TOTAL DEPTH OF HOLE 48.5'			HOLE NO. (As shown on drawing title and file number) CEF-BB-6D CEF-BK-6D

ABOVE GROUND MONITORING WELL CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: Centrifugal Pump

TIME SPENT DEVELOPMENT: 55 min

VOLUME OF WATER REMOVED: 550 gal

VOLUME OF WATER ADDED: 50 gal

DESCRIPTION OF PREDEVELOPMENT WATER: Very Cloudy

DESCRIPTION OF POST DEVELOPMENT WATER: Slightly Cloudy

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 8/11/93 0815

6.1' bls

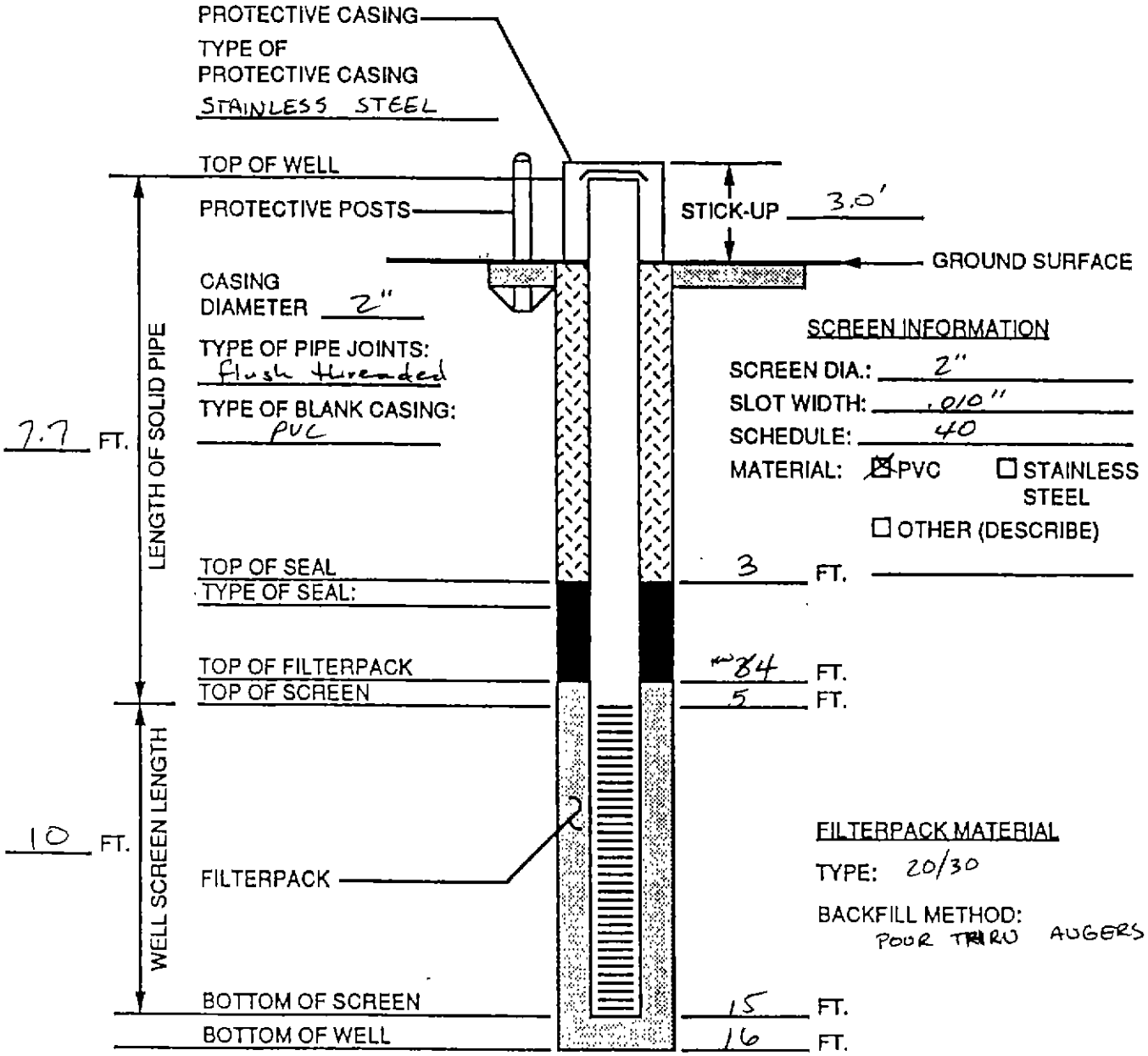
Temp 71.1°F PH 5.3

Cond 34.1 NTU 4.1

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

ELEVATION GROUNDWATER			PROJECT Cecil Field
DATE INSTALLED 8/9/93	STARTED 8/9/93	COMPLETED 8/9/93	LOCATION (Coordinates or Station) ~~CEF-BB-75~~ Background
ELEVATION TOP OF HOLE			SIGNATURE OF INSPECTOR [signature]
TOTAL DEPTH OF HOLE 16'			HOLE NO. (As shown on drawing title and file number) CEF-BB-75 CEF-BK-75

ABOVE GROUND MONITORING WELL CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: Centrifugal Pump

TIME SPENT DEVELOPMENT: 60min / 6 HRS.

VOLUME OF WATER REMOVED: 27gal / 640GAL

VOLUME OF WATER ADDED: —

DESCRIPTION OF PREDEVELOPMENT WATER: dark brown cloudy sediment

DESCRIPTION OF POST DEVELOPMENT WATER: brown some sediment

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 8/10/93 0940 hrs 5.5' bls

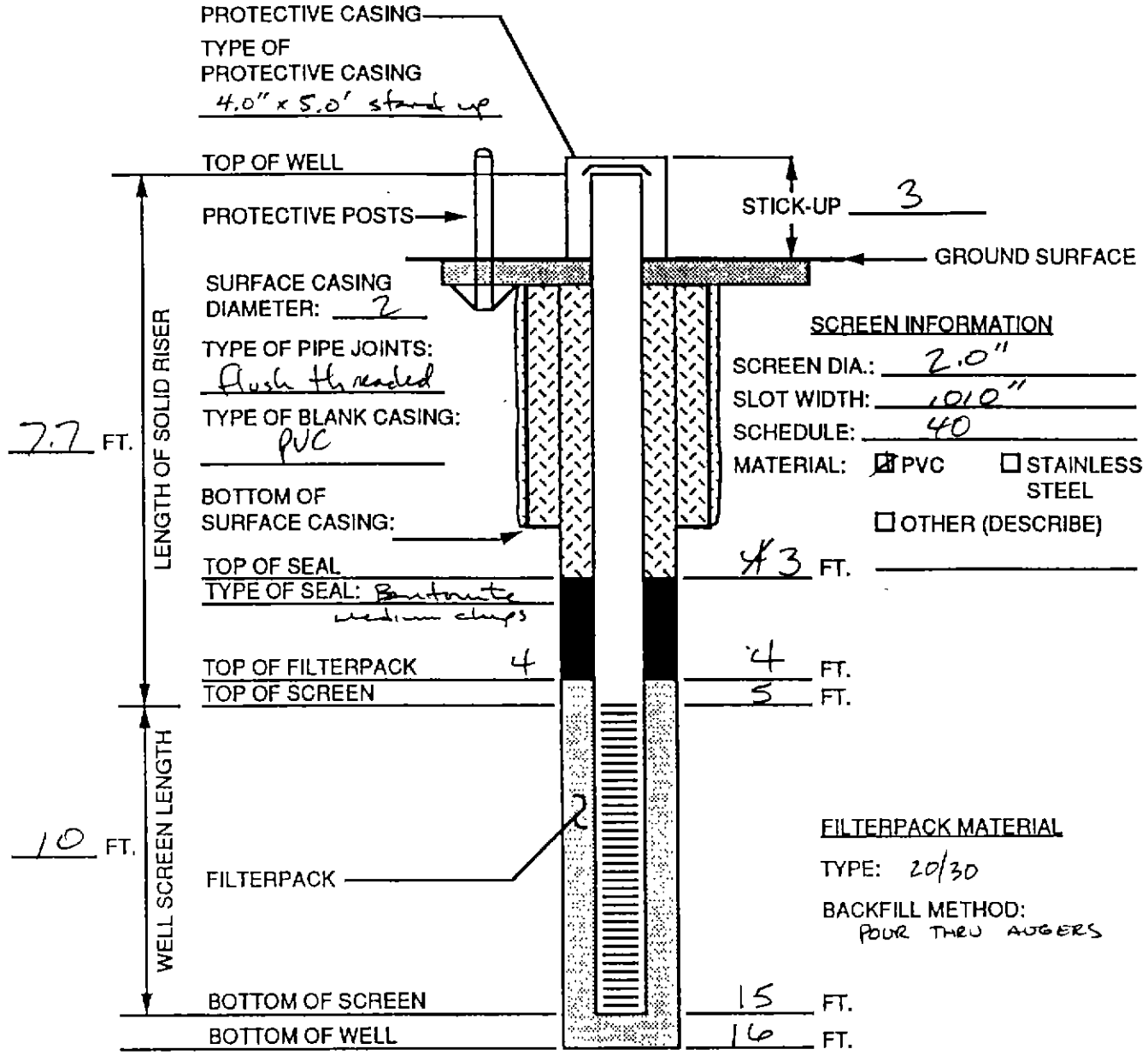
TEMP. 88.0F Ph. 5.40

COND. 68.7 NTU 5.73

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

ELEVATION GROUNDWATER			PROJECT: Ceal Field RI OUs 1,2,7
DATE INSTALLED: 8/9/93	STARTED: 8/9/93	COMPLETED: 8/9/93	LOCATION (Coordinates or Station): Background
ELEVATION TOP OF HOLE:			SIGNATURE OF INSPECTOR: [signature]
TOTAL DEPTH OF HOLE: 16.0' bls			HOLE NO. (As shown on drawing title and file number): CEF-BB-8S CEF-BK-8S

DOUBLE-CASED MONITORING WELL CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: Centrifugal Pump

TIME SPENT DEVELOPMENT: 26 min / 5.5 HRS

VOLUME OF WATER REMOVED: 48 gal / 175 GAL

VOLUME OF WATER ADDED: —

DESCRIPTION OF PREDEVELOPMENT WATER: cloudy dark brown

DESCRIPTION OF POST DEVELOPMENT WATER: clear, sediment free

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL 8/10/93 0820 hrs

5.21' bls

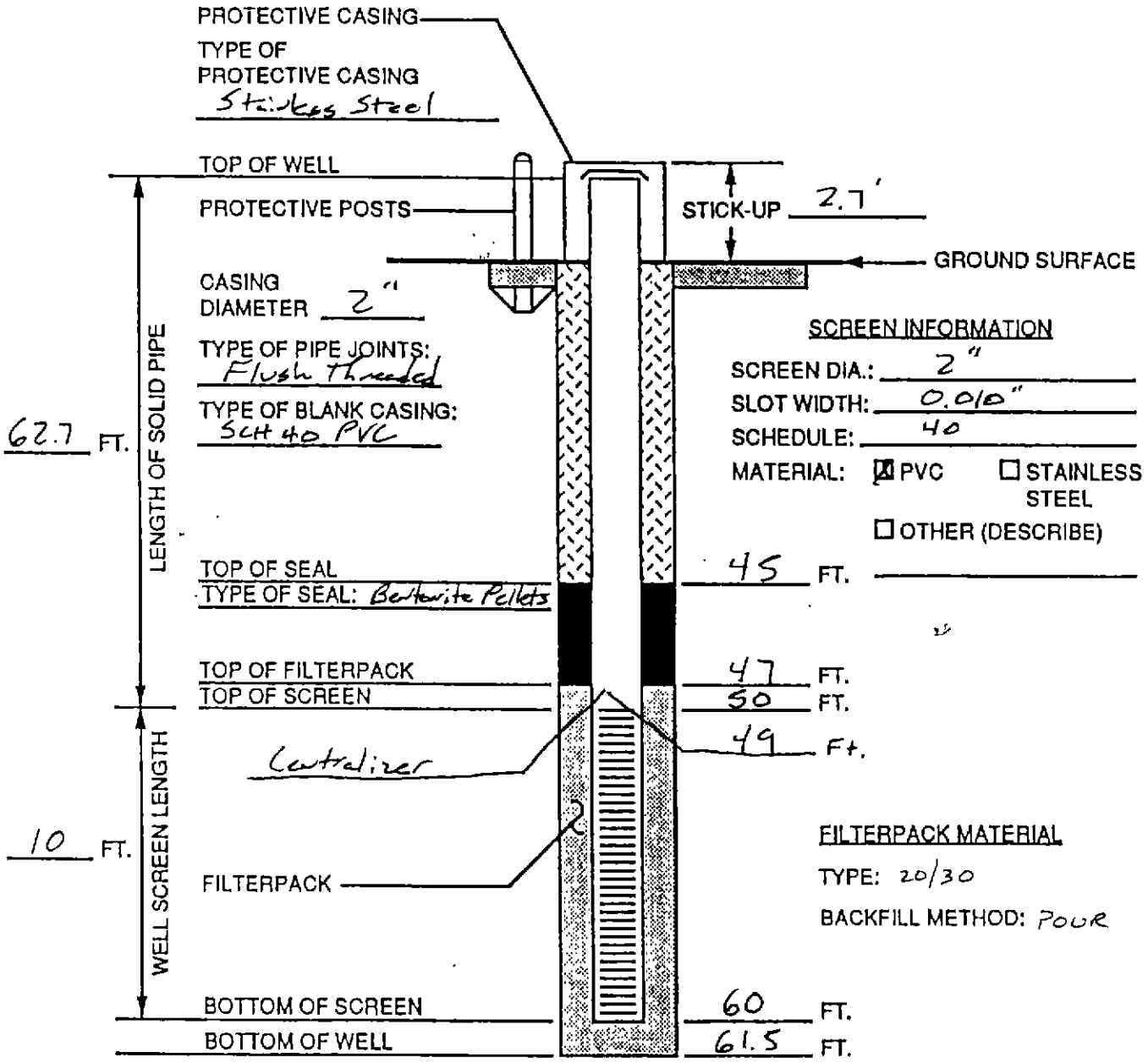
Temp 83.1°F PH 5.24

Cond 42.8 NTU 0.02

DEPTH FROM TOP CASING AFTER DEVELOPMENT: —

ELEVATION GROUNDWATER			PROJECT: R1 OUS 1,2,7
DATE INSTALLED: 8/17/93	STARTED: 8/16/93	COMPLETED: 8/17/93	LOCATION (Coordinates or Station): Background
ELEVATION TOP OF HOLE			SIGNATURE OF INSPECTOR: [illegible] AJL
TOTAL DEPTH OF HOLE: ≈61.5'			HOLE NO. (As shown on drawing title and file number): CEF-BB-90 CEF-BK-9D

ABOVE GROUND MONITORING WELL CONSTRUCTION DIAGRAM



WELL DEVELOPMENT

METHOD: Centrifugal Pump

TIME SPENT DEVELOPMENT: 1 Hour / 5 HRS.

VOLUME OF WATER REMOVED: ≈ 720 gal / 850 GAL.

VOLUME OF WATER ADDED: ≈ 120 gal

DESCRIPTION OF PREDEVELOPMENT WATER: Very Cloudy

DESCRIPTION OF POST DEVELOPMENT WATER: Slightly Cloudy

WATER LEVEL SUMMARY

WATER LEVEL MEASUREMENTS

DATE/TIME/LEVEL

TEMP	87.2°F	PH	5.6
COND	69.0	NTU	76.6

DEPTH FROM TOP CASING AFTER DEVELOPMENT:

APPENDIX J-3

COMPLETE BACKGROUND CHEMICAL ANALYTICAL DATA SET

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- VOLATILES

Lab Sample Number:	CEFBSS01				CEFBSS01R				CEFBSS01T				CEFBSS02			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEFBSS01				CEFBSS01R				CEFBSS01T				CEFBSS02			
Collect Date:	19-JUL-93				19-JUL-93				19-JUL-93				19-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	11	U	ug/kg	11	10	U	ug/l	10	10	U	ug/l	10	11	U	ug/kg	11
Bromomethane	11	U	ug/kg	11	10	U	ug/l	10	10	U	ug/l	10	11	U	ug/kg	11
Vinyl chloride	11	U	ug/kg	11	10	U	ug/l	10	10	U	ug/l	10	11	U	ug/kg	11
Chloroethane	11	U	ug/kg	11	10	U	ug/l	10	10	U	ug/l	10	11	U	ug/kg	11
Methylene chloride	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Acetone	5	U	ug/kg	5	10	U	ug/l	10	10	U	ug/l	10	6	U	ug/kg	6
Carbon disulfide	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
1,1-Dichloroethene	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
1,1-Dichloroethane	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
1,2-Dichloroethene (total)	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Chloroform	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
1,2-Dichloroethane	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
2-Butanone	11	U	ug/kg	11	10	U	ug/l	10	10	U	ug/l	10	11	U	ug/kg	11
1,1,1-Trichloroethane	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Carbon tetrachloride	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Bromodichloromethane	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
1,2-Dichloropropane	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
cis-1,3-Dichloropropene	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Trichloroethene	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Dibromochloromethane	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
1,1,2-Trichloroethane	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Benzene	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
trans-1,3-Dichloropropene	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Bromoform	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
4-Methyl-2-pentanone	11	U	ug/kg	11	10	U	ug/l	10	10	U	ug/l	10	11	U	ug/kg	11
2-Hexanone	11	U	ug/kg	11	10	U	ug/l	10	10	U	ug/l	10	11	U	ug/kg	11
Tetrachloroethene	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Toluene	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Chlorobenzene	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Ethylbenzene	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Styrene	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Xylenes (total)	5	U	ug/kg	5	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- VOLATILES

Lab Sample Number:	CEFBSS02D				CEFBSS02R				CEFBSS02T				CEFBSS03			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEFBSS02D				CEFBSS02R				CEFBSS02T				CEFBSS03			
Collect Date:	19-JUL-93				20-JUL-93				20-JUL-93				19-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	12	U	ug/kg	12	10	U	ug/l	10	10	U	ug/l	10	12	U	ug/kg	12
Bromomethane	12	U	ug/kg	12	10	U	ug/l	10	10	U	ug/l	10	12	U	ug/kg	12
Vinyl chloride	12	U	ug/kg	12	10	U	ug/l	10	10	U	ug/l	10	12	U	ug/kg	12
Chloroethane	12	U	ug/kg	12	10	U	ug/l	10	10	U	ug/l	10	12	U	ug/kg	12
Methylene chloride	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Acetone	6	U	ug/kg	6	10	U	ug/l	10	10	U	ug/l	10	6	U	ug/kg	6
Carbon disulfide	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
1,1-Dichloroethene	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
1,1-Dichloroethane	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
1,2-Dichloroethene (total)	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Chloroform	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
1,2-Dichloroethane	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
2-Butanone	12	U	ug/kg	12	10	U	ug/l	10	10	U	ug/l	10	12	U	ug/kg	12
1,1,1-Trichloroethane	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Carbon tetrachloride	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Bromodichloromethane	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
1,2-Dichloropropane	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
cis-1,3-Dichloropropene	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Trichloroethene	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Dibromochloromethane	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
1,1,2-Trichloroethane	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Benzene	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
trans-1,3-Dichloropropene	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Bromoform	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
4-Methyl-2-pentanone	12	U	ug/kg	12	10	U	ug/l	10	10	U	ug/l	10	12	U	ug/kg	12
2-Hexanone	12	U	ug/kg	12	10	U	ug/l	10	10	U	ug/l	10	12	U	ug/kg	12
Tetrachloroethene	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Toluene	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Chlorobenzene	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Ethylbenzene	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Styrene	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6
Xylenes (total)	6	U	ug/kg	6	5	U	ug/l	5	5	U	ug/l	5	6	U	ug/kg	6

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- VOLATILES

Lab Sample Number:	CEFBSS04				CEFBSS05				CEFBSS06				CEFBSS07			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEFBSS04				CEFBSS05				CEFBSS06				CEFBSS07			
Collect Date:	19-JUL-93				20-JUL-93				20-JUL-93				20-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Bromomethane	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Vinyl chloride	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Chloroethane	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Methylene chloride	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Acetone	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Carbon disulfide	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,1-Dichloroethene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,1-Dichloroethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,2-Dichloroethene (total)	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Chloroform	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,2-Dichloroethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
2-Butanone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
1,1,1-Trichloroethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Carbon tetrachloride	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Bromodichloromethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,2-Dichloropropane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
cis-1,3-Dichloropropene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Trichloroethene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Dibromochloromethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,1,2-Trichloroethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Benzene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
trans-1,3-Dichloropropene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Bromoform	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
4-Methyl-2-pentanone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
2-Hexanone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Tetrachloroethene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Toluene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,1,2,2-Tetrachloroethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Chlorobenzene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Ethylbenzene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Styrene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Xylenes (total)	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- VOLATILES

Lab Sample Number:	CEFBSS08				CEFBSS09				CEFBSS09D				CEFBSS09MS			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEFBSS08				CEFBSS09				CEFBSS09D				CEFBSS09MS			
Collect Date:	20-JUL-93				20-JUL-93				20-JUL-93				20-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Bromomethane	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Vinyl chloride	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Chloroethane	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Methylene chloride	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Acetone	10	U	ug/kg	10	11	U	ug/kg	11	13	U	ug/kg	13	5	J	ug/kg	11
Carbon disulfide	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	61		ug/kg	11
1,1-Dichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethene (total)	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Chloroform	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
2-Butanone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
1,1,1-Trichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Carbon tetrachloride	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Bromodichloromethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloropropane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
cis-1,3-Dichloropropene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Trichloroethene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	58		ug/kg	11
Dibromochloromethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2-Trichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Benzene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	54		ug/kg	11
trans-1,3-Dichloropropene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Bromoform	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
4-Methyl-2-pentanone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
2-Hexanone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Tetrachloroethene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Toluene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	60		ug/kg	11
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Chlorobenzene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	56		ug/kg	11
Ethylbenzene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Styrene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Xylenes (total)	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- VOLATILES

Lab Sample Number:	CEFBSS09MS				CEFBSS10				CEFBSS11				CEFBSS12			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEFBSS09MSD				CEFBSS10				CEFBSS11				CEFBSS12			
Collect Date:	20-JUL-93				20-JUL-93				20-JUL-93				20-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	10	U	ug/kg	10
Bromomethane	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	10	U	ug/kg	10
Vinyl chloride	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	10	U	ug/kg	10
Chloroethane	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	10	U	ug/kg	10
Methylene chloride	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Acetone	4	J	ug/kg	11	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Carbon disulfide	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,1-Dichloroethene	61		ug/kg	11	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,1-Dichloroethane	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,2-Dichloroethene (total)	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Chloroform	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,2-Dichloroethane	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
2-Butanone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	10	U	ug/kg	10
1,1,1-Trichloroethane	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Carbon tetrachloride	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Bromodichloromethane	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,2-Dichloropropane	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
cis-1,3-Dichloropropene	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Trichloroethene	60		ug/kg	11	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Dibromochloromethane	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,1,2-Trichloroethane	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Benzene	55		ug/kg	11	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
trans-1,3-Dichloropropene	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Bromoform	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
4-Methyl-2-pentanone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	10	U	ug/kg	10
2-Hexanone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	10	U	ug/kg	10
Tetrachloroethene	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Toluene	63		ug/kg	11	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Chlorobenzene	58		ug/kg	11	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Ethylbenzene	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Styrene	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Xylenes (total)	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- VOLATILES

Lab Sample Number:	CEFBSS13				CEFBSS14				CEFBSS15			
Site	CECIL				CECIL				CECIL			
Locator	CEFBSS13				CEFBSS14				CEFBSS15			
Collect Date:	20-JUL-93				20-JUL-93				20-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW												
Chloromethane	11	U	ug/kg	11	10	U	ug/kg	10	11	U	ug/kg	11
Bromomethane	11	U	ug/kg	11	10	U	ug/kg	10	11	U	ug/kg	11
Vinyl chloride	11	U	ug/kg	11	10	U	ug/kg	10	11	U	ug/kg	11
Chloroethane	11	U	ug/kg	11	10	U	ug/kg	10	11	U	ug/kg	11
Methylene chloride	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Acetone	11	U	ug/kg	11	5	U	ug/kg	5	6	U	ug/kg	6
Carbon disulfide	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
1,1-Dichloroethene	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
1,1-Dichloroethane	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
1,2-Dichloroethene (total)	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Chloroform	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
1,2-Dichloroethane	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
2-Butanone	11	U	ug/kg	11	10	U	ug/kg	10	11	U	ug/kg	11
1,1,1-Trichloroethane	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Carbon tetrachloride	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Bromodichloromethane	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
1,2-Dichloropropane	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
cis-1,3-Dichloropropene	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Trichloroethene	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Dibromochloromethane	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
1,1,2-Trichloroethane	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Benzene	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
trans-1,3-Dichloropropene	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Bromoform	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
4-Methyl-2-pentanone	11	U	ug/kg	11	10	U	ug/kg	10	11	U	ug/kg	11
2-Hexanone	11	U	ug/kg	11	10	U	ug/kg	10	11	U	ug/kg	11
Tetrachloroethene	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Toluene	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Chlorobenzene	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Ethylbenzene	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Styrene	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Xylenes (total)	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6

U = NOT DETECTED J = ESTIMATED VALUE
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R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CEFBSS01				CEFBSS01R				CEFBSS02				CEFBSS02D			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEFBSS01				CEFBSS01R				CEFBSS02				CEFBSS02D			
Collect Date:	19-JUL-93				19-JUL-93				19-JUL-93				19-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	52	J	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
bis(2-Chloroethyl) ether	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
2-Chlorophenol	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
1,3-Dichlorobenzene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
1,4-Dichlorobenzene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
1,2-Dichlorobenzene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
2-Methylphenol	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
2,2-oxybis(1-Chloropropane)	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
4-Methylphenol	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
N-Nitroso-di-n-propylamine	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Hexachloroethane	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Nitrobenzene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Isophorone	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
2-Nitrophenol	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
2,4-Dimethylphenol	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
bis(2-Chloroethoxy) methane	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
2,4-Dichlorophenol	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
1,2,4-Trichlorobenzene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Naphthalene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
4-Chloroaniline	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Hexachlorobutadiene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
4-Chloro-3-methylphenol	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
2-Methylnaphthalene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Hexachlorocyclopentadiene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
2,4,6-Trichlorophenol	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
2,4,5-Trichlorophenol	870	U	ug/kg	870	25	U	ug/l	25	890	U	ug/kg	890	990	U	ug/kg	990
2-Chloronaphthalene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
2-Nitroaniline	870	U	ug/kg	870	25	U	ug/l	25	890	U	ug/kg	890	990	U	ug/kg	990
Dimethylphthalate	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Acenaphthylene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
2,6-Dinitrotoluene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
3-Nitroaniline	870	U	ug/kg	870	25	U	ug/l	25	890	U	ug/kg	890	990	U	ug/kg	990
Acenaphthene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
2,4-Dinitrophenol	870	U	ug/kg	870	25	U	ug/l	25	890	U	ug/kg	890	990	U	ug/kg	990
4-Nitrophenol	870	U	ug/kg	870	25	U	ug/l	25	890	U	ug/kg	890	990	U	ug/kg	990
Dibenzofuran	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
2,4-Dinitrotoluene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Diethylphthalate	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
4-Chlorophenyl-phenylether	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Fluorene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
4-Nitroaniline	870	U	ug/kg	870	25	U	ug/l	25	890	U	ug/kg	890	990	U	ug/kg	990
4,6-Dinitro-2-methylphenol	870	U	ug/kg	870	25	U	ug/l	25	890	U	ug/kg	890	990	U	ug/kg	990
N-Nitrosodiphenylamine (1)	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
4-Bromophenyl-phenylether	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Hexachlorobenzene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Pentachlorophenol	870	U	ug/kg	870	25	U	ug/l	25	890	U	ug/kg	890	990	U	ug/kg	990
Phenanthrene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Anthracene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Carbazole	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Di-n-butylphthalate	34	J	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Fluoranthene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Pyrene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Butylbenzylphthalate	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CEFBSS01				CEFBSS01R				CEFBSS02				CEFBSS02D			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEFBSS01				CEFBSS01R				CEFBSS02				CEFBSS02D			
Collect Date:	19-JUL-93				19-JUL-93				19-JUL-93				19-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
3,3-Dichlorobenzidine	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Benzo (a) anthracene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Chrysene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
bis(2-Ethylhexyl) phthalate	48	J	ug/kg	360	10	U	ug/l	10	51	J	ug/kg	370	42	J	ug/kg	410
Di-n-octylphthalate	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Benzo (b) fluoranthene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Benzo (k) fluoranthene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Benzo (a) pyrene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Indeno (1,2,3-cd) pyrene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Dibenz (a,h) anthracene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410
Benzo (g,h,i) perylene	360	U	ug/kg	360	10	U	ug/l	10	370	U	ug/kg	370	410	U	ug/kg	410

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CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CEFBSS02R				CEFBSS03				CEFBSS04				CEFBSS05			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEFBSS02R				CEFBSS03				CEFBSS04				CEFBSS05			
Collect Date:	20-JUL-93				19-JUL-93				19-JUL-93				20-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
bis(2-Chloroethyl) ether	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
2-Chlorophenol	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
1,3-Dichlorobenzene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
1,4-Dichlorobenzene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
1,2-Dichlorobenzene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
2-Methylphenol	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
2,2-oxybis(1-Chloropropane)	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
4-Methylphenol	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
N-Nitroso-di-n-propylamine	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Hexachloroethane	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Nitrobenzene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Isophorone	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
2-Nitrophenol	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
2,4-Dimethylphenol	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
bis(2-Chloroethoxy) methane	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
2,4-Dichlorophenol	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
1,2,4-Trichlorobenzene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Naphthalene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
4-Chloroaniline	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Hexachlorobutadiene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
4-Chloro-3-methylphenol	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
2-Methylnaphthalene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Hexachlorocyclopentadiene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
2,4,6-Trichlorophenol	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
2,4,5-Trichlorophenol	25	U	ug/l	25	930	U	ug/kg	930	860	U	ug/kg	860	860	U	ug/kg	860
2-Chloronaphthalene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
2-Nitroaniline	25	U	ug/l	25	930	U	ug/kg	930	860	U	ug/kg	860	860	U	ug/kg	860
Dimethylphthalate	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Acenaphthylene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
2,6-Dinitrotoluene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
3-Nitroaniline	25	U	ug/l	25	930	U	ug/kg	930	860	U	ug/kg	860	860	U	ug/kg	860
Acenaphthene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
2,4-Dinitrophenol	25	U	ug/l	25	930	U	ug/kg	930	860	U	ug/kg	860	860	U	ug/kg	860
4-Nitrophenol	25	U	ug/l	25	930	U	ug/kg	930	860	U	ug/kg	860	860	U	ug/kg	860
Dibenzofuran	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
2,4-Dinitrotoluene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Diethylphthalate	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
4-Chlorophenyl-phenylether	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Fluorene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
4-Nitroaniline	25	U	ug/l	25	930	U	ug/kg	930	860	U	ug/kg	860	860	U	ug/kg	860
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	930	U	ug/kg	930	860	U	ug/kg	860	860	U	ug/kg	860
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
4-Bromophenyl-phenylether	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Hexachlorobenzene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Pentachlorophenol	25	U	ug/l	25	930	U	ug/kg	930	860	U	ug/kg	860	860	U	ug/kg	860
Phenanthrene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Anthracene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Carbazole	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Di-n-butylphthalate	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Fluoranthene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Pyrene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CEFBSS02R				CEFBSS03				CEFBSS04				CEFBSS05			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEFBSS02R				CEFBSS03				CEFBSS04				CEFBSS05			
Collect Date:	20-JUL-93				19-JUL-93				19-JUL-93				20-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Butylbenzylphthalate	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
3,3-Dichlorobenzidine	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Benzo (a) anthracene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Chrysene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
bis(2-Ethylhexyl) phthalate	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Di-n-octylphthalate	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Benzo (b) fluoranthene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Benzo (k) fluoranthene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Benzo (a) pyrene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Dibenz (a,h) anthracene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350
Benzo (g,h,i) perylene	10	U	ug/l	10	380	U	ug/kg	380	350	U	ug/kg	350	350	U	ug/kg	350

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R `SULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CEFBSS06				CEFBSS07				CEFBSS08				CEFBSS09			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEFBSS06				CEFBSS07				CEFBSS08				CEFBSS09			
Collect Date:	20-JUL-93				20-JUL-93				20-JUL-93				20-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	190	J	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	22	J	ug/kg	370
bis(2-Chloroethyl) ether	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
2-Chlorophenol	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
1,3-Dichlorobenzene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
1,4-Dichlorobenzene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
1,2-Dichlorobenzene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
2-Methylphenol	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
2,2-oxybis(1-Chloropropane)	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
4-Methylphenol	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
N-Nitroso-di-n-propylamine	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Hexachloroethane	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Nitrobenzene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Isophorone	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
2-Nitrophenol	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
2,4-Dimethylphenol	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
bis(2-Chloroethoxy) methane	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
2,4-Dichlorophenol	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
1,2,4-Trichlorobenzene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Naphthalene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
4-Chloroaniline	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Hexachlorobutadiene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
4-Chloro-3-methylphenol	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
2-Methylnaphthalene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Hexachlorocyclopentadiene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
2,4,6-Trichlorophenol	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
2,4,5-Trichlorophenol	860	U	ug/kg	860	870	U	ug/kg	870	870	U	ug/kg	870	900	U	ug/kg	900
2-Chloronaphthalene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
2-Nitroaniline	860	U	ug/kg	860	870	U	ug/kg	870	870	U	ug/kg	870	900	U	ug/kg	900
Dimethylphthalate	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Acenaphthylene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
2,6-Dinitrotoluene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
3-Nitroaniline	860	U	ug/kg	860	870	U	ug/kg	870	870	U	ug/kg	870	900	U	ug/kg	900
Acenaphthene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
2,4-Dinitrophenol	860	U	ug/kg	860	870	U	ug/kg	870	870	U	ug/kg	870	900	U	ug/kg	900
4-Nitrophenol	860	U	ug/kg	860	870	U	ug/kg	870	870	U	ug/kg	870	900	U	ug/kg	900
Dibenzofuran	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
2,4-Dinitrotoluene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Diethylphthalate	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
4-Chlorophenyl-phenylether	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Fluorene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
4-Nitroaniline	860	U	ug/kg	860	870	U	ug/kg	870	870	U	ug/kg	870	900	U	ug/kg	900
4,6-Dinitro-2-methylphenol	860	U	ug/kg	860	870	U	ug/kg	870	870	U	ug/kg	870	900	U	ug/kg	900
N-Nitrosodiphenylamine (1)	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
4-Bromophenyl-phenylether	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Hexachlorobenzene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Pentachlorophenol	860	U	ug/kg	860	870	U	ug/kg	870	870	U	ug/kg	870	900	U	ug/kg	900
Phenanthrene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Anthracene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Carbazole	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Di-n-butylphthalate	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Fluoranthene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Pyrene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CEFBSS06				CEFBSS07				CEFBSS08				CEFBSS09			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEFBSS06				CEFBSS07				CEFBSS08				CEFBSS09			
Collect Date:	20-JUL-93				20-JUL-93				20-JUL-93				20-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Butylbenzylphthalate	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
3,3-Dichlorobenzidine	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Benzo (a) anthracene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Chrysene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
bis(2-Ethylhexyl) phthalate	350	U	ug/kg	350	48	J	ug/kg	360	52	J	ug/kg	360	370	U	ug/kg	370
Di-n-octylphthalate	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Benzo (b) fluoranthene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Benzo (k) fluoranthene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Benzo (a) pyrene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Indeno (1,2,3-cd) pyrene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Dibenz (a,h) anthracene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370
Benzo (g,h,i) perylene	350	U	ug/kg	350	360	U	ug/kg	360	360	U	ug/kg	360	370	U	ug/kg	370

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CEFBSS09D				CEFBSS09MS				CEFBSS09MS				CEFBSS10			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEFBSS09D				CEFBSS09MS				CEFBSS09MSD				CEFBSS10			
Collect Date:	20-JUL-93				20-JUL-93				20-JUL-93				20-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	21	J	ug/kg	380	2000		ug/kg	370	1800		ug/kg	370	360	UJ	ug/kg	360
bis(2-Chloroethyl) ether	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
2-Chlorophenol	380	U	ug/kg	380	1800		ug/kg	370	1700		ug/kg	370	360	UJ	ug/kg	360
1,3-Dichlorobenzene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
1,4-Dichlorobenzene	380	U	ug/kg	380	920		ug/kg	370	820		ug/kg	370	360	UJ	ug/kg	360
1,2-Dichlorobenzene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
2-Methylphenol	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
2,2-oxybis(1-Chloropropane)	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
4-Methylphenol	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
N-Nitroso-di-n-propylamine	380	U	ug/kg	380	1100		ug/kg	370	1100		ug/kg	370	360	UJ	ug/kg	360
Hexachloroethane	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
Nitrobenzene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
Isophorone	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
2-Nitrophenol	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
2,4-Dimethylphenol	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
bis(2-Chloroethoxy) methane	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
2,4-Dichlorophenol	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
1,2,4-Trichlorobenzene	380	U	ug/kg	380	1000		ug/kg	370	1000		ug/kg	370	360	UJ	ug/kg	360
Naphthalene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
4-Chloroaniline	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
Hexachlorobutadiene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
4-Chloro-3-methylphenol	380	U	ug/kg	380	2000		ug/kg	370	2000		ug/kg	370	360	UJ	ug/kg	360
2-Methylnaphthalene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
Hexachlorocyclopentadiene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
2,4,6-Trichlorophenol	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
2,4,5-Trichlorophenol	920	U	ug/kg	920	900	U	ug/kg	900	900	U	ug/kg	900	870	UJ	ug/kg	870
2-Chloronaphthalene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
2-Nitroaniline	920	U	ug/kg	920	900	U	ug/kg	900	900	U	ug/kg	900	870	UJ	ug/kg	870
Dimethylphthalate	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
Acenaphthylene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
2,6-Dinitrotoluene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
3-Nitroaniline	920	U	ug/kg	920	900	U	ug/kg	900	900	U	ug/kg	900	870	UJ	ug/kg	870
Acenaphthene	380	U	ug/kg	380	1400		ug/kg	370	1400		ug/kg	370	360	UJ	ug/kg	360
2,4-Dinitrophenol	920	U	ug/kg	920	900	U	ug/kg	900	900	U	ug/kg	900	870	UJ	ug/kg	870
4-Nitrophenol	920	U	ug/kg	920	1400		ug/kg	900	1300		ug/kg	900	870	UJ	ug/kg	870
Dibenzofuran	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
2,4-Dinitrotoluene	380	U	ug/kg	380	1400		ug/kg	370	1300		ug/kg	370	360	UJ	ug/kg	360
Diethylphthalate	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
4-Chlorophenyl-phenylether	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
Fluorene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
4-Nitroaniline	920	U	ug/kg	920	900	U	ug/kg	900	900	U	ug/kg	900	870	UJ	ug/kg	870
4,6-Dinitro-2-methylphenol	920	U	ug/kg	920	900	U	ug/kg	900	900	U	ug/kg	900	870	UJ	ug/kg	870
N-Nitrosodiphenylamine (1)	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
4-Bromophenyl-phenylether	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
Hexachlorobenzene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
Pentachlorophenol	920	U	ug/kg	920	2200		ug/kg	900	2200		ug/kg	900	870	UJ	ug/kg	870
Phenanthrene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
Anthracene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
Carbazole	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
Di-n-butylphthalate	380	U	ug/kg	380	28	J	ug/kg	370	30	J	ug/kg	370	360	UJ	ug/kg	360
Fluoranthene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
Pyrene	380	U	ug/kg	380	1500		ug/kg	370	1300		ug/kg	370	360	UJ	ug/kg	360

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CEFBSS09D				CEFBSS09MS				CEFBSS09MS				CEFBSS10			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEFBSS09D				CEFBSS09MS				CEFBSS09MSD				CEFBSS10			
Collect Date:	20-JUL-93				20-JUL-93				20-JUL-93				20-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Butylbenzylphthalate	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
3,3-Dichlorobenzidine	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
Benzo (a) anthracene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
Chrysene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
bis(2-Ethylhexyl) phthalate	380	U	ug/kg	380	23	J	ug/kg	370	51	J	ug/kg	370	360	UJ	ug/kg	360
Di-n-octylphthalate	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
Benzo (b) fluoranthene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
Benzo (k) fluoranthene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
Benzo (a) pyrene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
Indeno (1,2,3-cd) pyrene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
Dibenz (a,h) anthracene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360
Benzo (g,h,i) perylene	380	U	ug/kg	380	370	U	ug/kg	370	370	U	ug/kg	370	360	UJ	ug/kg	360

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
F ESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CEFBSS11				CEFBSS12				CEFBSS13				CEFBSS14			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEFBSS11				CEFBSS12				CEFBSS13				CEFBSS14			
Collect Date:	20-JUL-93				20-JUL-93				20-JUL-93				20-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	350	U	ug/kg	350	350	U	ug/kg	350	23	J	ug/kg	360	350	U	ug/kg	350
bis(2-Chloroethyl) ether	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
2-Chlorophenol	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
1,3-Dichlorobenzene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
1,4-Dichlorobenzene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
1,2-Dichlorobenzene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
2-Methylphenol	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
2,2-oxybis(1-Chloropropane)	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
4-Methylphenol	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
N-Nitroso-di-n-propylamine	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Hexachloroethane	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Nitrobenzene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Isophorone	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
2-Nitrophenol	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
2,4-Dimethylphenol	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
bis(2-Chloroethoxy) methane	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
2,4-Dichlorophenol	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
1,2,4-Trichlorobenzene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Naphthalene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
4-Chloroaniline	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Hexachlorobutadiene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
4-Chloro-3-methylphenol	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
2-Methylnaphthalene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Hexachlorocyclopentadiene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
2,4,6-Trichlorophenol	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
2,4,5-Trichlorophenol	860	U	ug/kg	860	840	U	ug/kg	840	880	U	ug/kg	880	840	U	ug/kg	840
2-Chloronaphthalene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
2-Nitroaniline	860	U	ug/kg	860	840	U	ug/kg	840	880	U	ug/kg	880	840	U	ug/kg	840
Dimethylphthalate	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Acenaphthylene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
2,6-Dinitrotoluene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
3-Nitroaniline	860	U	ug/kg	860	840	U	ug/kg	840	880	U	ug/kg	880	840	U	ug/kg	840
Acenaphthene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
2,4-Dinitrophenol	860	U	ug/kg	860	840	U	ug/kg	840	880	U	ug/kg	880	840	U	ug/kg	840
4-Nitrophenol	860	U	ug/kg	860	840	U	ug/kg	840	880	U	ug/kg	880	840	U	ug/kg	840
Dibenzofuran	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
2,4-Dinitrotoluene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Diethylphthalate	19	J	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
4-Chlorophenyl-phenylether	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Fluorene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
4-Nitroaniline	860	U	ug/kg	860	840	U	ug/kg	840	880	U	ug/kg	880	840	U	ug/kg	840
4,6-Dinitro-2-methylphenol	860	U	ug/kg	860	840	U	ug/kg	840	880	U	ug/kg	880	840	U	ug/kg	840
N-Nitrosodiphenylamine (1)	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
4-Bromophenyl-phenylether	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Hexachlorobenzene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Pentachlorophenol	860	U	ug/kg	860	840	U	ug/kg	840	880	U	ug/kg	880	840	U	ug/kg	840
Phenanthrene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Anthracene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Carbazole	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Di-n-butylphthalate	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Fluoranthene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Pyrene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CEFBSS11				CEFBSS12				CEFBSS13				CEFBSS14			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEFBSS11				CEFBSS12				CEFBSS13				CEFBSS14			
Collect Date:	20-JUL-93				20-JUL-93				20-JUL-93				20-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Butylbenzylphthalate	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
3,3-Dichlorobenzidine	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Benzo (a) anthracene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Chrysene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
bis(2-Ethylhexyl) phthalate	350	U	ug/kg	350	17	J	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Di-n-octylphthalate	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Benzo (b) fluoranthene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Benzo (k) fluoranthene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Benzo (a) pyrene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Indeno (1,2,3-cd) pyrene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Dibenz (a,h) anthracene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350
Benzo (g,h,i) perylene	350	U	ug/kg	350	350	U	ug/kg	350	360	U	ug/kg	360	350	U	ug/kg	350

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:		CEFBSS15		
Site		CECIL		
Locator		CEFBSS15		
Collect Date:		20-JUL-93		
	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW				
Phenol	370	U	ug/kg	370
bis(2-Chloroethyl) ether	370	U	ug/kg	370
2-Chlorophenol	370	U	ug/kg	370
1,3-Dichlorobenzene	370	U	ug/kg	370
1,4-Dichlorobenzene	370	U	ug/kg	370
1,2-Dichlorobenzene	370	U	ug/kg	370
2-Methylphenol	370	U	ug/kg	370
2,2-oxybis(1-Chloropropane)	370	U	ug/kg	370
4-Methylphenol	370	U	ug/kg	370
N-Nitroso-di-n-propylamine	370	U	ug/kg	370
Hexachloroethane	370	U	ug/kg	370
Nitrobenzene	370	U	ug/kg	370
Isophorone	370	U	ug/kg	370
2-Nitrophenol	370	U	ug/kg	370
2,4-Dimethylphenol	370	U	ug/kg	370
bis(2-Chloroethoxy) methane	370	U	ug/kg	370
2,4-Dichlorophenol	370	U	ug/kg	370
1,2,4-Trichlorobenzene	370	U	ug/kg	370
Naphthalene	370	U	ug/kg	370
4-Chloroaniline	370	U	ug/kg	370
Hexachlorobutadiene	370	U	ug/kg	370
4-Chloro-3-methylphenol	370	U	ug/kg	370
2-Methylnaphthalene	370	U	ug/kg	370
Hexachlorocyclopentadiene	370	U	ug/kg	370
2,4,6-Trichlorophenol	370	U	ug/kg	370
2,4,5-Trichlorophenol	900	U	ug/kg	900
2-Chloronaphthalene	370	U	ug/kg	370
2-Nitroaniline	900	U	ug/kg	900
Dimethylphthalate	370	U	ug/kg	370
Acenaphthylene	370	U	ug/kg	370
2,6-Dinitrotoluene	370	U	ug/kg	370
3-Nitroaniline	900	U	ug/kg	900
Acenaphthene	370	U	ug/kg	370
2,4-Dinitrophenol	900	U	ug/kg	900
4-Nitrophenol	900	U	ug/kg	900
Dibenzofuran	370	U	ug/kg	370
2,4-Dinitrotoluene	370	U	ug/kg	370
Diethylphthalate	370	U	ug/kg	370
4-Chlorophenyl-phenylether	370	U	ug/kg	370
Fluorene	370	U	ug/kg	370
4-Nitroaniline	900	U	ug/kg	900
4,6-Dinitro-2-methylphenol	900	U	ug/kg	900
N-Nitrosodiphenylamine (1)	370	U	ug/kg	370
4-Bromophenyl-phenylether	370	U	ug/kg	370
Hexachlorobenzene	370	U	ug/kg	370
Pentachlorophenol	900	U	ug/kg	900
Phenanthrene	370	U	ug/kg	370
Anthracene	370	U	ug/kg	370
Carbazole	370	U	ug/kg	370
Di-n-butylphthalate	370	U	ug/kg	370
Fluoranthene	370	U	ug/kg	370
Pyrene	370	U	ug/kg	370

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CEFBSS15			
Site	CECIL			
Locator	CEFBSS15			
Collect Date:	20-JUL-93			
	VALUE	QUAL	UNITS	DL
Butylbenzylphthalate	370	U	ug/kg	370
3,3-Dichlorobenzidine	370	U	ug/kg	370
Benzo (a) anthracene	370	U	ug/kg	370
Chrysene	370	U	ug/kg	370
bis(2-Ethylhexyl) phthalate	370	U	ug/kg	370
Di-n-octylphthalate	370	U	ug/kg	370
Benzo (b) fluoranthene	370	U	ug/kg	370
Benzo (k) fluoranthene	370	U	ug/kg	370
Benzo (a) pyrene	370	U	ug/kg	370
Indeno (1,2,3-cd) pyrene	370	U	ug/kg	370
Dibenz (a,h) anthracene	370	U	ug/kg	370
Benzo (g,h,i) perylene	370	U	ug/kg	370

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- PESTICIDES AND PCBS

Lab Sample Number:	CEFBSS01				CEFBSS01R				CEFBSS02				CEFBSS02D			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEFBSS01				CEFBSS01R				CEFBSS02				CEFBSS02D			
Collect Date:	19-JUL-93				19-JUL-93				19-JUL-93				19-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	1.8	U	ug/kg	1.8	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	2.1	U	ug/kg	2.1
beta-BHC	1.8	U	ug/kg	1.8	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	2.1	U	ug/kg	2.1
delta-BHC	1.8	U	ug/kg	1.8	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	2.1	U	ug/kg	2.1
gamma-BHC (Lindane)	1.8	U	ug/kg	1.8	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	2.1	U	ug/kg	2.1
Heptachlor	1.8	U	ug/kg	1.8	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	2.1	U	ug/kg	2.1
Aldrin	1.8	U	ug/kg	1.8	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	2.1	U	ug/kg	2.1
Heptachlor epoxide	1.8	U	ug/kg	1.8	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	2.1	U	ug/kg	2.1
Endosulfan I	1.8	U	ug/kg	1.8	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	2.1	U	ug/kg	2.1
Dieldrin	3.6	U	ug/kg	3.6	.1	U	ug/l	.1	3.7	U	ug/kg	3.7	4.1	U	ug/kg	4.1
4,4-DDE	3.6	U	ug/kg	3.6	.1	U	ug/l	.1	3.7	U	ug/kg	3.7	4.1	U	ug/kg	4.1
Endrin	3.6	U	ug/kg	3.6	.1	U	ug/l	.1	3.7	U	ug/kg	3.7	.32	J	ug/kg	4
Endosulfan II	3.6	U	ug/kg	3.6	.1	U	ug/l	.1	3.7	U	ug/kg	3.7	4.1	U	ug/kg	4.1
4,4-DDD	3.6	U	ug/kg	3.6	.1	U	ug/l	.1	3.7	U	ug/kg	3.7	4.1	U	ug/kg	4.1
Endosulfan sulfate	3.6	U	ug/kg	3.6	.1	U	ug/l	.1	3.7	U	ug/kg	3.7	4.1	U	ug/kg	4.1
4,4-DDT	3.6	U	ug/kg	3.6	.1	U	ug/l	.1	3.7	U	ug/kg	3.7	4.1	U	ug/kg	4.1
Methoxychlor	18	U	ug/kg	18	.5	U	ug/l	.5	1	U	ug/kg	1	21	U	ug/kg	21
Endrin ketone	3.6	U	ug/kg	3.6	.1	U	ug/l	.1	3.7	U	ug/kg	3.7	4.1	U	ug/kg	4.1
Endrin aldehyde	3.6	U	ug/kg	3.6	.1	U	ug/l	.1	3.7	U	ug/kg	3.7	4.1	U	ug/kg	4.1
alpha-Chlordane	1.8	U	ug/kg	1.8	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	2.1	U	ug/kg	2.1
gamma-Chlordane	1.8	U	ug/kg	1.8	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	2.1	U	ug/kg	2.1
Toxaphene	180	U	ug/kg	180	5	U	ug/l	5	190	U	ug/kg	190	210	U	ug/kg	210
Aroclor-1016	36	U	ug/kg	36	1	U	ug/l	1	37	U	ug/kg	37	41	U	ug/kg	41
Aroclor-1221	72	U	ug/kg	72	2	U	ug/l	2	74	U	ug/kg	74	82	U	ug/kg	82
Aroclor-1232	36	U	ug/kg	36	1	U	ug/l	1	37	U	ug/kg	37	41	U	ug/kg	41
Aroclor-1242	36	U	ug/kg	36	1	U	ug/l	1	37	U	ug/kg	37	41	U	ug/kg	41
Aroclor-1248	36	U	ug/kg	36	1	U	ug/l	1	37	U	ug/kg	37	41	U	ug/kg	41
Aroclor-1254	36	U	ug/kg	36	1	U	ug/l	1	37	U	ug/kg	37	41	U	ug/kg	41
Aroclor-1260	36	U	ug/kg	36	1	U	ug/l	1	37	U	ug/kg	37	41	U	ug/kg	41

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- PESTICIDES AND PCBS

Lab Sample Number:	CEFBSS02R				CEFBSS03				CEFBSS04				CEFBSS05			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEFBSS02R				CEFBSS03				CEFBSS04				CEFBSS05			
Collect Date:	20-JUL-93				19-JUL-93				19-JUL-93				20-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8
beta-BHC	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8
delta-BHC	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8
gamma-BHC (Lindane)	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8
Heptachlor	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8
Aldrin	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8
Heptachlor epoxide	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8
Endosulfan I	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8
Dieldrin	.1	U	ug/l	.1	3.9	U	ug/kg	3.9	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6
4,4-DDE	.1	U	ug/l	.1	3.9	U	ug/kg	3.9	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6
Endrin	.1	U	ug/l	.1	.7	U	ug/kg	.7	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6
Endosulfan II	.1	U	ug/l	.1	3.9	U	ug/kg	3.9	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6
4,4-DDD	.1	U	ug/l	.1	3.9	U	ug/kg	3.9	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6
Endosulfan sulfate	.1	U	ug/l	.1	3.9	U	ug/kg	3.9	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6
4,4-DDT	.1	U	ug/l	.1	3.9	U	ug/kg	3.9	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6
Methoxychlor	.5	U	ug/l	.5	19	U	ug/kg	19	2	U	ug/kg	2	18	U	ug/kg	18
Endrin ketone	.1	U	ug/l	.1	3.9	U	ug/kg	3.9	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6
Endrin aldehyde	.1	U	ug/l	.1	.45		ug/kg	4	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6
alpha-Chlordane	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8
gamma-Chlordane	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8
Toxaphene	5	U	ug/l	5	190	U	ug/kg	190	180	U	ug/kg	180	180	U	ug/kg	180
Aroclor-1016	1	U	ug/l	1	39	U	ug/kg	39	36	U	ug/kg	36	36	U	ug/kg	36
Aroclor-1221	2	U	ug/l	2	78	U	ug/kg	78	72	U	ug/kg	72	72	U	ug/kg	72
Aroclor-1232	1	U	ug/l	1	39	U	ug/kg	39	36	U	ug/kg	36	36	U	ug/kg	36
Aroclor-1242	1	U	ug/l	1	39	U	ug/kg	39	36	U	ug/kg	36	36	U	ug/kg	36
Aroclor-1248	1	U	ug/l	1	39	U	ug/kg	39	36	U	ug/kg	36	36	U	ug/kg	36
Aroclor-1254	1	U	ug/l	1	39	U	ug/kg	39	36	U	ug/kg	36	36	U	ug/kg	36
Aroclor-1260	1	U	ug/l	1	39	U	ug/kg	39	36	U	ug/kg	36	36	U	ug/kg	36

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- PESTICIDES AND PCBS

Lab Sample Number:	CEFBSS06				CEFBSS07				CEFBSS08				CEFBSS09			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEFBSS06				CEFBSS07				CEFBSS08				CEFBSS09			
Collect Date:	20-JUL-93				20-JUL-93				20-JUL-93				20-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.9	UJ	ug/kg	1.9
beta-BHC	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.9	UJ	ug/kg	1.9
delta-BHC	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.9	UJ	ug/kg	1.9
gamma-BHC (Lindane)	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.9	UJ	ug/kg	1.9
Heptachlor	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.9	UJ	ug/kg	1.9
Aldrin	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.9	UJ	ug/kg	1.9
Heptachlor epoxide	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.9	UJ	ug/kg	1.9
Endosulfan I	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.9	UJ	ug/kg	1.9
Dieldrin	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6	3.7	UJ	ug/kg	3.7
4,4-DDE	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6	3.7	UJ	ug/kg	3.7
Endrin	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6	.97	J	ug/kg	4
Endosulfan II	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6	3.7	UJ	ug/kg	3.7
4,4-DDD	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6	3.7	UJ	ug/kg	3.7
Endosulfan sulfate	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6	3.7	UJ	ug/kg	3.7
4,4-DDT	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6	3.7	UJ	ug/kg	3.7
Methoxychlor	18	U	ug/kg	18	18	U	ug/kg	18	18	U	ug/kg	18	19	UJ	ug/kg	19
Endrin ketone	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6	3.6	U	ug/kg	3.6	3.7	UJ	ug/kg	3.7
Endrin aldehyde	.3	U	ug/kg	.3	.4	U	ug/kg	.4	3.6	U	ug/kg	3.6	3.7	UJ	ug/kg	3.7
alpha-Chlordane	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.9	UJ	ug/kg	1.9
gamma-Chlordane	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.9	UJ	ug/kg	1.9
Toxaphene	180	U	ug/kg	180	180	U	ug/kg	180	180	U	ug/kg	180	190	UJ	ug/kg	190
Aroclor-1016	36	U	ug/kg	36	36	U	ug/kg	36	36	U	ug/kg	36	37	UJ	ug/kg	37
Aroclor-1221	72	U	ug/kg	72	72	U	ug/kg	72	72	U	ug/kg	72	75	UJ	ug/kg	75
Aroclor-1232	36	U	ug/kg	36	36	U	ug/kg	36	36	U	ug/kg	36	37	UJ	ug/kg	37
Aroclor-1242	36	U	ug/kg	36	36	U	ug/kg	36	36	U	ug/kg	36	37	UJ	ug/kg	37
Aroclor-1248	36	U	ug/kg	36	36	U	ug/kg	36	36	U	ug/kg	36	37	UJ	ug/kg	37
Aroclor-1254	36	U	ug/kg	36	36	U	ug/kg	36	36	U	ug/kg	36	37	UJ	ug/kg	37
Aroclor-1260	36	U	ug/kg	36	36	U	ug/kg	36	36	U	ug/kg	36	37	UJ	ug/kg	37

U = NOT DETECTED J = ESTIMATED VALUE
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CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- PESTICIDES AND PCBS

Lab Sample Number:	CEFBSS09D				CEFBSS09MS				CEFBSS09MS				CEFBSS10			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEFBSS09D				CEFBSS09MS				CEFBSS09MSD				CEFBSS10			
Collect Date:	20-JUL-93				20-JUL-93				20-JUL-93				20-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.8	U	ug/kg	1.8
beta-BHC	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.8	U	ug/kg	1.8
delta-BHC	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.8	U	ug/kg	1.8
gamma-BHC (Lindane)	1.9	U	ug/kg	1.9	18		ug/kg	2	18		ug/kg	2	1.8	U	ug/kg	1.8
Heptachlor	1.9	U	ug/kg	1.9	15		ug/kg	2	13		ug/kg	2	1.8	U	ug/kg	1.8
Aldrin	1.9	U	ug/kg	1.9	17		ug/kg	2	17		ug/kg	2	1.8	U	ug/kg	1.8
Heptachlor epoxide	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.8	U	ug/kg	1.8
Endosulfan I	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.8	U	ug/kg	1.8
Dieldrin	3.8	U	ug/kg	3.8	34		ug/kg	4	35		ug/kg	4	3.6	U	ug/kg	3.6
4,4-DDE	3.8	U	ug/kg	3.8	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	.51		ug/kg	4
Endrin	3.8	U	ug/kg	3.8	33		ug/kg	4	34		ug/kg	4	3.6	U	ug/kg	3.6
Endosulfan II	3.8	U	ug/kg	3.8	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.6	U	ug/kg	3.6
4,4-DDD	3.8	U	ug/kg	3.8	.74		ug/kg	4	.59		ug/kg	4	3.6	U	ug/kg	3.6
Endosulfan sulfate	3.8	U	ug/kg	3.8	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.6	U	ug/kg	3.6
4,4-DDT	3.8	U	ug/kg	3.8	30		ug/kg	4	31		ug/kg	4	3.6	U	ug/kg	3.6
Methoxychlor	19	U	ug/kg	19	19	U	ug/kg	19	19	U	ug/kg	19	18	U	ug/kg	18
Endrin ketone	3.8	U	ug/kg	3.8	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.6	U	ug/kg	3.6
Endrin aldehyde	3.8	U	ug/kg	3.8	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.6	U	ug/kg	3.6
alpha-Chlordane	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.8	U	ug/kg	1.8
gamma-Chlordane	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.8	U	ug/kg	1.8
Toxaphene	190	U	ug/kg	190	190	U	ug/kg	190	190	U	ug/kg	190	180	U	ug/kg	180
Aroclor-1016	38	U	ug/kg	38	37	U	ug/kg	37	37	U	ug/kg	37	36	U	ug/kg	36
Aroclor-1221	77	U	ug/kg	77	75	U	ug/kg	75	75	U	ug/kg	75	72	U	ug/kg	72
Aroclor-1232	38	U	ug/kg	38	37	U	ug/kg	37	37	U	ug/kg	37	36	U	ug/kg	36
Aroclor-1242	38	U	ug/kg	38	37	U	ug/kg	37	37	U	ug/kg	37	36	U	ug/kg	36
Aroclor-1248	38	U	ug/kg	38	37	U	ug/kg	37	37	U	ug/kg	37	36	U	ug/kg	36
Aroclor-1254	38	U	ug/kg	38	37	U	ug/kg	37	37	U	ug/kg	37	36	U	ug/kg	36
Aroclor-1260	38	U	ug/kg	38	37	U	ug/kg	37	37	U	ug/kg	37	36	U	ug/kg	36

U = NOT DETECTED J = ESTIMATED VALUE
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CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- PESTICIDES AND PCBS

Lab Sample Number:	CEFBSS11				CEFBSS12				CEFBSS13				CEFBSS14			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEFBSS11				CEFBSS12				CEFBSS13				CEFBSS14			
Collect Date:	20-JUL-93				20-JUL-93				20-JUL-93				20-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8
beta-BHC	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8
delta-BHC	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8
gamma-BHC (Lindane)	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8
Heptachlor	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8
Aldrin	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8
Heptachlor epoxide	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8
Endosulfan I	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8
Dieldrin	3.6	U	ug/kg	3.6	3.5	U	ug/kg	3.5	3.7	U	ug/kg	3.7	3.5	U	ug/kg	3.5
4,4-DDE	.21	J	ug/kg	4	3.5	U	ug/kg	3.5	3.7	U	ug/kg	3.7	.26	J	ug/kg	3
Endrin	3.6	U	ug/kg	3.6	3.5	U	ug/kg	3.5	3.7	U	ug/kg	3.7	3.5	U	ug/kg	3.5
Endosulfan II	3.6	U	ug/kg	3.6	3.5	U	ug/kg	3.5	3.7	U	ug/kg	3.7	3.5	U	ug/kg	3.5
4,4-DDD	3.6	U	ug/kg	3.6	3.5	U	ug/kg	3.5	3.7	U	ug/kg	3.7	3.5	U	ug/kg	3.5
Endosulfan sulfate	3.6	U	ug/kg	3.6	3.5	U	ug/kg	3.5	3.7	U	ug/kg	3.7	3.5	U	ug/kg	3.5
4,4-DDT	3.6	U	ug/kg	3.6	3.5	U	ug/kg	3.5	3.7	U	ug/kg	3.7	3.5	U	ug/kg	3.5
Methoxychlor	18	U	ug/kg	18	18	U	ug/kg	18	18	U	ug/kg	18	18	U	ug/kg	18
Endrin ketone	3.6	U	ug/kg	3.6	3.5	U	ug/kg	3.5	3.7	U	ug/kg	3.7	3.5	U	ug/kg	3.5
Endrin aldehyde	.6	U	ug/kg	.6	3.5	U	ug/kg	3.5	.7	U	ug/kg	.7	3.5	U	ug/kg	3.5
alpha-Chlordane	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8
gamma-Chlordane	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8
Toxaphene	180	U	ug/kg	180	180	U	ug/kg	180	180	U	ug/kg	180	180	U	ug/kg	180
Aroclor-1016	36	U	ug/kg	36	35	U	ug/kg	35	37	U	ug/kg	37	35	U	ug/kg	35
Aroclor-1221	72	U	ug/kg	72	70	U	ug/kg	70	73	U	ug/kg	73	70	U	ug/kg	70
Aroclor-1232	36	U	ug/kg	36	35	U	ug/kg	35	37	U	ug/kg	37	35	U	ug/kg	35
Aroclor-1242	36	U	ug/kg	36	35	U	ug/kg	35	37	U	ug/kg	37	35	U	ug/kg	35
Aroclor-1248	36	U	ug/kg	36	35	U	ug/kg	35	37	U	ug/kg	37	35	U	ug/kg	35
Aroclor-1254	36	U	ug/kg	36	35	U	ug/kg	35	37	U	ug/kg	37	35	U	ug/kg	35
Aroclor-1260	36	U	ug/kg	36	35	U	ug/kg	35	37	U	ug/kg	37	35	U	ug/kg	35

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- PESTICIDES AND PCBS

Lab Sample Number:		CEFBSS15		
Site		CECIL		
Locator		CEFBSS15		
Collect Date:		20-JUL-93		
	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW				
alpha-BHC	1.9	U	ug/kg	1.9
beta-BHC	1.9	U	ug/kg	1.9
delta-BHC	1.9	U	ug/kg	1.9
gamma-BHC (Lindane)	1.9	U	ug/kg	1.9
Heptachlor	1.9	U	ug/kg	1.9
Aldrin	1.9	U	ug/kg	1.9
Heptachlor epoxide	1.9	U	ug/kg	1.9
Endosulfan I	1.9	U	ug/kg	1.9
Dieldrin	3.7	U	ug/kg	3.7
4,4-DDE	3.7	U	ug/kg	3.7
Endrin	3.7	U	ug/kg	3.7
Endosulfan II	.33	J	ug/kg	4
4,4-DDD	3.7	U	ug/kg	3.7
Endosulfan sulfate	3.7	U	ug/kg	3.7
4,4-DDT	3.7	U	ug/kg	3.7
Methoxychlor	19	U	ug/kg	19
Endrin ketone	3.7	U	ug/kg	3.7
Endrin aldehyde	3.7	U	ug/kg	3.7
alpha-Chlordane	1.9	U	ug/kg	1.9
gamma-Chlordane	1.9	U	ug/kg	1.9
Toxaphene	190	U	ug/kg	190
Aroclor-1016	37	U	ug/kg	37
Aroclor-1221	75	U	ug/kg	75
Aroclor-1232	37	U	ug/kg	37
Aroclor-1242	37	U	ug/kg	37
Aroclor-1248	37	U	ug/kg	37
Aroclor-1254	37	U	ug/kg	37
Aroclor-1260	37	U	ug/kg	37

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R SULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- METALS AND CYANIDE

Lab Sample Number:	E6969				E6967				E6970				E6971			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFEBSS01				CFEBSS01R				CFEBSS02				CFEBSS02D			
Collect Date:	19-JUL-93				19-JUL-93				19-JUL-93				19-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	4720		mg/kg	40	63.1	U	ug/l	200	18500		mg/kg	40	23600		mg/kg	40
Antimony	3.2	U	mg/kg	12	15	U	ug/l	60	3.3	U	mg/kg	12	3.7	U	mg/kg	12
Arsenic	.22	UJ	mg/kg	2	1	UJ	ug/l	10	1.4	J	mg/kg	2	.25	UJ	mg/kg	2
Barium	5.4	J	mg/kg	40	2.9	U	ug/l	200	13.4	J	mg/kg	40	19.3	J	mg/kg	40
Beryllium	.21	U	mg/kg	1	1.4	U	ug/l	5	.22	U	mg/kg	1	.25	U	mg/kg	1
Cadmium	.86	U	mg/kg	1	4	U	ug/l	5	.89	U	mg/kg	1	.99	U	mg/kg	1
Calcium	119	U	mg/kg	1000	357	U	ug/l	5000	167	U	mg/kg	1000	111	U	mg/kg	1000
Chromium	5.9		mg/kg	2	8	U	ug/l	10	18.4		mg/kg	2	23.6		mg/kg	2
Cobalt	1.3	U	mg/kg	10	6	U	ug/l	50	1.3	U	mg/kg	10	1.5	U	mg/kg	10
Copper	.93	U	mg/kg	5	5	U	ug/l	25	.76	U	mg/kg	5	.95	U	mg/kg	5
Iron	716		mg/kg	20	31.3	U	ug/l	100	6090		mg/kg	20	7440		mg/kg	20
Lead	4.8		mg/kg	1	3.5	U	ug/l	5	10.3		mg/kg	1	10.6		mg/kg	1
Magnesium	123	J	mg/kg	1000	83.9	U	ug/l	5000	326	J	mg/kg	1000	425	J	mg/kg	1000
Manganese	8.8		mg/kg	3	4.1	U	ug/l	15	9		mg/kg	3	10.1		mg/kg	3
Mercury	.11	U	mg/kg	.1	.2	U	ug/l	.2	.12	U	mg/kg	.1	.13	U	mg/kg	.1
Nickel	2	J	mg/kg	8	7	U	ug/l	40	5.2	J	mg/kg	8	6.1	J	mg/kg	8
Potassium	69.7	J	mg/kg	1000	125	U	ug/l	5000	199	J	mg/kg	1000	255	J	mg/kg	1000
Selenium	.22	U	mg/kg	1	1	U	ug/l	5	.22	U	mg/kg	1	.25	U	mg/kg	1
Silver	.86	U	mg/kg	2	4	U	ug/l	10	.89	U	mg/kg	2	.99	U	mg/kg	2
Sodium	159	U	mg/kg	1000	913	U	ug/l	5000	241	U	mg/kg	1000	219	U	mg/kg	1000
Thallium	.44	U	mg/kg	2	2	U	ug/l	10	.43	U	mg/kg	2	.5	U	mg/kg	2
Vanadium	4.9	J	mg/kg	10	4.1	J	ug/l	50	20.2		mg/kg	10	23.8		mg/kg	10
Zinc	4.9	U	mg/kg	4	38.4	U	ug/l	20	20.2	U	mg/kg	4	10.1	U	mg/kg	4
Cyanide	.54	U	mg/kg	1	5	U	ug/l	10	.49	U	mg/kg	1	.6	U	mg/kg	1

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CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- METALS AND CYANIDE

Lab Sample Number:	CEFBSS02R			E6972			E6973			E7214		
Site	CECIL			CECIL			CECIL			CECIL		
Locator	CEFBSS02R			CFEBSS03			CFEBSS04			CFEBSS05		
Collect Date:	20-JUL-93			19-JUL-93			19-JUL-93			20-JUL-93		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	116	U ug/l	200	24000	mg/kg	40	8400	mg/kg	40	680	mg/kg	40
Antimony	15	U ug/l	60	3.4	U mg/kg	12	3.2	U mg/kg	12	3.2	U mg/kg	12
Arsenic	1	U ug/l	10	2.2	J mg/kg	2	.86	UJ mg/kg	2	.31	UJ mg/kg	2
Barium	1	U ug/l	200	13.4	J mg/kg	40	6.8	J mg/kg	40	2.4	J mg/kg	40
Beryllium	1	U ug/l	5	.23	U mg/kg	1	.22	U mg/kg	1	.21	U mg/kg	1
Cadmium	4	U ug/l	5	.91	U mg/kg	1	.86	U mg/kg	1	.86	U mg/kg	1
Calcium	136	U ug/l	5000	88.4	U mg/kg	1000	67.7	U mg/kg	1000	93.5	U mg/kg	1000
Chromium	8	U ug/l	10	24.9	mg/kg	2	10.6	mg/kg	2	1.7	U mg/kg	2
Cobalt	6	U ug/l	50	1.4	U mg/kg	10	1.3	U mg/kg	10	1.3	U mg/kg	10
Copper	2	U ug/l	25	.5	U mg/kg	5	.43	U mg/kg	5	.43	U mg/kg	5
Iron	44	U ug/l	100	7140	mg/kg	20	1500	mg/kg	20	252	mg/kg	20
Lead	1	U ug/l	5	8.3	mg/kg	1	7.6	mg/kg	1	2.4	mg/kg	1
Magnesium	55.9	U ug/l	5000	319	J mg/kg	1000	129	J mg/kg	1000	24.4	J mg/kg	1000
Manganese	2	U ug/l	15	10.9	mg/kg	3	4.8	mg/kg	3	4.1	mg/kg	3
Mercury	.2	U ug/l	.2	.12	U mg/kg	.1	.11	U mg/kg	.1	.11	U mg/kg	.1
Nickel	7	U ug/l	40	5.4	J mg/kg	8	1.5	J mg/kg	8	1.5	U mg/kg	8
Potassium	169	U ug/l	5000	236	J mg/kg	1000	87.5	J mg/kg	1000	19.4	U mg/kg	1000
Selenium	1	U ug/l	5	.24	U mg/kg	1	.22	U mg/kg	1	.22	U mg/kg	1
Silver	4	U ug/l	10	.91	U mg/kg	2	.86	U mg/kg	2	.86	U mg/kg	2
Sodium	251	U ug/l	5000	162	U mg/kg	1000	182	U mg/kg	1000	210	U mg/kg	1000
Thallium	2	U ug/l	10	.47	U mg/kg	2	.43	U mg/kg	2	.44	U mg/kg	2
Vanadium	4	U ug/l	50	30.7	mg/kg	10	10.9	mg/kg	10	1.9	J mg/kg	10
Zinc	10.5	J ug/l	20	8.5	U mg/kg	4	4.4	U mg/kg	4	2.7	U mg/kg	4
Cyanide	5	U ug/l	10	.56	U mg/kg	1	.51	U mg/kg	1	.5	U mg/kg	1

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CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- METALS AND CYANIDE

Lab Sample Number:	E7216				E7217				E7218				E7219			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFEBSS06				CFEBSS07				CFEBSS08				CFEBSS09			
Collect Date:	20-JUL-93				20-JUL-93				20-JUL-93				20-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	344		mg/kg	40	284		mg/kg	40	2130		mg/kg	40	442		mg/kg	40
Antimony	3.3	U	mg/kg	12	3.3	U	mg/kg	12	3.4	U	mg/kg	12	3.5	U	mg/kg	12
Arsenic	.24	UJ	mg/kg	2	.22	U	mg/kg	2	.33	UJ	mg/kg	2	.23	U	mg/kg	2
Barium	1.2	U	mg/kg	40	1.7	U	mg/kg	40	2.9	J	mg/kg	40	2	U	mg/kg	40
Beryllium	.22	U	mg/kg	1	.22	U	mg/kg	1	.23	U	mg/kg	1	.23	U	mg/kg	1
Cadmium	.87	U	mg/kg	1	.88	U	mg/kg	1	.9	U	mg/kg	1	.92	U	mg/kg	1
Calcium	104	U	mg/kg	1000	119	U	mg/kg	1000	94.7	U	mg/kg	1000	69.5	U	mg/kg	1000
Chromium	1.7	U	mg/kg	2	1.8	U	mg/kg	2	1.8	U	mg/kg	2	1.8	U	mg/kg	2
Cobalt	1.3	U	mg/kg	10	1.3	U	mg/kg	10	1.4	U	mg/kg	10	1.4	U	mg/kg	10
Copper	.85	U	mg/kg	5	2.3	U	mg/kg	5	.59	U	mg/kg	5	.46	U	mg/kg	5
Iron	194		mg/kg	20	136		mg/kg	20	454		mg/kg	20	119		mg/kg	20
Lead	2.7		mg/kg	1	2.1	U	mg/kg	1	3.6		mg/kg	1	2	U	mg/kg	1
Magnesium	18.8	U	mg/kg	1000	17.2	U	mg/kg	1000	55.7	J	mg/kg	1000	12.6	U	mg/kg	1000
Manganese	4.1		mg/kg	3	3.6		mg/kg	3	3.7		mg/kg	3	.69	U	mg/kg	3
Mercury	.1	U	mg/kg	.1	.1	U	mg/kg	.1	.12	U	mg/kg	.1	.12	U	mg/kg	.1
Nickel	1.5	U	mg/kg	8	1.5	U	mg/kg	8	1.6	U	mg/kg	8	1.6	U	mg/kg	8
Potassium	17.8	U	mg/kg	1000	13.8	U	mg/kg	1000	28.8	U	mg/kg	1000	14	U	mg/kg	1000
Selenium	.22	U	mg/kg	1	.22	U	mg/kg	1	.25	U	mg/kg	1	.23	U	mg/kg	1
Silver	.87	U	mg/kg	2	.88	U	mg/kg	2	.9	U	mg/kg	2	.92	U	mg/kg	2
Sodium	238	U	mg/kg	1000	209	U	mg/kg	1000	203	U	mg/kg	1000	164	U	mg/kg	1000
Thallium	.43	U	mg/kg	2	.44	U	mg/kg	2	.45	U	mg/kg	2	.46	U	mg/kg	2
Vanadium	1.6	J	mg/kg	10	1.3	J	mg/kg	10	3	J	mg/kg	10	1.3	J	mg/kg	10
Zinc	3.6	U	mg/kg	4	3.6	U	mg/kg	4	3.6	U	mg/kg	4	2.4	U	mg/kg	4
Cyanide	.53	U	mg/kg	1	.53	U	mg/kg	1	.54	U	mg/kg	1	.55	U	mg/kg	1

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CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- METALS AND CYANIDE

Lab Sample Number:	E7220				E7221				E7222				E7223			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFEBSS09D				CFEBSS10				CFEBSS11				CFEBSS12			
Collect Date:	20-JUL-93				20-JUL-93				20-JUL-93				20-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	557		mg/kg	40	183		mg/kg	40	195		mg/kg	40	2350		mg/kg	40
Antimony	3.4	U	mg/kg	12	3.3	U	mg/kg	12	3.3	U	mg/kg	12	3.2	U	mg/kg	12
Arsenic	.26	UJ	mg/kg	2	.22	UJ	mg/kg	2	.22	UJ	mg/kg	2	.39	UJ	mg/kg	2
Barium	2.4	J	mg/kg	40	2.1	J	mg/kg	40	2.6	J	mg/kg	40	3.7	J	mg/kg	40
Beryllium	.23	U	mg/kg	1	.22	U	mg/kg	1	.22	U	mg/kg	1	.21	U	mg/kg	1
Cadmium	.9	U	mg/kg	1	.88	U	mg/kg	1	.88	U	mg/kg	1	.84	U	mg/kg	1
Calcium	77.9	U	mg/kg	1000	269	J	mg/kg	1000	211	J	mg/kg	1000	198	U	mg/kg	1000
Chromium	1.8	U	mg/kg	2	1.8	U	mg/kg	2	1.8	U	mg/kg	2	1.7	U	mg/kg	2
Cobalt	1.4	U	mg/kg	10	1.3	U	mg/kg	10	1.3	U	mg/kg	10	1.3	U	mg/kg	10
Copper	.46	U	mg/kg	5	.49	U	mg/kg	5	.83	U	mg/kg	5	.65	U	mg/kg	5
Iron	154		mg/kg	20	102		mg/kg	20	69.6		mg/kg	20	480		mg/kg	20
Lead	4		mg/kg	1	2.3		mg/kg	1	2.5		mg/kg	1	3.5		mg/kg	1
Magnesium	17.5	U	mg/kg	1000	50.4	J	mg/kg	1000	36.1	J	mg/kg	1000	69.8	J	mg/kg	1000
Manganese	1.2	U	mg/kg	3	5.2		mg/kg	3	2.5	J	mg/kg	3	5.5		mg/kg	3
Mercury	.12	U	mg/kg	.1	.11	U	mg/kg	.1	.11	U	mg/kg	.1	.1	U	mg/kg	.1
Nickel	1.6	U	mg/kg	8	1.5	U	mg/kg	8	1.5	U	mg/kg	8	1.5	U	mg/kg	8
Potassium	14.3	U	mg/kg	1000	33.9	U	mg/kg	1000	17.7	U	mg/kg	1000	35.4	U	mg/kg	1000
Selenium	.23	U	mg/kg	1	.22	U	mg/kg	1	.22	U	mg/kg	1	.21	U	mg/kg	1
Silver	.9	U	mg/kg	2	.88	U	mg/kg	2	.88	U	mg/kg	2	.84	U	mg/kg	2
Sodium	149	U	mg/kg	1000	186	U	mg/kg	1000	156	U	mg/kg	1000	171	U	mg/kg	1000
Thallium	.47	UJ	mg/kg	2	.44	U	mg/kg	2	.43	U	mg/kg	2	.41	UJ	mg/kg	2
Vanadium	1.4	J	mg/kg	10	1.5	J	mg/kg	10	1.3	J	mg/kg	10	3.3	J	mg/kg	10
Zinc	2.5	U	mg/kg	4	3.1	U	mg/kg	4	11.9	U	mg/kg	4	4	U	mg/kg	4
Cyanide	.57	U	mg/kg	1	.51	U	mg/kg	1	.48	U	mg/kg	1	.5	U	mg/kg	1

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CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- METALS AND CYANIDE

Lab Sample Number:	E7224				E7225				E7226			
Site	CECIL				CECIL				CECIL			
Locator	CFEBSS13				CFEBSS14				CFEBSS15			
Collect Date:	20-JUL-93				20-JUL-93				20-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	2770		mg/kg	40	2170		mg/kg	40	1430		mg/kg	40
Antimony	3.3	U	mg/kg	12	3.2	U	mg/kg	12	3.3	U	mg/kg	12
Arsenic	.4	UJ	mg/kg	2	.21	UJ	mg/kg	2	.22	UJB	mg/kg	2
Barium	4.1	J	mg/kg	40	4.8	J	mg/kg	40	6.8	JB	mg/kg	40
Beryllium	.22	U	mg/kg	1	.21	U	mg/kg	1	.22	U	mg/kg	1
Cadmium	.88	U	mg/kg	1	.84	U	mg/kg	1	.88	U	mg/kg	1
Calcium	220	J	mg/kg	1000	141	U	mg/kg	1000	217	J	mg/kg	1000
Chromium	1.8	U	mg/kg	2	2.3		mg/kg	2	1.8	U	mg/kg	2
Cobalt	1.3	U	mg/kg	10	1.3	U	mg/kg	10	1.3	U	mg/kg	10
Copper	.82	U	mg/kg	5	.7	U	mg/kg	5	1.4	U	mg/kg	5
Iron	734		mg/kg	20	636		mg/kg	20	367		mg/kg	20
Lead	5.1		mg/kg	1	3.7		mg/kg	1	3.5		mg/kg	1
Magnesium	69.1	J	mg/kg	1000	75.9	J	mg/kg	1000	50	J	mg/kg	1000
Manganese	5		mg/kg	3	5.9		mg/kg	3	3.8		mg/kg	3
Mercury	.11	U	mg/kg	.1	.1	U	mg/kg	.1	.12	U	mg/kg	.1
Nickel	1.5	U	mg/kg	8	1.5	U	mg/kg	8	1.5	U	mg/kg	8
Potassium	34.5	U	mg/kg	1000	39.9	U	mg/kg	1000	30.7	U	mg/kg	1000
Selenium	.22	U	mg/kg	1	.21	U	mg/kg	1	.22	U	mg/kg	1
Silver	.88	U	mg/kg	2	.84	U	mg/kg	2	.88	U	mg/kg	2
Sodium	154	U	mg/kg	1000	171	U	mg/kg	1000	222	U	mg/kg	1000
Thallium	.45	UJ	mg/kg	2	.43	UJ	mg/kg	2	.44	U	mg/kg	2
Vanadium	3.9	J	mg/kg	10	3.3	J	mg/kg	10	2.6	J	mg/kg	10
Zinc	4.7	U	mg/kg	4	7.2	U	mg/kg	4	4.1	U	mg/kg	4
Cyanide	.53	U	mg/kg	1	.53	U	mg/kg	1	.51	U	mg/kg	1

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CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- TENTATIVELY IDENTIFIED COMPOUNDS

Lab Sample Number:	CEFBSS01			CEFBSS02			CEFBSS02D			CEFBSS02R		
Site	CECIL			CECIL			CECIL			CECIL		
Locator	CEFBSS01			CEFBSS02			CEFBSS02D			CEFBSS02R		
Collect Date:	19-JUL-93			19-JUL-93			19-JUL-93			20-JUL-93		
	VALUE	QUAL	UNITS	VALUE	QUAL	UNITS	VALUE	QUAL	UNITS	VALUE	QUAL	UNITS
TENTATIVELY IDENTIFIED CMPNDS.												
(3.45) Aldolcondensationproduc	1200	J	ug/kg									
(3.88) Aldolcondensationproduc	28000	J	ug/kg									
(4.87) Aldolcondensationproduc	1000	J	ug/kg									
(15.58) 3-Carene				14	J	ug/kg						
(3.45) Aldolcondensationproduc				1300	J	ug/kg						
(3.88) Aldolcondensationproduc				28000	J	ug/kg						
(4.87) Aldolcondensationproduc				1000	J	ug/kg						
(6.17) Ethanol,2-(2-Ethoxyetho				120	U	ug/kg						
(15.59) 3-Carene							9	J	ug/kg			
(3.45) Aldolcondensationproduc							1200	J	ug/kg			
(3.88) Aldolcondensationproduc							26000	J	ug/kg			
(4.88) Aldolcondensationproduc							1000	J	ug/kg			
(6.25) Ethanol,2-(2-Ethoxyetho										2	U	ug/l

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CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- TENTATIVELY IDENTIFIED COMPOUNDS

Lab Sample Number:	CEFBSS03			CEFBSS04			CEFBSS05			CEFBSS06		
Site	CECIL			CECIL			CECIL			CECIL		
Locator	CEFBSS03			CEFBSS04			CEFBSS05			CEFBSS06		
Collect Date:	19-JUL-93			19-JUL-93			20-JUL-93			20-JUL-93		
	VALUE	QUAL	UNITS	VALUE	QUAL	UNITS	VALUE	QUAL	UNITS	VALUE	QUAL	UNITS
TENTATIVELY IDENTIFIED CMPNDS.												
(3.50) Aldolcondensationproduc	1500	J	ug/kg									
(3.92) Aldolcondensationproduc	34000	J	ug/kg									
(4.90) Aldolcondensationproduc	1300	J	ug/kg									
(6.18) Ethanol,2-(2-Ethoxyetho	100	U	ug/kg									
(15.59) 3-Carene				26	J	ug/kg						
(3.48) Aldolcondensationproduc				1100	J	ug/kg						
(3.90) Aldolcondensationproduc				24000	J	ug/kg						
(4.90) Aldolcondensationproduc				980	J	ug/kg						
(3.42) Aldolcondensationproduc							480	J	ug/kg			
(3.85) Aldolcondensationproduc							11000	J	ug/kg			
(4.88) Aldolcondensationproduc							400	J	ug/kg			
(6.18) Ethanol,2-(2-Ethoxyetho							86	J	ug/kg			
(3.82) Aldolcondensationproduc										19000	J	ug/kg

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CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- TENTATIVELY IDENTIFIED COMPOUNDS

Lab Sample Number:	CEFBSS07			CEFBSS08			CEFBSS09			CEFBSS09D		
Site	CECIL			CECIL			CECIL			CECIL		
Locator	CEFBSS07			CEFBSS08			CEFBSS09			CEFBSS09D		
Collect Date:	20-JUL-93			20-JUL-93			20-JUL-93			20-JUL-93		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
TENTATIVELY IDENTIFIED CMPNDS.												
(3.45) Aldolcondensationproduc	620	J ug/kg										
(3.87) Aldolcondensationproduc	24000	J ug/kg										
(4.87) Aldolcondensationproduc	940	J ug/kg										
(3.38) Aldolcondensationproduc	520	J ug/kg										
(15.59) 3-Carene				15	J ug/kg							
(3.47) Aldolcondensationproduc				1400	J ug/kg							
(3.90) Aldolcondensationproduc				30000	J ug/kg							
(4.87) Aldolcondensationproduc				1200	J ug/kg							
(3.48) Aldolcondensationproduc							1600	J ug/kg				
(3.90) Aldolcondensationproduc							36000	J ug/kg				
(4.87) Aldolcondensationproduc							1400	J ug/kg				
(3.45) Aldolcondensationproduc										1200	J ug/kg	
(3.88) Aldolcondensationproduc										28000	J ug/kg	
(4.87) Aldolcondensationproduc										1100	J ug/kg	

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- TENTATIVELY IDENTIFIED COMPOUNDS

Lab Sample Number:	CEFBSS10				CEFBSS11				CEFBSS12				CEFBSS13			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CEFBSS10				CEFBSS11				CEFBSS12				CEFBSS13			
Collect Date:	20-JUL-93				20-JUL-93				20-JUL-93				20-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
TENTATIVELY IDENTIFIED CMPNDS.																
(3.37) Aldolcondensationproduc	400	J	ug/kg													
(4.83) Aldolcondensationproduc	480	J	ug/kg													
(3.78) Aldolcondensationproduc	11000	J	ug/kg													
(3.43) Aldolcondensationproduc					1100	J	ug/kg									
(3.87) Aldolcondensationproduc					26000	J	ug/kg									
(4.87) Aldolcondensationproduc					1000	J	ug/kg									
(15.61) 3-Carene									12	J	ug/kg					
(3.37) Aldolcondensationproduc									820	J	ug/kg					
(3.83) Aldolcondensationproduc									19000	J	ug/kg					
(4.85) Aldolcondensationproduc									740	J	ug/kg					
(3.40) Aldolcondensationproduc													1000	J	ug/kg	
(3.85) Aldolcondensationproduc													22000	J	ug/kg	
(4.85) Aldolcondensationproduc													900	J	ug/kg	

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SURFACE SOIL -- BACKGROUND
VALIDATED DATA -- TENTATIVELY IDENTIFIED COMPOUNDS

Lab Sample Number:	CEFBSS14				CEFBSS15			
Site	CECIL				CECIL			
Locator	CEFBSS14				CEFBSS15			
Collect Date:	20-JUL-93				20-JUL-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
TENTATIVELY IDENTIFIED CMPNDS.								
(15.61) 3-Carene	15	J	ug/kg					
(12.10) Ethanone,1-(2-Hydroxy-	680	U	ug/kg					
(3.43) Aldolcondensationproduc	1300	J	ug/kg					
(4.87) Aldolcondensationproduc	1200	J	ug/kg					
(3.88) Aldolcondensationproduc	30000	J	ug/kg					
(3.45) Aldolcondensationproduc					1200	J	ug/kg	
(3.88) Aldolcondensationproduc					26000	J	ug/kg	
(4.87) Aldolcondensationproduc					1000	J	ug/kg	

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- VOLATILES

Lab Sample Number:	CFBBMS1S0				CFBBMS1S0M				CFBBMS1S0M				CFBBMS1S6			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS1S0				CFBBMS1S0MS				CFBBMS1S0MSD				CFBBMS1S6			
Collect Date:	05-AUG-93				05-AUG-93				05-AUG-93				05-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12
Bromomethane	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12
Vinyl chloride	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12
Chloroethane	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12
Methylene chloride	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Acetone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12
Carbon disulfide	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethene	6	U	ug/kg	6	56		ug/kg	11	60		ug/kg	11	6	U	ug/kg	6
1,1-Dichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethene (total)	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Chloroform	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
2-Butanone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12
1,1,1-Trichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Carbon tetrachloride	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Bromodichloromethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloropropane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
cis-1,3-Dichloropropene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Trichloroethene	6	U	ug/kg	6	57		ug/kg	11	54		ug/kg	11	6	U	ug/kg	6
Dibromochloromethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2-Trichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Benzene	6	U	ug/kg	6	51		ug/kg	11	53		ug/kg	11	6	U	ug/kg	6
trans-1,3-Dichloropropene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Bromoform	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
4-Methyl-2-pentanone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12
2-Hexanone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12
Tetrachloroethene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Toluene	6	U	ug/kg	6	58		ug/kg	11	60		ug/kg	11	6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Chlorobenzene	6	U	ug/kg	6	60		ug/kg	11	60		ug/kg	11	6	U	ug/kg	6
Ethylbenzene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Styrene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Xylenes (total)	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6

U = NOT DETECTED J = ESTIMATED VALUE
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CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- VOLATILES

Lab Sample Number:	CFBBMS2S2				CFBBMS2S6				CFBBMS2SR				CFBBMS3I2			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS2S2				CFBBMS2S6				CFBBMS2SR				CFBBMS3I2			
Collect Date:	06-AUG-93				06-AUG-93				06-AUG-93				09-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	11	U	ug/kg	11	12	U	ug/kg	12	2	U	ug/l	2	11	U	ug/kg	11
Bromomethane	11	U	ug/kg	11	12	U	ug/kg	12	2	U	ug/l	2	11	U	ug/kg	11
Vinyl chloride	11	U	ug/kg	11	12	U	ug/kg	12	2	U	ug/l	2	11	U	ug/kg	11
Chloroethane	11	U	ug/kg	11	12	U	ug/kg	12	2	U	ug/l	2	11	U	ug/kg	11
Methylene chloride	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
Acetone	11	U	ug/kg	11	12	U	ug/kg	12	2	U	ug/l	2	11	U	ug/kg	11
Carbon disulfide	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
1,1-Dichloroethene	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
1,1-Dichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
1,2-Dichloroethene (total)	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
Chloroform	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
1,2-Dichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
2-Butanone	11	U	ug/kg	11	12	U	ug/kg	12	2	U	ug/l	2	11	U	ug/kg	11
1,1,1-Trichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
Carbon tetrachloride	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
Bromodichloromethane	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
1,2-Dichloropropane	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
cis-1,3-Dichloropropene	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
Trichloroethene	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
Dibromochloromethane	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
1,1,2-Trichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
Benzene	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
trans-1,3-Dichloropropene	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
Bromoform	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
4-Methyl-2-pentanone	11	U	ug/kg	11	12	U	ug/kg	12	2	U	ug/l	2	11	U	ug/kg	11
2-Hexanone	11	U	ug/kg	11	12	U	ug/kg	12	2	R	ug/l	2	11	U	ug/kg	11
Tetrachloroethene	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
Toluene	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
Chlorobenzene	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
Ethylbenzene	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
Styrene	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6
Xylenes (total)	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	6	U	ug/kg	6

U = NOT DETECTED J = ESTIMATED VALUE
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CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- VOLATILES

Lab Sample Number:	CFBBMS316				CFBBMS4S2				CFBBMS4S4				CFBBMS5S2			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS316				CFBBMS4S2				CFBBMS4S4				CFBBMS5S2			
Collect Date:	09-AUG-93				08-AUG-93				08-AUG-93				08-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	12	U	ug/kg	12	11	U	ug/kg	11	12	U	ug/kg	12	10	U	ug/kg	10
Bromomethane	12	U	ug/kg	12	11	U	ug/kg	11	12	U	ug/kg	12	10	U	ug/kg	10
Vinyl chloride	12	U	ug/kg	12	11	U	ug/kg	11	12	U	ug/kg	12	10	U	ug/kg	10
Chloroethane	12	U	ug/kg	12	11	U	ug/kg	11	12	U	ug/kg	12	10	U	ug/kg	10
Methylene chloride	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
Acetone	15	U	ug/kg	15	11	U	ug/kg	11	12	U	ug/kg	12	10	U	ug/kg	10
Carbon disulfide	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
1,1-Dichloroethene	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
1,1-Dichloroethane	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
1,2-Dichloroethene (total)	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
Chloroform	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
1,2-Dichloroethane	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
2-Butanone	12	U	ug/kg	12	11	U	ug/kg	11	12	U	ug/kg	12	10	U	ug/kg	10
1,1,1-Trichloroethane	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
Carbon tetrachloride	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
Bromodichloromethane	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
1,2-Dichloropropane	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
cis-1,3-Dichloropropene	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
Trichloroethene	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
Dibromochloromethane	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
1,1,2-Trichloroethane	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
Benzene	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
trans-1,3-Dichloropropene	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
Bromoform	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
4-Methyl-2-pentanone	12	U	ug/kg	12	11	U	ug/kg	11	12	U	ug/kg	12	10	U	ug/kg	10
2-Hexanone	12	U	ug/kg	12	11	U	ug/kg	11	12	U	ug/kg	12	10	U	ug/kg	10
Tetrachloroethene	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
Toluene	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
Chlorobenzene	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
Ethylbenzene	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
Styrene	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5
Xylenes (total)	6	U	ug/kg	6	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5

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CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- VOLATILES

Lab Sample Number:	CFBBMS5S6				F2068103				F2069103				CFBBMS7S0			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS5S6				CFBBMS610				CFBBMS616				CFBBMS7S0			
Collect Date:	08-AUG-93				10-AUG-93				10-AUG-93				09-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	11	U	ug/kg	11	10	U	ug/kg	10	12	U	ug/kg	12	11	U	ug/kg	11
Bromomethane	11	U	ug/kg	11	10	U	ug/kg	10	12	U	ug/kg	12	11	U	ug/kg	11
Vinyl chloride	11	U	ug/kg	11	10	U	ug/kg	10	12	U	ug/kg	12	11	U	ug/kg	11
Chloroethane	11	U	ug/kg	11	10	U	ug/kg	10	12	U	ug/kg	12	11	U	ug/kg	11
Methylene chloride	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
Acetone	11	U	ug/kg	11	10	UJ	ug/kg	10	24	UJ	ug/kg	24	11	U	ug/kg	11
Carbon disulfide	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethene	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethane	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethene (total)	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
Chloroform	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethane	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
2-Butanone	11	U	ug/kg	11	10	U	ug/kg	10	12	U	ug/kg	12	11	U	ug/kg	11
1,1,1-Trichloroethane	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
Carbon tetrachloride	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
Bromodichloromethane	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloropropane	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
cis-1,3-Dichloropropene	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
Trichloroethene	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
Dibromochloromethane	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2-Trichloroethane	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
Benzene	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
trans-1,3-Dichloropropene	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
Bromoform	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
4-Methyl-2-pentanone	11	U	ug/kg	11	10	U	ug/kg	10	12	U	ug/kg	12	11	U	ug/kg	11
2-Hexanone	11	U	ug/kg	11	10	U	ug/kg	10	12	U	ug/kg	12	11	U	ug/kg	11
Tetrachloroethene	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
Toluene	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
Chlorobenzene	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
Ethylbenzene	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
Styrene	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6
Xylenes (total)	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- VOLATILES

Lab Sample Number:	CFBBMS7S0D				CFBBMS7S4				CFBBMS7SR				CFBBMSBS2			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS7S0D				CFBBMS7S4				CFBBMS7SR				CFBBMSBS2			
Collect Date:	09-AUG-93				09-AUG-93				09-AUG-93				09-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	11	U	ug/kg	11	12	U	ug/kg	12	2	U	ug/l	2	10	U	ug/kg	10
Bromomethane	11	U	ug/kg	11	12	U	ug/kg	12	2	U	ug/l	2	10	U	ug/kg	10
Vinyl chloride	11	U	ug/kg	11	12	U	ug/kg	12	2	U	ug/l	2	10	U	ug/kg	10
Chloroethane	11	U	ug/kg	11	12	U	ug/kg	12	2	U	ug/l	2	10	U	ug/kg	10
Methylene chloride	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
Acetone	11	U	ug/kg	11	12	U	ug/kg	12	1	J	ug/l	1	10	U	ug/kg	10
Carbon disulfide	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
1,1-Dichloroethene	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
1,1-Dichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
1,2-Dichloroethene (total)	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
Chloroform	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
1,2-Dichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
2-Butanone	11	U	ug/kg	11	12	U	ug/kg	12	2	U	ug/l	2	10	U	ug/kg	10
1,1,1-Trichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
Carbon tetrachloride	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
Bromodichloromethane	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
1,2-Dichloropropane	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
cis-1,3-Dichloropropene	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
Trichloroethene	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
Dibromochloromethane	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
1,1,2-Trichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
Benzene	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
trans-1,3-Dichloropropene	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
Bromoform	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
4-Methyl-2-pentanone	11	U	ug/kg	11	12	U	ug/kg	12	2	U	ug/l	2	10	U	ug/kg	10
2-Hexanone	11	U	ug/kg	11	12	U	ug/kg	12	2	U	ug/l	2	10	U	ug/kg	10
Tetrachloroethene	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
Toluene	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
Chlorobenzene	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
Ethylbenzene	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
Styrene	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5
Xylenes (total)	6	U	ug/kg	6	6	U	ug/kg	6	1	U	ug/l	1	5	U	ug/kg	5

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- VOLATILES

Lab Sample Number:	CFBBMS8S6				F3341103				F3341103MS				F3341103MS			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS8S6				CFBBMS9I0				CFBBMS9I0MS				CFBBMS9I0MSD			
Collect Date:	09-AUG-93				16-AUG-93				16-AUG-93				16-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	12	U	ug/kg	12	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Bromomethane	12	U	ug/kg	12	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Vinyl chloride	12	U	ug/kg	12	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Chloroethane	12	U	ug/kg	12	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Methylene chloride	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Acetone	12	U	ug/kg	12	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Carbon disulfide	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,1-Dichloroethene	6	U	ug/kg	6	5	U	ug/kg	5	62		ug/kg	11	60		ug/kg	11
1,1-Dichloroethane	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,2-Dichloroethene (total)	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Chloroform	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,2-Dichloroethane	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
2-Butanone	12	U	ug/kg	12	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
1,1,1-Trichloroethane	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Carbon tetrachloride	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Bromodichloromethane	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,2-Dichloropropane	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
cis-1,3-Dichloropropene	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Trichloroethene	6	U	ug/kg	6	5	U	ug/kg	5	55		ug/kg	11	56		ug/kg	11
Dibromochloromethane	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
1,1,2-Trichloroethane	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Benzene	6	U	ug/kg	6	5	U	ug/kg	5	53		ug/kg	11	55		ug/kg	11
trans-1,3-Dichloropropene	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Bromoform	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
4-Methyl-2-pentanone	12	U	ug/kg	12	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
2-Hexanone	12	U	ug/kg	12	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11
Tetrachloroethene	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Toluene	6	U	ug/kg	6	5	U	ug/kg	5	57		ug/kg	11	60		ug/kg	11
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Chlorobenzene	6	U	ug/kg	6	5	U	ug/kg	5	56		ug/kg	11	58		ug/kg	11
Ethylbenzene	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Styrene	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5
Xylenes (total)	6	U	ug/kg	6	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- VOLATILES

Lab Sample Number:	F3346103			
Site	CECIL			
Locator	CFBBMS916			
Collect Date:	16-AUG-93			
	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW				
Chloromethane	11	U	ug/kg	11
Bromomethane	11	U	ug/kg	11
Vinyl chloride	11	U	ug/kg	11
Chloroethane	11	U	ug/kg	11
Methylene chloride	6	U	ug/kg	6
Acetone	32	U	ug/kg	32
Carbon disulfide	6	U	ug/kg	6
1,1-Dichloroethene	6	U	ug/kg	6
1,1-Dichloroethane	6	U	ug/kg	6
1,2-Dichloroethene (total)	6	U	ug/kg	6
Chloroform	6	U	ug/kg	6
1,2-Dichloroethane	6	U	ug/kg	6
2-Butanone	11	U	ug/kg	11
1,1,1-Trichloroethane	6	U	ug/kg	6
Carbon tetrachloride	6	U	ug/kg	6
Bromodichloromethane	6	U	ug/kg	6
1,2-Dichloropropane	6	U	ug/kg	6
cis-1,3-Dichloropropene	6	U	ug/kg	6
Trichloroethene	6	U	ug/kg	6
Dibromochloromethane	6	U	ug/kg	6
1,1,2-Trichloroethane	6	U	ug/kg	6
Benzene	6	U	ug/kg	6
trans-1,3-Dichloropropene	6	U	ug/kg	6
Bromoform	6	U	ug/kg	6
4-Methyl-2-pentanone	11	U	ug/kg	11
2-Hexanone	11	U	ug/kg	11
Tetrachloroethene	6	U	ug/kg	6
Toluene	6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6
Chlorobenzene	6	U	ug/kg	6
Ethylbenzene	6	U	ug/kg	6
Styrene	6	U	ug/kg	6
Xylenes (total)	6	U	ug/kg	6

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CFBBMS1S0				CFBBMS1S6				CFBBMS2S2R				CFBBMS2S6			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS1S0				CFBBMS1S6				CFBBMS2S2RE				CFBBMS2S6			
Collect Date:	05-AUG-93				05-AUG-93				06-AUG-93				06-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	380	UJ	ug/kg	380	390	UJ	ug/kg	390	370	UJ	ug/kg	370	380	UJ	ug/kg	380
bis(2-Chloroethyl) ether	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
2-Chlorophenol	380	UJ	ug/kg	380	390	UJ	ug/kg	390	370	UJ	ug/kg	370	380	UJ	ug/kg	380
1,3-Dichlorobenzene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
1,4-Dichlorobenzene	380	UJ	ug/kg	380	390	UJ	ug/kg	390	370	UJ	ug/kg	370	380	UJ	ug/kg	380
1,2-Dichlorobenzene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
2-Methylphenol	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
2,2-oxybis(1-Chloropropane)	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
4-Methylphenol	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
N-Nitroso-di-n-propylamine	380	UJ	ug/kg	380	390	UJ	ug/kg	390	370	UJ	ug/kg	370	380	UJ	ug/kg	380
Hexachloroethane	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Nitrobenzene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Isophorone	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
2-Nitrophenol	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
2,4-Dimethylphenol	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
bis(2-Chloroethoxy) methane	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
2,4-Dichlorophenol	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
1,2,4-Trichlorobenzene	380	UJ	ug/kg	380	390	UJ	ug/kg	390	370	UJ	ug/kg	370	380	UJ	ug/kg	380
Naphthalene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
4-Chloroaniline	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Hexachlorobutadiene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
4-Chloro-3-methylphenol	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
2-Methylnaphthalene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Hexachlorocyclopentadiene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
2,4,6-Trichlorophenol	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
2,4,5-Trichlorophenol	920	U	ug/kg	920	940	U	ug/kg	940	900	UJ	ug/kg	900	930	U	ug/kg	930
2-Chloronaphthalene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
2-Nitroaniline	920	U	ug/kg	920	940	U	ug/kg	940	900	UJ	ug/kg	900	930	U	ug/kg	930
Dimethylphthalate	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Acenaphthylene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
2,6-Dinitrotoluene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
3-Nitroaniline	920	U	ug/kg	920	940	U	ug/kg	940	900	UJ	ug/kg	900	930	U	ug/kg	930
Acenaphthene	380	UJ	ug/kg	380	390	UJ	ug/kg	390	370	UJ	ug/kg	370	380	UJ	ug/kg	380
2,4-Dinitrophenol	920	U	ug/kg	920	940	U	ug/kg	940	900	UJ	ug/kg	900	930	U	ug/kg	930
4-Nitrophenol	920	U	ug/kg	920	940	U	ug/kg	940	900	UJ	ug/kg	900	930	U	ug/kg	930
Dibenzofuran	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
2,4-Dinitrotoluene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Diethylphthalate	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
4-Chlorophenyl-phenylether	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Fluorene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
4-Nitroaniline	920	U	ug/kg	920	940	U	ug/kg	940	900	UJ	ug/kg	900	930	U	ug/kg	930
4,6-Dinitro-2-methylphenol	920	U	ug/kg	920	940	U	ug/kg	940	900	UJ	ug/kg	900	930	U	ug/kg	930
N-Nitrosodiphenylamine (1)	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
4-Bromophenyl-phenylether	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Hexachlorobenzene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Pentachlorophenol	920	UJ	ug/kg	920	420	J	ug/kg	940	900	UJ	ug/kg	900	180	J	ug/kg	930
Phenanthrene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Anthracene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Carbazole	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Di-n-butylphthalate	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Fluoranthene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Pyrene	380	UJ	ug/kg	380	390	UJ	ug/kg	390	370	UJ	ug/kg	370	380	UJ	ug/kg	380
Butylbenzylphth[illegible]ate	380	U	ug/kg	380	390	U	[illegible]/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380

CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CFBBMS1S0				CFBBMS1S6				CFBBMS2S2R				CFBBMS2S6			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS1S0				CFBBMS1S6				CFBBMS2S2RE				CFBBMS2S6			
Collect Date:	05-AUG-93				05-AUG-93				06-AUG-93				06-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
3,3-Dichlorobenzidine	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Benzo (a) anthracene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Chrysene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
bis(2-Ethylhexyl) phthalate	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Di-n-octylphthalate	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Benzo (b) fluoranthene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Benzo (k) fluoranthene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Benzo (a) pyrene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Indeno (1,2,3-cd) pyrene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Dibenz (a,h) anthracene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380
Benzo (g,h,i) perylene	380	U	ug/kg	380	390	U	ug/kg	390	370	UJ	ug/kg	370	380	U	ug/kg	380

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CFBBMS2SR				CFBBMS3I2R				CFBBMS3I6				CFBBMS4S2R			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS2SR				CFBBMS3I2RE				CFBBMS3I6				CFBBMS4S2RE			
Collect Date:	06-AUG-93				09-AUG-93				09-AUG-93				08-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	10	UJ	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
bis(2-Chloroethyl) ether	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
2-Chlorophenol	10	UJ	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
1,3-Dichlorobenzene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
1,4-Dichlorobenzene	10	UJ	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
1,2-Dichlorobenzene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
2-Methylphenol	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
2,2-oxybis(1-Chloropropane)	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
4-Methylphenol	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
N-Nitroso-di-n-propylamine	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Hexachloroethane	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Nitrobenzene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Isophorone	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
2-Nitrophenol	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
2,4-Dimethylphenol	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
bis(2-Chloroethoxy) methane	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
2,4-Dichlorophenol	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
1,2,4-Trichlorobenzene	10	UJ	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Naphthalene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
4-Chloroaniline	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Hexachlorobutadiene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
4-Chloro-3-methylphenol	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
2-Methylnaphthalene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Hexachlorocyclopentadiene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
2,4,6-Trichlorophenol	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
2,4,5-Trichlorophenol	25	U	ug/l	25	920	UJ	ug/kg	920	940	U	ug/kg	940	850	UJ	ug/kg	850
2-Chloronaphthalene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
2-Nitroaniline	25	U	ug/l	25	920	UJ	ug/kg	920	940	U	ug/kg	940	850	UJ	ug/kg	850
Dimethylphthalate	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Acenaphthylene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
2,6-Dinitrotoluene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
3-Nitroaniline	25	U	ug/l	25	920	UJ	ug/kg	920	940	U	ug/kg	940	850	UJ	ug/kg	850
Acenaphthene	10	UJ	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
2,4-Dinitrophenol	25	U	ug/l	25	920	UJ	ug/kg	920	940	U	ug/kg	940	850	UJ	ug/kg	850
4-Nitrophenol	25	UJ	ug/l	25	920	UJ	ug/kg	920	940	U	ug/kg	940	850	UJ	ug/kg	850
Dibenzofuran	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
2,4-Dinitrotoluene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Diethylphthalate	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
4-Chlorophenyl-phenylether	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Fluorene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
4-Nitroaniline	25	U	ug/l	25	920	UJ	ug/kg	920	940	U	ug/kg	940	850	UJ	ug/kg	850
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	920	UJ	ug/kg	920	940	U	ug/kg	940	850	UJ	ug/kg	850
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
4-Bromophenyl-phenylether	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Hexachlorobenzene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Pentachlorophenol	25	U	ug/l	25	920	UJ	ug/kg	920	940	U	ug/kg	940	850	UJ	ug/kg	850
Phenanthrene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Anthracene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Carbazole	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Di-n-butylphthalate	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Fluoranthene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Pyrene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350

CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CFBBMS2SR				CFBBMS3I2R				CFBBMS3I6				CFBBMS4S2R			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS2SR				CFBBMS3I2RE				CFBBMS3I6				CFBBMS4S2RE			
Collect Date:	06-AUG-93				09-AUG-93				09-AUG-93				08-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Butylbenzylphthalate	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
3,3-Dichlorobenzidine	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Benzo (a) anthracene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Chrysene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
bis(2-Ethylhexyl) phthalate	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Di-n-octylphthalate	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Benzo (b) fluoranthene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Benzo (k) fluoranthene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Benzo (a) pyrene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Dibenz (a,h) anthracene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350
Benzo (g,h,i) perylene	10	U	ug/l	10	380	UJ	ug/kg	380	390	U	ug/kg	390	350	UJ	ug/kg	350

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CFBBMS4S4R				CFBBMS5S2R				CFBBMS5S6				F2068101			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS4S4RE				CFBBMS5S2RE				CFBBMS5S6				CFBBMS6I0			
Collect Date:	08-AUG-93				08-AUG-93				08-AUG-93				10-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
bis(2-Chloroethyl) ether	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
2-Chlorophenol	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
1,3-Dichlorobenzene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
1,4-Dichlorobenzene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
1,2-Dichlorobenzene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
2-Methylphenol	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
2,2-oxybis(1-Chloropropane)	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
4-Methylphenol	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
N-Nitroso-di-n-propylamine	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Hexachloroethane	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Nitrobenzene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Isophorone	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
2-Nitrophenol	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
2,4-Dimethylphenol	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
bis(2-Chloroethoxy) methane	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
2,4-Dichlorophenol	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
1,2,4-Trichlorobenzene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Naphthalene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
4-Chloroaniline	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Hexachlorobutadiene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
4-Chloro-3-methylphenol	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
2-Methylnaphthalene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Hexachlorocyclopentadiene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
2,4,6-Trichlorophenol	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
2,4,5-Trichlorophenol	940	UJ	ug/kg	940	830	UJ	ug/kg	830	870	U	ug/kg	870	820	U	ug/kg	820
2-Chloronaphthalene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
2-Nitroaniline	940	UJ	ug/kg	940	830	UJ	ug/kg	830	870	U	ug/kg	870	820	U	ug/kg	820
Dimethylphthalate	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Acenaphthylene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
2,6-Dinitrotoluene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
3-Nitroaniline	940	UJ	ug/kg	940	830	UJ	ug/kg	830	870	U	ug/kg	870	820	U	ug/kg	820
Acenaphthene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
2,4-Dinitrophenol	940	UJ	ug/kg	940	830	UJ	ug/kg	830	870	U	ug/kg	870	820	U	ug/kg	820
4-Nitrophenol	940	UJ	ug/kg	940	830	UJ	ug/kg	830	870	U	ug/kg	870	820	U	ug/kg	820
Dibenzofuran	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
2,4-Dinitrotoluene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Diethylphthalate	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
4-Chlorophenyl-phenylether	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Fluorene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
4-Nitroaniline	940	UJ	ug/kg	940	830	UJ	ug/kg	830	870	U	ug/kg	870	820	U	ug/kg	820
4,6-Dinitro-2-methylphenol	940	UJ	ug/kg	940	830	UJ	ug/kg	830	870	U	ug/kg	870	820	U	ug/kg	820
N-Nitrosodiphenylamine (1)	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
4-Bromophenyl-phenylether	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Hexachlorobenzene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Pentachlorophenol	940	UJ	ug/kg	940	830	UJ	ug/kg	830	870	U	ug/kg	870	820	U	ug/kg	820
Phenanthrene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Anthracene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Carbazole	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Di-n-butylphthalate	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Fluoranthene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Pyrene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340

CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CFBBMS4S4R				CFBBMS5S2R				CFBBMS5S6				F2068101			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS4S4RE				CFBBMS5S2RE				CFBBMS5S6				CFBBMS6I0			
Collect Date:	08-AUG-93				08-AUG-93				08-AUG-93				10-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Butylbenzylphthalate	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
3,3-Dichlorobenzidine	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Benzo (a) anthracene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Chrysene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
bis(2-Ethylhexyl) phthalate	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Di-n-octylphthalate	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Benzo (b) fluoranthene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Benzo (k) fluoranthene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Benzo (a) pyrene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Indeno (1,2,3-cd) pyrene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Dibenz (a,h) anthracene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340
Benzo (g,h,i) perylene	390	UJ	ug/kg	390	340	UJ	ug/kg	340	360	U	ug/kg	360	340	U	ug/kg	340

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	F2069101			CFBBMS7S0			CFBBMS7S0D			CFBBMS7S4		
Site	CECIL			CECIL			CECIL			CECIL		
Locator	CFBBMS6I6			CFBBMS7S0			CFBBMS7S0D			CFBBMS7S4		
Collect Date:	10-AUG-93			09-AUG-93			09-AUG-93			09-AUG-93		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
bis(2-Chloroethyl) ether	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
2-Chlorophenol	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
1,3-Dichlorobenzene	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
1,4-Dichlorobenzene	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
1,2-Dichlorobenzene	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
2-Methylphenol	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
2,2-oxybis(1-Chloropropane)	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
4-Methylphenol	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
N-Nitroso-di-n-propylamine	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
Hexachloroethane	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
Nitrobenzene	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
Isophorone	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
2-Nitrophenol	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
2,4-Dimethylphenol	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
bis(2-Chloroethoxy) methane	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
2,4-Dichlorophenol	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
1,2,4-Trichlorobenzene	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
Naphthalene	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
4-Chloroaniline	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
Hexachlorobutadiene	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
4-Chloro-3-methylphenol	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
2-Methylnaphthalene	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
Hexachlorocyclopentadiene	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
2,4,6-Trichlorophenol	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
2,4,5-Trichlorophenol	-			890 U	ug/kg	890	900 R	ug/kg	900	-		
2-Chloronaphthalene	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
2-Nitroaniline	-			890 U	ug/kg	890	900 R	ug/kg	900	-		
Dimethylphthalate	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
Acenaphthylene	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
2,6-Dinitrotoluene	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
3-Nitroaniline	-			890 U	ug/kg	890	900 R	ug/kg	900	-		
Acenaphthene	-			370 U	ug/kg	370	370 R	ug/kg	370	-		
2,4-Dinitrophenol	950 U	ug/kg	950	890 U	ug/kg	890	900 R	ug/kg	900	950 U	ug/kg	950
4-Nitrophenol	950 U	ug/kg	950	890 U	ug/kg	890	900 R	ug/kg	900	950 U	ug/kg	950
Dibenzofuran	390 U	ug/kg	390	370 U	ug/kg	370	370 R	ug/kg	370	390 U	ug/kg	390
2,4-Dinitrotoluene	390 U	ug/kg	390	370 U	ug/kg	370	370 R	ug/kg	370	390 U	ug/kg	390
Diethylphthalate	390 U	ug/kg	390	370 U	ug/kg	370	370 R	ug/kg	370	390 U	ug/kg	390
4-Chlorophenyl-phenylether	390 U	ug/kg	390	370 U	ug/kg	370	370 R	ug/kg	370	390 U	ug/kg	390
Fluorene	390 U	ug/kg	390	370 U	ug/kg	370	370 R	ug/kg	370	390 U	ug/kg	390
4-Nitroaniline	950 U	ug/kg	950	890 U	ug/kg	890	900 R	ug/kg	900	950 U	ug/kg	950
4,6-Dinitro-2-methylphenol	950 U	ug/kg	950	890 U	ug/kg	890	900 R	ug/kg	900	950 U	ug/kg	950
N-Nitrosodiphenylamine (1)	390 U	ug/kg	390	370 U	ug/kg	370	370 R	ug/kg	370	390 U	ug/kg	390
4-Bromophenyl-phenylether	390 U	ug/kg	390	370 U	ug/kg	370	370 R	ug/kg	370	390 U	ug/kg	390
Hexachlorobenzene	390 U	ug/kg	390	370 U	ug/kg	370	370 R	ug/kg	370	390 U	ug/kg	390
Pentachlorophenol	950 U	ug/kg	950	890 U	ug/kg	890	900 R	ug/kg	900	950 U	ug/kg	950
Phenanthrene	390 U	ug/kg	390	370 U	ug/kg	370	370 R	ug/kg	370	390 U	ug/kg	390
Anthracene	390 U	ug/kg	390	370 U	ug/kg	370	370 R	ug/kg	370	390 U	ug/kg	390
Carbazole	390 U	ug/kg	390	370 U	ug/kg	370	370 R	ug/kg	370	390 U	ug/kg	390
Di-n-butylphthalate	390 U	ug/kg	390	370 U	ug/kg	370	370 R	ug/kg	370	390 U	ug/kg	390
Fluoranthene	390 U	ug/kg	390	370 U	ug/kg	370	370 R	ug/kg	370	390 U	ug/kg	390
Pyrene	390 U	ug/kg	390	370 U	ug/kg	370	370 R	ug/kg	370	390 U	ug/kg	390

CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	F2069101				CFBBMS7S0				CFBBMS7S0D				CFBBMS7S4			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS6I6				CFBBMS7S0				CFBBMS7S0D				CFBBMS7S4			
Collect Date:	10-AUG-93				09-AUG-93				09-AUG-93				09-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Butylbenzylphthalate	390	U	ug/kg	390	370	U	ug/kg	370	370	R	ug/kg	370	390	U	ug/kg	390
3,3-Dichlorobenzidine	390	U	ug/kg	390	370	U	ug/kg	370	370	R	ug/kg	370	390	U	ug/kg	390
Benzo (a) anthracene	390	U	ug/kg	390	370	U	ug/kg	370	370	R	ug/kg	370	390	U	ug/kg	390
Chrysene	390	U	ug/kg	390	370	U	ug/kg	370	370	R	ug/kg	370	390	U	ug/kg	390
bis(2-Ethylhexyl) phthalate	390	U	ug/kg	390	370	U	ug/kg	370	370	R	ug/kg	370	390	U	ug/kg	390
Di-n-octylphthalate	390	U	ug/kg	390	370	U	ug/kg	370	370	R	ug/kg	370	390	U	ug/kg	390
Benzo (b) fluoranthene	390	U	ug/kg	390	370	U	ug/kg	370	370	R	ug/kg	370	390	U	ug/kg	390
Benzo (k) fluoranthene	390	U	ug/kg	390	370	U	ug/kg	370	370	R	ug/kg	370	390	U	ug/kg	390
Benzo (a) pyrene	390	U	ug/kg	390	370	U	ug/kg	370	370	R	ug/kg	370	390	U	ug/kg	390
Indeno (1,2,3-cd) pyrene	390	U	ug/kg	390	370	U	ug/kg	370	370	R	ug/kg	370	390	U	ug/kg	390
Dibenz (a,h) anthracene	390	U	ug/kg	390	370	U	ug/kg	370	370	R	ug/kg	370	390	U	ug/kg	390
Benzo (g,h,i) perylene	390	U	ug/kg	390	370	U	ug/kg	370	370	R	ug/kg	370	390	U	ug/kg	390

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CFBBMS7SR				CFBBMS8S2				CFBBMS8S6				F3341101			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS7SR				CFBBMS8S2				CFBBMS8S6				CFBBMS9I0			
Collect Date:	09-AUG-93				09-AUG-93				09-AUG-93				16-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
bis(2-Chloroethyl) ether	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
2-Chlorophenol	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
1,3-Dichlorobenzene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
1,4-Dichlorobenzene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
1,2-Dichlorobenzene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
2-Methylphenol	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
2,2-oxybis(1-Chloropropane)	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
4-Methylphenol	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
N-Nitroso-di-n-propylamine	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Hexachloroethane	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Nitrobenzene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Isophorone	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
2-Nitrophenol	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
2,4-Dimethylphenol	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
bis(2-Chloroethoxy) methane	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
2,4-Dichlorophenol	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
1,2,4-Trichlorobenzene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Naphthalene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
4-Chloroaniline	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Hexachlorobutadiene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
4-Chloro-3-methylphenol	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
2-Methylnaphthalene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Hexachlorocyclopentadiene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
2,4,6-Trichlorophenol	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
2,4,5-Trichlorophenol	25	U	ug/l	25	840	U	ug/kg	840	930	R	ug/kg	930	860	U	ug/kg	860
2-Chloronaphthalene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
2-Nitroaniline	25	U	ug/l	25	840	U	ug/kg	840	930	R	ug/kg	930	860	U	ug/kg	860
Dimethylphthalate	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Acenaphthylene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
2,6-Dinitrotoluene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
3-Nitroaniline	25	U	ug/l	25	840	U	ug/kg	840	930	R	ug/kg	930	860	U	ug/kg	860
Acenaphthene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
2,4-Dinitrophenol	25	U	ug/l	25	840	U	ug/kg	840	930	R	ug/kg	930	860	U	ug/kg	860
4-Nitrophenol	25	U	ug/l	25	840	U	ug/kg	840	930	R	ug/kg	930	860	U	ug/kg	860
Dibenzofuran	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
2,4-Dinitrotoluene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Diethylphthalate	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
4-Chlorophenyl-phenylether	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Fluorene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
4-Nitroaniline	25	U	ug/l	25	840	U	ug/kg	840	930	R	ug/kg	930	860	U	ug/kg	860
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	840	U	ug/kg	840	930	R	ug/kg	930	860	U	ug/kg	860
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
4-Bromophenyl-phenylether	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Hexachlorobenzene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Pentachlorophenol	25	U	ug/l	25	840	U	ug/kg	840	930	R	ug/kg	930	860	U	ug/kg	860
Phenanthrene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Anthracene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Carbazole	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Di-n-butylphthalate	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Fluoranthene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Pyrene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350

CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CFBBMS7SR				CFBBMS8S2				CFBBMS8S6				F3341101			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS7SR				CFBBMS8S2				CFBBMS8S6				CFBBMS9I0			
Collect Date:	09-AUG-93				09-AUG-93				09-AUG-93				16-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Butylbenzylphthalate	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
3,3-Dichlorobenzidine	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Benzo (a) anthracene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Chrysene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
bis(2-Ethylhexyl) phthalate	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Di-n-octylphthalate	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Benzo (b) fluoranthene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Benzo (k) fluoranthene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Benzo (a) pyrene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Dibenz (a,h) anthracene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350
Benzo (g,h,i) perylene	10	U	ug/l	10	350	U	ug/kg	350	380	R	ug/kg	380	350	U	ug/kg	350

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	F3341101MS			F3341101MS			F3346101		
Site	CECIL			CECIL			CECIL		
Locator	CFBBMS910MS			CFBBMS910MSD			CFBBMS916		
Collect Date:	16-AUG-93			16-AUG-93			16-AUG-93		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW									
Phenol	1300	ug/kg	350	990	ug/kg	350	380 U	ug/kg	380
bis(2-Chloroethyl) ether	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
2-Chlorophenol	1300	ug/kg	350	950	ug/kg	350	380 U	ug/kg	380
1,3-Dichlorobenzene	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
1,4-Dichlorobenzene	730	ug/kg	350	560	ug/kg	350	380 U	ug/kg	380
1,2-Dichlorobenzene	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
2-Methylphenol	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
2,2-oxybis(1-Chloropropane)	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
4-Methylphenol	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
N-Nitroso-di-n-propylamine	720 J	ug/kg	350	570 J	ug/kg	350	380 U	ug/kg	380
Hexachloroethane	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
Nitrobenzene	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
Isophorone	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
2-Nitrophenol	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
2,4-Dimethylphenol	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
bis(2-Chloroethoxy) methane	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
2,4-Dichlorophenol	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
1,2,4-Trichlorobenzene	760 J	ug/kg	350	590 J	ug/kg	350	380 U	ug/kg	380
Naphthalene	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
4-Chloroaniline	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
Hexachlorobutadiene	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
4-Chloro-3-methylphenol	1100	ug/kg	350	910	ug/kg	350	380 U	ug/kg	380
2-Methylnaphthalene	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
Hexachlorocyclopentadiene	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
2,4,6-Trichlorophenol	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
2,4,5-Trichlorophenol	860 U	ug/kg	860	860 U	ug/kg	860	910 U	ug/kg	910
2-Chloronaphthalene	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
2-Nitroaniline	860 U	ug/kg	860	860 U	ug/kg	860	910 U	ug/kg	910
Dimethylphthalate	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
Acenaphthylene	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
2,6-Dinitrotoluene	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
3-Nitroaniline	860 U	ug/kg	860	860 U	ug/kg	860	910 U	ug/kg	910
Acenaphthene	790 J	ug/kg	350	610 J	ug/kg	350	380 U	ug/kg	380
2,4-Dinitrophenol	860 U	ug/kg	860	860 U	ug/kg	860	910 U	ug/kg	910
4-Nitrophenol	810 J	ug/kg	860	760 J	ug/kg	860	910 U	ug/kg	910
Dibenzofuran	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
2,4-Dinitrotoluene	790	ug/kg	350	580	ug/kg	350	380 U	ug/kg	380
Diethylphthalate	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
4-Chlorophenyl-phenylether	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
Fluorene	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
4-Nitroaniline	860 U	ug/kg	860	860 U	ug/kg	860	910 U	ug/kg	910
4,6-Dinitro-2-methylphenol	860 U	ug/kg	860	860 U	ug/kg	860	910 U	ug/kg	910
N-Nitrosodiphenylamine (1)	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
4-Bromophenyl-phenylether	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
Hexachlorobenzene	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
Pentachlorophenol	1400	ug/kg	860	1200	ug/kg	860	910 U	ug/kg	910
Phenanthrene	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
Anthracene	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
Carbazole	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
Di-n-butylphthalate	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
Fluoranthene	350 U	ug/kg	350	350 U	ug/kg	350	380 U	ug/kg	380
Pyrene	930	ug/kg	350	760 J	ug/kg	350	380 U	ug/kg	380

CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	F3341101MS				F3341101MS				F3346101			
Site	CECIL				CECIL				CECIL			
Locator	CFBBMS9I0MS				CFBBMS9I0MSD				CFBBMS9I6			
Collect Date:	16-AUG-93				16-AUG-93				16-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Butylbenzylphthalate	350	U	ug/kg	350	350	U	ug/kg	350	380	U	ug/kg	380
3,3-Dichlorobenzidine	350	U	ug/kg	350	350	U	ug/kg	350	380	U	ug/kg	380
Benzo (a) anthracene	350	U	ug/kg	350	350	U	ug/kg	350	380	U	ug/kg	380
Chrysene	350	U	ug/kg	350	350	U	ug/kg	350	380	U	ug/kg	380
bis(2-Ethylhexyl) phthalate	350	U	ug/kg	350	350	U	ug/kg	350	380	U	ug/kg	380
Di-n-octylphthalate	350	U	ug/kg	350	350	U	ug/kg	350	380	U	ug/kg	380
Benzo (b) fluoranthene	350	U	ug/kg	350	350	U	ug/kg	350	380	U	ug/kg	380
Benzo (k) fluoranthene	350	U	ug/kg	350	350	U	ug/kg	350	380	U	ug/kg	380
Benzo (a) pyrene	350	U	ug/kg	350	350	U	ug/kg	350	380	U	ug/kg	380
Indeno (1,2,3-cd) pyrene	350	U	ug/kg	350	350	U	ug/kg	350	380	U	ug/kg	380
Dibenz (a,h) anthracene	350	U	ug/kg	350	350	U	ug/kg	350	380	U	ug/kg	380
Benzo (g,h,i) perylene	350	U	ug/kg	350	350	U	ug/kg	350	380	U	ug/kg	380

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- PESTICIDES AND PCBS

Lab Sample Number:	CFBBMS1S0				CFBBMS1S6				CFBBMS2S2				CFBBMS2S6			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS1S0				CFBBMS1S6				CFBBMS2S2				CFBBMS2S6			
Collect Date:	05-AUG-93				05-AUG-93				06-AUG-93				06-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	2	UJ	ug/kg	2	2	UJ	ug/kg	2	1.9	UJ	ug/kg	1.9	2	UJ	ug/kg	2
beta-BHC	2	UJ	ug/kg	2	2	UJ	ug/kg	2	1.9	UJ	ug/kg	1.9	2	UJ	ug/kg	2
delta-BHC	2	UJ	ug/kg	2	2	UJ	ug/kg	2	1.9	UJ	ug/kg	1.9	2	UJ	ug/kg	2
gamma-BHC (Lindane)	2	UJ	ug/kg	2	2	UJ	ug/kg	2	1.9	UJ	ug/kg	1.9	2	UJ	ug/kg	2
Heptachlor	2	UJ	ug/kg	2	2	UJ	ug/kg	2	1.9	UJ	ug/kg	1.9	2	UJ	ug/kg	2
Aldrin	2	UJ	ug/kg	2	2	UJ	ug/kg	2	1.9	UJ	ug/kg	1.9	2	UJ	ug/kg	2
Heptachlor epoxide	2	UJ	ug/kg	2	2	UJ	ug/kg	2	1.9	UJ	ug/kg	1.9	2	UJ	ug/kg	2
Endosulfan I	2	UJ	ug/kg	2	2	UJ	ug/kg	2	1.9	UJ	ug/kg	1.9	2	UJ	ug/kg	2
Dieldrin	3.8	UJ	ug/kg	3.8	3.9	UJ	ug/kg	3.9	3.7	UJ	ug/kg	3.7	3.8	UJ	ug/kg	3.8
4,4-DDE	3.8	UJ	ug/kg	3.8	3.9	UJ	ug/kg	3.9	3.7	UJ	ug/kg	3.7	3.8	UJ	ug/kg	3.8
Endrin	3.8	UJ	ug/kg	3.8	3.9	UJ	ug/kg	3.9	3.7	UJ	ug/kg	3.7	3.8	UJ	ug/kg	3.8
Endosulfan II	3.8	UJ	ug/kg	3.8	3.9	UJ	ug/kg	3.9	3.7	UJ	ug/kg	3.7	3.8	UJ	ug/kg	3.8
4,4-DDD	.68	J	ug/kg	4	3.9	UJ	ug/kg	3.9	3.7	UJ	ug/kg	3.7	3.8	UJ	ug/kg	3.8
Endosulfan sulfate	3.8	UJ	ug/kg	3.8	3.9	UJ	ug/kg	3.9	3.7	UJ	ug/kg	3.7	3.8	UJ	ug/kg	3.8
4,4-DDT	.73	J	ug/kg	4	3.9	UJ	ug/kg	3.9	3.7	UJ	ug/kg	3.7	3.8	UJ	ug/kg	3.8
Methoxychlor	20	UJ	ug/kg	20	20	UJ	ug/kg	20	19	UJ	ug/kg	19	20	UJ	ug/kg	20
Endrin ketone	3.8	UJ	ug/kg	3.8	3.9	UJ	ug/kg	3.9	3.7	UJ	ug/kg	3.7	3.8	UJ	ug/kg	3.8
Endrin aldehyde	3.8	UJ	ug/kg	3.8	3.9	UJ	ug/kg	3.9	3.7	UJ	ug/kg	3.7	3.8	UJ	ug/kg	3.8
alpha-Chlordane	2	UJ	ug/kg	2	2	UJ	ug/kg	2	1.9	UJ	ug/kg	1.9	2	UJ	ug/kg	2
gamma-Chlordane	2	UJ	ug/kg	2	2	UJ	ug/kg	2	1.9	UJ	ug/kg	1.9	2	UJ	ug/kg	2
Toxaphene	200	UJ	ug/kg	200	200	UJ	ug/kg	200	190	UJ	ug/kg	190	200	UJ	ug/kg	200
Aroclor-1016	38	UJ	ug/kg	38	39	UJ	ug/kg	39	37	UJ	ug/kg	37	38	UJ	ug/kg	38
Aroclor-1221	77	UJ	ug/kg	77	79	UJ	ug/kg	79	75	UJ	ug/kg	75	78	UJ	ug/kg	78
Aroclor-1232	38	UJ	ug/kg	38	39	UJ	ug/kg	39	37	UJ	ug/kg	37	38	UJ	ug/kg	38
Aroclor-1242	38	UJ	ug/kg	38	39	UJ	ug/kg	39	37	UJ	ug/kg	37	38	UJ	ug/kg	38
Aroclor-1248	38	UJ	ug/kg	38	39	UJ	ug/kg	39	37	UJ	ug/kg	37	38	UJ	ug/kg	38
Aroclor-1254	38	UJ	ug/kg	38	39	UJ	ug/kg	39	37	UJ	ug/kg	37	38	UJ	ug/kg	38
Aroclor-1260	38	UJ	ug/kg	38	39	UJ	ug/kg	39	9.7	J	ug/kg	37	38	UJ	ug/kg	38

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R RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- PESTICIDES AND PCBS

Lab Sample Number:	CFBBMS2SR				CFBBMS3I2				CFBBMS3I6				CFBBMS4S2			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS2SR				CFBBMS3I2				CFBBMS3I6				CFBBMS4S2			
Collect Date:	06-AUG-93				09-AUG-93				09-AUG-93				08-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	UJ	ug/l	.05	2	U	ug/kg	2	2	U	ug/kg	2	1.8	UJ	ug/kg	1.8
beta-BHC	.05	UJ	ug/l	.05	2	U	ug/kg	2	2	U	ug/kg	2	1.8	UJ	ug/kg	1.8
delta-BHC	.05	UJ	ug/l	.05	2	U	ug/kg	2	2	U	ug/kg	2	1.8	UJ	ug/kg	1.8
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	2	U	ug/kg	2	2	U	ug/kg	2	1.8	UJ	ug/kg	1.8
Heptachlor	.05	UJ	ug/l	.05	2	U	ug/kg	2	2	U	ug/kg	2	1.8	UJ	ug/kg	1.8
Aldrin	.05	UJ	ug/l	.05	2	U	ug/kg	2	2	U	ug/kg	2	1.8	UJ	ug/kg	1.8
Heptachlor epoxide	.05	UJ	ug/l	.05	2	U	ug/kg	2	2	U	ug/kg	2	1.8	UJ	ug/kg	1.8
Endosulfan I	.05	UJ	ug/l	.05	2	U	ug/kg	2	2	U	ug/kg	2	1.8	UJ	ug/kg	1.8
Dieldrin	.1	UJ	ug/l	.1	3.8	U	ug/kg	3.8	3.9	U	ug/kg	3.9	3.5	UJ	ug/kg	3.5
4,4-DDE	.1	UJ	ug/l	.1	3.8	U	ug/kg	3.8	3.9	U	ug/kg	3.9	3.5	UJ	ug/kg	3.5
Endrin	.1	UJ	ug/l	.1	3.8	U	ug/kg	3.8	3.9	U	ug/kg	3.9	3.5	UJ	ug/kg	3.5
Endosulfan II	.1	UJ	ug/l	.1	3.8	U	ug/kg	3.8	3.9	U	ug/kg	3.9	3.5	UJ	ug/kg	3.5
4,4-DDD	.1	UJ	ug/l	.1	3.8	U	ug/kg	3.8	3.9	U	ug/kg	3.9	3.5	UJ	ug/kg	3.5
Endosulfan sulfate	.1	UJ	ug/l	.1	3.8	U	ug/kg	3.8	3.9	U	ug/kg	3.9	3.5	UJ	ug/kg	3.5
4,4-DDT	.1	UJ	ug/l	.1	3.8	U	ug/kg	3.8	3.9	U	ug/kg	3.9	3.5	UJ	ug/kg	3.5
Methoxychlor	.5	UJ	ug/l	.5	20	U	ug/kg	20	20	U	ug/kg	20	18	UJ	ug/kg	18
Endrin ketone	.1	UJ	ug/l	.1	3.8	U	ug/kg	3.8	3.9	U	ug/kg	3.9	3.5	UJ	ug/kg	3.5
Endrin aldehyde	-				3.8	U	ug/kg	3.8	3.9	U	ug/kg	3.9	3.5	UJ	ug/kg	3.5
alpha-Chlordane	.05	UJ	ug/l	.05	2	U	ug/kg	2	2	U	ug/kg	2	1.8	UJ	ug/kg	1.8
gamma-Chlordane	.05	UJ	ug/l	.05	2	U	ug/kg	2	2	U	ug/kg	2	1.8	UJ	ug/kg	1.8
Toxaphene	5	UJ	ug/l	5	200	U	ug/kg	200	200	U	ug/kg	200	180	UJ	ug/kg	180
Aroclor-1016	1	UJ	ug/l	1	38	U	ug/kg	38	39	U	ug/kg	39	35	UJ	ug/kg	35
Aroclor-1221	2	UJ	ug/l	2	77	U	ug/kg	77	79	U	ug/kg	79	71	UJ	ug/kg	71
Aroclor-1232	1	UJ	ug/l	1	38	U	ug/kg	38	39	U	ug/kg	39	35	UJ	ug/kg	35
Aroclor-1242	1	UJ	ug/l	1	38	U	ug/kg	38	39	U	ug/kg	39	35	UJ	ug/kg	35
Aroclor-1248	.46	J	ug/l	1	38	U	ug/kg	38	39	U	ug/kg	39	35	UJ	ug/kg	35
Aroclor-1254	1	UJ	ug/l	1	38	U	ug/kg	38	39	U	ug/kg	39	35	UJ	ug/kg	35
Aroclor-1260	1	UJ	ug/l	1	38	U	ug/kg	38	39	U	ug/kg	39	35	UJ	ug/kg	35

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CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- PESTICIDES AND PCBS

Lab Sample Number:	CFBBMS4S4				CFBBMS5S2				CFBBMS5S6				F2068102			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS4S4				CFBBMS5S2				CFBBMS5S6				CFBBMS6I0			
Collect Date:	08-AUG-93				08-AUG-93				08-AUG-93				10-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	2	UJ	ug/kg	2	1.8	UJ	ug/kg	1.8	1.8	UJ	ug/kg	1.8	1.7	UJ	ug/kg	1.7
beta-BHC	2	UJ	ug/kg	2	1.8	UJ	ug/kg	1.8	1.8	UJ	ug/kg	1.8	1.7	UJ	ug/kg	1.7
delta-BHC	2	UJ	ug/kg	2	1.8	UJ	ug/kg	1.8	1.8	UJ	ug/kg	1.8	1.7	UJ	ug/kg	1.7
gamma-BHC (Lindane)	2	UJ	ug/kg	2	1.8	UJ	ug/kg	1.8	1.8	UJ	ug/kg	1.8	1.7	UJ	ug/kg	1.7
Heptachlor	2	UJ	ug/kg	2	1.8	UJ	ug/kg	1.8	1.8	UJ	ug/kg	1.8	1.7	UJ	ug/kg	1.7
Aldrin	2	UJ	ug/kg	2	1.8	UJ	ug/kg	1.8	1.8	UJ	ug/kg	1.8	1.7	UJ	ug/kg	1.7
Heptachlor epoxide	2	UJ	ug/kg	2	1.8	UJ	ug/kg	1.8	1.8	UJ	ug/kg	1.8	1.7	UJ	ug/kg	1.7
Endosulfan I	2	UJ	ug/kg	2	1.8	UJ	ug/kg	1.8	1.8	UJ	ug/kg	1.8	1.7	UJ	ug/kg	1.7
Dieldrin	3.9	UJ	ug/kg	3.9	3.4	UJ	ug/kg	3.4	3.6	UJ	ug/kg	3.6	3.4	UJ	ug/kg	3.4
4,4-DDE	3.9	UJ	ug/kg	3.9	3.4	UJ	ug/kg	3.4	3.6	UJ	ug/kg	3.6	3.4	UJ	ug/kg	3.4
Endrin	3.9	UJ	ug/kg	3.9	3.4	UJ	ug/kg	3.4	3.6	UJ	ug/kg	3.6	3.4	UJ	ug/kg	3.4
Endosulfan II	3.9	UJ	ug/kg	3.9	3.4	UJ	ug/kg	3.4	3.6	UJ	ug/kg	3.6	3.4	UJ	ug/kg	3.4
4,4-DDD	3.9	UJ	ug/kg	3.9	3.4	UJ	ug/kg	3.4	3.6	UJ	ug/kg	3.6	3.4	UJ	ug/kg	3.4
Endosulfan sulfate	3.9	UJ	ug/kg	3.9	3.4	UJ	ug/kg	3.4	3.6	UJ	ug/kg	3.6	3.4	UJ	ug/kg	3.4
4,4-DDT	3.9	UJ	ug/kg	3.9	3.4	UJ	ug/kg	3.4	3.6	UJ	ug/kg	3.6	3.4	UJ	ug/kg	3.4
Methoxychlor	20	UJ	ug/kg	20	18	UJ	ug/kg	18	18	UJ	ug/kg	18	17	UJ	ug/kg	17
Endrin ketone	3.9	UJ	ug/kg	3.9	3.4	UJ	ug/kg	3.4	3.6	UJ	ug/kg	3.6	3.4	UJ	ug/kg	3.4
Endrin aldehyde	3.9	UJ	ug/kg	3.9	3.4	UJ	ug/kg	3.4	3.6	UJ	ug/kg	3.6	3.4	UJ	ug/kg	3.4
alpha-Chlordane	2	UJ	ug/kg	2	1.8	UJ	ug/kg	1.8	1.8	UJ	ug/kg	1.8	1.7	UJ	ug/kg	1.7
gamma-Chlordane	2	UJ	ug/kg	2	1.8	UJ	ug/kg	1.8	1.8	UJ	ug/kg	1.8	1.7	UJ	ug/kg	1.7
Toxaphene	200	UJ	ug/kg	200	180	UJ	ug/kg	180	180	UJ	ug/kg	180	170	UJ	ug/kg	170
Aroclor-1016	39	UJ	ug/kg	39	34	UJ	ug/kg	34	36	UJ	ug/kg	36	34	UJ	ug/kg	34
Aroclor-1221	79	UJ	ug/kg	79	70	UJ	ug/kg	70	73	UJ	ug/kg	73	68	UJ	ug/kg	68
Aroclor-1232	39	UJ	ug/kg	39	34	UJ	ug/kg	34	36	UJ	ug/kg	36	34	UJ	ug/kg	34
Aroclor-1242	39	UJ	ug/kg	39	34	UJ	ug/kg	34	36	UJ	ug/kg	36	34	UJ	ug/kg	34
Aroclor-1248	39	UJ	ug/kg	39	34	UJ	ug/kg	34	36	UJ	ug/kg	36	34	UJ	ug/kg	34
Aroclor-1254	39	UJ	ug/kg	39	34	UJ	ug/kg	34	36	UJ	ug/kg	36	34	UJ	ug/kg	34
Aroclor-1260	39	UJ	ug/kg	39	34	UJ	ug/kg	34	36	UJ	ug/kg	36	34	UJ	ug/kg	34

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R SULT IS REJECTED AND UNUSABLE

CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- PESTICIDES AND PCBS

Lab Sample Number:	F2069102				CFBBMS7S0				CFBBMS7S0D				CFBBMS7S4			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS616				CFBBMS7S0				CFBBMS7S0D				CFBBMS7S4			
Collect Date:	10-AUG-93				09-AUG-93				09-AUG-93				09-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	2	U	ug/kg	2	1.9	U	ug/kg	1.9	1.9	UJ	ug/kg	1.9	2	UJ	ug/kg	2
beta-BHC	2	U	ug/kg	2	1.9	U	ug/kg	1.9	1.9	UJ	ug/kg	1.9	2	UJ	ug/kg	2
delta-BHC	2	U	ug/kg	2	1.9	U	ug/kg	1.9	1.9	UJ	ug/kg	1.9	2	UJ	ug/kg	2
gamma-BHC (Lindane)	2	U	ug/kg	2	1.9	U	ug/kg	1.9	1.9	UJ	ug/kg	1.9	2	UJ	ug/kg	2
Heptachlor	2	U	ug/kg	2	1.9	U	ug/kg	1.9	1.9	UJ	ug/kg	1.9	2	UJ	ug/kg	2
Aldrin	2	U	ug/kg	2	1.9	U	ug/kg	1.9	1.9	UJ	ug/kg	1.9	2	UJ	ug/kg	2
Heptachlor epoxide	2	U	ug/kg	2	1.9	U	ug/kg	1.9	1.9	UJ	ug/kg	1.9	2	UJ	ug/kg	2
Endosulfan I	2	U	ug/kg	2	1.9	U	ug/kg	1.9	1.9	UJ	ug/kg	1.9	2	UJ	ug/kg	2
Dieldrin	4	U	ug/kg	4	3.7	U	ug/kg	3.7	3.7	UJ	ug/kg	3.7	3.9	UJ	ug/kg	3.9
4,4-DDE	4	U	ug/kg	4	3.7	U	ug/kg	3.7	.3	U	ug/kg	.3	3.9	UJ	ug/kg	3.9
Endrin	4	U	ug/kg	4	3.7	U	ug/kg	3.7	3.7	UJ	ug/kg	3.7	3.9	UJ	ug/kg	3.9
Endosulfan II	4	U	ug/kg	4	3.7	U	ug/kg	3.7	3.7	UJ	ug/kg	3.7	3.9	UJ	ug/kg	3.9
4,4-DDD	4	U	ug/kg	4	3.7	U	ug/kg	3.7	3.7	UJ	ug/kg	3.7	3.9	UJ	ug/kg	3.9
Endosulfan sulfate	4	U	ug/kg	4	3.7	U	ug/kg	3.7	3.7	UJ	ug/kg	3.7	3.9	UJ	ug/kg	3.9
4,4-DDT	4	U	ug/kg	4	.5	U	ug/kg	.5	3.7	UJ	ug/kg	3.7	3.9	UJ	ug/kg	3.9
Methoxychlor	20	U	ug/kg	20	19	U	ug/kg	19	19	UJ	ug/kg	19	20	UJ	ug/kg	20
Endrin ketone	4	U	ug/kg	4	3.7	U	ug/kg	3.7	3.7	UJ	ug/kg	3.7	3.9	UJ	ug/kg	3.9
Endrin aldehyde	4	U	ug/kg	4	3.7	U	ug/kg	3.7	3.7	UJ	ug/kg	3.7	3.9	UJ	ug/kg	3.9
alpha-Chlordane	2	U	ug/kg	2	1.9	U	ug/kg	1.9	1.9	UJ	ug/kg	1.9	2	UJ	ug/kg	2
gamma-Chlordane	2	U	ug/kg	2	1.9	U	ug/kg	1.9	1.9	UJ	ug/kg	1.9	2	UJ	ug/kg	2
Toxaphene	200	U	ug/kg	200	190	U	ug/kg	190	190	UJ	ug/kg	190	200	UJ	ug/kg	200
Aroclor-1016	40	U	ug/kg	40	37	U	ug/kg	37	37	UJ	ug/kg	37	39	UJ	ug/kg	39
Aroclor-1221	79	U	ug/kg	79	74	U	ug/kg	74	75	UJ	ug/kg	75	79	UJ	ug/kg	79
Aroclor-1232	40	U	ug/kg	40	37	U	ug/kg	37	37	UJ	ug/kg	37	39	UJ	ug/kg	39
Aroclor-1242	40	U	ug/kg	40	37	U	ug/kg	37	37	UJ	ug/kg	37	39	UJ	ug/kg	39
Aroclor-1248	40	U	ug/kg	40	37	U	ug/kg	37	37	UJ	ug/kg	37	39	UJ	ug/kg	39
Aroclor-1254	40	U	ug/kg	40	37	U	ug/kg	37	37	UJ	ug/kg	37	39	UJ	ug/kg	39
Aroclor-1260	40	U	ug/kg	40	37	U	ug/kg	37	37	UJ	ug/kg	37	39	UJ	ug/kg	39

U = NOT DETECTED J = ESTIMATED VALUE
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CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- PESTICIDES AND PCBS

Lab Sample Number:	CFBBMS7SR				CFBBMS8S2				CFBBMS8S6				F3341102			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS7SR				CFBBMS8S2				CFBBMS8S6				CFBBMS910			
Collect Date:	09-AUG-93				09-AUG-93				09-AUG-93				16-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	UJ	ug/l	.05	1.8	U	ug/kg	1.8	2	UJ	ug/kg	2	1.8	U	ug/kg	1.8
beta-BHC	.05	UJ	ug/l	.05	1.8	U	ug/kg	1.8	2	UJ	ug/kg	2	1.8	U	ug/kg	1.8
delta-BHC	.05	UJ	ug/l	.05	1.8	U	ug/kg	1.8	2	UJ	ug/kg	2	1.8	U	ug/kg	1.8
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	1.8	U	ug/kg	1.8	2	UJ	ug/kg	2	1.8	U	ug/kg	1.8
Heptachlor	.05	UJ	ug/l	.05	1.8	U	ug/kg	1.8	2	UJ	ug/kg	2	1.8	U	ug/kg	1.8
Aldrin	.05	UJ	ug/l	.05	1.8	U	ug/kg	1.8	2	UJ	ug/kg	2	1.8	U	ug/kg	1.8
Heptachlor epoxide	.05	UJ	ug/l	.05	1.8	U	ug/kg	1.8	2	UJ	ug/kg	2	1.8	U	ug/kg	1.8
Endosulfan I	.05	UJ	ug/l	.05	1.8	U	ug/kg	1.8	2	UJ	ug/kg	2	1.8	U	ug/kg	1.8
Dieldrin	.1	UJ	ug/l	.1	3.4	U	ug/kg	3.4	3.8	UJ	ug/kg	3.8	3.5	U	ug/kg	3.5
4,4-DDE	.1	UJ	ug/l	.1	3.4	U	ug/kg	3.4	3.8	UJ	ug/kg	3.8	3.5	U	ug/kg	3.5
Endrin	.1	UJ	ug/l	.1	3.4	U	ug/kg	3.4	3.8	UJ	ug/kg	3.8	3.5	U	ug/kg	3.5
Endosulfan II	.1	UJ	ug/l	.1	3.4	U	ug/kg	3.4	3.8	UJ	ug/kg	3.8	3.5	U	ug/kg	3.5
4,4-DDD	.1	UJ	ug/l	.1	3.4	U	ug/kg	3.4	3.8	UJ	ug/kg	3.8	3.5	U	ug/kg	3.5
Endosulfan sulfate	.1	UJ	ug/l	.1	3.4	U	ug/kg	3.4	3.8	UJ	ug/kg	3.8	3.5	U	ug/kg	3.5
4,4-DDT	.1	UJ	ug/l	.1	3.4	U	ug/kg	3.4	3.8	UJ	ug/kg	3.8	3.5	U	ug/kg	3.5
Methoxychlor	.5	UJ	ug/l	.5	18	U	ug/kg	18	20	UJ	ug/kg	20	18	U	ug/kg	18
Endrin ketone	.1	UJ	ug/l	.1	3.4	U	ug/kg	3.4	3.8	UJ	ug/kg	3.8	3.5	U	ug/kg	3.5
Endrin aldehyde	-				3.4	U	ug/kg	3.4	3.8	UJ	ug/kg	3.8	3.5	U	ug/kg	3.5
alpha-Chlordane	.05	UJ	ug/l	.05	1.8	U	ug/kg	1.8	2	UJ	ug/kg	2	1.8	U	ug/kg	1.8
gamma-Chlordane	.05	UJ	ug/l	.05	1.8	U	ug/kg	1.8	2	UJ	ug/kg	2	1.8	U	ug/kg	1.8
Toxaphene	5	UJ	ug/l	5	180	U	ug/kg	180	200	UJ	ug/kg	200	180	U	ug/kg	180
Aroclor-1016	1	UJ	ug/l	1	34	U	ug/kg	34	38	UJ	ug/kg	38	35	U	ug/kg	35
Aroclor-1221	2	UJ	ug/l	2	69	U	ug/kg	69	78	UJ	ug/kg	78	72	U	ug/kg	72
Aroclor-1232	1	UJ	ug/l	1	34	U	ug/kg	34	38	UJ	ug/kg	38	35	U	ug/kg	35
Aroclor-1242	1	UJ	ug/l	1	34	U	ug/kg	34	38	UJ	ug/kg	38	35	U	ug/kg	35
Aroclor-1248	1	UJ	ug/l	1	34	U	ug/kg	34	38	UJ	ug/kg	38	35	U	ug/kg	35
Aroclor-1254	1	UJ	ug/l	1	34	U	ug/kg	34	38	UJ	ug/kg	38	35	U	ug/kg	35
Aroclor-1260	1	UJ	ug/l	1	34	U	ug/kg	34	38	UJ	ug/kg	38	35	U	ug/kg	35

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CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- PESTICIDES AND PCBS

Lab Sample Number:	F3341102S				F3341102D				F3346102			
Site	CECIL				CECIL				CECIL			
Locator	CFBBMS910MS				CFBBMS910MSD				CFBBMS916			
Collect Date:	16-AUG-93				16-AUG-93				16-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW												
alpha-BHC	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.9	U	ug/kg	1.9
beta-BHC	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.9	U	ug/kg	1.9
delta-BHC	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.9	U	ug/kg	1.9
gamma-BHC (Lindane)	16		ug/kg	2	16		ug/kg	2	1.9	U	ug/kg	1.9
Heptachlor	14		ug/kg	2	15		ug/kg	2	1.9	U	ug/kg	1.9
Aldrin	8	U	ug/kg	8	5	U	ug/kg	5	1.9	U	ug/kg	1.9
Heptachlor epoxide	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.9	U	ug/kg	1.9
Endosulfan I	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.9	U	ug/kg	1.9
Dieldrin	30		ug/kg	4	32		ug/kg	4	3.8	U	ug/kg	3.8
4,4-DDE	3.5	U	ug/kg	3.5	3.5	U	ug/kg	3.5	3.8	U	ug/kg	3.8
Endrin	30		ug/kg	4	32		ug/kg	4	3.8	U	ug/kg	3.8
Endosulfan II	3.5	U	ug/kg	3.5	3.5	U	ug/kg	3.5	3.8	U	ug/kg	3.8
4,4-DDD	.66	J	ug/kg	4	.63	J	ug/kg	4	3.8	U	ug/kg	3.8
Endosulfan sulfate	3.5	U	ug/kg	3.5	3.5	U	ug/kg	3.5	3.8	U	ug/kg	3.8
4,4-DDT	29		ug/kg	4	31		ug/kg	4	3.8	U	ug/kg	3.8
Methoxychlor	18	U	ug/kg	18	18	U	ug/kg	18	19	U	ug/kg	19
Endrin ketone	3.5	U	ug/kg	3.5	3.5	U	ug/kg	3.5	3.8	U	ug/kg	3.8
Endrin aldehyde	3.5	U	ug/kg	3.5	3.5	U	ug/kg	3.5	3.8	U	ug/kg	3.8
alpha-Chlordane	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.9	U	ug/kg	1.9
gamma-Chlordane	1.8	U	ug/kg	1.8	1.8	U	ug/kg	1.8	1.9	U	ug/kg	1.9
Toxaphene	180	U	ug/kg	180	180	U	ug/kg	180	190	U	ug/kg	190
Aroclor-1016	35	U	ug/kg	35	35	U	ug/kg	35	38	U	ug/kg	38
Aroclor-1221	72	U	ug/kg	72	72	U	ug/kg	72	76	U	ug/kg	76
Aroclor-1232	35	U	ug/kg	35	35	U	ug/kg	35	38	U	ug/kg	38
Aroclor-1242	35	U	ug/kg	35	35	U	ug/kg	35	38	U	ug/kg	38
Aroclor-1248	35	U	ug/kg	35	35	U	ug/kg	35	38	U	ug/kg	38
Aroclor-1254	35	U	ug/kg	35	35	U	ug/kg	35	38	U	ug/kg	38
Aroclor-1260	35	U	ug/kg	35	35	U	ug/kg	35	38	U	ug/kg	38

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CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- METALS AND CYANIDE

Lab Sample Number:	CFBBMS1S0				CFBBMS1S6				CFBBMS2S2				CFBBMS2S6			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS1S0				CFBBMS1S6				CFBBMS2S2				CFBBMS2S6			
Collect Date:	05-AUG-93				05-AUG-93				06-AUG-93				06-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	5920		mg/kg	40	7040		mg/kg	40	877		mg/kg	40	9630		mg/kg	40
Antimony	3.5	UJ	mg/kg	12	3.6	UJ	mg/kg	12	3.3	UJ	mg/kg	12	3.4	UJ	mg/kg	12
Arsenic	.65	J	mg/kg	2	.47	UJ	mg/kg	2	.44	UJ	mg/kg	2	.98	J	mg/kg	2
Barium	7.8	J	mg/kg	40	4.7	J	mg/kg	40	1.5	U	mg/kg	40	6.8	J	mg/kg	40
Beryllium	.23	U	mg/kg	1	.24	U	mg/kg	1	.22	U	mg/kg	1	.23	U	mg/kg	1
Cadmium	.92	U	mg/kg	1	.95	U	mg/kg	1	.89	U	mg/kg	1	.91	U	mg/kg	1
Calcium	127	J	mg/kg	1000	102	J	mg/kg	1000	103	J	mg/kg	1000	109	J	mg/kg	1000
Chromium	9.4	U	mg/kg	2	9.4	U	mg/kg	2	2.6	U	mg/kg	2	12.2		mg/kg	2
Cobalt	1.4	U	mg/kg	10	1.4	U	mg/kg	10	1.3	U	mg/kg	10	1.4	U	mg/kg	10
Copper	1.8	U	mg/kg	5	1.3	U	mg/kg	5	.95	U	mg/kg	5	1.3	U	mg/kg	5
Iron	4360		mg/kg	20	2100		mg/kg	20	208		mg/kg	20	4270		mg/kg	20
Lead	6.8	J	mg/kg	1	3.6	J	mg/kg	1	1.6	J	mg/kg	1	5.4	J	mg/kg	1
Magnesium	79.6	J	mg/kg	1000	80.2	J	mg/kg	1000	18.2	UJ	mg/kg	1000	76.8	J	mg/kg	1000
Manganese	4.5		mg/kg	3	4.3		mg/kg	3	2	U	mg/kg	3	2.6	U	mg/kg	3
Mercury	.05	U	mg/kg	.1	.06	U	mg/kg	.1	.05	U	mg/kg	.1	.05	U	mg/kg	.1
Nickel	1.6	U	mg/kg	8	1.7	U	mg/kg	8	1.6	U	mg/kg	8	2.1	U	mg/kg	8
Potassium	54.1	J	mg/kg	1000	64.9	J	mg/kg	1000	16.7	U	mg/kg	1000	50.6	J	mg/kg	1000
Selenium	.23	U	mg/kg	1	.24	U	mg/kg	1	.22	U	mg/kg	1	.22	U	mg/kg	1
Silver	.92	U	mg/kg	2	.95	U	mg/kg	2	.89	U	mg/kg	2	.91	U	mg/kg	2
Sodium	138	J	mg/kg	1000	142	J	mg/kg	1000	117	J	mg/kg	1000	136	J	mg/kg	1000
Thallium	.23	U	mg/kg	2	.24	U	mg/kg	2	.22	U	mg/kg	2	.22	U	mg/kg	2
Vanadium	10.5	J	mg/kg	10	6.4	J	mg/kg	10	1.4	J	mg/kg	10	14		mg/kg	10
Zinc	6.8	U	mg/kg	4	7.2	U	mg/kg	4	4.3	U	mg/kg	4	5.7	U	mg/kg	4
Cyanide	.57	U	mg/kg	1	.57	U	mg/kg	1	.53	U	mg/kg	1	.54	U	mg/kg	1

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CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- METALS AND CYANIDE

Lab Sample Number:	CFBBMS2SR				CFBBMS3I2				CFBBMS3I6				CFBBMS4S2			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS2SR				CFBBMS3I2				CFBBMS3I6				CFBBMS4S2			
Collect Date:	06-AUG-93				09-AUG-93				09-AUG-93				08-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	45.1	U	ug/l	200	934	J	mg/kg	40	15600	J	mg/kg	40	1360	J	mg/kg	40
Antimony	15	UJ	ug/l	60	3.4	U	mg/kg	12	3.5	U	mg/kg	12	3.2	U	mg/kg	12
Arsenic	2	R	ug/l	10	.45	U	mg/kg	2	1.8	U	mg/kg	2	.43	U	mg/kg	2
Barium	1	U	ug/l	200	1.9	U	mg/kg	40	7.7		mg/kg	40	2.6	U	mg/kg	40
Beryllium	1	U	ug/l	5	.23	U	mg/kg	1	.23	U	mg/kg	1	.21	U	mg/kg	1
Cadmium	4	U	ug/l	5	.91	U	mg/kg	1	.93	U	mg/kg	1	.85	U	mg/kg	1
Calcium	25.4	U	ug/l	5000	75.2	UJ	mg/kg	1000	94.9	U	mg/kg	1000	76.3	U	mg/kg	1000
Chromium	8	U	ug/l	10	2.5		mg/kg	2	15.1		mg/kg	2	2.7		mg/kg	2
Cobalt	6	U	ug/l	50	1.4	U	mg/kg	10	1.4	U	mg/kg	10	1.3	U	mg/kg	10
Copper	2	U	ug/l	25	.71	U	mg/kg	5	1.1	U	mg/kg	5	.7	U	mg/kg	5
Iron	9.8	U	ug/l	100	206	J	mg/kg	20	5660	J	mg/kg	20	418	J	mg/kg	20
Lead	1.1	J	ug/l	5	1.5	U	mg/kg	1	18.8		mg/kg	1	2.8		mg/kg	1
Magnesium	14	U	ug/l	5000	22.9	U	mg/kg	1000	185		mg/kg	1000	35.9	U	mg/kg	1000
Manganese	2	U	ug/l	15	1.1	U	mg/kg	3	2	U	mg/kg	3	1.3	U	mg/kg	3
Mercury	.1	U	ug/l	.2	.11	UJ	mg/kg	.1	.12	UJ	mg/kg	.1	.11	UJ	mg/kg	.1
Nickel	7	U	ug/l	40	1.6	U	mg/kg	8	2.6	J	mg/kg	8	1.5	U	mg/kg	8
Potassium	39.9	U	ug/l	5000	17	J	mg/kg	1000	130		mg/kg	1000	21.3	U	mg/kg	1000
Selenium	1.3	U	ug/l	5	.23	UJ	mg/kg	1	.23	UJ	mg/kg	1	.47	UJ	mg/kg	1
Silver	4	U	ug/l	10	.91	U	mg/kg	2	.93	U	mg/kg	2	.85	U	mg/kg	2
Sodium	95.9	U	ug/l	5000	110	U	mg/kg	1000	52	U	mg/kg	1000	121	U	mg/kg	1000
Thallium	1	U	ug/l	10	.23	UJ	mg/kg	2	.23	UJ	mg/kg	2	.22	UJ	mg/kg	2
Vanadium	4	U	ug/l	50	1.1	U	mg/kg	10	15.1		mg/kg	10	1.7	U	mg/kg	10
Zinc	10.8	U	ug/l	20	2.9	U	mg/kg	4	3.4	U	mg/kg	4	3.1	U	mg/kg	4
Cyanide	5	U	ug/l	10	.57	U	mg/kg	1	.59	U	mg/kg	1	.53	U	mg/kg	1

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CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- METALS AND CYANIDE

Lab Sample Number:	CFBBMS4S4				CFBBMS5S2				CFBBMS5S6				F2068			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS4S4				CFBBMS5S2				CFBBMS5S6				CFBBMS610			
Collect Date:	08-AUG-93				08-AUG-93				08-AUG-93				10-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	7770	J	mg/kg	40	1160	J	mg/kg	40	10000	J	mg/kg	40	1910		mg/kg	40
Antimony	3.6	U	mg/kg	12	3.2	U	mg/kg	12	3.3	U	mg/kg	12	3.1	U	mg/kg	12
Arsenic	.47	U	mg/kg	2	.41	U	mg/kg	2	.57	U	mg/kg	2	.41	U	mg/kg	2
Barium	10.6	J	mg/kg	40	2.5	U	mg/kg	40	6.8	J	mg/kg	40	2.2	J	mg/kg	40
Beryllium	.24	U	mg/kg	1	.21	U	mg/kg	1	.22	U	mg/kg	1	.21	U	mg/kg	1
Cadmium	.95	U	mg/kg	1	.85	U	mg/kg	1	.87	U	mg/kg	1	.84	U	mg/kg	1
Calcium	105	U	mg/kg	1000	104	U	mg/kg	1000	106	U	mg/kg	1000	162	J	mg/kg	1000
Chromium	11.1		mg/kg	2	2.5		mg/kg	2	10.4		mg/kg	2	1.7	U	mg/kg	2
Cobalt	1.4	U	mg/kg	10	1.3	U	mg/kg	10	1.3	U	mg/kg	10	1.3	U	mg/kg	10
Copper	1.3	U	mg/kg	5	.71	U	mg/kg	5	.84	U	mg/kg	5	.42	U	mg/kg	5
Iron	1080	J	mg/kg	20	293	J	mg/kg	20	2640	J	mg/kg	20	449		mg/kg	20
Lead	11.6		mg/kg	1	1.2	U	mg/kg	1	8.3		mg/kg	1	3		mg/kg	1
Magnesium	123	J	mg/kg	1000	27.5	U	mg/kg	1000	153	J	mg/kg	1000	41.1	U	mg/kg	1000
Manganese	4.1		mg/kg	3	1.7	U	mg/kg	3	2.1	U	mg/kg	3	3.6		mg/kg	3
Mercury	.12	UJ	mg/kg	.1	.1	UJ	mg/kg	.1	.1	UJ	mg/kg	.1	.05	U	mg/kg	.1
Nickel	1.9	J	mg/kg	8	1.5	U	mg/kg	8	1.8	J	mg/kg	8	1.5	U	mg/kg	8
Potassium	72.9	J	mg/kg	1000	31.9	U	mg/kg	1000	129	J	mg/kg	1000	17.1	J	mg/kg	1000
Selenium	.4	UJ	mg/kg	1	.47	UJ	mg/kg	1	.35	UJ	mg/kg	1	.21	U	mg/kg	1
Silver	.95	U	mg/kg	2	.85	U	mg/kg	2	.87	U	mg/kg	2	.84	U	mg/kg	2
Sodium	136	U	mg/kg	1000	129	U	mg/kg	1000	132	U	mg/kg	1000	121	U	mg/kg	1000
Thallium	.23	UJ	mg/kg	2	.2	UJ	mg/kg	2	.22	UJ	mg/kg	2	.21	U	mg/kg	2
Vanadium	5.1	U	mg/kg	10	1.5	U	mg/kg	10	6.6	J	mg/kg	10	2	U	mg/kg	10
Zinc	5.9	U	mg/kg	4	2.8	U	mg/kg	4	4.1	U	mg/kg	4	3.4	U	mg/kg	4
Cyanide	.55	U	mg/kg	1	.51	U	mg/kg	1	.52	U	mg/kg	1	.51	UJ	mg/kg	1

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CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- METALS AND CYANIDE

Lab Sample Number:	F2069				CFBBMS7S0				CFBBMS7S0D				CFBBMS7S4			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS6I6				CFBBMS7S0				CFBBMS7S0D				CFBBMS7S4			
Collect Date:	10-AUG-93				09-AUG-93				09-AUG-93				09-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	15500		mg/kg	40	710	J	mg/kg	40	547	J	mg/kg	40	3620	J	mg/kg	40
Antimony	3.5	U	mg/kg	12	3.4	U	mg/kg	12	3.4	U	mg/kg	12	3.6	U	mg/kg	12
Arsenic	1.7	U	mg/kg	2	.45	U	mg/kg	2	.46	U	mg/kg	2	.47	U	mg/kg	2
Barium	9.8	J	mg/kg	40	4.4	J	mg/kg	40	2.5	U	mg/kg	40	3.1	U	mg/kg	40
Beryllium	.23	U	mg/kg	1	.23	U	mg/kg	1	.23	U	mg/kg	1	.24	U	mg/kg	1
Cadmium	.94	U	mg/kg	1	.91	U	mg/kg	1	.91	U	mg/kg	1	.97	U	mg/kg	1
Calcium	133	J	mg/kg	1000	312	J	mg/kg	1000	216	J	mg/kg	1000	103	U	mg/kg	1000
Chromium	17.4		mg/kg	2	2.2	J	mg/kg	2	1.8	U	mg/kg	2	6		mg/kg	2
Cobalt	1.4	U	mg/kg	10	1.4	U	mg/kg	10	1.4	U	mg/kg	10	1.5	U	mg/kg	10
Copper	.58	J	mg/kg	5	.84	U	mg/kg	5	.61	U	mg/kg	5	2.4	U	mg/kg	5
Iron	1940		mg/kg	20	195	J	mg/kg	20	116	J	mg/kg	20	104	J	mg/kg	20
Lead	9.2		mg/kg	1	3.6		mg/kg	1	2.1	U	mg/kg	1	3.8		mg/kg	1
Magnesium	239	J	mg/kg	1000	11.5	J	mg/kg	1000	11	UJ	mg/kg	1000	13.7	U	mg/kg	1000
Manganese	3.2	J	mg/kg	3	.66	U	mg/kg	3	.81	U	mg/kg	3	.76	U	mg/kg	3
Mercury	.06	U	mg/kg	.1	.11	UJ	mg/kg	.1	.11	UJ	mg/kg	.1	.13	UJ	mg/kg	.1
Nickel	3.3	J	mg/kg	8	1.6	U	mg/kg	8	1.6	U	mg/kg	8	1.7	U	mg/kg	8
Potassium	158	J	mg/kg	1000	14.2	U	mg/kg	1000	16.3	U	mg/kg	1000	15.1	U	mg/kg	1000
Selenium	.23	U	mg/kg	1	.63	UJ	mg/kg	1	.23	UJ	mg/kg	1	.61	UJ	mg/kg	1
Silver	.94	U	mg/kg	2	.91	U	mg/kg	2	.91	U	mg/kg	2	.97	U	mg/kg	2
Sodium	179	J	mg/kg	1000	130	U	mg/kg	1000	139	U	mg/kg	1000	225	J	mg/kg	1000
Thallium	.23	U	mg/kg	2	.22	U	mg/kg	2	.23	UJ	mg/kg	2	.24	UJ	mg/kg	2
Vanadium	11	J	mg/kg	10	1.1	U	mg/kg	10	.91	U	mg/kg	10	3.1	U	mg/kg	10
Zinc	4.6	U	mg/kg	4	1.6	U	mg/kg	4	3	U	mg/kg	4	2.3	U	mg/kg	4
Cyanide	.6	UJ	mg/kg	1	.55	U	mg/kg	1	.56	U	mg/kg	1	.59	U	mg/kg	1

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CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- METALS AND CYANIDE

Lab Sample Number:	CFBBMS7SR				CFBBMS8S2				CFBBMS8S6				F3341			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBBMS7SR				CFBBMS8S2				CFBBMS8S6				CFBBMS9I0			
Collect Date:	09-AUG-93				09-AUG-93				09-AUG-93				16-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	45.1	U	ug/l	200	1590	J	mg/kg	40	9720	J	mg/kg	40	2130		mg/kg	40
Antimony	15	U	ug/l	60	3.1	U	mg/kg	12	3.6	U	mg/kg	12	3.4	U	mg/kg	12
Arsenic	2	U	ug/l	10	.42	U	mg/kg	2	.48	U	mg/kg	2	.43	U	mg/kg	2
Barium	2.5	U	ug/l	200	1.7	U	mg/kg	40	10.3	J	mg/kg	40	2.9	U	mg/kg	40
Beryllium	1	U	ug/l	5	.21	U	mg/kg	1	.24	U	mg/kg	1	.22	U	mg/kg	1
Cadmium	4	U	ug/l	5	.84	U	mg/kg	1	.95	U	mg/kg	1	.87	U	mg/kg	1
Calcium	119	U	ug/l	5000	74.2	U	mg/kg	1000	103	U	mg/kg	1000	277	J	mg/kg	1000
Chromium	8	U	ug/l	10	2.2		mg/kg	2	12		mg/kg	2	2.7		mg/kg	2
Cobalt	6	U	ug/l	50	1.3	U	mg/kg	10	1.4	U	mg/kg	10	1.3	U	mg/kg	10
Copper	2	U	ug/l	25	.53	U	mg/kg	5	1.6	U	mg/kg	5	1	U	mg/kg	5
Iron	19.8	U	ug/l	100	191	J	mg/kg	20	598	J	mg/kg	20	207	J	mg/kg	20
Lead	1	U	ug/l	5	1.7	U	mg/kg	1	13		mg/kg	1	3	J	mg/kg	1
Magnesium	90.2	U	ug/l	5000	23	U	mg/kg	1000	90.5	J	mg/kg	1000	30.9	U	mg/kg	1000
Manganese	2	U	ug/l	15	1	U	mg/kg	3	1.4	U	mg/kg	3	2.6	U	mg/kg	3
Mercury	.2	U	ug/l	.2	.11	UJ	mg/kg	.1	.12	UJ	mg/kg	.1	.05	UJ	mg/kg	.1
Nickel	7	UJ	ug/l	40	1.5	UJ	mg/kg	8	3.9	J	mg/kg	8	1.8	U	mg/kg	8
Potassium	48.3	U	ug/l	5000	21.9	U	mg/kg	1000	70.4	J	mg/kg	1000	28.1	U	mg/kg	1000
Selenium	1	UJ	ug/l	5	.4	UJ	mg/kg	1	.5	UJ	mg/kg	1	.56	U	mg/kg	1
Silver	4	U	ug/l	10	.84	U	mg/kg	2	.95	U	mg/kg	2	.87	U	mg/kg	2
Sodium	117	U	ug/l	5000	107	U	mg/kg	1000	135	U	mg/kg	1000	136	U	mg/kg	1000
Thallium	1	UJ	ug/l	10	.21	UJ	mg/kg	2	.24	UJ	mg/kg	2	.21	U	mg/kg	2
Vanadium	4	U	ug/l	50	1.6	U	mg/kg	10	6.2	J	mg/kg	10	1.7	J	mg/kg	10
Zinc	4.2	UJ	ug/l	20	.98	U	mg/kg	4	3.7	U	mg/kg	4	4.3	U	mg/kg	4
Cyanide	5	U	ug/l	10	.52	U	mg/kg	1	.58	U	mg/kg	1	.56	U	mg/kg	1

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CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- METALS AND CYANIDE

Lab Sample Number:	CFBBMS9I0S				F3346				CFBBMS9I6			
Site	CECIL				CECIL				CECIL			
Locator	CFBBMS9I0S				CFBBMS9I6				CFBBMS9I6			
Collect Date:	21-SEP-93				16-AUG-93				21-SEP-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	-				5680		mg/kg	40	-			
Antimony	-				3.4	U	mg/kg	12	-			
Arsenic	-				.45	U	mg/kg	2	-			
Barium	-				5.5	J	mg/kg	40	-			
Beryllium	-				.23	U	mg/kg	1	-			
Cadmium	-				.92	U	mg/kg	1	-			
Calcium	-				107	U	mg/kg	1000	-			
Chromium	-				6.7		mg/kg	2	-			
Cobalt	-				1.4	U	mg/kg	10	-			
Copper	-				.92	U	mg/kg	5	-			
Iron	-				671	J	mg/kg	20	-			
Lead	-				6.7	J	mg/kg	1	-			
Magnesium	-				60.1	J	mg/kg	1000	-			
Manganese	-				2	U	mg/kg	3	-			
Mercury	.12	R	mg/kg	.1	.55	J	mg/kg	.1	.12	R	mg/kg	.1
Nickel	-				2.5	U	mg/kg	8	-			
Potassium	-				49.5	U	mg/kg	1000	-			
Selenium	-				.22	U	mg/kg	1	-			
Silver	-				.92	U	mg/kg	2	-			
Sodium	-				136	U	mg/kg	1000	-			
Thallium	-				.22	U	mg/kg	2	-			
Vanadium	-				4	J	mg/kg	10	-			
Zinc	-				4	U	mg/kg	4	-			
Cyanide	-				.58	U	mg/kg	1	-			

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CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- TENTATIVELY IDENTIFIED COMPOUNDS

Lab Sample Number:	CFBBMS1S0			CFBBMS1S6			CFBBMS2S2			CFBBMS2S6		
Site	CECIL			CECIL			CECIL			CECIL		
Locator	CFBBMS1S0			CFBBMS1S6			CFBBMS2S2			CFBBMS2S6		
Collect Date:	05-AUG-93			05-AUG-93			06-AUG-93			06-AUG-93		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
TENTATIVELY IDENTIFIED CMPNDS.												
(3.97) Aldolcondensationproduc	160	U ug/kg										
(4.43) Aldolcondensationproduc	12000	U ug/kg										
(5.50) Aldolcondensationproduc	120	U ug/kg										
(4.45) Aldolcondensationproduc				13000	U ug/kg							
(3.98) Aldolcondensationproduc				200	U ug/kg							
(5.50) Aldolcondensationproduc				140	U ug/kg							
(6.82) Ethanol,2-(2-Ethoxyetho				79	J ug/kg							
(3.97) Aldolcondensationproduc							160	U ug/kg				
(4.42) Aldolcondensationproduc							12000	U ug/kg				
(3.97) Aldolcondensationproduc										170	U ug/kg	
(4.43) Aldolcondensationproduc										13000	U ug/kg	
(6.82) Ethanol,2-(2-Ethoxyetho										79	J ug/kg	

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CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- TENTATIVELY IDENTIFIED COMPOUNDS

Lab Sample Number:	CFBBMS2SR			CFBBMS3I2			CFBBMS3I6			CFBBMS4S2		
Site	CECIL			CECIL			CECIL			CECIL		
Locator	CFBBMS2SR			CFBBMS3I2			CFBBMS3I6			CFBBMS4S2		
Collect Date:	06-AUG-93			09-AUG-93			09-AUG-93			08-AUG-93		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
TENTATIVELY IDENTIFIED CMPNDS.												
(4.37) Aldolcondensationproduc	2	U ug/l										
(6.87) Ethanol,2-(2-Ethoxyetho	2	J ug/l										
(4.02) Aldolcondensationproduc				150	J ug/kg							
(4.48) Aldolcondensationproduc				15000	J ug/kg							
(4.05) Aldolcondensationproduc							250	J ug/kg				
(4.53) Aldolcondensationproduc							28000	J ug/kg				
(3.72) 2-Propanol(Acn)							14	J ug/kg				
(4.03) Aldolcondensationproduc										200	J ug/kg	
(5.55) Aldolcondensationproduc										160	J ug/kg	
(4.52) Aldolcondensationproduc										21000	J ug/kg	

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CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- TENTATIVELY IDENTIFIED COMPOUNDS

Lab Sample Number:	CFBBMS4S4			CFBBMS5S2			CFBBMS5S6			F2068101		
Site	CECIL			CECIL			CECIL			CECIL		
Locator	CFBBMS4S4			CFBBMS5S2			CFBBMS5S6			CFBBMS6I0		
Collect Date:	08-AUG-93			08-AUG-93			08-AUG-93			10-AUG-93		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
TENTATIVELY IDENTIFIED CMPNDS.												
(4.48) Aldolcondensationproduc	15000	J ug/kg										
(4.00) Aldolcondensationproduc	160	J ug/kg										
(4.53) Aldolcondensationproduc				24000	J ug/kg							
(4.07) Aldolcondensationproduc							290	J ug/kg				
(4.53) Aldolcondensationproduc							30000	J ug/kg				
(6.87) Ethanol,2-(2-Ethoxyetho							83	J ug/kg				
(5.55) Aldolcondensationproduc							260	J ug/kg				
(3.72) 2-Propanol(Acn)							6	J ug/kg				
(3.87) Aldolcondensationproduc										250	J ug/kg	
(4.35) Aldolcondensationproduc										18000	J ug/kg	
(5.35) Aldolcondensationproduc										300	J ug/kg	

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CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- TENTATIVELY IDENTIFIED COMPOUNDS

Lab Sample Number:	F2069101			CFBBMS7S0			CFBBMS7S0D			CFBBMS7S4		
Site	CECIL			CECIL			CECIL			CECIL		
Locator	CFBBMS616			CFBBMS7S0			CFBBMS7S0D			CFBBMS7S4		
Collect Date:	10-AUG-93			09-AUG-93			09-AUG-93			09-AUG-93		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
TENTATIVELY IDENTIFIED CMPNDS.												
(5.37) Aldolcondensationproduc	550	J ug/kg										
(6.68) Ethanol,2-(2-Ethoxyetho	110	J ug/kg										
(3.87) Aldolcondensationproduc	490	J ug/kg										
(4.33) Aldolcondensationproduc	16000	J ug/kg										
(3.53) Aldolcondensationproduc				580	J ug/kg							
(3.78) Aldolcondensationproduc				180	J ug/kg							
(3.92) Aldolcondensationproduc				310	J ug/kg							
(4.40) Aldolcondensationproduc				30000	J ug/kg							
(5.42) Aldolcondensationproduc				280	J ug/kg							
(3.87) Aldolcondensationproduc							240	J ug/kg				
(4.50) Aldolcondensationproduc							64000	J ug/kg				
(4.05) Aldolcondensationproduc							160	J ug/kg				
(3.73) 2-Propanol(Acn)							7	J ug/kg				
(4.47) Aldolcondensationproduc										63000	J ug/kg	
(6.72) Ethanol,2-(2-Ethoxyetho										140	J ug/kg	
(3.68) 2-Propanol(Acn)										540	J ug/kg	

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CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- TENTATIVELY IDENTIFIED COMPOUNDS

Lab Sample Number:	CFBBMS7SR			CFBBMS8S2			CFBBMS8S6			F3341101		
Site	CECIL			CECIL			CECIL			CECIL		
Locator	CFBBMS7SR			CFBBMS8S2			CFBBMS8S6			CFBBMS9I0		
Collect Date:	09-AUG-93			09-AUG-93			09-AUG-93			16-AUG-93		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
TENTATIVELY IDENTIFIED CMPNDS.																
(6.58) Ethanol,2-(2-Ethoxyetho	4	U	ug/l													
(3.87) Aldolcondensationproduc					260	J	ug/kg									
(4.35) Aldolcondensationproduc					18000	J	ug/kg									
(6.72) Ethanol,2-(2-Ethoxyetho					98	J	ug/kg									
(3.87) Aldolcondensationproduc									150	J	ug/kg					
(4.32) Aldolcondensationproduc									10000	J	ug/kg					
(3.67) Aldolcondensationproduc													96	U	ug/kg	
(3.87) Aldolcondensationproduc													450	U	ug/kg	
(4.53) Aldolcondensationproduc													26000	U	ug/kg	
(5.52) Aldolcondensationproduc													370	J	ug/kg	
(6.13) Aldolcondensationproduc													72	J	ug/kg	

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CECIL FIELD -- SUBSURFACE SOIL -- BACKGROUND
VALIDATED DATA -- TENTATIVELY IDENTIFIED COMPOUNDS

Lab Sample Number:	F3346101				F3346103			
Site	CECIL				CECIL			
Locator	CFBBMS9I6				CFBBMS9I6			
Collect Date:	16-AUG-93				16-AUG-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
TENTATIVELY IDENTIFIED CMPNDS.								
(3.88) Aldolcondensationproduc	740	U	ug/kg					
(4.52) Aldolcondensationproduc	23000	U	ug/kg					
(6.83) Ethanol,2-(2-Ethoxyetho	140	J	ug/kg					
(3.72) 2-Propanol(Acn)					52	J	ug/kg	

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CECIL FIELD -- GROUNDWATER -- BACKGROUND
VALIDATED DATA -- VOLATILES

Lab Sample Number:	CFBK1S				CFBK1SMS				CFBK1SMSD				CFBK2S			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBK1S				CFBK1SMS				CFBK1SMSD				CFBK2S			
Collect Date:	13-SEP-93				13-SEP-93				13-SEP-93				13-SEP-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Bromomethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Vinyl chloride	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Chloroethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Methylene chloride	1	U	ug/l	1	1		ug/l	2	1		ug/l	2	1	U	ug/l	1
Acetone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Carbon disulfide	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethene	1	U	ug/l	1	9		ug/l	2	9		ug/l	2	1	U	ug/l	1
1,1-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethene (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chloroform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
2-Butanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
1,1,1-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Carbon tetrachloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromodichloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloropropane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
cis-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Trichloroethene	1	U	ug/l	1	11		ug/l	2	10		ug/l	2	1	U	ug/l	1
Dibromochloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1,2-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Benzene	1	U	ug/l	1	11		ug/l	2	11		ug/l	2	1	U	ug/l	1
trans-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromoform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
4-Methyl-2-pentanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
2-Hexanone	2	R	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	R	ug/l	2
Tetrachloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Toluene	1	U	ug/l	1	10		ug/l	2	10		ug/l	2	1	U	ug/l	1
1,1,2,2-Tetrachloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chlorobenzene	1	U	ug/l	1	10		ug/l	2	10		ug/l	2	1	U	ug/l	1
Ethylbenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Styrene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Xylenes (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- GROUNDWATER -- BACKGROUND
VALIDATED DATA -- VOLATILES

Lab Sample Number:	CFBK3I				CFBK4S				CFBK5S				CFBK6I			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBK3I				CFBK4S				CFBK5S				CFBK6I			
Collect Date:	13-SEP-93				09-SEP-93				09-SEP-93				09-SEP-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Bromomethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Vinyl chloride	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Chloroethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Methylene chloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Acetone	23	J	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Carbon disulfide	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethene (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chloroform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
2-Butanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
1,1,1-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Carbon tetrachloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromodichloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloropropane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
cis-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Trichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Dibromochloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1,2-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Benzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
trans-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromoform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
4-Methyl-2-pentanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
2-Hexanone	2	R	ug/l	2	2	R	ug/l	2	2	R	ug/l	2	2	R	ug/l	2
Tetrachloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Toluene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1,2,2-Tetrachloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chlorobenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Ethylbenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Styrene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Xylenes (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- GROUNDWATER -- BACKGROUND
VALIDATED DATA -- VOLATILES

Lab Sample Number:	CFBK7S				CFBK7SR				CFBK7ST				CFBK8S			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBK7S				CFBK7SR				CFBK7ST				CFBK8S			
Collect Date:	09-SEP-93				09-SEP-93				09-SEP-93				09-SEP-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Bromomethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Vinyl chloride	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Chloroethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Methylene chloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Acetone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Carbon disulfide	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethene (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chloroform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
2-Butanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
1,1,1-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Carbon tetrachloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromodichloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloropropane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
cis-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Trichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Dibromochloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1,2-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Benzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
trans-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromoform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
4-Methyl-2-pentanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
2-Hexanone	2	R	ug/l	2	2	R	ug/l	2	2	R	ug/l	2	2	R	ug/l	2
Tetrachloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Toluene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1,2,2-Tetrachloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chlorobenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Ethylbenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Styrene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Xylenes (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- GROUNDWATER -- BACKGROUND
VALIDATED DATA -- VOLATILES

Lab Sample Number:	CFBK9I			
Site	CECIL			
Locator	CFBK9I			
Collect Date:	09-SEP-93			
	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW				
Chloromethane	2	U	ug/l	2
Bromomethane	2	U	ug/l	2
Vinyl chloride	2	U	ug/l	2
Chloroethane	2	U	ug/l	2
Methylene chloride	1	U	ug/l	1
Acetone	2	U	ug/l	2
Carbon disulfide	1		ug/l	
1,1-Dichloroethene	1	U	ug/l	1
1,1-Dichloroethane	1	U	ug/l	1
1,2-Dichloroethene (total)	1	U	ug/l	1
Chloroform	1	U	ug/l	1
1,2-Dichloroethane	1	U	ug/l	1
2-Butanone	2	U	ug/l	2
1,1,1-Trichloroethane	1	U	ug/l	1
Carbon tetrachloride	1	U	ug/l	1
Bromodichloromethane	1	U	ug/l	1
1,2-Dichloropropane	1	U	ug/l	1
cis-1,3-Dichloropropene	1	U	ug/l	1
Trichloroethene	1	U	ug/l	1
Dibromochloromethane	1	U	ug/l	1
1,1,2-Trichloroethane	1	U	ug/l	1
Benzene	1	U	ug/l	1
trans-1,3-Dichloropropene	1	U	ug/l	1
Bromoform	1	U	ug/l	1
4-Methyl-2-pentanone	2	U	ug/l	2
2-Hexanone	2	R	ug/l	2
Tetrachloroethene	1	U	ug/l	1
Toluene	2		ug/l	2
1,1,2,2-Tetrachloroethane	1	U	ug/l	1
Chlorobenzene	1	U	ug/l	1
Ethylbenzene	1	U	ug/l	1
Styrene	1	U	ug/l	1
Xylenes (total)	2		ug/l	2

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- GROUNDWATER -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CFBK1S				CFBK1SMS				CFBK1SMSD				CFBK2S			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBK1S				CFBK1SMS				CFBK1SMSD				CFBK2S			
Collect Date:	12-SEP-93				12-SEP-93				12-SEP-93				12-SEP-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	10	U	ug/l	10	45		ug/l	10	43		ug/l	10	10	U	ug/l	10
bis(2-Chloroethyl) ether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Chlorophenol	10	U	ug/l	10	46		ug/l	10	44		ug/l	10	10	U	ug/l	10
1,3-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,4-Dichlorobenzene	10	U	ug/l	10	26		ug/l	10	23		ug/l	10	10	U	ug/l	10
1,2-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,2-oxybis(1-Chloropropane)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
N-Nitroso-di-n-propylamine	10	U	ug/l	10	30		ug/l	10	29		ug/l	10	10	U	ug/l	10
Hexachloroethane	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Nitrobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Isophorone	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Nitrophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dimethylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Chloroethoxy) methane	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dichlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,2,4-Trichlorobenzene	10	U	ug/l	10	27		ug/l	10	25		ug/l	10	10	U	ug/l	10
Naphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chloroaniline	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobutadiene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chloro-3-methylphenol	10	U	ug/l	10	50		ug/l	10	48		ug/l	10	10	U	ug/l	10
2-Methylnaphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorocyclopentadiene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4,6-Trichlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4,5-Trichlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
2-Chloronaphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Dimethylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Acenaphthylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,6-Dinitrotoluene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Acenaphthene	10	U	ug/l	10	31		ug/l	10	31		ug/l	10	10	U	ug/l	10
2,4-Dinitrophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4-Nitrophenol	25	U	ug/l	25	47		ug/l	25	48		ug/l	25	25	U	ug/l	25
Dibenzofuran	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dinitrotoluene	10	U	ug/l	10	36		ug/l	10	35		ug/l	10	10	U	ug/l	10
Diethylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chlorophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluorene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	25	U	ug/l	25	73		ug/l	25	71		ug/l	25	25	U	ug/l	25
Phenanthrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Carbazole	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	10	U	ug/l	10	1	J	ug/l	10	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	38		ug/l	10	35		ug/l	10	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

CECIL FIELD -- GROUNDWATER -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CFBK1S				CFBK1SMS				CFBK1SMSD				CFBK2S			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBK1S				CFBK1SMS				CFBK1SMSD				CFBK2S			
Collect Date:	12-SEP-93				12-SEP-93				12-SEP-93				12-SEP-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	.6	J	ug/l	10	.8	J	ug/l	10	.8	J	ug/l	10	2	J	ug/l	10
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- GROUNDWATER -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CFBK3I				CFBK4S				CFBK5S				CFBK6I			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBK3I				CFBK4S				CFBK5S				CFBK6I			
Collect Date:	12-SEP-93				09-SEP-93				09-SEP-93				09-SEP-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	4	J	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Chloroethyl) ether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Chlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,3-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,4-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,2-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,2-oxybis(1-Chloropropane)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
N-Nitroso-di-n-propylamine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachloroethane	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Nitrobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Isophorone	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Nitrophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dimethylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Chloroethoxy) methane	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dichlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,2,4-Trichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Naphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chloroaniline	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobutadiene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chloro-3-methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Methylnaphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorocyclopentadiene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4,6-Trichlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4,5-Trichlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
2-Chloronaphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Dimethylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Acenaphthylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,6-Dinitrotoluene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Acenaphthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dinitrophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4-Nitrophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Dibenzofuran	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dinitrotoluene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Diethylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chlorophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluorene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Phenanthrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Carbazole	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

CECIL FIELD -- GROUNDWATER -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CFBK3I				CFBK4S				CFBK5S				CFBK6I			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBK3I				CFBK4S				CFBK5S				CFBK6I			
Collect Date:	12-SEP-93				09-SEP-93				09-SEP-93				09-SEP-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	1	J	ug/l	10	2	J	ug/l	10	2	J	ug/l	10	2	J	ug/l	10
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- GROUNDWATER -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CFBK7S				CFBK7SR				CFBK8S				CFBK9I			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBK7S				CFBK7SR				CFBK8S				CFBK9I			
Collect Date:	09-SEP-93				09-SEP-93				09-SEP-93				09-SEP-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	3	J	ug/l	10
bis(2-Chloroethyl) ether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Chlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,3-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,4-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,2-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,2-oxybis(1-Chloropropane)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
N-Nitroso-di-n-propylamine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachloroethane	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Nitrobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Isophorone	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Nitrophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dimethylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Chloroethoxy) methane	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dichlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,2,4-Trichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Naphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	.5	J	ug/l	10
4-Chloroaniline	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobutadiene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chloro-3-methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Methylnaphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	.5	J	ug/l	10
Hexachlorocyclopentadiene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4,6-Trichlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4,5-Trichlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
2-Chloronaphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Dimethylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Acenaphthylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,6-Dinitrotoluene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Acenaphthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dinitrophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4-Nitrophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Dibenzofuran	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dinitrotoluene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Diethylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chlorophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluorene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Phenanthrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Carbazole	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	1	J	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

CECIL FIELD -- GROUNDWATER -- BACKGROUND
VALIDATED DATA -- SEMIVOLATILES

Lab Sample Number:	CFBK7S				CFBK7SR				CFBK8S				CFBK9I			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBK7S				CFBK7SR				CFBK8S				CFBK9I			
Collect Date:	09-SEP-93				09-SEP-93				09-SEP-93				09-SEP-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	10	U	ug/l	10	10	U	ug/l	10	.6	J	ug/l	10	3	J	ug/l	10
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- GROUNDWATER -- BACKGROUND
VALIDATED DATA -- PESTICIDES AND PCBS

Lab Sample Number:	CFBK1S				CFBK1SMS				CFBK1SMSD				CFBK2S			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBK1S				CFBK1SMS				CFBK1SMSD				CFBK2S			
Collect Date:	12-SEP-93				12-SEP-93				12-SEP-93				12-SEP-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
beta-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
delta-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	.54		ug/l	.05	.48		ug/l	.05	.05	UJ	ug/l	.05
Heptachlor	.05	UJ	ug/l	.05	.42		ug/l	.05	.34		ug/l	.05	.05	UJ	ug/l	.05
Aldrin	.05	UJ	ug/l	.05	.41		ug/l	.05	.33		ug/l	.05	.05	UJ	ug/l	.05
Heptachlor epoxide	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
Endosulfan I	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
Dieldrin	.1	UJ	ug/l	.1	1		ug/l	.1	.96		ug/l	.1	.1	UJ	ug/l	.1
4,4-DDE	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
Endrin	.1	UJ	ug/l	.1	1		ug/l	.1	.97		ug/l	.1	.1	UJ	ug/l	.1
Endosulfan II	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDD	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan sulfate	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDT	.1	UJ	ug/l	.1	.83		ug/l	.1	.65		ug/l	.1	.1	UJ	ug/l	.1
Methoxychlor	.5	UJ	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	UJ	ug/l	.5
Endrin ketone	.1	UJ	ug/l	.1	.022	J	ug/l	.1	.018	J	ug/l	.1	.1	UJ	ug/l	.1
Endrin aldehyde	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
alpha-Chlordane	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
gamma-Chlordane	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
Toxaphene	5	UJ	ug/l	5	5	U	ug/l	5	5	U	ug/l	5	5	UJ	ug/l	5
Aroclor-1016	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1
Aroclor-1221	2	UJ	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	UJ	ug/l	2
Aroclor-1232	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1
Aroclor-1242	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1
Aroclor-1248	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1
Aroclor-1254	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1
Aroclor-1260	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- GROUNDWATER -- BACKGROUND
VALIDATED DATA -- PESTICIDES AND PCBS

Lab Sample Number:	CFBK3I				CFBK4S				CFBK5S				CFBK6I			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBK3I				CFBK4S				CFBK5S				CFBK6I			
Collect Date:	12-SEP-93				09-SEP-93				09-SEP-93				09-SEP-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
beta-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
delta-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Aldrin	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor epoxide	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Endosulfan I	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Dieldrin	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDE	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endrin	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan II	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDD	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan sulfate	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDT	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Methoxychlor	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5
Endrin ketone	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endrin aldehyde	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
alpha-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
gamma-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Toxaphene	5	UJ	ug/l	5	5	UJ	ug/l	5	5	UJ	ug/l	5	5	UJ	ug/l	5
Aroclor-1016	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1221	2	UJ	ug/l	2	2	UJ	ug/l	2	2	UJ	ug/l	2	2	UJ	ug/l	2
Aroclor-1232	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1242	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1248	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1254	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1260	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1

U = NOT DETECTED J = ESTIMATED VALUE
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R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- GROUNDWATER -- BACKGROUND
VALIDATED DATA -- PESTICIDES AND PCBS

Lab Sample Number:	CFBK7S				CFBK7SR				CFBK8S				CFBK9I			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBK7S				CFBK7SR				CFBK8S				CFBK9I			
Collect Date:	09-SEP-93				09-SEP-93				09-SEP-93				09-SEP-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
beta-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
delta-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Heptachlor	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Aldrin	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Heptachlor epoxide	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Endosulfan I	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Dieldrin	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
4,4-DDE	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Endrin	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Endosulfan II	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
4,4-DDD	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Endosulfan sulfate	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
4,4-DDT	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Methoxychlor	.5	UJ	ug/l	.5	.5	U	ug/l	.5	.5	UJ	ug/l	.5	.5	U	ug/l	.5
Endrin ketone	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Endrin aldehyde	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
alpha-Chlordane	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
gamma-Chlordane	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Toxaphene	5	UJ	ug/l	5	5	U	ug/l	5	5	UJ	ug/l	5	5	U	ug/l	5
Aroclor-1016	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1221	2	UJ	ug/l	2	2	U	ug/l	2	2	UJ	ug/l	2	2	U	ug/l	2
Aroclor-1232	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1242	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1248	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1254	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1260	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R - RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- GROUNDWATER -- BACKGROUND
VALIDATED DATA -- METALS AND CYANIDE

Lab Sample Number:	CFBK1S				CFBK1SF				CFBK2S				CFBK2SF			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBK1S				CFBK1SF				CFBK2S				CFBK2SF			
Collect Date:	12-SEP-93				12-SEP-93				12-SEP-93				12-SEP-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	168000	J	ug/l	200	1030	J	ug/l	200	275000	J	ug/l	200	207	U	ug/l	200
Antimony	15	UJ	ug/l	60	15	U	ug/l	60	15	UJ	ug/l	60	15	U	ug/l	60
Arsenic	5.1	J	ug/l	10	2	UJ	ug/l	10	3.4	J	ug/l	10	2	U	ug/l	10
Barium	81.4	J	ug/l	200	9.8	U	ug/l	200	177	J	ug/l	200	9.5	U	ug/l	200
Beryllium	1	U	ug/l	5	1	U	ug/l	5	1.8	U	ug/l	5	1	U	ug/l	5
Cadmium	7	U	ug/l	5	4	U	ug/l	5	5.5	U	ug/l	5	4	U	ug/l	5
Calcium	1300	J	ug/l	5000	447	U	ug/l	5000	2730	J	ug/l	5000	942	J	ug/l	5000
Chromium	137	J	ug/l	10	8	U	ug/l	10	230	J	ug/l	10	8	U	ug/l	10
Cobalt	9.5	J	ug/l	50	6	U	ug/l	50	22.4	J	ug/l	50	6	U	ug/l	50
Copper	21.1	J	ug/l	25	2	U	ug/l	25	33.8		ug/l	25	2	U	ug/l	25
Iron	33600	J	ug/l	100	2460		ug/l	100	58200	J	ug/l	100	102	U	ug/l	100
Lead	26.2	J	ug/l	5	1.6	J	ug/l	5	42	J	ug/l	5	3.5	J	ug/l	5
Magnesium	2740	J	ug/l	5000	717	J	ug/l	5000	6630		ug/l	5000	741	J	ug/l	5000
Manganese	35.3		ug/l	15	7.3	U	ug/l	15	70		ug/l	15	11.5	J	ug/l	15
Mercury	.14	J	ug/l	.2	.1	U	ug/l	.2	.35		ug/l	.2	.1	U	ug/l	.2
Nickel	42.1		ug/l	40	7	U	ug/l	40	103		ug/l	40	7	U	ug/l	40
Potassium	2240	J	ug/l	5000	206	U	ug/l	5000	3690	J	ug/l	5000	191	U	ug/l	5000
Selenium	5	U	ug/l	5	1	U	ug/l	5	5	UJ	ug/l	5	1	U	ug/l	5
Silver	4	U	ug/l	10	4	U	ug/l	10	4	U	ug/l	10	4	U	ug/l	10
Sodium	7400		ug/l	5000	6350		ug/l	5000	5300		ug/l	5000	3670	J	ug/l	5000
Thallium	1	U	ug/l	10	1	U	ug/l	10	1	U	ug/l	10	1	U	ug/l	10
Vanadium	130		ug/l	50	4	U	ug/l	50	243		ug/l	50	4	U	ug/l	50
Zinc	54.7	U	ug/l	20	21.1	U	ug/l	20	114		ug/l	20	45.1	U	ug/l	20
Cyanide	5	UJ	ug/l	10	-				5	UJ	ug/l	10	-			

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R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- GROUNDWATER -- BACKGROUND
VALIDATED DATA -- METALS AND CYANIDE

Lab Sample Number:	CFBK3I				CFBK3IF				CFBK4S				CFBK4SF			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBK3I				CFBK3IF				CFBK4S				CFBK4SF			
Collect Date:	12-SEP-93				12-SEP-93				09-SEP-93				09-SEP-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	1810	J	ug/l	200	259	J	ug/l	200	313000	J	ug/l	200	233	J	ug/l	200
Antimony	15	UJ	ug/l	60	15	U	ug/l	60	15	UJ	ug/l	60	15	U	ug/l	60
Arsenic	12.5	J	ug/l	10	9	J	ug/l	10	7.1	J	ug/l	10	2	U	ug/l	10
Barium	35	J	ug/l	200	29.7	J	ug/l	200	193	J	ug/l	200	8.9	U	ug/l	200
Beryllium	1	U	ug/l	5	1	U	ug/l	5	2.3	U	ug/l	5	1	U	ug/l	5
Cadmium	4	U	ug/l	5	4	U	ug/l	5	6.7	U	ug/l	5	4.1	U	ug/l	5
Calcium	1720	J	ug/l	5000	1210	J	ug/l	5000	2730	J	ug/l	5000	1170	J	ug/l	5000
Chromium	8	UJ	ug/l	10	8	U	ug/l	10	218	J	ug/l	10	8	U	ug/l	10
Cobalt	6	U	ug/l	50	6	U	ug/l	50	17.8	J	ug/l	50	6	U	ug/l	50
Copper	5.8	U	ug/l	25	2	U	ug/l	25	31.1		ug/l	25	2	U	ug/l	25
Iron	1320	J	ug/l	100	948	J	ug/l	100	24400	J	ug/l	100	189	J	ug/l	100
Lead	3.5	J	ug/l	5	2.2	J	ug/l	5	72.5	J	ug/l	5	1.3	J	ug/l	5
Magnesium	1000	J	ug/l	5000	1020	J	ug/l	5000	7100		ug/l	5000	776	J	ug/l	5000
Manganese	10.4	J	ug/l	15	8.7	U	ug/l	15	42		ug/l	15	6	U	ug/l	15
Mercury	.1	U	ug/l	.2	.1	U	ug/l	.2	.49		ug/l	.2	.1	U	ug/l	.2
Nickel	11.1	J	ug/l	40	7	U	ug/l	40	84.1		ug/l	40	7	U	ug/l	40
Potassium	1030	J	ug/l	5000	1280	J	ug/l	5000	5900		ug/l	5000	146	U	ug/l	5000
Selenium	1.8	J	ug/l	5	1	U	ug/l	5	5	UJ	ug/l	5	1	U	ug/l	5
Silver	7.4	U	ug/l	10	4	U	ug/l	10	4	U	ug/l	10	4	U	ug/l	10
Sodium	5680		ug/l	5000	6310		ug/l	5000	7120		ug/l	5000	5280		ug/l	5000
Thallium	1	U	ug/l	10	1	U	ug/l	10	1	UJ	ug/l	10	1	U	ug/l	10
Vanadium	6.9	J	ug/l	50	4	U	ug/l	50	162		ug/l	50	4.2	J	ug/l	50
Zinc	45.2	U	ug/l	20	38.5	U	ug/l	20	86.4	U	ug/l	20	15.5	U	ug/l	20
Cyanide	5	UJ	ug/l	1	-				5	UJ	ug/l	10	-			

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- GROUNDWATER -- BACKGROUND
VALIDATED DATA -- METALS AND CYANIDE

Lab Sample Number:	CFBK5S				CFBK5SF				CFBK6I				CFBK6IF			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBK5S				CFBK5SF				CFBK6I				CFBK6IF			
Collect Date:	09-SEP-93				09-SEP-93				09-SEP-93				09-SEP-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	163000	J	ug/l	200	573	J	ug/l	200	475	J	ug/l	200	70.3	U	ug/l	200
Antimony	15	UJ	ug/l	60	15	U	ug/l	60	15	UJ	ug/l	60	15	U	ug/l	60
Arsenic	2	UJ	ug/l	10	2	U	ug/l	10	2	UJ	ug/l	10	2	U	ug/l	10
Barium	126	J	ug/l	200	5.8	U	ug/l	200	13	U	ug/l	200	9.8	U	ug/l	200
Beryllium	1.7	U	ug/l	5	1	U	ug/l	5	1	U	ug/l	5	1	U	ug/l	5
Cadmium	6.3	U	ug/l	5	4	U	ug/l	5	4	U	ug/l	5	4	U	ug/l	5
Calcium	2080	J	ug/l	5000	692	U	ug/l	5000	595	U	ug/l	5000	621	U	ug/l	5000
Chromium	119	J	ug/l	10	8	U	ug/l	10	8	UJ	ug/l	10	8	U	ug/l	10
Cobalt	13.7	J	ug/l	50	6	U	ug/l	50	6	U	ug/l	50	6	U	ug/l	50
Copper	24.2	J	ug/l	25	2	U	ug/l	25	6	U	ug/l	25	3.7	U	ug/l	25
Iron	21400	J	ug/l	100	94.5	U	ug/l	100	264	J	ug/l	100	78.6	U	ug/l	100
Lead	59.2	J	ug/l	5	1.7	J	ug/l	5	1.7	J	ug/l	5	1.5	J	ug/l	5
Magnesium	4310	J	ug/l	5000	391	J	ug/l	5000	514	J	ug/l	5000	522	J	ug/l	5000
Manganese	42.2		ug/l	15	8.1	U	ug/l	15	3.7	U	ug/l	15	4.9	U	ug/l	15
Mercury	.33		ug/l	.2	.1	U	ug/l	.2	.1	U	ug/l	.2	.1	U	ug/l	.2
Nickel	52.7		ug/l	40	7	U	ug/l	40	7	U	ug/l	40	7	U	ug/l	40
Potassium	3890	J	ug/l	5000	232	U	ug/l	5000	673	J	ug/l	5000	583	J	ug/l	5000
Selenium	5	UJ	ug/l	5	1	U	ug/l	5	1	U	ug/l	5	1	U	ug/l	5
Silver	4	U	ug/l	10	4	U	ug/l	10	4	U	ug/l	10	4	U	ug/l	10
Sodium	6890		ug/l	5000	5290		ug/l	5000	4410	J	ug/l	5000	4520	J	ug/l	5000
Thallium	1	U	ug/l	10	1	U	ug/l	10	1	U	ug/l	10	1	U	ug/l	10
Vanadium	118		ug/l	50	5.3	J	ug/l	50	4	U	ug/l	50	4	U	ug/l	50
Zinc	48.7	U	ug/l	20	45.7	U	ug/l	20	29.2	U	ug/l	20	60.5	U	ug/l	20
Cyanide	5	UJ	ug/l	10	-				5	U	ug/l	1	-			

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- GROUNDWATER -- BACKGROUND
VALIDATED DATA -- METALS AND CYANIDE

Lab Sample Number:	CFBK7S				CFBK7SF				CFBK8S				CFBK8SF			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	CFBK7S				CFBK7SF				CFBK8S				CFBK8SF			
Collect Date:	09-SEP-93				09-SEP-93				09-SEP-93				09-SEP-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	173000	J	ug/l	200	461	J	ug/l	200	493000	J	ug/l	200	5810	J	ug/l	200
Antimony	15	UJ	ug/l	60	15	U	ug/l	60	15	UJ	ug/l	60	15	U	ug/l	60
Arsenic	4.5	J	ug/l	10	2.2	J	ug/l	10	8	UJ	ug/l	10	2.1	J	ug/l	10
Barium	121	J	ug/l	200	17.4	J	ug/l	200	241		ug/l	200	15	U	ug/l	200
Beryllium	2.6	U	ug/l	5	1	U	ug/l	5	3.7	U	ug/l	5	1	U	ug/l	5
Cadmium	6.5	U	ug/l	5	4	U	ug/l	5	12	U	ug/l	5	4	U	ug/l	5
Calcium	2740	J	ug/l	5000	1030	J	ug/l	5000	3340	J	ug/l	5000	2820	J	ug/l	5000
Chromium	160	J	ug/l	10	8	U	ug/l	10	489	J	ug/l	10	12.2		ug/l	10
Cobalt	10.7	J	ug/l	50	6	U	ug/l	50	48.6	J	ug/l	50	6	U	ug/l	50
Copper	55.1		ug/l	25	2.2	U	ug/l	25	129		ug/l	25	5.3	U	ug/l	25
Iron	13200	J	ug/l	100	3010	J	ug/l	100	34400	J	ug/l	100	1100	J	ug/l	100
Lead	150	J	ug/l	5	1.8	J	ug/l	5	115	J	ug/l	5	4.4	J	ug/l	5
Magnesium	3290	J	ug/l	5000	1290	J	ug/l	5000	8290		ug/l	5000	695	J	ug/l	5000
Manganese	28.7		ug/l	15	8.7	U	ug/l	15	57.6		ug/l	15	7.7	U	ug/l	15
Mercury	1.1		ug/l	.2	.12	J	ug/l	.2	2.3		ug/l	.2	.1	U	ug/l	.2
Nickel	46.2		ug/l	40	7	U	ug/l	40	131		ug/l	40	8.7	J	ug/l	40
Potassium	1710	J	ug/l	5000	158	J	ug/l	5000	5450		ug/l	5000	278	U	ug/l	5000
Selenium	4.6	J	ug/l	5	1	UJ	ug/l	5	13	J	ug/l	5	1	U	ug/l	5
Silver	4	U	ug/l	10	4	U	ug/l	10	6.5	U	ug/l	10	6.9	U	ug/l	10
Sodium	9990		ug/l	5000	8290		ug/l	5000	3090	J	ug/l	5000	2510	J	ug/l	5000
Thallium	1	U	ug/l	10	1	U	ug/l	10	1	UJ	ug/l	10	1	U	ug/l	10
Vanadium	167		ug/l	50	7.1	J	ug/l	50	226		ug/l	50	5.2	J	ug/l	50
Zinc	28.8	U	ug/l	20	11.5	U	ug/l	20	62.3	U	ug/l	20	24.3	U	ug/l	20
Cyanide	5	UJ	ug/l	10	-				5	UJ	ug/l	10	-			

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- GROUNDWATER -- BACKGROUND
VALIDATED DATA -- METALS AND CYANIDE

Lab Sample Number:	CFBK9I				CFBK9IF			
Site	CECIL				CECIL			
Locator	CFBK9I				CFBK9IF			
Collect Date:	09-SEP-93				09-SEP-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE								
Aluminum	2700	J	ug/l	200	123	U	ug/l	200
Antimony	15	UJ	ug/l	60	15	U	ug/l	60
Arsenic	27.3	J	ug/l	10	21.3		ug/l	10
Barium	37.1	J	ug/l	200	37.1	J	ug/l	200
Beryllium	1	U	ug/l	5	1	U	ug/l	5
Cadmium	4	U	ug/l	5	4	U	ug/l	5
Calcium	2280	J	ug/l	5000	2660	J	ug/l	5000
Chromium	8	UJ	ug/l	10	8	U	ug/l	10
Cobalt	59.9		ug/l	50	56.3		ug/l	50
Copper	4.6	U	ug/l	25	2	U	ug/l	25
Iron	7830	J	ug/l	100	6110	J	ug/l	100
Lead	4.5	J	ug/l	5	1.3	J	ug/l	5
Magnesium	774	J	ug/l	5000	735	J	ug/l	5000
Manganese	8.4	U	ug/l	15	10.1	J	ug/l	15
Mercury	.1	U	ug/l	.2	.1	U	ug/l	.2
Nickel	115		ug/l	40	110		ug/l	40
Potassium	1110	J	ug/l	5000	1130	J	ug/l	5000
Selenium	1	UJ	ug/l	5	1	UJ	ug/l	5
Silver	4	U	ug/l	10	4	U	ug/l	10
Sodium	3000	J	ug/l	5000	3240	J	ug/l	5000
Thallium	1	U	ug/l	10	1	U	ug/l	10
Vanadium	6.9	J	ug/l	50	4	U	ug/l	50
Zinc	42.6		ug/l	20	72.7	U	ug/l	20
Cyanide	5	UJ	ug/l	10	-			

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

CECIL FIELD -- GROUNDWATER -- BACKGROUND
VALIDATED DATA -- TENTATIVELY IDENTIFIED COMPOUNDS

Lab Sample Number:	CFBK2S				CFBK3I				CFBK9I		
Site	CECIL				CECIL				CECIL		
Locator	CFBK2S				CFBK3I				CFBK9I		
Collect Date:	12-SEP-93				12-SEP-93				09-SEP-93		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
TENTATIVELY IDENTIFIED CMPNDS.												
(13.90) Benzamide,N,N-Diethyl-	10	J	ug/l									
(13.80) Benzamide,N,N-Diethyl-					14	J	ug/l					
(13.93) Benzamide,N,N-Diethyl-									4	J	ug/l	

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

APPENDIX J-4

PRECISION, ACCURACY, REPRESENTATIVENESS, COMPLETENESS, AND COMPARABILITY (PARCC) SUMMARY REPORT FOR BACKGROUND SAMPLES

PARCC SUMMARY REPORT
BACKGROUND SAMPLE SURVEY
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

FINAL REPORT

MARCH 1994

Table of Contents

1.0 Introduction

2.0 Volatile Organic Compounds

2.1 Precision
2.2 Accuracy
2.3 Representativeness
2.4 Comparability
2.5 Completeness

3.0 Semivolatile Organic Compounds

3.1 Precision
3.2 Accuracy
3.3 Representativeness
3.4 Comparability
3.5 Completeness

4.0 Pesticide and PCB Organic Compounds

4.1 Precision
4.2 Accuracy
4.3 Representativeness
4.4 Comparability
4.5 Completeness

5.0 Metals and Cyanide

5.1 Precision
5.2 Accuracy
5.3 Representativeness
5.4 Comparability
5.5 Completeness

6.0 Variances in Analytical Performance

7.0 Summary of PARCC Criteria

8.0 Data QC Tables

8.1 Table 1 - Laboratory Analysis Correlation Table
8.2 Table 2 - Calibration Summary
8.5 Table 3 - Blank Summary
8.6 Table 4 - Pesticide/PCB Column Response

PARCC SUMMARY REPORT
BACKGROUND SAMPLE SURVEY
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

1.0 INTRODUCTION

The Background Sample Survey was conducted as part of the NAS Cecil Field Remedial Investigation (RI) project. This portion of the project included the collection and analysis of 24 environmental and quality control samples. The analytical data were evaluated for Quality Assurance/Quality Control (QA/QC) based on the following United States Environmental Protection Agency (USEPA) guidance documents: *National Functional Guidelines for Organic Data Review, June 1991* and the *Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses, July 1988*. The report summarizes the QA/QC evaluation of the data according to precision, accuracy, representativeness, completeness and comparability (PARCC) relative to the project Data Quality Objectives (DQO's). This report provides a quantitative and qualitative assessment of the data and identifies potential sources of error, uncertainty and bias that may effect the overall usability.

Wadsworth/Alert Laboratories performed 3436 water, soil/sediment and quality control chemical analyses. The samples were grouped into sample delivery groups (SDGs) within a project of up to twenty field samples received by the laboratory over a period of up to 14 calendar days. Each SDG contains QA/QC analyses used to document the data quality of the entire SDG or a sub-group of samples within the SDG. The environmental samples are associated with the QC samples analyzed for that SDG or sub-group. Table 1 represents the Laboratory Analyses Correlation.

Quality Control of Environmental Data

Environmental data quality depends on sample collection procedures, analytical methods and instrumentation, and sample matrix properties. Both sampling procedures and laboratory analysis contain potential sources of uncertainty, error or bias that affect the overall quality of a measurement. Sample errors may result from incomplete equipment decontamination, inappropriate sampling technique, homogenization or non-homogenization of samples, improper filtering, and improper preservation. The accuracy of analytical results is dependent on selection of appropriate analytical method, use of quality equipment, maintaining equipment properly, and selection of effective laboratory software. The sample matrix also is an important factor in the ability to obtain precise and accurate results.

Environmental and laboratory QC samples assess the effects of sampling procedures and evaluate laboratory derived contaminations, laboratory performance, and matrix effects. QC samples include: trip blanks, equipment/rinsate blanks, method blanks, laboratory control

samples (LCSs), surrogate spikes, matrix spike/matrix spike duplicates (MS/MSDs), laboratory duplicates, and field duplicates.

Before conducting the PARCC evaluation, the analytical data was validated according to the functional guidelines for organic and inorganic data review (USEPA, 1991 and 1988 respectively). Samples not meeting functional guideline acceptance criteria were qualified with a flag, an abbreviation indicating a problem with the data. Flags used in data validation are the following:

J — Estimated The associated numerical value is an estimated quantity. The analyte was detected but the reported value may not be accurate or precise. The "J" qualification indicates the data fell outside QC limits, but the exceedance was not sufficient to cause rejection of the data. The "J" qualifier is also applied to sample results that are above the method detection limit (MDL), but are less than the contract required quantitation limit (CRQL) for organic compounds. It also designates imprecision in low-level inorganics results.

R — Rejected The data are unusable (the compound/analyte may or may not be present). Use of the "R" qualifier indicates a significant variance from functional guideline acceptance criteria. Either resampling or reanalysis is necessary to determine the presence or absence of the rejected analyte.

U — Undetected The compound/analyte was analyzed for, but not detected. The associated numerical value is the sample quantitation limit for organic compound analyses and the contract required detection limit (CRDL) for inorganic analytes. The "U" designation is also applied to suspected blank contaminations. The"U" flag is used to qualify any result detected in an environmental sample at a concentration less than 10 times the value of the concentration in any associated blank for common laboratory contaminants and less than 5 times the concentration in any associated blank for all other analytes.

UJ — Estimated/Undetected The compound/analyte was analyzed for, but not detected and the sample quantitation limit is an estimated quantity due to poor accuracy or precision. This qualification is also used to flag the possible false negative results in the case where low bias in the analytical system is indicated by low surrogate, internal standard or other spike recoveries.

Once the data were reviewed and qualified according to the functional guidelines, the data set is then evaluated using PARCC criteria. PARCC criteria provide an evaluation of overall data useability. The following is a discussion of PARCC criteria as related to the project DQOs.

Precision is a measure of the agreement or reproducibility of analytical results under a given set of conditions. It is a quantity that can not be measured directly, but is calculated from

percent recovery data. Precision is expressed as the relative percent difference (RPD):

$$RPD = ((\ /D1-D2/\ )/(\ 1/2\ (\ D1+D2\ )))\ X\ 100$$

Where D1 and D2 are the reported concentrations for sample and duplicate analyses. Precision is primarily assessed by calculating an RPD from the percent recoveries of the spiked compounds for each sample in the MS/MSD pair. In the absence of an MS/MSD pair, two Laboratory Controlled Samples (LCSs) are spiked and analyzed in each analytical SDG as an alternative means for assessing precision. An additional measure of sampling precision was obtained by collecting and analyzing field duplicate samples, which were compared using RPD calculations and other precision evaluation criteria.

MS and MSD samples, consisting of split samples usually collected in separate containers during the field sampling event, are spiked by the laboratory with target analytes prior to preparation and analysis. These samples measure the overall efficiency of the analytical method in recovering target analytes from an environmental matrix. An LCS is similar to an MS/MSD sample in that the LCS is spiked with the same target analytes prior to preparation and analysis. However, the LCS is prepared using a controlled interference-free matrix instead of a field sample aliquot. Laboratory reagent water is used to prepare aqueous LCS. Non-aqueous LCS are prepared using standard sand approved by the American Society for Testing Materials (ASTM) for its homogeneity. The LCS measures laboratory efficiency in recovering target analytes from either a solid or aqueous matrix in the absence of matrix interferences.

In inorganics analysis, one matrix spike sample is analyzed accompanied by an unspiked laboratory duplicate. The data reviever compares the reported results of the original analysis and the laboratory duplicate, calculating RPD's, which are used to assess laboratory precision.

Laboratory and field sampling precision are further evaluated by calculating RPD's for field sample duplicate pairs. The sampler collects two field samples at the same location and under identically controlled conditions. The laboratory then analyzes the samples under identical conditions. With the exception of VOC samples, field duplicate sample pairs are homogenized before being placed in separate sample containers. VOC field duplicate sample pairs are discrete samples collected at the same time.

Possible causes of poor precision include sample heterogeneity, improper sample collection or handling, inconsistent sample preparation, and improper instrument use. RPDs are evaluated only when a compound is detected above the CRQL or CRDL; resulting in fewer RPD data pairs available for evaluation as compared to LCS or MS/MSD. The information obtained from field duplicate samples is of substantial value because the samples may not be effected by bias occurring in the analytical system due to problems associated with the spiking of a sample matrix (particularly solid matrices).

An RPD above the numerical QC limit in either MS/MSD samples or LCS/LCSD indicates

imprecision. Imprecision is a variance in the consistency with which the laboratory arrives at a particular reported result. Thus, the actual analyte concentration may be higher or lower than the reported result.

Accuracy is a measure of the agreement of an experimental determination and the true value of the parameter being measured. It is used to identify bias in a given measurement system. Accuracy is assessed through the analysis of MS/MSD, LCS and samples containing surrogate spikes. Surrogate spikes are either isotopically labeled compounds or compounds that are not typically detected in the samples. Surrogate spikes are added to every blank, environmental sample, MS/MSD, and standard, for VOC, SVOC, and pesticide/ PCB analyses. Accuracy of inorganic analyses is determined using the percent recoveries of MS and LCS analyses only.

Percent recovery is calculated using the equation:

$$\%R = ((A-B)/C) \times 100$$

where: A = measured concentration in the spiked sample
B = measured concentration of the spike compound in the unspiked sample
C = concentration of the spike

The percent recovery of each analyte spiked in MS/MSD samples, LCS samples, and surrogate compounds added to field samples is compared with the acceptance criteria specified by the functional guidelines (USEPA, 1991 and 1988 respectively). Spike recoveries outside the acceptable QC accuracy limits provide an indication of bias, where the reported data may overestimate or underestimate the actual concentration of compounds detected or quantitation limits reported for field samples. Recoveries outside acceptable QC limits may be caused by factors such as instrumentation, analyst error, or matrix interference.

Representativeness is a qualitative parameter that expresses the degree to which the sample data are characteristic of a population. It is evaluated by reviewing the QC results of blank samples. Positive detections of compounds in the blank samples identify compounds that may have been introduced into the samples during sample collection, transport or analysis.

For organic analysis method blanks, equipment/rinsate blanks, and trip blanks are collected and analyzed. A method blank sample is a laboratory grade water or solid matrix that contains the method reagents and has undergone the same steps as the environmental samples. The method blank provides a measure of the combined contamination derived from the laboratory source water, glassware, instruments, reagents and sample preparation steps. Method blanks are prepared for each sample of a similar matrix extracted by a similar method at a similar concentration level.

Equipment/rinsate blanks consist of analyte-free water poured over or through the sample collection equipment. The water is collected in a sample container for laboratory analysis. These blanks are collected after the sampling equipment is decontaminated and measure

efficiency of the decontamination procedure. Equipment/rinsate blanks were collected and analyzed for all target analytes.

Trip blanks are volatile organics blanks used to identify possible sample contamination introduced during sample transport. A trip blank is a sample bottle filled in the laboratory with reagent-grade water, preserved to a pH less than 2 with hydrochloric acid. It is transported to the site, stored with the sample containers, and returned unopened to the laboratory for analysis. Trip blanks were included in each cooler containing VOC samples.

In inorganics analysis, equipment/rinsate blanks, preparation blanks, and initial and continuing calibration blanks measure analyte artifacts and baseline shift. A preparation blank is a laboratory grade water or solid matrix that contains all the reagents and is carried through the sample preparation process. Preparation blanks are prepared and analyzed with each inorganic preparation SDG to assess contamination from laboratory reagents, glassware, source water and preparation procedures.

Initial and continuing calibration blanks consist of acidified laboratory grade water that is injected at the beginning and at a regular frequency during each 12 hour sample analysis run. These blanks estimate residual contaminants from the previous sample or standards analysis and measure baseline shifts that commonly occur in emission and absorption spectroscopies.

Comparability is a qualitative expression of the confidence with which one data set may be compared to another. It provides an assessment of the analytical results' equivalence to data obtained from other analyses. It is important that data sets be comparable if they are used in conjunction with other data sets. The factors affecting comparability include the following: sample collection and handling techniques, matrix type, and analytical method. Comparability is dependent upon other PARCC criteria because only when precision, accuracy and representativeness are known can data sets be compared with confidence.

Completeness is defined as the percentage of acceptable measurements compared to the total number of measurements made. It is evaluated to determine if an acceptable amount of useable data was obtained so that a valid scientific site assessment can be completed. Completeness equals the total number of analytes for each matrix minus the total number of rejected analytes divided by the total number of analytes multiplied by 100. As specified in the project DQO's, the goal for completeness for all target analytes is 96 percent.

The following sections present a review of QC data for each analytical method.

2.0 VOLATILE ORGANIC COMPOUNDS

A total of 24 water and soil/sediment samples were analyzed for volatile organic compounds. The samples were divided into 2 separate sample delivery groups (SDGs). This section discusses the QC supporting documentation as defined by the PARCC criteria and evaluated based on the DQO's.

2.1 Precision

MS/MSD and field duplicate samples were used to assess precision. MS/MSD samples were analyzed in SDGs BSS01 and BSS02. BSS01 and BSS02 each contained two field sample duplicate pairs, which provided an additional measure of precision.

2.1.1 MS/MSD Samples

The functional guidelines establishes RPD QC limits for MS/MSD samples as follows:

Compound	Soil RPD	Water RPD
1,1-dicholoroethene	22	14
trichloroethene	24	14
benzene	21	11
toluene	21	13
chlorobenzene	21	13

No RPD exceeded the QC criteria in SDGs BSS01or BSS02.

2.1.2 Duplicate Samples

Duplicate sample pairs were analyzed with SDG BSS01. All samples consisted entirely of non-detects.

2.1.3 Conclusion

The MS/MSD analytical results, which were compliant with functional guidelines QC criteria, indicate an acceptable level of sample collection and analytical precision was attained. The information provided by the field duplicate samples is limited because no calculable RPDs were available for the field duplicates. If a precision problem exists, it is confined to the concentration range at or below the instrument detection limit (IDL), which is generally below the concentration range of concern to the data user.

2.2 Accuracy

The percent recovery results of MS/MSDs and surrogate spikes are used to assess accuracy. As previously stated, SDGs BSS01 and BSS02 included MS/MSD samples for the soil/sediment matrices only. Assessment of accuracy was made by calculating the percent recoveries of the five spiking compounds: 1,1-dichloroethene, trichloroethene, benzene, toluene, and chlorobenzene.

2.2.1 MS/MSD Samples

All Percent Recoveries (%R's) met the functional guidelines recovery criteria.

2.2.2 Surrogate Spikes

Three surrogate compounds were added by the laboratory to each environmental QC sample submitted for VOC analysis. The VOC surrogate spike compounds were bromofluorobenzene, 1,2-dichloroethane-d4, and toluene-d8. Bromofluorobenzene is not a target compound and 1,2-dichloroethane-d4 and toluene-d8 are isotopically labeled target compounds. The use of these compounds as surrogates enables the laboratory to separate the surrogates from compounds of interest and to accurately calculate recoveries. Surrogate spike recoveries for VOC analyses were compared to the QC criteria in the USEPA Functional Guidelines (USEPA, 1991), as follows:

Surrogate	Solid Matrix	Aqueous Matrix
toluene-d8	84-138 %	88-110 %
bromofluorobenzene	59-113 %	86-115 %
1,2-dichloroethane-d4	70-121 %	76-114 %

Of the 72 surrogate percent recoveries evaluated, none were outside the QC limits.

2.2.3 Initial and Continuing Calibration

Initial and continuing calibration results provide another means to evaluate accuracy within a particular SDG. Relative response factor (RRF), percent relative standard deviation (%RSD) and percent difference (%D) are the three major parameters used to measure the effectiveness of instrument calibration. RRF is a measure of the relative spectral response of an analyte compared to its internal standard. %RSD is an expression of the linearity of instrument response. %D is a comparison of a continuing calibration instrumental response with its initial response. The most critical of the three calibration parameters, RRF, has the potential to effect data accuracy across an SDG when it is outside acceptable QC limits. %RSD and %D exceedances suggest more routine instrumental anomalies which typically affect only samples with positive results for the compounds with exceeded %RSDs or %Ds and were run within the particular analytical window in which the exceedances occurred.

There were no RRF exceedances in either SDGs BSS01 or BSS02. There were %RSDs and %Ds outside functional guidelines QC criteria in both SDGs. The %RSD and %D QC exceedances and the samples and target analytes affected by these exceedances are given in Table 2-A. The exceedances may create a bias in the data relative to the other calibration information generated, but it is not evident that an absolute quantifiable bias exists in the data. The data user should for this reason regard the qualified results imprecise rather than inaccurate. The %RSDs and %Ds which exceeded the QC criteria do not suggest any systematic analytical problems with either accuracy or precision.

2.2.4 Conclusion

The QC data from both the MS/MSD results and surrogate spike recoveries suggest a high level of accuracy was attained in the analyses. The surrogate recovery data suggest that matrix interferences had no appreciable effect on accuracy. Interferences were not observed.

2.3 Representativeness

Method blanks, equipment rinsate blanks and trip blanks were collected and analyzed for VOCs to evaluate representativeness. The results of the QC blank analyses are presented in Table 3. Methylene chloride and acetone were detected in the various QC blanks. The highest detected concentration for an individual target analyte in any of the three QC blanks was used for data qualification.

If contaminants were detected in a blank, corrective actions were made for the chemical analytical data during data validation. The corrective action consisted of amending the laboratory reported results for organic analytes based on the following criteria. The validation qualifier codes utilized in the blank summary tables are described below.

> CRQL Validation Qualifier. If a sample result for the blank contaminant was less than the CRQL and less than 5 times the blank value for regular target compounds or 10 times the blank value for common laboratory contaminants (the blank action level), the sample result was rejected and amended as non-detected at the CRQL for the target compound.
>
> U Validation Qualifier. If a sample result for the blank contaminant was greater than the sample CRQL and less than the blank action level, the sample result for the blank contaminant was amended as a non-detect at the concentration reported in the sample results.
>
> No Action (NA). If a sample result for the blank contaminant was greater than the blank action level, the result was not amended.

The following presents a description of VOCs detected in method blanks, equipment rinsate blanks and trip blanks. Corrective actions made for target analytes detected in the environ-

mental samples are described in Table 3.

2.3.1 Method Blanks

Method blank samples were analyzed with each SDG that was analyzed for VOCs to identify target compounds which may have been introduced through the analytical instrumentation or sample preparation. Acetone was detected in method blanks for SDG BSS01at a concentration range between 2 and 3 ug/L and methylene chloride was detected in one method blank at 2 ug/L (Table 3).

2.3.2 Equipment/Rinsate Blanks

Equipment rinsate blank samples are used to evaluate target analytes that may have been introduced by the sampling equipment or laboratory handling of the samples. Methylene chloride was detected in the equipment rinsate blank for BSS01 at 2 ug/L.

2.3.3 Trip Blanks

Trip blanks were placed in each cooler containing field VOC water or soil/sediment samples. Trip blanks are QC samples used to identify possible sampling artifacts originating from storage, shipping, or site conditions. There were no detections in the trip blanks associated with the samples.

2.3.4 Overall Assessment

The target analytes detected in the QC blanks routinely occur at comparable concentrations in laboratory analysis. The analytical results are considered to be representative. The application of the blank qualification rules has implications on the completeness of the analytical data, however, which are discussed below.

2.4 Comparability

The laboratory used standard analytical methods for all of the analyses. In all cases, the method detection limits attained were below the contract required quantitation limits. The comparability of the data is regarded as acceptable. Some samples were qualified due to low-level blank contamination (as discussed in section 2.3), which raised the effective detection limits for the suspected blank contaminants in those samples.

2.5 Completeness

The completeness level attained for project volatile organic field samples was 100 percent. This percentage was calculated as the total number of accepted data points divided by the total number of samples collected multiplied by 100. There were no data points rejected due to QC exceedances although some were qualified as "estimated" for various reasons.

Another type of data qualification affecting data completeness is the application of functional guidelines blank validation rules. When samples are qualified due to contamination in an associated blank a "5X" or "10X" action limit is set such that sample results below the action limit are flagged as "undetected" for the particular compound in question. This flagging procedure effectively rejects the concentration range between zero and the initial reported result, which becomes the new detection limit. It is possible that the levels of blank contamination detected could eliminate data in a necessary concentration range in some instances. In these cases, more data is needed to verify the existence of the compound in question at the site below the revised detection limit.

3.0 SEMIVOLATILE ORGANIC COMPOUNDS

A total of 22 water and soil/sediment samples were analyzed for semivolatile organic compounds (SVOCs). The samples were divided into two separate sample delivery groups (SDGs). This section discusses the QC supporting documentation as defined by the PARCC criteria and evaluated based on the DQOs.

3.1 Precision

MS/MSD and field duplicate samples were used to assess precision. One MS/MSD sample was analyzed in both SDGs BSS01 and BSS02.

Assessment of precision was made by calculating the relative percent differences (%RPDs) of eleven spiking compounds: phenol, 2-chlorophenol, 1,4-dichlorobenzene, n-nitroso-di-n-propylamine, 1,2,4-trichlorobenzene, 4-chloro-3-methylphenol, acenaphtene, 4-nitrophenol, 2,4-dinitrotoluene, pentachlorophenol and pyrene. SDGs BSS01 and BSS02 each contained two duplicate sample pairs to provide an additional measure of precision.

3.1.1 MS/MSD Samples

The functional guidelines establishes RPD QC criteria for MS/MSD samples as follows:

Compound	Soil RPD	Water RPD
phenol	35	42
2-chlorophenol	50	40
1,4-dichlorobenzene	27	28
n-nitroso-di-n-propylamine	38	38
1,2,4-trichlorobenzene	23	28
4-chloro-3-methylphenol	33	42
acenaphthene	19	31
4-nitrophenol	50	50
2,4-dinitrotoluene	47	38
pentachlorophenol	47	50
pyrene	36	31

All RPD's met QC criteria for both SDG's.

3.1.2 Duplicate Samples Pairs

Two duplicate sample pairs were analyzed in both SDGs BSS01 and BSS02 for the soil/sediment matrix. The following gives the single compound detected in the duplicate

sample pairs:

SDG No	Duplicate Nos.	Compound	Units	RPD
BSS01	CEF-BSS-02/ CEF-BSS-02DF	bis(2-ethylhexyl)phthalate	ug/kg	19

The RPD for this compound met the 60 percent QC criterion. The consistency observed in the non-detect sample results suggests that any lack of precision is less than the instrument detection limit (IDL) in the absence of a low bias.

3.1.3 Overall Assessment

The MS/MSD analytical results were compliant with functional guidelines QC criteria, suggesting acceptable analytical precision was obtained. The information provided by the field duplicate sample pairs is limited in the sense that only one calculable RPD was available. The low number of detections in the background survey suggest precision problems are largely confined to the concentration range at or below the instrument detection limit (IDL), which is generally below the concentration range of concern to the data user. It is essential in the case of non-detects to carefully evaluate accuracy, particularly low biases, which could cause target analytes which are actually present to be reported as false negatives.

3.2 Accuracy

The percent recovery results of MS/MSDs and surrogate spikes are used to assess accuracy. Assessment of accuracy was made by calculating the percent recoveries of the eleven spiking compounds listed in section 3.1.1.

3.2.1 MS/MSD Samples

All MS/MSD %R values were within the functional guidelines recovery criteria.

3.2.2 Surrogate Spikes

Eight surrogate compounds were added by the laboratory to each environmental and QC sample submitted for SVOC analysis. Surrogate spike recoveries for SVOC analyses were compared to the QC criteria in the USEPA Functional Guidelines (USEPA, 1991), as follows:

Surrogate	Solid Matrix	Aqueous Matrix
nitrobenzene-d5	23 - 120 %	35 - 114 %
2-fluorobiphenyl	30 - 115 %	43 - 116 %
terphenyl-d14	18 - 137 %	33 - 141 %

Surrogate	Solid Matrix	Aqueous Matrix
phenol-d6	24 - 113 %	10 - 94 %
2-fluorophenol	25 - 121 %	21 - 100 %
2,4,6-tribromophenol	19 - 122 %	10 - 123 %
2-chlorophenol-d4	20 - 130 %	33 - 110 %
1,2-dichlorobenzene-d4	20 - 130 %	16 - 110 %

2-Fluorobiphenyl, terphenyl-d14, 2-fluorophenol and 2,4,6-tribromophenol are not target compounds; nitrobenzene-d5, phenol-d6, 2-chlorophenol-d4 and 1,2-dichlorobenzene-d4 are isotopically labeled target compounds. The use of these compounds as surrogates enables the laboratory to separated the surrogates from compounds of interest and to accurately calculate recoveries. Of the 184 surrogate percent recoveries evaluated, three (1.6 %) were outside QC limits.

3.2.3 Initial and Continuing Calibration

The %RSD and %D QC exceedances and the analytes flagged based on those exceedances are given in Table 2B. There were no RRF exceedances in the two SDGs for any target analyte, however, there were %RSDs and %Ds outside functional guidelines QC criteria. The %RSD and %D QC exceedances create a bias in the data relative to the other calibration information generated. It is not evident that an absolute bias in the data exists. The data user, for this reason, should regard the qualified results imprecise rather than inaccurate. The %RSDs, and %Ds which exceeded the QC criteria do not suggest any systematic analytical problems with either accuracy or precision.

3.2.4 Conclusion

The QC data from both the MS/MSD results, surrogate spike recoveries and initial and continuing calibrations suggest an acceptable level of accuracy was attained.

3.3 Representativeness

Method blanks and equipment rinsate blanks were analyzed for SVOCs to evaluate representativeness. These results are presented in Table 3A. Di-n-butylphthalate and bis(2-ethylhexyl)phthalate were detected at low levels the method blanks. When more than one contaminated blank was associated with a given sample, only the highest detected concentration for an individual target analyte in any of the two QC blanks was used for qualification.

If contaminants were detected in a blank, corrective actions were made for the chemical analytical data during data validation. The corrective action consisted of amending the laboratory reported results for organic analytes based on the following criteria. The validation qualifier codes utilized in the blank summary tables are described below.

CRQL Validation Qualifier. If a sample result for the blank contaminant was less than the CRQL and less than 5 times the blank value for regular target compounds or 10 times the blank value for common laboratory contaminants (the blank action level), the sample result was rejected and amended as non-detected at the CRQL for the target compound.

U Validation Qualifier. If a sample result for the blank contaminant was greater than the sample CRQL and less than the blank action level, the sample result for the blank contaminant was amended as a non-detect at the concentration reported in the sample results.

No Action (NA). If a sample result for the blank contaminant was greater than the blank action level, the result was not amended.

The following presents a description of SVOCs detected in method blanks and equipment rinsate blanks. Corrective actions made for target analytes detected in the environmental samples are described for SDG BSS01 in Table 3A.

3.3.1 Method Blanks

Method blank samples were analyzed with each SDG to identify compounds which may have been introduced through the analytical instrumentation or sample preparation. Di-n-butylphthalate (23 ug/kg) and bis(2-ethylhexyl)phthalate (0.6 ug/L) were detected in method blanks for SDG BSS01 (Table 3).

3.3.2 Equipment/Rinsate Blanks

Equipment rinsate blank samples are used to evaluate target analytes that may have been introduced by the sampling equipment or laboratory handling of the samples. There were no detections in the equipment blanks associated with the samples.

3.3.3 Overall Assessment

The target analytes detected in the QC blanks routinely occur at comparable concentrations in laboratory analysis. The analytical results are considered to be representative. The application of the blank qualification rules effects completeness of the analytical data. This is discussed in section 3.5.

3.4 Comparability

The laboratory used standard analytical methods for all of the analyses. In all cases, the method detection limits attained were below the contract required quantitation limits. The comparability of the data is regarded as acceptable. Some samples were qualified due to low-level blank contamination (as discussed in section 3.5), which raised the effective detection limits for the

suspected blank contaminants in those samples.

3.5 Completeness

The completeness level attained for project semivolatile organic field samples was 100 percent, which met the 96 percent goal for the project. This percentage was calculated as the total number of accepted data points divided by the total number of samples collected multiplied by 100. There were no data points rejected due to QC exceedances, although some data were qualified as "estimated" for various reasons. The remaining data were found to be acceptable.

The application of functional guidelines blank validation rules also affects data completeness. When samples are qualified due to contamination in an associated blank, a "5X" or "10X" action limit is set such that sample results below the action limit are flagged as "undetected" for the particular compound in question. This flagging procedure effectively rejects the concentration range between zero and the initial reported result, which becomes the new detection limit. It is possible that the levels of blank contamination detected could eliminate data in a necessary concentration range in some instances. In these cases, more data is needed to verify the existence of the compound in question at the site below the revised detection limit.

4.0 PESTICIDE/PCB ORGANIC COMPOUNDS

A total of 22 water and soil/sediment samples were analyzed for pesticide/PCB organic compounds. The samples were divided into two separate sample delivery groups (SDGs). This section discusses the QC supporting documentation as defined by the PARCC criteria which are evaluated based on the DQOs.

4.1 Precision

MS/MSDs and duplicate sample pairs were used to assess precision. MS/MSD samples were analyzed in SDGs BSS01 and BSS02. SDGs BSS01 and BSS02 each contained two duplicate sample pairs, which provided an additional measure of precision.

4.1.1 MS/MSD Samples

The functional guidelines RPD QC criteria for MS/MSD samples are as follows:

Compound	Soil RPD	Water RPD
gamma-BHC (lindane)	50	15
heptachlor	31	20
aldrin	43	22
dieldrin	38	18
endrin	45	21
4,4-DDT	50	27

A total of 24 MS/MSD analyses were conducted. There were no RPD QC exceedances.

4.1.2 Duplicate Sample Pairs

Two duplicate sample pairs were analyzed with both SDGs BSS01 and BSS02. The duplicate sample pairs' analytical results consisted entirely of non-detects.

4.1.3 Conclusion

The MS/MSD results were compliant with the functional guidelines QC criteria and suggest an acceptable level of precision was attained. The information provided by the duplicate sample pairs is limited in the sense that few calculable RPDs are available. The low number of detections in the background survey suggest precision problems are largely confined to the concentration range at or below the instrument detection limit (IDL), which is generally below the concentration range of concern to the data user. It is essential in the case of non-detects to evaluate accuracy, particularly low biases, which could result in target analytes which are actually

present being reported as false negatives.

4.2 Accuracy

The percent recovery results of MS/MSDs and surrogate spikes are used to evaluate accuracy. Assessment of accuracy was made by calculating the percent recoveries of the six spiking compounds: alpha-BHC, heptachlor, aldrin, dieldrin, endrin, and 4-4'-DDT. Accuracy measures the ability of the analytical system to recover target compounds from sample matrices.

4.2.1 MS/MSD Samples

Of the 24 MS/MSD analyses run, all met the %R QC criteria.

4.2.2 Surrogate Spikes

Two surrogate compounds were added by the laboratory to each environmental and QC sample submitted for Pesticide/PCB analysis. The surrogate spike compounds were tetrachloro-m-xylene and decachlorobiphenyl. Percent recoveries of these compounds were evaluated on two gas chromatography columns simultaneously as per the CLP 1990 SOW. Surrogate spike recoveries were compared to the QC criteria stipulated in the functional guidelines (USEPA, 1991), which are:

Surrogate	Solid Matrix	Aqueous Matrix
tetrachloro-m-xylene	60-150	60-150
decachlorobiphenyl	60-150	60-150

At the present time, these QC limits are considered by the SOW to be advisory only. For this project, however, data qualification actions were taken based on exceedances of these criteria. Of the 88 surrogates evaluated, 2 were outside QC limits (2.3 percent). These exceedances were of tetrachloro-m-xylene and decachlorobiphenyl in sample CEF-BSS09 (35 and 34%, respectively). The associated data were biased low, and were flagged as estimated. It is believed that the surrogate recovery problems are limited to the individual sample and do not imply a systematic problem with the data overall.

4.2.3 Initial and Continuing Calibration Results

There were no %RSD exceedances in SDGs BSS01 or BSS02. These results suggest that there was not a systematic analytical problem with either accuracy or precision.

4.2.4 Conclusion

The QC data from the MS/MSD, surrogate spike and initial and continuing calibrations were compliant with the functional guidelines QC criteria and suggest acceptable analytical accuracy

was attained.

4.3 Representativeness

Method blanks and equipment rinsate blanks were collected and analyzed for pesticides/PCB's to evaluate representativeness. There were no positive results in the blank analyses. The analytical data are considered fully representative.

4.4 Comparability

The laboratory used standard analytical methods for all of the analyses. In all cases, the method detection limits attained were below the contract required quantitation limits. The comparability of the data is regarded as acceptable.

4.5 Completeness

The completeness level attained for project pesticide/PCB organic field samples was 100 percent. This percentage was calculated as the total number of accepted data points divided by the total number of samples collected multiplied by 100. The 96 percent DQO completeness limit was attained.

5.0 METALS AND CYANIDE

A total of 25 water and soil/sediment samples were analyzed for metals and cyanide. This section discusses the QC supporting documentation as defined by the PARCC criteria which are evaluated based on the project DQOs.

5.1 Precision

Metals and cyanide analyses are different from organics analyses in that no matrix spike duplicate sample is evaluated to measure precision. Instead unspiked laboratory duplicates are analyzed. The two unspiked replicate results are then compared using RPD QC criteria for detections at concentrations at least five times the contract required detection limit (CRDL). The RPD QC criteria for lab duplicate samples are 20 percent for the water matrix and 35 percent for soil/ sediment matrices. The RPD limits for water and soil/sediment field duplicates are 30 percent and 60 percent, respectively. Analytical values less than five times the CRDL are evaluated based on a CRDL standard.

5.1.1 Laboratory and Field Duplicates

Two sets of field duplicate pairs were evaluated by the laboratory in both SDGs BSS01 and BSS02. All RPDs met the 60% QC criteria for soil/sediments. The overall precision of the analytical results was high.

5.2 Accuracy

The percent recovery results of matrix spike samples are used to assess accuracy for the inorganics analyses. MS samples were analyzed for each group of samples of a particular matrix type and for each concentration range within each SDG, as the analytical method requires.

5.2.1 MS Analysis

The matrix spike recovery limits are 75-125 percent. These limits were applied to all analytes because no sample concentrations exceeded the spike concentration by a factor of four or more. All spike recoveries for SDG BSS01 met QC criteria.

5.2.2 Laboratory Control Samples (LCS)

Laboratory Control Samples (LCSs) provide another means to evaluate accuracy within a particular SDG. The LCS serves as a monitor of the overall performance of all steps in the analysis, including the sample preparation. Two LSCs were processed and analyzed for each SDG. Of the 48 percent recoveries evaluated in each SDG, all recoveries met the 80-120% QC criteria (an acceptability percentage of 100%).

5.2.3 Initial and Continuing Calibration Results

All %RSDs and %Ds were within functional guidelines QC limits for each SDG. The %RSD and %D values do not suggest any systematic analytical problems with either accuracy or precision.

5.2.4 Overall Assessment

Overall, the accuracy of the metals results is acceptable.

5.3 Representativeness

Preparation blanks, equipment rinsate blanks and initial and continuing calibration blanks were analyzed for inorganics to evaluate representativeness. Blank analysis results are presented in Table 3B. The highest detected concentration for an individual target analyte in any associated blank was used for data qualification.

If contaminants were detected in a blank, corrective actions were made for the chemical analytical data during data validation. The corrective action consisted of amending the laboratory reported results for inorganic analytes based on the following criteria. The validation qualifier codes utilized in the blank summary tables are described below.

> U Validation Qualifier If a sample result for the blank contaminant was less than five times the blank value, the sample result was amended as non-detected.
>
> UJ Validation Qualifier If a sample result for the blank contaminant was less than the sample IDL when the absolute value of the negative blank value was greater than the IDL, the sample result for the blank contaminant was amended as estimated non-detected.
>
> J Validation Qualifier If a sample result for the blank contaminant was greater than the IDL and less than five times the blank value, when the absolute value of the negative blank value is greater than the IDL the result was amended as estimated at the laboratory reported value.

The following presents a description of analytes detected in the inorganics blanks. Corrective actions made for target analytes detected in the environmental samples are described per SDG in Table 3B.

5.3.1 Preparation Blanks

Preparation blank samples were analyzed with each SDG for inorganics samples to identify target analytes which may have been introduced through the analytical instrumentation or sample preparation. Analytes routinely detected in the preparation blanks are sodium, aluminum, and iron. Preparation blanks are designated "PBW" for water blanks and "PBS" for soil preparation blanks

in Table 3B.

5.3.2 Equipment/Rinsate Blanks

Positive results from the equipment rinsate blank samples identify target analytes that may have been introduced by the sampling equipment or inadequate decontamination procedures. Iron, manganese, sodium, and vanadium were detected in the equipment rinsate blanks. Equipment blanks are designated "EB" in Table 3B.

5.3.3 Initial and Continuing Calibration Blanks

Initial and continuing calibration blanks are used to identify and estimate the effects of carryover contamination and baseline shift. Many analytes were routinely detected in the calibration blanks at low levels including aluminum, antimony, arsenic, barium, beryllium, calcium, copper, iron, lead, magnesium manganese, potassium, selenium, sodium and zinc. These results are displayed in Table 3B under "ICB" for initial calibration blanks and "CCB" for continuing calibration blanks.

5.3.4 Conclusion

Blank contaminations were detected at concentrations commonly observed in inorganic laboratory analysis. The data are considered to be representative. The application of the blank qualification rules does have implications on the completeness of the analytical data, however, which is discussed in section 5.5.

5.4 Comparability

The laboratory used standard analytical methods for all of the analyses. In all cases, the method detection limits attained were below the CRDLs. Some samples were qualified due to blank contamination, which raised the effective detection limits for the suspected blank contaminants in those samples. Otherwise, the comparability of the data is considered acceptable.

5.5 Completeness

The completeness level attained for project metals and cyanide samples was 100 percent. This percentage was calculated as the total number of accepted data points divided by the total number of samples collected multiplied by 100. This completeness percentage met the 96 percent DQO QC level.

Another type of data qualification having an effect on completeness was the application of blank validation qualifiers. When samples are qualified due to contamination in an associated blank a "5X" action limit is set such that sample results below the action limit are flagged as "undetected" for the particular compound in question. This flagging procedure effectively rejects the concentration range between zero and the initial reported result, which becomes the new detection

limit. It is possible that the levels of blank contamination detected could eliminate data in a necessary concentration range in some instances. In these cases, reanalysis is needed to verify the presence of the analyte in question at the site below the revised detection limit.

6.0 Variances in Analytical Performance

The laboratory used standard analytical method for all of the analyses throughout the project. All required spiked sample analyses were performed for organic and inorganic fractions. No systematic variances in analytical performance were noted. The problems encountered are of a type and frequency common to laboratory analyses and resulted in an acceptable amount of data qualifications.

7.0 Summary of PARCC Criteria

Precision

The precision results by analytical fraction were the following:

Analyses	Precision Acceptability Percentage
Volatile Organics	100.0%
Semivolatile Organics	100.0%
Pesticide/PCBs	100.0%
Metals/CN	100.0%
Wet Chemistry	100.0%

The overall precision acceptability was 100.0 percent. This result met the 96 percent DQO goal.

Accuracy

By analytical fraction accuracy was as follows:

Analyses	Accuracy Acceptability Percentage
Volatile Organics	100.0%
Semivolatile Organics	100.0%
Pesticide/PCBs	100.0%
Metals/CN	100.0%
Wet Chemistry	100.0%

The overall accuracy acceptability was 100.0 percent with no percent recovery analyses exceeding the QC limits. This result met the 96 percent DQO goal.

Representativeness

A total of 27 blanks were evaluated for 160 analytes. No blanks exceeded the CRDLs/CRQLs. The representativeness of the project data is considered acceptable after qualification for blank contamination.

Completeness

There were no data rejections within the two SDGs. By analytical fraction:

Type	Total Analyses	No. Rejects	% Completeness
Volatile Organics	792	0	100.0
Semivolatile Organics	1408	0	100.0
Pesticides/PCB	616	0	100.0
Metal/Cyanides	600	0	100.0
Wet Chemistry	20	0	100.0
Total	3436	0	100.0

The completeness percentage based on rejected data met the 96 percent project DQO goal. A less quantifiable loss of data occurred in the application of blank qualifications. The amount and type of data qualifications and the associated data loss are considered reasonable and typical of laboratory analysis.

Comparability

Sampling frequency requirements were met in obtaining duplicates and necessary field blanks. The laboratory used standard analytical methods for their analyses. The analytical results were reported in correct standard units. The overall data comparability is considered acceptable.

Table A

Sample Event PARCC Criteria Summary

SDG	Precision	Accuracy	Representa-tiveness	Complete-ness	Compara-bility
BSS01	Acceptable	Acceptable with Qualifica-tion	Acceptable	Acceptable	Acceptable
BSS02	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable

Table 1
LABORATORY ANALYSIS CORRELATION
BACKGROUND SURVEY
NAS CECIL FIELD JACKSONVILLE, FLORIDA

Laboratory Analysis Correlation Table		
SDG Number	**Laboratory**	**Samples**
BSS01	Enseco-Wadsworth/Alert Laboratories	CEF-BSS01R, CEF-BSS01F, CEF-BSS01T, CEF-BSS01R, CEF-BSS01, CEF-BSS02, CEF-BS02DF, CEF-BSS03, CEF-BSS04, CEF-BSS05, CEF-BSS06D, CEF-BSS-06S, CEF-BSS06D, CEF-BSS07, CEF-BSS08, CEF-BSS09, CEF-BSS09DF, CEF-BSS10, CEF-BSS11, CEF-BSS12, CEF-BSS13, CEF-BSS14, CEF-BSS15, CEF-BSS06D, CEF-BSS06S, CEF-BSS09D, CEF-BSS09S, CEF-BSS09MS, CEF-BSS09MSD
BSS02	Enseco-Wadsworth/Alert Laboratories	CEF-BSS02T, CEF-BSS02R

Table 2-A

INITIAL AND CONTINUING CALIBRATION SUMMARY OF NON-COMPLIANCE
BACKGROUND SURVEY
NAS CECIL FIELD JACKSONVILLE, FLORIDA

INITIAL AND CONTINUING CALIBRATION SUMMARY						
BSS01 PARAMETER	INITIAL 7/15/93	CONTIN-UING 7/22/93 09:58	CONTIN-UING 7/23/93 07:54	CONTIN-UING	CONTIN-UING	CONTIN-UING
	% RSD	% D	% D	% D	% D	% D
VOLATILE ORGANIC COMPOUNDS						
Chloromethane	-	-	-			
Acetone	31.4	56.1	-			
2-Butanone	-	45.8	44.3			
2-Hexanone	-	30.1	34.0			
QUALIFICATION	J (+)	J (+)	J (+)			
SAMPLES AFFECTED	None	None	None			

%RSD = Percent Relative Standard Deviation
%D = Percent Difference
J(+) = Estimate All Positive Results

Table 2-B

INITIAL AND CONTINUING CALIBRATION SUMMARY OF NON-COMPLIANCE
BACKGROUND SURVEY
NAS CECIL FIELD JACKSONVILLE, FLORIDA

INITIAL AND CONTINUING CALIBRATION SUMMARY						
BSS01 PARAMETER	INITIAL	CONTIN-UING 2/27/93 08:31	CONTIN-UING 7/28/93 11:11	CONTIN-UING	CONTIN-UING	CONTIN-UING
	% RSD	% D	% D	% D	% D	% D
SEMIVOLATILE ORGANIC COMPOUNDS						
4-Chloroaniline		28.2	-			
3-Nitroaniline		44.6	-			
4-Nitroaniline		28.2	25.2			
Di-n-octylphthalate		25.4	-			
3,3'-Dichlorobenzidine						
QUALIFICATION		J (+)	J (+)			
SAMPLES AFFECTED		None	None			

%RSD = Percent Relative Standard Deviation
%D = Percent Difference
J(+) = Estimate All Positive Results

Table 3-A
ORGANICS LABORATORY AND FIELD BLANK SUMMARY
BACKGROUND SURVEY
NAS CECIL FIELD JACKSONVILLE, FLORIDA

ORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
			VOLATILE ORGANICS						
BSS01	4 ug/L	CEF-BSS-01	Acetone	VBLK2	ug/kg	3	JB	11	U
		CEF-BSS-02			ug/kg	3	JB	11	U
		CEF-BSS-02DF			ug/kg	3	JB	12	U
		CEF-BSS-03			ug/kg	3	JB	12	U
		CEF-BSS-04			ug/kg	5	JB	11	U
	3 ug/L	CEF-BSS-05		VBLK3	ug/kg	3	JB	11	U
		CEF-BSS-06			ug/kg	4	JB	11	U
		CEF-BSS-07			ug/kg	4	JB	11	U
		CEF-BSS-08			ug/kg	10	JB	11	U
		CEF-BSS-09DF			ug/kg	13	B	13	U
		CEF-BSS-10			ug/kg	3	JB	11	U
		CEF-BSS-11			ug/kg	5	JB	11	U
					ug/kg				
	3 ug/L	CEF-BSS-12		VBLK4	ug/kg	3	JB	10	U
		CEF-BSS-14			ug/kg	3	JB	10	U
		CEF-BSS-15			ug/kg	2	JB	11	U
	2 ug/L	CEF-BSS-09	Methylene Chloride	VBLK2	ug/kg	6	JB	6	U
			SEMIVOLATILE ORGANICS						
	23 ug/kg	CEF-BSS-01	Di-n-butylphthalate	SBLK2	ug/kg	34	JB	360	U
		CEF-BSS-02			ug/kg	26	JB	370	U
		CEF-BSS-02DF			ug/kg	24	JB	410	U
		CEF-BSS-03			ug/kg	29	JB	380	U
		CEF-BSS-04			ug/kg	28	JB	350	U
		CEF-BSS-07			ug/kg	29	JB	360	U
		CEF-BSS-08			ug/kg	25	JB	360	U
		CEF-BSS-09			ug/kg	31	JB	370	U
		CEF-BSS-09DF			ug/kg	33	JB	380	U
		CEF-BSS-10			ug/kg	30	JB	360	U
		CEF-BSS-11			ug/kg	32	JB	350	U
		CEF-BSS-12			ug/kg	17	JB	350	U
		CEF-BSS-13			ug/kg	19	JB	360	U
		CEF-BSS-15			ug/kg	40	JB	370	U

J = Estimated (Laboratory Flag)
B = Detected in blank (Laboratory Flag)
U = Undetected (Data Validation Flag)

Table 3-B

INORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY									
SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
BSS01	54.0 ug/L	CEF-BSS-01R	Aluminum	PBW1	ug/L	63.1	B	63.1	U
		CEF-BSS-01F			ug/L	49.2	B	49.2	U
	-1.05 mg/kg	ALL	Arsenic	CCB2	ug/L	1.0	U	1.0	UJ
					ug/kg	0.21- 2.2	U	0.21- 2.2	UJ
	1.80 ug/L	CEF-BSS-01R	Barium		ug/L	2.9	B	2.9	U
		CEF-BSS-01F			ug/L	1.3	B	1.3	U
		CEF-BSS-06			mg/kg	1.2	B	1.2	U
		CEF-BSS-07			mg/kg	1.7	B	1.7	U
		CEF-BSS-09			mg/kg	2.0	B	2.0	U
	2.00 ug/L	CEF-BSS-01R	Beryllium	CCB1	ug/L	1.4	B	1.4	U
	194 ug/L	CEF-BSS-01R	Calcium	PBS1	ug/L	357	B	357	U
		CEF-BSS-01F			ug/L	422	B	422	U
		CEF-BSS-01			ug/kg	119	B	119	U
		CEF-BSS-02			ug/kg	167	B	167	U
		CEF-BSS-02DF			ug/kg	111	B	111	U
		CEF-BSS-03			ug/kg	88.4	B	88.4	U
		CEF-BSS-04			ug/kg	67.7	B	67.7	U
		CEF-BSS-05			ug/kg	93.5	B	93.5	U
		CEF-BSS-06			ug/kg	104	B	104	U
		CEF-BSS-07			ug/kg	119	B	119	U
		CEF-BSS-08			ug/kg	94.7	B	94.7	U
		CEF-BSS-09			ug/kg	69.5	B	69.5	U
		CEF-BSS-09DF			ug/kg	77.9	B	77.9	U
		CEF-BSS-12			ug/kg	198	B	198	U
		CEF-BSS-14			ug/kg	141	B	141	U
	2.60 ug/L	CEF-BSS-01R	Copper	PBS1	ug/L	5.0	B	5.0	U
		CEF-BSS-01F			ug/L	6.0	B	6.0	U
		CEF-BSS-01			ug/kg	0.93	B	0.93	U
		CEF-BSS-02			ug/kg	0.76	B	0.76	U
		CEF-BSS-02DF			ug/kg	0.95	B	0.95	U
		CEF-BSS-03			ug/kg	0.50	B	0.50	U
		CEF-BSS-06			ug/kg	0.85	B	0.85	U
		CEF-BSS-07			ug/kg	2.3	B	2.3	U
		CEF-BSS-08			ug/kg	0.59	B	0.59	U
		CEF-BSS-09DF			ug/kg	0.46	B	0.46	U
		CEF-BSS-10			ug/kg	0.49	B	0.49	U
		CEF-BSS-11			ug/kg	0.83	B	0.83	U

INORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY (CONT'D)

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
BSS01	2.60	CEF-BSS-12	Copper	PBS1	mg/kg	0.65	B	0.65	U
	ug/L	CEF-BSS-13			mg/kg	0.82	B	0.82	U
		CEF-BSS-14			mg/kg	0.70	B	0.70	U
		CEF-BSS-15			mg/kg	1.4	B	1.4	U
	13.5	CEF-BSS-01R	Iron	PBS1	ug/L	31.3	B	31.3	U
	ug/L	CEF-BSS-01F			ug/L	31.7	B	31.7	U
	2.00	CEF-BSS-01R	Lead	PBW1	ug/L	3.5		3.5	U
	ug/L	CEF-BSS-01F			ug/L	1.2	B	1.2	U
		CEF-BSS07			mg/kg	2.1		2.1	U
		CEF-BSS09			mg/kg	2.0		2.0	U
	27.9	CEF-BSS-01R	Magnesium	PBW1	ug/L	83.9	B	83.9	U
	ug/L	CEF-BSS-01F			ug/L	59.8	B	59.8	U
		CEF-BSS-06			mg/kg	18.8	B	18.8	U
		CEF-BSS-07			mg/kg	17.2	B	17.2	U
		CEF-BSS-09			mg/kg	12.6	B	12.6	U
		CEF-BSS-09Df			mg/kg	17.5	B	17.5	U
							B		U
	3.00	CEF-BSS-01R	Manganese	PBW1	ug/L	4.1	B	4.1	U
	ug/L	CEF-BSS-09			mg/kg	0.69	B	0.69	U
		CEF-BSS-09Df			mg/kg	1.2	B	1.2	U
									U
	44.2	CEF-BSS-01R	Potassium	CCB2	ug/L	125	B	125	U
	ug/L	CEF-BSS-01F			ug/L	71.9	B	71.9	U
		CEF-BSS-05			mg/kg	19.4	B	19.4	U
		CEF-BSS-06			mg/kg	17.8	B	17.8	U
		CEF-BSS-07			mg/kg	13.8	B	13.8	U
		CEF-BSS-08			mg/kg	28.8	B	28.8	U
		CEF-BSS-09			mg/kg	14.0	B	14.0	U
		CEF-BSS-09DF			mg/kg	14.3	B	14.3	U
		CEF-BSS-10			mg/kg	33.9	B	33.9	U
		CEF-BSS-11			mg/kg	17.7	B	17.7	U
		CEF-BSS-12			mg/kg	35.4	B	35.4	U
		CEF-BSS-13			mg/kg	34.5	B	34.5	U
		CEF-BSS-14			mg/kg	39.9	B	39.9	U
		CEF-BSS-15			mg/kg	30.7	B	30.7	U
	1.30 ug/L	CEF-BSS-08	Selenium	CCB1	mg/kg	0.25	B	0.25	U
	769	CEF-BSS-01R	Sodium	PBW1	ug/L	913	B	913	U
	ug/L	CEF-BSS-01F			ug/L	1330	B	1330	U
		CEF-BSS-01			mg/kg	159	B	159	U

INORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY (CONT'D)

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
BSS01									
	769 ug/L	CEF-BSS-02	Sodium	PBW1	mg/kg	241	B	241	U
		CEF-BSS-02Df			mg/kg	219	B	219	U
		CEF-BSS-03			mg/kg	162	B	162	U
		CEF-BSS-04			mg/kg	182	B	182	U
		CEF-BSS-05			mg/kg	210	B	210	U
		CEF-BSS-06			mg/kg	238	B	238	U
		CEF-BSS-07			mg/kg	209	B	209	U
		CEF-BSS-08			mg/kg	203	B	203	U
		CEF-BSS-09			mg/kg	164	B	164	U
		CEF-BSS-09DF			mg/kg	149	B	149	U
		CEF-BSS-10			mg/kg	186	B	186	U
		CEF-BSS-11			mg/kg	156	B	156	U
		CEF-BSS-12			mg/kg	171	B	171	U
		CEF-BSS-13			mg/kg	154	B	154	U
		CEF-BSS-14			mg/kg	171	B	171	U
		CEF-BSS-15			mg/kg	222	B	222	U
	18.9 ug/L	CEF-BSS-01R	Zinc	PBW1	ug/L	38.4		38.4	U
		CEF-BSS-01F			ug/L	9.2	B	9.2	U
		CEF-BSS-01			mg/kg	4.9		4.9	U
		CEF-BSS-02			mg/kg	20.2		20.2	U
		CEF-BSS-02DF			mg/kg	10.1		10.1	U
		CEF-BSS-03			mg/kg	8.5		8.5	U
		CEF-BSS-04			mg/kg	4.4		4.4	U
		CEF-BSS-05			mg/kg	2.7	B	2.7	U
		CEF-BSS-06			mg/kg	3.6	B	3.6	U
		CEF-BSS-07			mg/kg	3.6	B	3.6	U
		CEF-BSS-08			mg/kg	3.6	B	3.6	U
		CEF-BSS-09			mg/kg	2.4	B	2.4	U
		CEF-BSS-09DF			mg/kg	2.5	B	2.5	U
		CEF-BSS-10			mg/kg	3.1	B	3.1	U
		CEF-BSS-11			mg/kg	11.9		11.9	U
		CEF-BSS-12			mg/kg	4.0	B	4.0	U
		CEF-BSS-13			mg/kg	4.7		4.7	U
		CEF-BSS-14			mg/kg	7.2		7.2	U
		CEF-BSS-15			mg/kg	4.1	B	4.1	U

B = Detected below the Contract Required Detection Limit (laboratory Flag)
U = Undetected (Data Validation Flag)
J = Estimated (Data Validation Flag)

Table 4
PESTICIDES/PCB COLUMN RESPONSE
BACKGROUND SURVEY
NAS CECIL FIELD JACKSONVILLE, FLORIDA

SDG	SAMPLE #	COMPOUND	C1 (ug/L)	C2 (ug/L)	%D
1SS02T	CEF1SS07	Dieldrin	0.77	0.64	20
	CEF1SS10	Methoxychlor	0.86	1.9	121
		g-chlordane	0.55	0.73	33
	CEF1SS11	Endrin	1.7	0.44	286
		a-chlordane	0.79	0.39	103
	CEF1SS15	4,4' - DDE	0.41	0.34	93
		Endrin	0.79	4.9	1340
	CEF2SS01	4,4' - DDE	0.37	0.34	8.8
		g-chlordane	0.28	0.41	46
	CEF1SS11D	Endrin Ketone	2.4	0.28	147
		a-chlordane	0.97	0.44	57
	CEF2SS02	Endrin	1.1	20	1720
	CEF2SS03	4,4' - DDE	0.61	0.62	1.6
	CEF2SS08	4,4' - DDE	0.33	0.85	158
		Endrin	1.2	0.38	3070
	CEF2SS10	Endrin	0.39	16	4003
	CEF1SS07	Arochlor-1260	8.6	6.8	27
	CEF1SS10	Arochlor-1260	24	27	13
	CEF2SS01	Arochlor-1260	29	22	32
	CEF2SS02	Arochlor-1260	8.8	12	36
	CEF2SS08	Arochlor-1260	13	13	0

C1* = Primary Column Type SPB-S
C1** = Primary Column Type DB-S
C2* = Secondary Column Type RTX-200
C2** = Secondary Coulumn Type DB-1701
%D = Percent Difference
ug/L = Micrograms per Liter

APPENDIX J-5

POPULATION STATISTICS FOR BACKGROUND SURFACE SOIL

Appendix J-5
Comparative Statistic for Surface Soil

Two population analyses are presented in this Sub-Appendix. The first analysis was completed to evaluate the surface soil inorganics data (generated during the background sampling program) with the purpose of identifying significantly different populations in the data set, if present. The second analysis was completed to compare the S1 location (identified as an Arent soil) surface soil samples with subsurface soil samples (collected from background locations) to evaluate if the S1 surface soil represented a significantly different population from the subsurface soil populations.

Surface Soil Comparison The surface soil population analysis consisted of evaluating the surface soil data using the Student T-test with a confidence level of 95 percent. A brief review of the data (without statistical manipulation) showed that. based on the location of detection for several metals, the S1 location might represent a separate population. This was confirmed using the T-test. The surface soil data were then divided into S1 and non-S1 groups. Surface soil data from all other sampling locations (S2, E1, E2, W1, and W2) and all soil units present at those locations (Ridgeland Fine Sand, Wesconnet Fine Sand, and the Albany Fine Sand) were then compared to the non-S1 sub group. This analysis is presented on the following pages, labelled "Surface Soil - 1 to 3". The final conclusion reached during this analysis indicates (1) that inorganics in surface soil from the S1 location represent a significantly different (at a 95 percent confidence level) population from inorganics data at all other background locations sampled, and (2) inorganics data from all non-S1 locations represent a single population.

Surface Soil versus Subsurface Soil Inorganics in surface soil from the S1 location were compared with inorganics data from background subsurface soil samples using the Student T-test at a confidence level of 95 percent. Data from all subsurface soil samples were combined and compared to data from surface soil samples from the S1 location. This comparison showed that only aluminum and manganese represented a significantly different population; all other detected inorganics were representative of a single population. The comparison was also completed for subsurface data from the different depths (below land surface [bls]) sampled. Data collected from the 4 to 6 and 6 to 8 feet bls intervals represented the closest match to the surface soil data from the S1 location. This analysis is presented in the following pages, labelled "SS v. SB - 1". The final conclusions indicated by these analyses are (1) inorganics data from the S1 surface soil sampling location is not significantly different (at a 95 confidence level) from inorganics present in subsurface soil at the other background locations sampled, and (2) the inorganics at the S1 surface sampling locations could be derived by disturbing subsurface soil from NAS Cecil Field.

Surface Soil Population Analysis

1. Input data and checked for keypunch errors.
2. Ran count, min, max, mean, standard dev, and count for each param with analytical value = detect limit for BDLs.
3. Ran count, min, max, mean, standard dev, and count for each param for all non BDLs.
4. Excluded: antimony, beryllium, cadmium, cobalt, copper, mercury, selenium, silver, sodium, and cyanide because all values were below detection limits -- no variation in entire population.
5. Excluded: zinc because only one value was above detection limits -- no variation in entire population.

Consider population of location=S1

6. All detects for: nickel and potassium in main population in Location=S1 group. Indication of separate population.
7. 5 of 6 detects for: chromium in main population in Location=S1 group. Indication of separate population.
8. Following t-scores indicate different populations on *'d metals at 95% confidence level between the entire group and the S1 group.

* ALUMINUM	t= -2.55829549	for	20.00	degrees of freedom
ARSENIC	t= -2.03052974	for	18.00	degrees of freedom
BARIUM	t= -1.98406851	for	17.00	degrees of freedom
CHROMIUM	t= -0.49000704	for	9.00	degrees of freedom (see 6.)
* IRON	t= -2.29529572	for	20.00	degrees of freedom
* LEAD	t= -2.61790967	for	19.00	degrees of freedom
MAGNESIUM	t= -1.96906507	for	16.00	degrees of freedom
* MANGANESE	t= -2.31854892	for	18.00	degrees of freedom
NICKEL	t= 0.00E-01	for	8.00	degrees of freedom (see 7.)
POTASSIUM	t= 0.00E-01	for	8.00	degrees of freedom (see 7.)
* VANADIUM	t= -2.47922182	for	20.00	degrees of freedom

Conclusion: S1 is significantly different (at 95%) from entire group except for: arsenic, barium, and magnesium.

Based on the above, the entire group will be split into S1 and non-S1 sub groups and compared.

Following t-scores indicate different populations on *'d metals at 95% confidence level between the non-S1 group and the S1 group.

* ALUMINUM	t= -6.64185095	for	15.00	degrees of freedom
* ARSENIC	t= -4.72529650	for	13.00	degrees of freedom
* BARIUM	t= 4.64139700	for	12.00	degrees of freedom
CHROME	t= -1.78113973	for	4.00	degrees of freedom
* IRON	t= -5.35501766	for	15.00	degrees of freedom
* LEAD	t= -7.04592705	for	14.00	degrees of freedom
* MAGNESIUM	t= 5.05708694	for	11.00	degrees of freedom
* MANGANESE	t= -5.60943031	for	13.00	degrees of freedom
* VANADIUM	t= -6.21350479	for	15.00	degrees of freedom

Conclusion: S1 is significantly different (at 95%) from non-S1 group for: aluminum, arsenic, barium, probably chromium, iron, lead, magnesium, manganese, nickel, potassium, and vanadium.

****

All other locations will be compared with the non-S1 sub group; consider population of location=S2 and the entire group (excluding S1).

Standard deviations are comparable.

ALUMINUM	t= 0.51818722	for	14.00	degrees of freedom
ARSENIC	t= -0.31383875	for	11.00	degrees of freedom
BARIUM	t= -0.83390892	for	9.00	degrees of freedom
IRON	t= 0.43121222	for	14.00	degrees of freedom
LEAD	t= 0.57339734	for	12.00	degrees of freedom
MAGNESIUM	t= -1.06875312	for	8.00	degrees of freedom
MANGANESE	t= 0.91322494	for	12.00	degrees of freedom
VANADIUM	t= 0.49966303	for	14.00	degrees of freedom

Conclusion: S2 is NOT significantly different (at 95%) from non-S1 group.

```
                    ******************************
Now consider population of location=E1 and the entire group excluding S1.
Standard deviations are comparable for: possibly arsenic, barium, lead,
        and thallium, so:

ALUMINUM t= 0.92038482 for  12.00 degrees of freedom - discarded
ARSENIC  t=-0.27639514 for   9.00 degrees of freedom
BARIUM   t=-0.74951380 for   8.00 degrees of freedom
IRON     t= 1.09814382 for  12.00 degrees of freedom - discarded
LEAD     t= 0.30586675 for  11.00 degrees of freedom
THALLIUM t= 1.20000005 for   3.00 degrees of freedom
VANADIUM t= 1.26560068 for  12.00 degrees of freedom - discarded

Conclusion: E1 is NOT significantly different (at 95%) from
        non-S1 group.
                    ******************************

Now consider population of location=E2 and the entire group excluding S1.
Standard deviations are comparable for: possibly arsenic, possibly barium
        calcium, possibly lead, magnesium, manganese, and possibly
        vanadium, so:

ALUMINUM  t=  1.37538052 for  12.00 degrees of freedom - discarded
ARSENIC   t=  1.18345261 for  10.00 degrees of freedom
BARIUM    t= -1.11712348 for   9.00 degrees of freedom
CALCIUM   t=  0.27342749 for   3.00 degrees of freedom
IRON      t=  1.42259443 for  12.00 degrees of freedom - discarded
LEAD      t=  1.25727248 for  11.00 degrees of freedom
MAGNESIUM t= -0.86188936 for   8.00 degrees of freedom
MANGANESE t=  0.61569971 for  10.00 degrees of freedom
VANADIUM  t=  1.19067252 for  12.00 degrees of freedom

Conclusion: E2 is NOT significantly different (at 95%) from
        non-S1 group.
                    ******************************

Now consider population of location=W1 and the entire group excluding S1.
Standard deviations are comparable for: arsenic, possibly barium
        possibly calcium, possibly iron, lead, possibly magnesium,
        possibly manganese, thallium, and possibly vanadium, so:
Following t-scores indicate different populations on *'d metals at 95%
        confidence level between the non-S1 and non-W1 group and the W1
        group.

 ALUMINUM  t= -2.33365250 for  13.00 degrees of freedom  - discard
 ARSENIC   t= -1.11494684 for  11.00 degrees of freedom
 BARIUM    t=  0.76978749 for  10.00 degrees of freedom
 CALCIUM   t= -0.45306557 for   2.00 degrees of freedom
*IRON      t= -2.38054991 for  13.00 degrees of freedom
 LEAD      t= -1.60525990 for  12.00 degrees of freedom
 MAGNESIUM t=  1.78233516 for   9.00 degrees of freedom
 MANGANESE t= -1.89167178 for  11.00 degrees of freedom
 THALLIUM  t= -0.64926487 for   5.00 degrees of freedom
*VANADIUM  t= -2.36380339 for  13.00 degrees of freedom

Conclusion: W1 is significantly different (at 95%) for: iron
        and vanadium from the non-S1 group.
                    ******************************

Now consider population of location=W2 and the entire group excluding S1.
This requires a special form of the t-test.....

                    ******************************
```

Now consider population of soil=Ridgeland Fine Sand and the entire group excluding S1.
Standard deviations are comparable for: possibly aluminum, arsenic, barium possibly iron, lead, magnesium, possibly manganese, and vanadium, so:

```
ALUMINUM  t=  0.32981721 for 15.00 degrees of freedom
ARSENIC   t=  0.13197067 for 12.00 degrees of freedom
BARIUM    t=  0.48211825 for 10.00 degrees of freedom
IRON      t=  0.26876205 for 15.00 degrees of freedom
LEAD      t=  0.33723235 for 13.00 degrees of freedom
MAGNESIUM t= -0.97920465 for  9.00 degrees of freedom
MANGANESE t=  1.05895972 for 13.00 degrees of freedom
VANADIUM  t=  0.26486364 for 15.00 degrees of freedom
```

Conclusion: Ridgeland fine sand is NOT significantly different (at 95%) from non-S1 group.

****

Now consider population of soil=Wesconnett Fine Sand and the entire group excluding S1.
Standard deviations are comparable for: possibly arsenic, possibly barium lead, and possibly vanadium, so:

```
ALUMINUM t=  0.92038482 for 12.00 degrees of freedom - discard
ARSENIC  t= -0.27639514 for  9.00 degrees of freedom
BARIUM   t= -0.74951380 for  8.00 degrees of freedom
IRON     t=  1.09814382 for 12.00 degrees of freedom - discard
LEAD     t=  0.30586675 for 11.00 degrees of freedom
THALLIUM t=  1.20000005 for  3.00 degrees of freedom - discard
VANADIUM t=  1.26560068 for 12.00 degrees of freedom
```

Conclusion: Wesconnett fine sand is NOT significantly different (at 95%) from non-S1 group.

****

Now consider population of soil=Albany Fine Sand and the entire group excluding S1.
Standard deviations are comparable for: aluminum, arsenic, barium calcium, iron, lead, magnesium, manganese, thallium, and vanadium, so:

```
ALUMINUM   t= -0.77358508 for  15.00 degrees of freedom
ARSENIC    t= -0.19429561 for  13.00 degrees of freedom
BARIUM     t= -0.10097586 for  12.00 degrees of freedom
CALCIUM    t=  0.00000000 for   4.00 degrees of freedom
IRON       t= -0.78274691 for  15.00 degrees of freedom
LEAD       t= -0.42764601 for  14.00 degrees of freedom
MAGNESIUM  t=  0.69797599 for  11.00 degrees of freedom
MANGANESE  t= -0.83024842 for  13.00 degrees of freedom
THALLIUM   t= -0.64926487 for   5.00 degrees of freedom
VANADIUM   t= -0.90366000 for  15.00 degrees of freedom
```

Conclusion: Albany fine sand is NOT significantly different (at 95%) from non-S1 group.

****

Final Conclusion: Location=S1 group is only significantly different (at 95%) group from non-S1 group. Arents and soil samples from other sampling locations are apparently different.

Surface Soil versus Subsurface Soil
Population Analysis

Approximated t-test with unequal variances
two tails, Alpha = 0.95
for
Surface Soil from S1 vs Subsurface Soil from all depths.

ALUMINUM	t=	2.47505999 for	19 degrees of freedom (t>	2.45985031)
BARIUM	t=	1.75120008 for	13 degrees of freedom (t>	2.50344992)
CHROMIUM	t=	2.25387955 for	17 degrees of freedom (t>	2.45374513)
IRON	t=	2.17900324 for	19 degrees of freedom (t>	2.47656322)
LEAD	t=	0.40796077 for	15 degrees of freedom (t>	2.25178766)
MAGNESIUM	t=	2.36166620 for	12 degrees of freedom (t>	2.50494051)
MANGANESE	t=	4.43421173 for	8 degrees of freedom (t>	2.57100010)
NICKEL	t=	1.29824650 for	8 degrees of freedom (t>	2.57100010)
POTASSIUM	t=	2.31432509 for	13 degrees of freedom (t>	2.48233724)
VANADIUM	t=	2.15341473 for	11 degrees of freedom (t>	2.53174162)

****

Approximated t-test with unequal variances
two tails, Alpha = 0.95
for
Surface Soil from S1 vs Subsurface Soil from 0 to 2 bls.

ALUMINUM	t=	3.27108312 for	7 degrees of freedom (t>	2.58624601)
BARIUM	t=	2.28481412 for	6 degrees of freedom (t>	2.69326949)
CHROMIUM	t=	2.11197805 for	5 degrees of freedom (t>	3.04949546)
IRON	t=	1.86350977 for	7 degrees of freedom (t>	2.63050818)
LEAD	t=	2.44028711 for	6 degrees of freedom (t>	2.83439136)
MAGNESIUM	t=	3.19083786 for	5 degrees of freedom (t>	2.77138138)
MANGANESE	t=	4.08380318 for	5 degrees of freedom (t>	2.68910909)
POTASSIUM	t=	3.14887714 for	5 degrees of freedom (t>	2.71907997)

****

Approximated t-test with unequal variances
two tails, Alpha = 0.95
for
Surface Soil from S1 vs Subsurface Soil from 2 to 4 bls.

ALUMINUM	t=	3.68465209 for	7 degrees of freedom (t>	2.57120538)
CHROMIUM	t=	3.85327029 for	7 degrees of freedom (t>	2.57112813)
IRON	t=	2.98580217 for	7 degrees of freedom (t>	2.57121468)
POTASSIUM	t=	3.92124701 for	5 degrees of freedom (t>	2.57318497)

****

Approximated t-test with unequal variances
two tails, Alpha = 0.95
for
Surface Soil from S1 vs Subsurface Soil from 4 to 6 bls.

ALUMINUM	t=	2.27222967 for	5 degrees of freedom (t>	2.74276304)
CHROMIUM	t=	1.81424701 for	5 degrees of freedom (t>	2.84938550)
IRON	t=	2.62226701 for	5 degrees of freedom (t>	2.64714408)
LEAD	t=	0.15352321 for	5 degrees of freedom (t>	4.03742075)

****

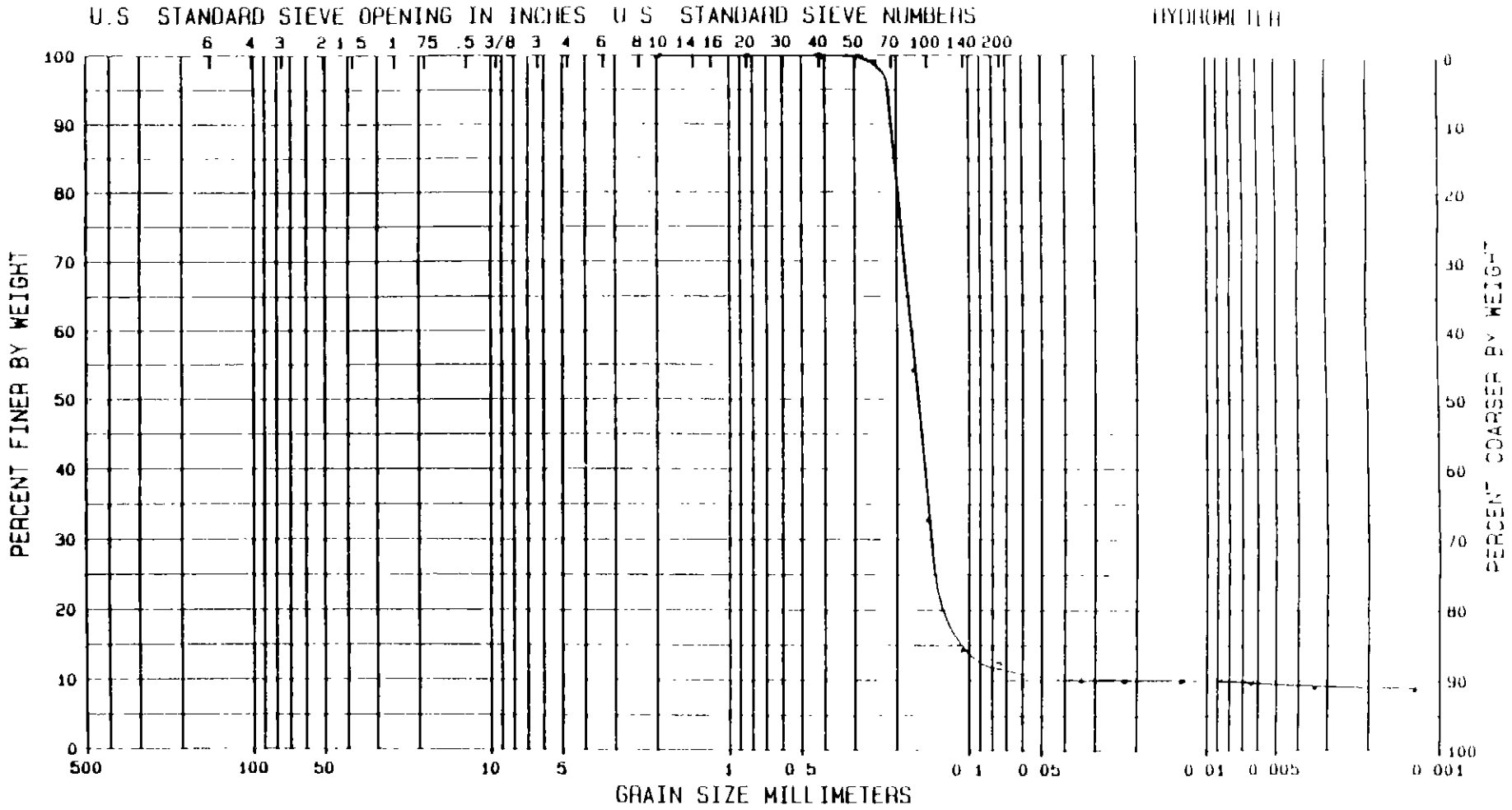
Approximated t-test with unequal variances
two tails, Alpha = 0.95
for
Surface Soil from S1 vs Subsurface Soil from 6 to 8 bls.

ALUMINUM	t=	1.22004306 for	9 degrees of freedom (t>	2.54843116)
BARIUM	t=	1.56137276 for	9 degrees of freedom (t>	2.55387044)
CHROMIUM	t=	1.20748532 for	9 degrees of freedom (t>	2.54831553)
IRON	t=	1.42053437 for	9 degrees of freedom (t>	2.54019356)
LEAD	t=	0.66817278 for	9 degrees of freedom (t>	2.46717024)
MAGNESIUM	t=	1.96695089 for	9 degrees of freedom (t>	2.54437375)
MANGANESE	t=	4.18834448 for	5 degrees of freedom (t>	2.74195075)
NICKEL	t=	1.08326828 for	7 degrees of freedom (t>	2.60255766)
POTASSIUM	t=	1.39108193 for	8 degrees of freedom (t>	2.57100010)
VANADIUM	t=	2.02369738 for	9 degrees of freedom (t>	2.55414891)

APPENDIX J-6

BACKGROUND GEOTECHNICAL TESTING RESULTS

ELLIS & ASSOCIATES, INC



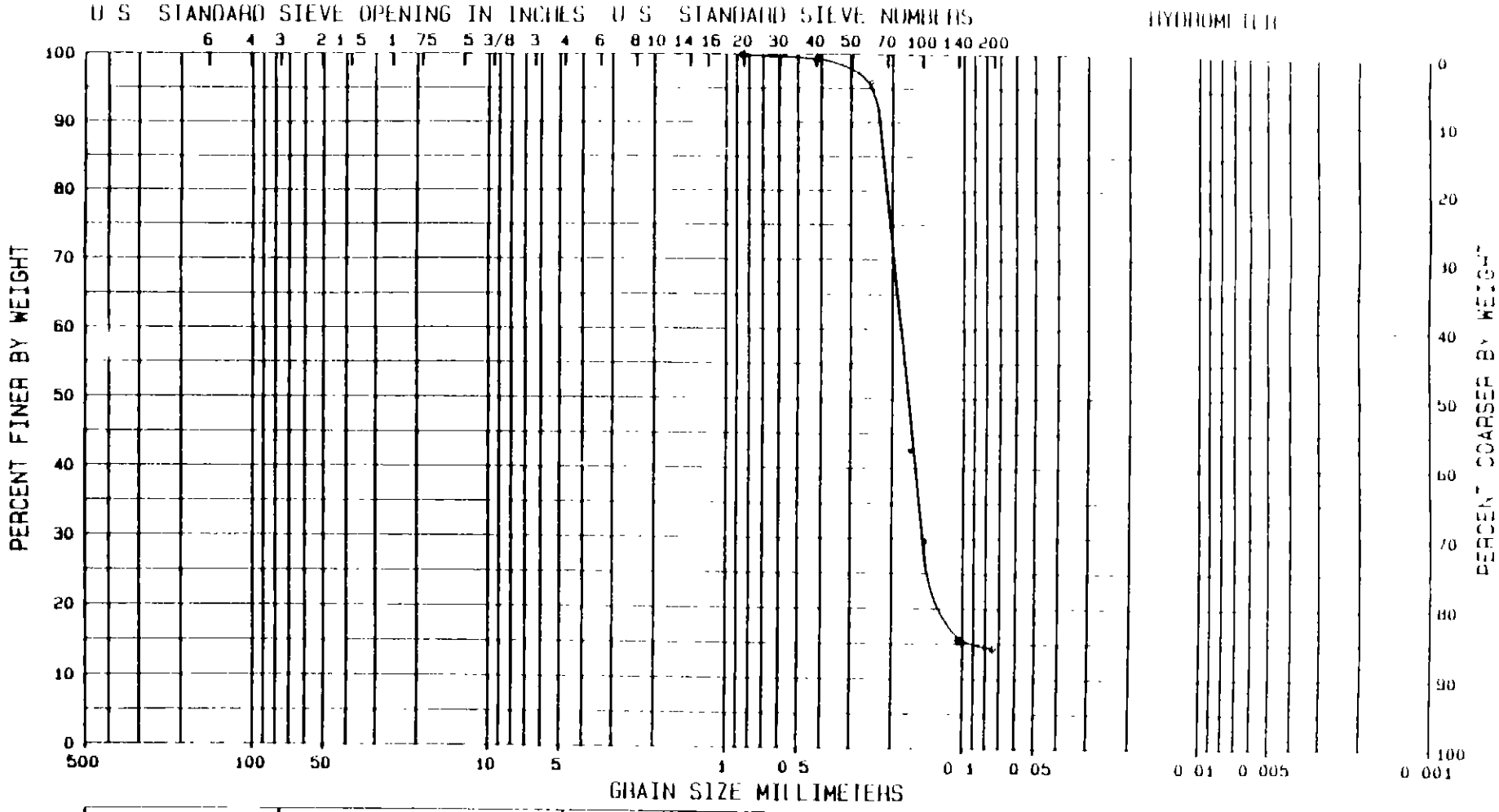
COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

SAMPLE NO		CLASSIFICATION	NAT w%	LL	PI	PI
CFBBMS1S6G						

GRADATION CURVES

Project 08500.07 - NAS
Cecil Field -
Geotechnical Lab Testing
Jacksonville, Florida
E&A Project No. 91-1361

ELLIS & ASSOCIATES, INC



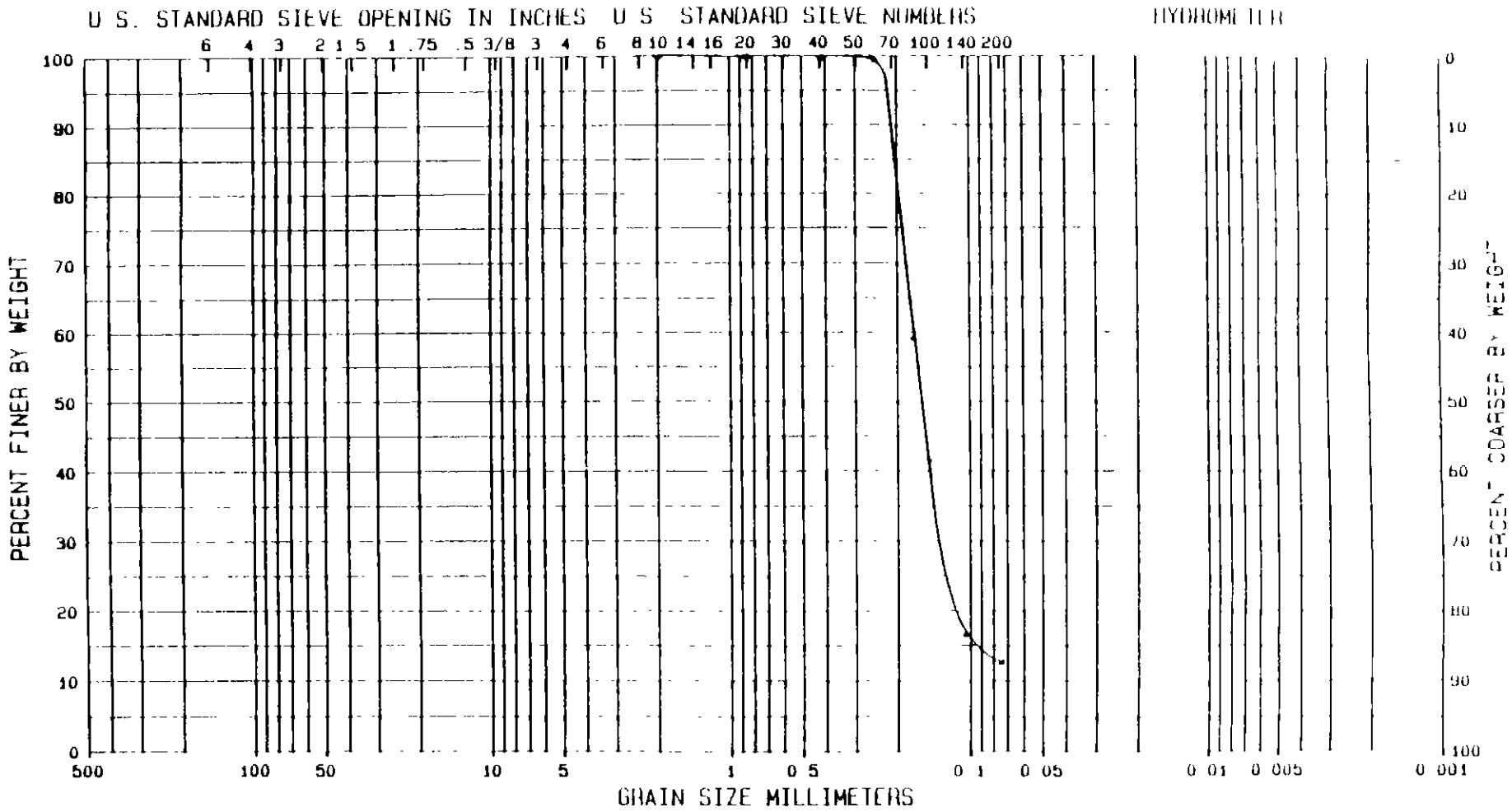
COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

SAMPLE NO		CLASSIFICATION	NAT w%	LL	PL	PI
CFBBMS2S8G						

GRADATION CURVES

Project 08500.07 - NAS
Cecil Field -
Geotechnical Lab Testing
Jacksonville, Florida
E&A Project No. 93-1361

ELLIS & ASSOCIATES, INC



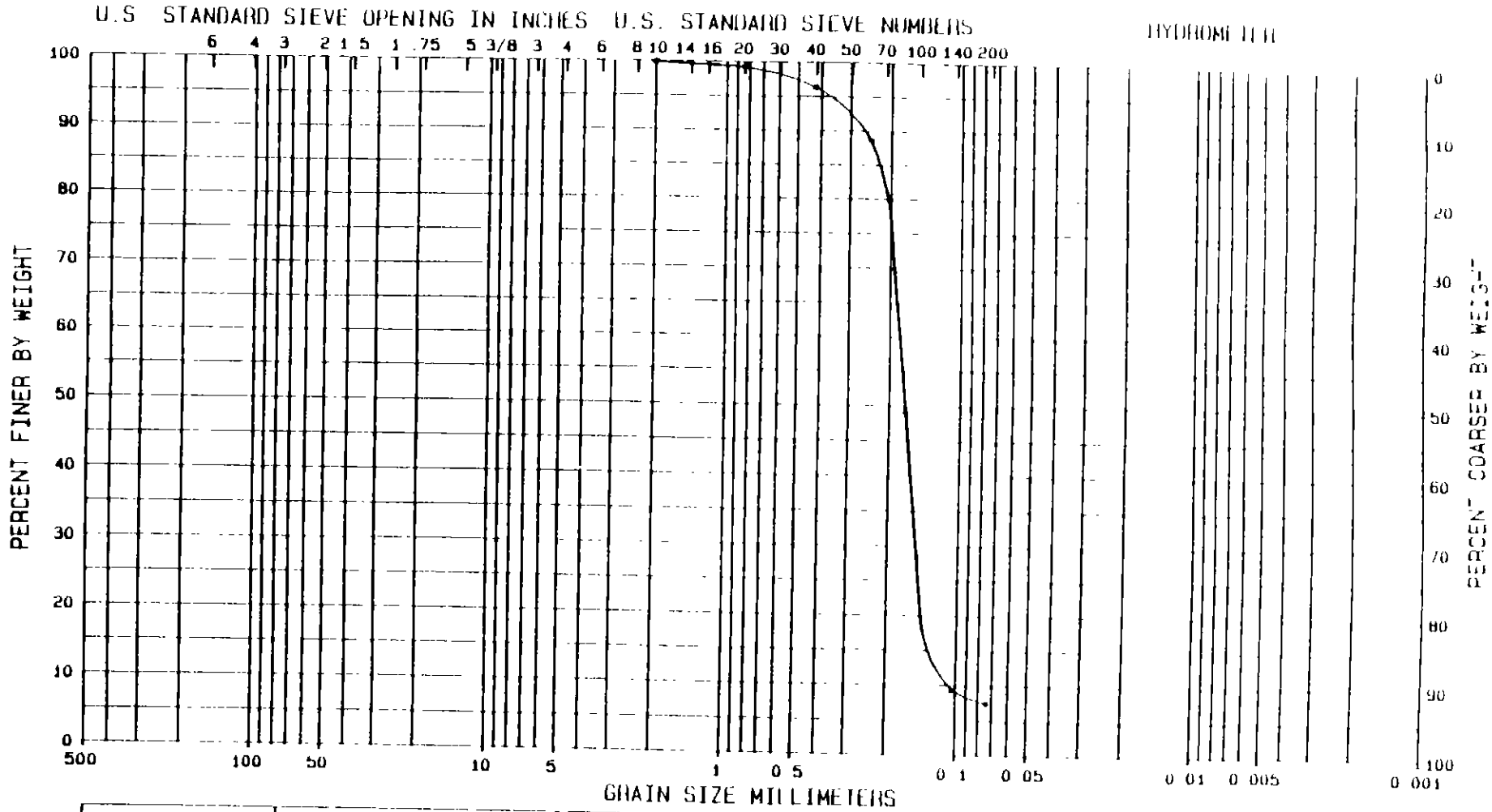
COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

SAMPLE NO.		CLASSIFICATION	NAT w%	LL	PL	PI
CFBBMS5S8G						

GRADATION CURVES

Project 08500.07 - NAS
Cecil Field -
Geotechnical Lab Testing
Jacksonville, Florida
E&A Project No. 93-1361

ELLIS & ASSOCIATES, INC



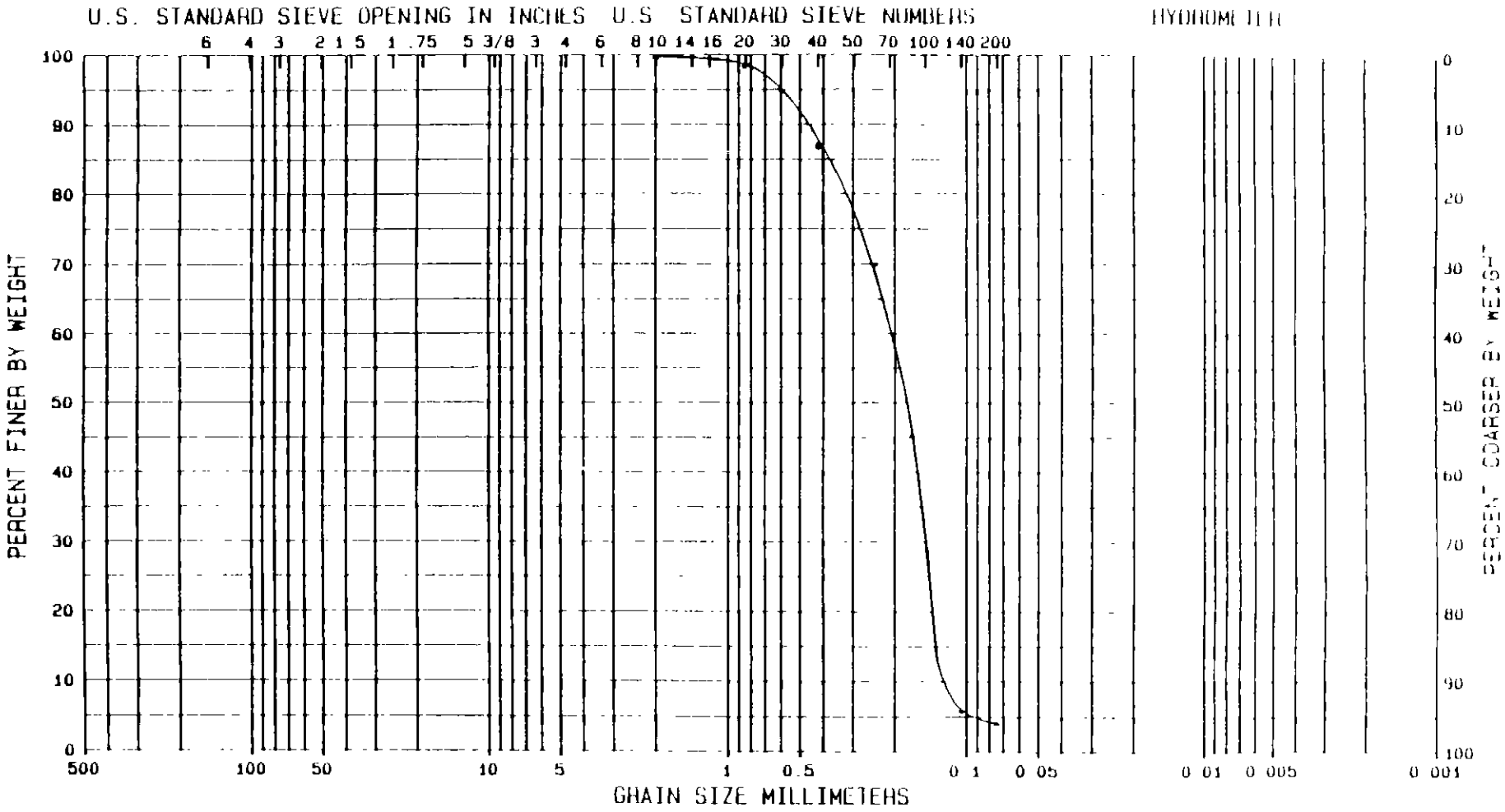
COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

SAMPLE NO.		CLASSIFICATION	NAT WX	LL	PI	PI
CFBBMS8S8G						

GRADATION CURVES

Project 08500.07 - NAS
Cecil Field -
Geotechnical Lab Testing
Jacksonville, Florida
E&A Project No. 93-1361

ELLIS & ASSOCIATES, INC



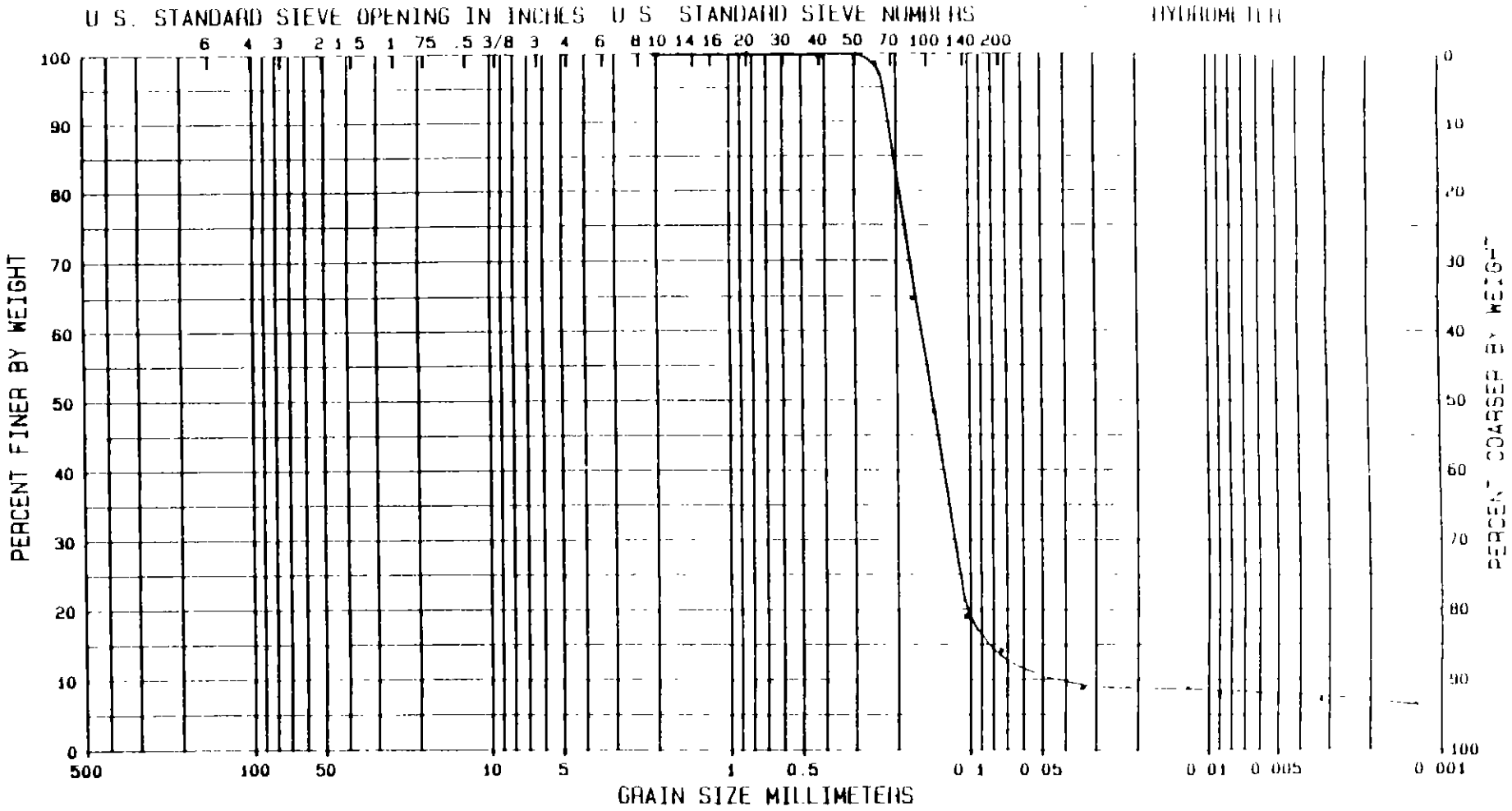
COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

SAMPLE NO.		CLASSIFICATION	NAT w%	LL	PL	PI
CFBBMS91S6G						

GRADATION CURVES

Project 08500.07 - NAS
Cecil Field -
Geotechnical Lab Testing
Jacksonville, Florida
F&A Project No. 93-1361

ELLIS & ASSOCIATES, INC



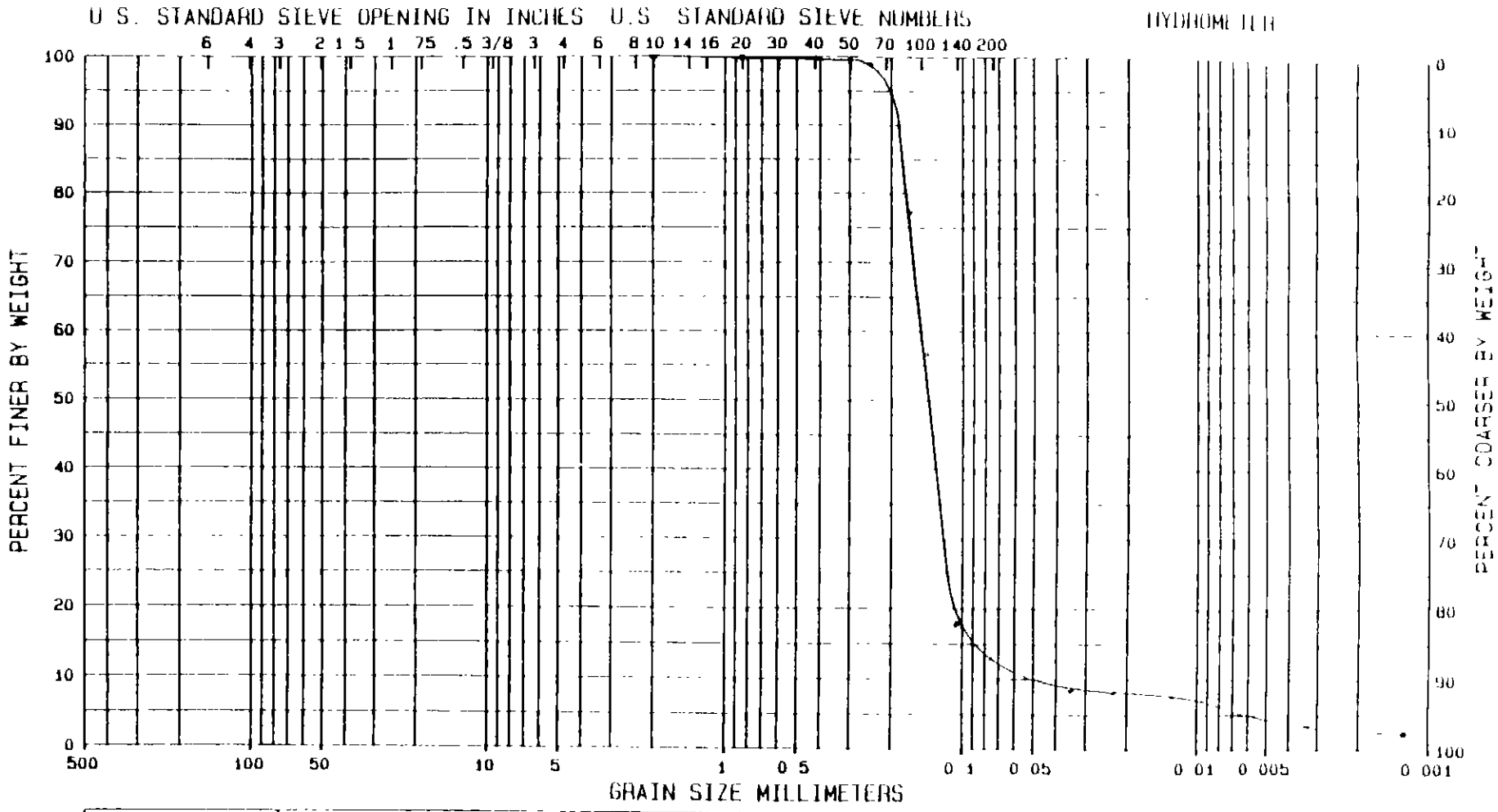
COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

SAMPLE NO		CLASSIFICATION	NAT w%	LL	PL	PI
CFBBMS4S4G						

GRADATION CURVES

Project 08500.07 - NAS
Cecil Field -
Geotechnical Lab Testing
Jacksonville, Florida
E&A Project No. 93-1361

ELLIS & ASSOCIATES, INC



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

SAMPLE NO.		CLASSIFICATION	NAT w%	LL	PL	PI
CFBBMS7S4G						

GRADATION CURVES

Project 08500.07 - NAS
Cecil Field -
Geotechnical Lab Testing
Jacksonville, Florida
E&A Project No. 93-1361

APPENDIX J-7

BACKGROUND GROUNDWATER SAMPLING LOGS

GROUNDWATE SAMPLING LOG

PAGE 1 OF

CLIENT NAS Cecil Field
SITE Background
WELL NUMBER CEF-BK-15
JOB NUMBER 8500.10

TOTAL WELL DEPTH 15.0' bls
WELL DIAMETER 2-inch
BOREHOLE DIAMETER 8 1/4-inch

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14 gal.
VOL PER FT BOREHOLE (LESS CASING)(GAL)

STATIC WATER LEVEL (FT) 9.78' btoc
STANDING WATER COLUMN (FT) 8.02'

AMT ONE WELL VOL (GAL) 1.1
TOTAL GAL TO BE PURGED 5.5

PURGING SYSTEM Bailer
SAMPLING SYSTEM Bailer

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(C°)	TURBIDITY(NTU)	PID(ppm)			
9/12/93	1830	1	43.4	4.62	80.1	OFFSCALE	0		> 200 NTUs	
	1834	3	45.3	4.64	77.1	OFFSCALE	0			
	1838	5	46.4	4.37	76.0	OFFSCALE	0			
	1842	7	47.6	4.51	76.0	OFFSCALE	0			
	1846	10	47.4	4.47	76.0	OFFSCALE	0			

NOTES:

TURBIDITY:

GROUNDWATER SAMPLING LOG

CLIENT NAS Cecil Field
SITE Background
WELL NUMBER CEF-BK-3D
JOB NUMBER 8500 10

TOTAL WELL DEPTH 47' bls
WELL DIAMETER 2-inch
BOREHOLE DIAMETER 6-inches

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14 gallons
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 6.48' bTOC
STANDING WATER COLUMN (FT) 43.32'

AMT ONE WELL VOL (GAL) 6.1 gallons
TOTAL GAL TO BE PURGED 30.5 gallons

PURGING SYSTEM WATTERRA
SAMPLING SYSTEM Bailer

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(C°)	TURBIDITY(NTU)	PID(ppm)			
9/12/93	1650	1	527	5.05	77.8	OFFSCALE	0		>200 NTUs	
	1655	10	54.9	4.94	77.0	27.4			RATE 2 gpm	
	1700	19	56.4	4.75	76.0	19.4				
	1705	30	54.5	4.77	75.0	17.8				
	1710	41	53.8	4.76	75.0	14.3				
	1714	49	54.2	4.76	75.0	13.8				

NOTES:

TURBIDITY:

GROUNDWATER SAMPLING LOG

CLIENT NAS Cecil Field
SITE Background
WELL NUMBER CEF-BK-55
JOB NUMBER 8500.10

TOTAL WELL DEPTH 15.0' bls
WELL DIAMETER 2-inch
BOREHOLE DIAMETER 8-1/4 inch

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14 gal
VOL PER FT BOREHOLE (LESS CASING)(GAL) _____

STATIC WATER LEVEL (FT) 8.28' bTOC
STANDING WATER COLUMN (FT) 9.52

AMT ONE WELL VOL (GAL) 1.3 gal
TOTAL GAL TO BE PURGED 6.5 gal

PURGING SYSTEM Bailer
SAMPLING SYSTEM Bailer

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(C°)	TURBIDITY(NTU)	PID(ppm)			
9/9/93	1225	.5	34.2	4.80	77.6	OFF SCALE	0		>200 NTUs	
	1230	2.0	34.1	4.81	77.2	OFFSCALE				
	1234	4.0	33.3	4.60	75.6	OFFSCALE				
	1237	5.5	32.7	4.40	75.4	OFFSCALE				
	1241	8.0	33.5	4.48	75.8	OFFSCALE				
	1245	10.0	33.3	4.45	75.6	OFFSCALE				

NOTES

TURBIDITY:

GROUNDWATER SAMPLING LOG

CLIENT NAS Cecil Field
SITE Background
WELL NUMBER CEF-BK-7S
JOB NUMBER 8500.10

TOTAL WELL DEPTH 15.0' bls
WELL DIAMETER 2-inch
BOREHOLE DIAMETER 8-1/4-inch

MIN NUMBER WELL VOL TO BE PURGED 5
VOL PER VERTICAL FT CASING (GAL) 0.14 gallons
VOL PER FT BOREHOLE (LESS CASING)(GAL) —

STATIC WATER LEVEL (FT) 12.12' btoc
STANDING WATER COLUMN (FT) 5.68'

AMT ONE WELL VOL (GAL) .80
TOTAL GAL TO BE PURGED 4.0 gallons

PURGING SYSTEM Bailer
SAMPLING SYSTEM Bailer

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(C°)	TURBIDITY(NTU)	PID(ppm)			
9/10/93	1535	1	134	5.90	80.1	OFFSCALE	0		>200 NTU	
	1539	2	85.4	5.52	80.6	OFFSCALE				
	1543	5	80.6	5.48	81.0	OFFSCALE				
	1547	7	64.6	4.90	80.8	OFFSCALE				
	1551	10	62.9	4.92	80.7	OFFSCALE				

NOTES.

TURBIDITY:

CLIENT Cecil Field
SITE Background
WELL NUMBER CEF-BK-9D
JOB NUMBER 8500.10

TOTAL WELL DEPTH 60 ' bls
WELL DIAMETER 2-inch
BOREHOLE DIAMETER 6-inch

MIN NUMBER WELL VOL TO BE PURGED
VOL PER VERTICAL FT CASING (GAL) 0.14 gal
VOL PER FT BOREHOLE (LESS CASING)(GAL)

STATIC WATER LEVEL (FT) 12.02' btoc
STANDING WATER COLUMN (FT) 50.78

AMT ONE WELL VOL (GAL) 7.1
TOTAL GAL TO BE PURGED 35.5

PURGING SYSTEM Waterra
SAMPLING SYSTEM Bailer

DATE	TIME	AMOUNT PURGED (GAL)	FIELD PARAMETERS MEASURED						COMMENTS	SAMPLER
			EC(µmhos)	pH	TEMP(C°)	TURBIDITY(NTU)	PID(ppm)			
9/10/93	1440	1	537	5.96	80.4	OFFSCALE >200 NTUs	0		Rate pumping -	
	1445	10	356	5.91	76.8	160			2 1/2 gpm	
	1450	19	28.3	5.85	76.6	156				
	1455	30	27.8	5.32	76.4	126				
	1500	40	27.9	5.27	76.2	120				
	1505	49	28.0	5.27	76.2	118				

NOTES:

TURBIDITY:

APPENDIX J-8

WET CHEMISTRY ANALYSES FOR BACKGROUND GROUNDWATER

WET CHEMISTRY DATA - BACKGROUND

SAMPLE ID	ANALYSIS TYPE	VALUE	QUAL
CF BK 1S	Alkalinity, Bicarbonate	5.000	U
CF BK 2S	Alkalinity, Bicarbonate	5.000	U
CF BK 3I	Alkalinity, Bicarbonate	6.000	
CF BK 4S	Alkalinity, Bicarbonate	8.000	
CF BK 5S	Alkalinity, Bicarbonate	5.000	U
CF BK 6I	Alkalinity, Bicarbonate	5.000	U
CF BK 7S	Alkalinity, Bicarbonate	14.000	
CF BK 7SR	Alkalinity, Bicarbonate	5.000	U
CF BK 8S	Alkalinity, Bicarbonate	14.000	
CF BK 9I	Alkalinity, Bicarbonate	5.000	U
CF BK 1S	Alkalinity, Carbonate	0.000	
CF BK 1S	Alkalinity, Carbonate	5.000	U
CF BK 2S	Alkalinity, Carbonate	5.000	U
CF BK 3I	Alkalinity, Carbonate	5.000	U
CF BK 4S	Alkalinity, Carbonate	5.000	U
CF BK 5S	Alkalinity, Carbonate	5.000	U
CF BK 6I	Alkalinity, Carbonate	5.000	U
CF BK 7S	Alkalinity, Carbonate	5.000	U
CF BK 7SR	Alkalinity, Carbonate	5.000	U
CF BK 8S	Alkalinity, Carbonate	5.000	U
CF BK 9I	Alkalinity, Carbonate	5.000	U
CF BK 1S	Alkalinity, Total	20.000	U
CF BK 1S	Alkalinity, Total	100.000	
CF BK 2S	Alkalinity, Total	20.000	U
CF BK 3I	Alkalinity, Total	20.000	U
CF BK 4S	Alkalinity, Total	20.000	U
CF BK 5S	Alkalinity, Total	20.000	U
CF BK 5S	Alkalinity, Total	96.000	
CF BK 5S	Alkalinity, Total	102.000	
CF BK 6I	Alkalinity, Total	20.000	U
CF BK 7S	Alkalinity, Total	20.000	U
CF BK 7SR	Alkalinity, Total	20.000	U
CF BK 8S	Alkalinity, Total	20.000	U
CF BK 9I	Alkalinity, Total	20.000	U
CF BB MS1 S8	Carbon (TOC) in Solids	335.000	
CF BB MS2 S8	Carbon (TOC) in Solids	455.000	
CF BB MS4 S4	Carbon (TOC) in Solids	1300.000	
CF BB MS5 S6	Carbon (TOC) in Solids	535.000	
CF BB MS6 I43	Carbon (TOC) in Solids	1380.000	
CF BB MS7 S6	Carbon (TOC) in Solids	16400.000	
CF BB MS8 S6	Carbon (TOC) in Solids	1020.000	
CF BB MS9 I46	Carbon (TOC) in Solids	868.000	
CF BB MS9 I56	Carbon (TOC) in Solids	191.000	
CF BK 3I	Carbon ,TOC	8.000	
CF BK 4S	Carbon ,TOC	31.000	
CF BK 7S	Carbon ,TOC	160.000	

WET CHEMISTRY DATA - BACKGROUND

SAMPLE ID	ANALYSIS TYPE	VALUE	QUAL
CF BK 7SR	Carbon ,TOC	1.000	U
CF BK 1S	Chloride - Automated	11.000	
CF BK 1S	Chloride - Automated	105.000	
CF BK 2S	Chloride - Automated	7.000	
CF BK 3I	Chloride - Automated	11.000	
CF BK 4S	Chloride - Automated	8.000	
CF BK 5S	Chloride - Automated	5.000	
CF BK 6I	Chloride - Automated	6.000	
CF BK 7S	Chloride - Automated	59.000	
CF BK 7SR	Chloride - Automated	2.000	U
CF BK 8S	Chloride - Automated	3.000	
CF BK 9I	Chloride - Automated	2.000	
CF BK 1S	Chromium	.140	
CF BK 2S	Chromium	.230	
CF BK 3I	Chromium	.020	U
CF BK 4S	Chromium	.220	
CF BK 5S	Chromium	.120	
CF BK 6I	Chromium	.020	U
CF BK 7S	Chromium	.160	
CF BK 7SR	Chromium	.020	U
CF BK 8S	Chromium	.490	
CF BK 9I	Chromium	.020	U
CF BK 1S	Chromium, Hexavalent	.020	UJ
CF BK 2S	Chromium, Hexavalent	.020	UJ
CF BK 3I	Chromium, Hexavalent	.020	UJ
CF BK 3I	Chromium, Hexavalent	84.000	
CF BK 4S	Chromium, Hexavalent	.020	UJ
CF BK 5S	Chromium, Hexavalent	.020	UJ
CF BK 6I	Chromium, Hexavalent	.020	UJ
CF BK 6I	Chromium, Hexavalent	100.000	
CF BK 6I	Chromium, Hexavalent	102.000	
CF BK 7S	Chromium, Hexavalent	.020	U
CF BK 7SR	Chromium, Hexavalent	.020	U
CF BK 8S	Chromium, Hexavalent	.020	U
CF BK 9I	Chromium, Hexavalent	.020	U
CF BK 1S	Hardness	8.000	
CF BK 1S	Hardness	124.000	
CF BK 1S	Hardness	128.000	
CF BK 2S	Hardness	10.000	
CF BK 3I	Hardness	46.000	
CF BK 4S	Hardness	62.500	U
CF BK 5S	Hardness	5.000	U
CF BK 6I	Hardness	5.000	U
CF BK 7S	Hardness	50.000	U
CF BK 7SR	Hardness	5.000	U
CF BK 8S	Hardness	220.000	
CF BK 9I	Hardness	7.000	

WET CHEMISTRY DATA - BACKGROUND

SAMPLE ID	ANALYSIS TYPE	VALUE	QUAL
CEF BSS 01 F	Petro.Hydrocarbons, Total Rec.	.500	U
CEF BSS 01 R	Petro.Hydrocarbons, Total Rec.	.500	U
CEF BSS 02 R	Petro.Hydrocarbons, Total Rec.	.500	U
CF BB MS2 SR	Petro.Hydrocarbons, Total Rec.	.500	U
CF BB MS7 SR	Petro.Hydrocarbons, Total Rec.	.500	U
CF BK 1S	Petro.Hydrocarbons, Total Rec.	.500	U
CF BK 1S	Petro.Hydrocarbons, Total Rec.	86.000	
CF BK 1S	Petro.Hydrocarbons, Total Rec.	92.000	
CF BK 2S	Petro.Hydrocarbons, Total Rec.	.500	U
CF BK 3I	Petro.Hydrocarbons, Total Rec.	.500	U
CF BK 4S	Petro.Hydrocarbons, Total Rec.	.500	U
CF BK 5S	Petro.Hydrocarbons, Total Rec.	.500	U
CF BK 6I	Petro.Hydrocarbons, Total Rec.	.500	
CF BK 7S	Petro.Hydrocarbons, Total Rec.	.500	U
CF BK 7SR	Petro.Hydrocarbons, Total Rec.	.500	U
CF BK 8S	Petro.Hydrocarbons, Total Rec.	.500	U
CF BK 9I	Petro.Hydrocarbons, Total Rec.	.500	U
CEF BSS 01	Petro.Hydrocarbons, Total Rec.(	10.000	U
CEF BSS 02	Petro.Hydrocarbons, Total Rec.(	10.000	U
CEF BSS 02 D	Petro.Hydrocarbons, Total Rec.(	10.000	U
CEF BSS 03	Petro.Hydrocarbons, Total Rec.(	10.000	U
CEF BSS 04	Petro.Hydrocarbons, Total Rec.(	14.000	
CEF BSS 05	Petro.Hydrocarbons, Total Rec.(	10.000	U
CEF BSS 06	Petro.Hydrocarbons, Total Rec.(	10.000	U
CEF BSS 07	Petro.Hydrocarbons, Total Rec.(	13.000	
CEF BSS 08	Petro.Hydrocarbons, Total Rec.(	23.000	
CEF BSS 09	Petro.Hydrocarbons, Total Rec.(	10.000	U
CEF BSS 09 D	Petro.Hydrocarbons, Total Rec.(	10.000	U
CEF BSS 10	Petro.Hydrocarbons, Total Rec.(	35.000	
CEF BSS 11	Petro.Hydrocarbons, Total Rec.(	18.000	
CEF BSS 12	Petro.Hydrocarbons, Total Rec.(	11.000	
CEF BSS 13	Petro.Hydrocarbons, Total Rec.(	25.000	
CEF BSS 14	Petro.Hydrocarbons, Total Rec.(	58.000	
CEF BSS 15	Petro.Hydrocarbons, Total Rec.(	12.000	
CF BB MS1 S6	Petro.Hydrocarbons, Total Rec.(	10.000	U
CF BB MS1 SO	Petro.Hydrocarbons, Total Rec.(	10.000	U
CF BB MS2 S2	Petro.Hydrocarbons, Total Rec.(	10.000	U
CF BB MS2 S6	Petro.Hydrocarbons, Total Rec.(	10.000	U
CF BB MS3 I2	Petro.Hydrocarbons, Total Rec.(	10.000	U
CF BB MS3 I6	Petro.Hydrocarbons, Total Rec.(	10.000	U
CF BB MS4 S2	Petro.Hydrocarbons, Total Rec.(	10.000	U
CF BB MS4 S4	Petro.Hydrocarbons, Total Rec.(	10.000	U
CF BB MS5 S2	Petro.Hydrocarbons, Total Rec.(	10.000	U
CF BB MS5 S6	Petro.Hydrocarbons, Total Rec.(	10.000	U
CF BB MS6 I0	Petro.Hydrocarbons, Total Rec.(	34.000	
CF BB MS6 I6	Petro.Hydrocarbons, Total Rec.(	10.000	U
CF BB MS7 S0	Petro.Hydrocarbons, Total Rec.(	14.000	

WET CHEMISTRY DATA - BACKGROUND

SAMPLE ID	ANALYSIS TYPE	VALUE	QUAL
CF BB MS7 S0D	Petro.Hydrocarbons, Total Rec.(	10.000	U
CF BB MS7 S4	Petro.Hydrocarbons, Total Rec.(	10.000	U
CF BB MS8 S2	Petro.Hydrocarbons, Total Rec.(	10.000	U
CF BB MS8 S6	Petro.Hydrocarbons, Total Rec.(	10.000	U
CF BB MS9 I6	Petro.Hydrocarbons, Total Rec.(	10.000	U
CF BB MS9 IOS	Petro.Hydrocarbons, Total Rec.(	51.000	
CF BK 1S	Solids, Filterable (TDS)	66.000	
CF BK 2S	Solids, Filterable (TDS)	150.000	
CF BK 3I	Solids, Filterable (TDS)	40.000	
CF BK 4S	Solids, Filterable (TDS)	61.000	
CF BK 5S	Solids, Filterable (TDS)	220.000	
CF BK 6I	Solids, Filterable (TDS)	40.000	
CF BK 7S	Solids, Filterable (TDS)	940.000	
CF BK 7SR	Solids, Filterable (TDS)	10.000	U
CF BK 8S	Solids, Filterable (TDS)	88.000	
CF BK 9I	Solids, Filterable (TDS)	64.000	
CEF BSS 01	Solids, Total (TS) SOLID MATRIX	90.900	
CEF BSS 02	Solids, Total (TS) SOLID MATRIX	88.900	
CEF BSS 02 D	Solids, Total (TS) SOLID MATRIX	86.400	
CEF BSS 03	Solids, Total (TS) SOLID MATRIX	85.900	
CEF BSS 04	Solids, Total (TS) SOLID MATRIX	91.200	
CEF BSS 05	Solids, Total (TS) SOLID MATRIX	93.200	
CEF BSS 06	Solids, Total (TS) SOLID MATRIX	92.800	
CEF BSS 07	Solids, Total (TS) SOLID MATRIX	92.500	
CEF BSS 08	Solids, Total (TS) SOLID MATRIX	91.700	
CEF BSS 09	Solids, Total (TS) SOLID MATRIX	88.500	
CEF BSS 09 D	Solids, Total (TS) SOLID MATRIX	87.700	
CEF BSS 10	Solids, Total (TS) SOLID MATRIX	89.800	
CEF BSS 11	Solids, Total (TS) SOLID MATRIX	89.600	
CEF BSS 12	Solids, Total (TS) SOLID MATRIX	94.500	
CEF BSS 13	Solids, Total (TS) SOLID MATRIX	94.600	
CEF BSS 14	Solids, Total (TS) SOLID MATRIX	94.300	
CEF BSS 15	Solids, Total (TS) SOLID MATRIX	89.700	
CF BB MS1 S6	Solids, Total (TS) SOLID MATRIX	83.800	
CF BB MS1 S8	Solids, Total (TS) SOLID MATRIX	97.900	
CF BB MS1 SO	Solids, Total (TS) SOLID MATRIX	87.300	
CF BB MS2 S2	Solids, Total (TS) SOLID MATRIX	87.800	
CF BB MS2 S6	Solids, Total (TS) SOLID MATRIX	84.100	
CF BB MS2 S8	Solids, Total (TS) SOLID MATRIX	83.600	
CF BB MS3 I2	Solids, Total (TS) SOLID MATRIX	86.000	
CF BB MS3 I6	Solids, Total (TS) SOLID MATRIX	82.500	
CF BB MS4 S2	Solids, Total (TS) SOLID MATRIX	93.300	
CF BB MS4 S4	Solids, Total (TS) SOLID MATRIX	82.400	
CF BB MS5 S2	Solids, Total (TS) SOLID MATRIX	96.800	
CF BB MS5 S6	Solids, Total (TS) SOLID MATRIX	83.600	
CF BB MS6 I0	Solids, Total (TS) SOLID MATRIX	96.500	
CF BB MS6 I43	Solids, Total (TS) SOLID MATRIX	80.900	

WET CHEMISTRY DATA - BACKGROUND

SAMPLE ID	ANALYSIS TYPE	VALUE	QUAL
CF BB MS6 I6	Solids, Total (TS) SOLID MATRIX	82.800	
CF BB MS7 S0	Solids, Total (TS) SOLID MATRIX	90.500	
CF BB MS7 S0D	Solids, Total (TS) SOLID MATRIX	90.700	
CF BB MS7 S4	Solids, Total (TS) SOLID MATRIX	82.600	
CF BB MS7 S6	Solids, Total (TS) SOLID MATRIX	78.800	
CF BB MS8 S2	Solids, Total (TS) SOLID MATRIX	94.100	
CF BB MS8 S6	Solids, Total (TS) SOLID MATRIX	86.100	
CF BB MS9 I46	Solids, Total (TS) SOLID MATRIX	83.800	
CF BB MS9 I56	Solids, Total (TS) SOLID MATRIX	84.400	
CF BB MS9 I6	Solids, Total (TS) SOLID MATRIX	70.500	
CF BB MS9 IOS	Solids, Total (TS) SOLID MATRIX	88.800	
CF BK 1S	Sulfate (Automated)	5.000	U
CF BK 1S	Sulfate (Automated)	100.000	
CF BK 1S	Sulfate (Automated)	103.000	
CF BK 2S	Sulfate (Automated)	5.000	U
CF BK 3I	Sulfate (Automated)	5.000	U
CF BK 4S	Sulfate (Automated)	5.000	U
CF BK 5S	Sulfate (Automated)	11.000	
CF BK 6I	Sulfate (Automated)	5.000	U
CF BK 7S	Sulfate (Automated)	52.000	
CF BK 7SR	Sulfate (Automated)	41.000	
CF BK 8S	Sulfate (Automated)	5.000	U
CF BK 9I	Sulfate (Automated)	16.000	
CF BK 1S	Sulfide (S)	1.000	U
CF BK 1S	Sulfide (S)	108.000	
CF BK 1S	Sulfide (S)	112.000	
CF BK 2S	Sulfide (S)	1.000	
CF BK 3I	Sulfide (S)	2.000	
CF BK 4S	Sulfide (S)	1.000	U
CF BK 5S	Sulfide (S)	1.000	U
CF BK 6I	Sulfide (S)	1.000	U
CF BK 7S	Sulfide (S)	1.000	U
CF BK 7SR	Sulfide (S)	1.000	
CF BK 8S	Sulfide (S)	1.000	U
CF BK 9I	Sulfide (S)	1.000	U

APPENDIX K

APPENDIX K

CALCULATIONS

PROJECT NASCF OU7 RI REPORT APPENDIX K : CALCULATIONS	COMP. BY MJM	JOB NO. 850013
	CHK. BY WAM	DATE 2-15-95

ITEM 1: LEACHING OF TCE FROM VADOSE SOIL

1.1 ESTIMATION OF CONCENTRATION OF TCE IN LEACHATE GENERATED FROM PRECIPITATION INFILTRATION THROUGH REMAINING TCE CONTAMINATED VADOSE ZONE SOILS USING THE SUMMERS MODEL (EPA/540/2-89/057, OCT 89)

$C_s = C_l \times K_{oc} \times F_{oc}$

WHERE:

C_s = SOIL CONCENTRATION IN $\mu g/g$ (PPM)

C_l = LEACHATE CONCENTRATION IN $\mu g/ml$ (PPM)

K_{oc} = ORGANIC CARBON PARTITIONING COEFFICIENT IN cm^3/g

F_{oc} = SOIL ORGANIC CARBON CONTENT

$C_s = 0.137\ \mu g/g$ (AVERAGE CONCENTRATION REMAINING IN THE VADOSE SOIL)

$K_{oc} = 126\ cm^3/g$ (EPA/600/8-90/003)

$F_{oc} = 0.005$ (BASED ON 5000 mg/kg MEDIAN TOC CONCENTRATION FOR ALL CECIL FIELD SOIL SAMPLE TO 10-20 FT BLS, ANALYZED FOR TOC. RESULTS PRESENTED IN THIS APPENDIX)

$C_s = C_l \times K_{oc} \times F_{oc}$

$$C_l = \frac{C_s}{K_{oc} \times F_{oc}} = \frac{0.137\ \mu g/g}{126\ cm^3/g \times 0.005} = 0.217\ \mu g/ml\ (PPM)$$

PROJECT NASCF OU7 RI REPORT APPENDIX K: CALCULATIONS	COMP. BY MJM	JOB NO. 850013
	CHK. BY WAM	DATE 2-15-95

1.2 ESTIMATION OF DILUTION FACTOR FOR LEACHATE GENERATED BY PRECIPITATION INFILTRATION THROUGH REMAINING TCE CONTAMINATED VADOSE SOIL UPON ENTERING AND MIXING WITH THE TOP 10 FEET OF THE SURFICIAL AQUIFER

$$\text{DILUTION RATIO (DR)} = \frac{Q_{GW} + Q_R}{Q_R}$$

WHERE:

Q_{GW} = VOLUMETRIC GROUNDWATER FLOW RATE IN FT^3/DAY

Q_R = VOLUMETRIC LEACHATE FLOW RATE IN FT^3/DAY

$Q_{GW} = q_h \times$ AREA OF THE MIXING ZONE

WHERE:

q_h = HORIZONTAL GROUNDWATER FLOW RATE IN FT/DAY

$q_h = Ki$

WHERE

K = HORIZONTAL HYDRAULIC CONDUCTIVITY IN FT/DAY

i = HORIZONTAL HYDRAULIC GRADIENT IN FT/FT

K = 4 FT/DAY (ESTIMATED BASED ON RESULTS OF USGS AQUIFER TESTS AT CECIL FIELD [PERSONAL COMMUNICATION, 1995])

i = 0.0029 FT/FT (MEASURED PARALLEL TO FLOW THROUGH THE LENGTH OF THE PLUME USING AUGUST, 1994 WATER LEVEL DATA).

PROJECT NASCF OU7 RI REPORT APPENDIX K: CALCULATIONS	COMP. BY MJM	JOB NO. 850013
	CHK. BY WAM	DATE 2-15-95

1.2 (CONTINUED)

AREA OF MIXING ZONE = 1700 FT^2 (BASED ON ESTIMATED 170 FT WIDTH OF AFFECTED VADOSE ZONE SOIL AND ASSUMED 10 FT DEEP MIXING ZONE IN THE SURFICIAL AQUIFER

$q_h = Ki = 4\ FT/D \times 0.0029\ FT/FT = 0.012\ FT/D$

$Q_{GW} = q_h \times$ AREA OF MIXING ZONE $= 0.012\ FT/D \times 1{,}700\ FT^2 = 20\ FT^3/D$

$Q_R = I \times$ AREA OF AFFECTED VADOSE SOILS

WHERE:

I = AVERAGE RECHARGE FROM PRECIPITATION IN FT/D

I = 7 INCHES PER YEAR (USGS, 1995)

$\frac{7\ IN/YR}{12\ IN/FT} = 0.58\ FT/YR \quad \frac{0.58\ FT/YR}{365\ D/YR} = 0.0016\ FT/D$

AREA OF AFFECTED VADOSE SOIL = 5,000 FT^2 (ESTIMATED AREA BASED ON CONFIRMATORY SOIL SAMPLE ANALYTICAL RESULTS (10,000 FT^2) MINUS THE AREA EXCAVATED AND REPLACED DURING THE IRA ESTIMATED AT 5,000 FT^2).

$10{,}000\ FT^2 - 5{,}000\ FT^2 = 5{,}000\ FT^2$

$Q_R = I \times$ AREA OF AFFECTED VADOSE SOIL $= 0.0016\ FT/D \times 5{,}000\ FT^2 = 8.0\ FT^3/D$

$DR = \frac{Q_{GW} + Q_R}{Q_R} = \frac{20\ FT^3/D + 8.0\ FT^3/D}{8.0\ FT^3/D} = 3.5$

PROJECT	COMP. BY	JOB NO.
NASCF OU7 RI REPORT APPENDIX K: CALCULATIONS	MJM	850013
	CHK. BY WAM	DATE 2-15-95

1.3 ESTIMATION OF TCE CONCENTRATION IN VADOSE SOIL WHICH WOULD GENERATE LEACHATE WITH TCE CONCENTRATION OF 5 µg/l (PPB) (MCL)

$C_s = C_l \times K_{oc} \times F_{oc}$

$C_s = 0.005\ \mu g/ml \times 126\ cm^3/g \times 0.005 = 0.0032\ \mu g/g$ (PPM)

1.4 ESTIMATION OF TCE CONCENTRATION IN VADOSE SOIL WHICH WOULD GENERATE LEACHATE WITH TCE CONCENTRATIONS OF 5 µg/l (PPB) AFTER ENTERING AND MIXING WITH THE TOP 10 FEET OF THE SURFICIAL AQUIFER.

$0.005\ \mu g/ml \times DR\ (3.5) = 0.0175\ \mu g/ml$ (PPM)

$C_s = 0.0175\ \mu g/ml \times 126\ cm^3/g \times 0.005 = 0.011\ \mu g/g$ (PPM)

1.5 ESTIMATION OF TIME REQUIRED FOR PRECIPITATION INFILTRATION TO REDUCE TCE CONCENTRATION IN VADOSE ZONE SOIL SO THAT RESULTANT LEACHATE IS 5 µg/l (PPB). USING THE EPA BATCH FLUSH MODEL (EPA/540/G-88/003).

$$N = \ln\left(\frac{C_{So}}{C_{SN}}\right) \Big/ \ln\left(1 + \frac{n}{\rho_b Kd}\right)$$

WHERE:

N = NUMBER OF PORE VOLUMES

C_{So} = INITIAL SOIL CONCENTRATION = 0.137 µg/g

C_{SN} = TARGET SOIL CONCENTRATION = 0.003 µg/g

n = POROSITY = 0.20 (USGS, 1995)

ρ_b = BULK DENSITY = 1.71 g/cm³ (BASED ON THE AVERAGE OF THE RESULTS FROM TWO SAMPLES ANALYZED FROM OU7 [PRESENTED IN THIS APPENDIX])

$Kd = F_{oc} \times K_{oc} = 0.005 \times 126\ cm^3/g = 0.63\ cm^3/g$

PROJECT	COMP. BY	JOB NO.
NASCF OU7 RI REPORT APPENDIX K: CALCULATIONS	MJM	850013
	CHK. BY WAM	DATE 2-15-95

1.5 (CONTINUED)

$$N = \ln\left(\frac{0.137}{0.003}\right) / \ln\left(1 + \frac{0.20}{1.71 + 0.63}\right)$$

$$= \ln(45.7) / \ln(1.19)$$

$$= 3.82 / 0.174 = 22.0 \text{ PORE VOLUMES}$$

THE AFFECTED VADOSE SOIL IS ASSUMED TO BE FROM 0 TO 6 FEET BLS. INFILTRATION OF PRECIPITATION IS 0.58 FT/YR $\frac{0.58 \text{ FT/YR}}{0.20} = 2.9$ FT/YR

$\frac{6 \text{ FT}}{2.9 \text{ FT}} = 2.1$ YEARS TO REMOVE ONE PORE VOLUME.

22.0 PORE VOLUMES X 2.1 YEARS/VOLUME = 46.2 YEARS

1.6 ESTIMATION OF TIME REQUIRED FOR PRECIPITATION INFILTRATION TO REDUCE TCE CONCENTRATION IN VADOSE SOIL SO THAT RESULTANT LEACHATE IS 5 µg/l (PPB) AFTER ENTERING AND MIXING WITH THE TOP 10 FEET OF THE SURFICIAL AQUIFER (USING THE EPA BATCH FLUSH MODEL).

$C_{SO} = 0.137$ µg/g

$C_{SN} = 0.011$ µg/g

$$N = \ln\left(\frac{0.137}{0.011}\right) / \ln\left(1 + \frac{0.20}{1.71 + 0.63}\right)$$

$$= \ln(12.5) / \ln(1.19)$$

$$= 2.53 / 0.174 = 14.5 \text{ PORE VOLUMES}$$

14.5 PORE VOLUMES X 2.1 YEARS/VOLUME = 30.5 YEARS

PROJECT NASCF OU7 RI REPORT APPENDIX K: CALCULATIONS	COMP. BY MJM	JOB NO. 850013
	CHK. BY WAM	DATE 2-15-95

ITEM 2: RELEASE OF TCE FROM PHREATIC SOIL

2.1 ESTIMATION OF TCE CONCENTRATION IN PHREATIC SOIL WHICH WOULD RESULT IN GROUNDWATER CONCENTRATION OF 5 µg/l (PPB) USING THE SUMMERS MODEL

$C_S = C_1 \times K_{oc} \times f_{oc}$

WHERE:

C_1 = 1,100 µg/ml (BASED ON SOLUBILITY CONCENTRATION OF TCE. THE HIGHEST DETECTION IN GROUNDWATER IS 1,500 µg/ml - INDICATES PRESENCE OF SOME NAPL WHICH WILL NOT BE ADDRESSED BY THIS CALCULATION).

F_{oc} = 0.0012 (BASED ON MEDIAN OF CECIL TOC RESULTS TO 50 FEET BLS - RESULTS ARE PRESENTED IN THIS APPENDIX).

K_{oc} = 126 cm^3/g

C_{SO} = 1,100 µg/g X 126 cm^3/g X 0.0012 = 166 µg/g (PPM)

C_{SN} = TARGET SOIL CONCENTRATION

C_{SN} = 0.005 µg/g X 126 cm^3/g X 0.0012 = 0.00076 µg/g (PPM)

2.2 ESTIMATION OF TIME REQUIRED FOR GROUNDWATER TO FLUSH THE PHREATIC SOIL SO THAT THE RESULTANT TCE GROUNDWATER CONCENTRATION IS 5 µg/l (PPB) USING THE EPA BATCH MODEL

$$N = \ln\left(\frac{166}{0.00076}\right) / \ln\left(1 + \frac{0.20}{1.71 \times 0.1512}\right)$$

$$= \ln(218{,}421) / \ln(1.77)$$

$$= 12.3 / 0.57 = 21.5 \text{ PORE VOLUMES}$$

PROJECT NASCF OU7 RI REPORT APPENDIX K: CALCULATIONS	COMP. BY MJM	JOB NO. 850013
	CHK. BY WAM	DATE 2-15-95

2.2 (CONTINUED)

GROUNDWATER SEEPAGE VELOCITY IS 0.058 FT/D

$$\frac{0.058\ FT/D}{365\ D/YR} = 21.2\ FT/YR$$

THE ESTIMATED WIDTH OF THE FLOW LINE THROUGH THE CONTAMINATED PHREATIC SOIL IS 20 FT

$$\frac{21.2\ FT/YR}{20\ FT} = 1.06\ PORE\ VOLUMES/YEAR$$

$$\frac{21.5\ PORE\ VOLUMES}{1.06\ VOLUMES/YR} = 20.3\ YEARS$$

ITEM 3: TCE TRANSPORT IN GROUNDWATER

3.1 THE ESTIMATION OF THE ELAPSED TIME AND CONCENTRATION OF THE TCE PLUME UPON ARRIVAL AT THE ANTICIPATED DISCHARGE LOCATION USING A TWO DIMENSIONAL TRANSPORT MODEL IS PRESENTED IN THIS APPENDIX. A DESCRIPTION OF THE MODEL IS ALSO INCLUDED.

ITEM 4: PLUME DILUTION IN SURFACE WATER.

4.1 ESTIMATION OF DILUTION FACTOR FOR THE TCE PLUME UPON DISCHARGING TO, AND MIXING WITH, THE WATER IN THE DRAINAGE DITCH.

$$\text{DILUTION RATIO (DR)} = \frac{Q_{SW} + Q_{GW}}{Q_{GW}}$$

WHERE:

Q_{SW} = VOLUMETRIC SURFACE WATER FLOW IN FT^3/D

Q_{GW} = VOLUMETRIC GROUNDWATER FLOW IN FT^3/D

PROJECT NASCF OU7 RI REPORT APPENDIX K: CALCULATIONS	COMP. BY MJM	JOB NO. 850013
	CHK. BY WAM	DATE 2-15-95

4.1 (CONTINUED)

Q_{SW} = THE FLOW IN THE DRAINAGE DITCH BASED ON THE FLOW OF WATER FROM THE STORM SEWER OUTFALL TO THE DRAINAGE DITCH WAS ESTIMATED AT 5 GALLONS PER MINUTE (GPM)

5 GPM X 0.002228 = 0.0111 FT^3/SEC

0.0111 FT^3/SEC X 86,400 = 959 FT^3/D

Q_{GW} = q_h X CROSS SECTIONAL AREA OF PLUME ENTERING THE DRAINAGE DITCH.

$q_h = Ki$ = 4 FT/D X 0.0029 FT/FT = 0.012 FT/D

CROSS SECTIONAL AREA OF THE PLUME IS ESTIMATED AT 500 FT WIDE (BASED ON THE RESULTS OF THE 2 DIMENSIONAL TRANSPORT MODEL) AND 10 FEET DEEP (BASED ON THE ENTIRE EXPOSURE OF THE DRAINAGE DITCH BOTTOM AND BANKS)

Q_{GW} = 0.012 FT/D X 5,000 FT^2 = 58 FT/D

$$DR = \frac{959\ FT^3/D + 58\ FT^3/D}{58\ FT^3/D} = 17.5$$

4.2 ESTIMATION OF DILUTION FACTOR FOR THE TCE PLUME UPON DISCHARGING TO, AND MIXING WITH, THE WATER IN SAL TAYLOR CREEK.

Q_{SW} = VOLUMETRIC FLOW IN SAL TAYLOR CREEK BASED ON THE LOWEST VALUE RECORDED BY USGS AT STATION 02245913 (LOCATED

PROJECT NASCF OU7 RI REPORT APPENDIX K: CALCULATIONS	COMP. BY MJM	JOB NO. 850013
	CHK. BY WAM	DATE 2-15-95

4.2 (CONTINUED)

APPROXIMATELY 3 MILES DOWNSTREAM OF THE CONFLUENCE WITH THE DRAINAGE DITCHES) BETWEEN JULY 1992 AND JUNE 1994. THE MEASUREMENTS ARE PRESENTED IN THIS APPENDIX. THE LOWEST VALUE RECORDED WAS 3 FT^3/SEC (MAY, 1994)

3 FT/SEC X 86,400 = 259,200 FT^3/D

ESTIMATE THE VOLUME OF GROUNDWATER DISCHARGING INTO SAL TAYLOR CREEK OVER THE 3 MILES FROM THE CONFLUENCE WITH THE DRAINAGE DITCHES TO STATION 02245913 AND SUBTRACT THIS FROM THE TOTAL CALCULATED ABOVE.

3 MILES X 5,280 FT = 15,840 FT

ASSUME A 10 FT STREAM WIDTH.

15,840 FT X 10 FT = 158,400 FT^2

ASSUME THE SAME q_h = 0.012 FT/D

0.012 FT/D X 158,400 FT^2 = 1900 FT^3/D

259,200 FT^3/D − 1900 FT^3/D = 257,300 FT^3/D

$$DR = \frac{257{,}300\ FT^3/D + 58\ FT^3/D}{58\ FT^3/D} = 4{,}437$$

4.3 ESTIMATION OF DILUTION FACTOR FOR WATER IN THE DRAINAGE DITCH UPON DISCHARGING TO, AND MIXING WITH, THE WATER IN SAL TAYLOR CREEK

$$DR = \frac{257{,}300\ FT^3/D + 959\ FT^3/D}{959\ FT^3/D} = 269.3$$

APPENDIX K

Item 3 - Two Dimensional Contaminant Transport Model

The model used to calculate the transport of contaminants by groundwater at OU7 is based on the convective-dispersive mass transport equation ("Groundwater Pollution and Hydrology - Mathematical Models and Computer Programs", Report No. 78-WR-15, by Robert W. Cleary and Michael Ungs, Water Resources Program, Princeton University). The solution is analytical and has been derived by integral transform methods. It is applicable for two-dimensional groundwater flow and is subject to a Gaussian source distribution. This type of source condition is often a good representation of the type of source that develops from surface or near surface disposal vertically into an otherwise two-dimensional horizontal groundwater flow system.

The input to the model requires not only the dispersion coefficients and groundwater velocities, but also the standard deviation of the Gaussian source. The standard deviation of the source is determined by calibrating the model output to known conditions. Once the model is calibrated, it is then used to make predictions of future migration of the contaminant plume.

Both input to and output from the model are attached to this appendix. In addition, the partial differential equation and boundary conditions are presented. It should be noted that the equations are capable of simulating an exponential time decay of the source as well as a general environmental decay (such as radioactive decay), however these options were not used in the simulations for OU7.

NUMERICAL SOLUTION TO THE SATURATED
UNSTEADY-STATE TWO DIMENSIONAL GROUNDWATER POLLUTION PROBLEM
(WITH A GAUSSIAN DISTRIBUTED SOURCE)
THE PROBLEM IS SOLVED BY A GAUSS-LEGENDRE QUADRATURE SCHEME

MODEL PARAMETERS
(UNITS OF METERS AND DAYS)

NUMBER OF GAUSS POINTS USED:	NMAX	=	104	
SOURCE DECAY CONSTANT:	GAMMA	=	.000000E+00	(PER DAY)
GROUNDWATER POLLUTION DECAY RATE:	K	=	.000000E+00	(PER DAY)
DISPERSION IN THE X DIRECTION:	DX	=	.150000E+00	(M**2/DAY)
DISPERSION IN THE Y DIRECTION:	DY	=	.800000E-02	(M**2/DAY)
GROUNDWATER VELOCITY IN THE X DIRECTION:	VX	=	.200000E-01	(M/DAY)
GROUNDWATER VELOCITY IN THE Y DIRECTION:	VY	=	.000000E+00	(M/DAY)

BOUNDARY CONDITIONS AT SURFACE

CENTER OF GAUSSIAN SOURCE:	YO	=	.000000E+00	(M)
STANDARD DEVIATION OF GAUSSIAN SOURCE:	S	=	.200000E-01	(M)
WIDTH OF THE AQUIFER:	W	=	INFINITE	

1

ASSUME TCE = 470 ug/l AT 300 METERS

AT 12,775 DAYS (35 YEARS) - 1994

$$\frac{470}{0.0004} = 1{,}175{,}000 \text{ ug/l at source}$$

DISTANCE ACROSS(M)

DISTANCE DOWN(M) (X)	.0	10.0	20.0	30.0	40.0	50.0	75.0	100.0	125.0	150.0	200.0
.0	******	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
40.0	.00399	.00062	.00003	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
100.0	.00235	.00115	.00019	.00001	.00000	.00000	.00000	.00000	.00000	.00000	.00000
150.0	.00185	.00117	.00032	.00004	.00000	.00000	.00000	.00000	.00000	.00000	.00000
300.0	.00040	.00031	.00014	.00003	.00001	.00000	.00000	.00000	.00000	.00000	.00000
400.0	.00002	.00001	.00001	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
500.0	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
700.0	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
900.0	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
1100.0	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
1300.0	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

Y

TIME = 12775.000 DAYS

1

35 (0) 1994

years since discharge at seepage pit began (years from 1994) year

DISTANCE ACROSS(M)

DISTANCE DOWN(M)	.0	10.0	20.0	30.0	40.0	50.0	75.0	100.0	125.0	150.0	200.0
.0	******	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
40.0	.00399	.00062	.00003	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
100.0	.00236	.00115	.00019	.00001	.00000	.00000	.00000	.00000	.00000	.00000	.00000
150.0	.00189	.00120	.00034	.00004	.00001	.00000	.00000	.00000	.00000	.00000	.00000
300.0	.00123	.00100	.00053	.00015	.00005	.00001	.00000	.00000	.00000	.00000	.00000
400.0	.00066	.00056	.00033	.00011	.00005	.00001	.00000	.00000	.00000	.00000	.00000
500.0	.00014	.00012	.00007	.00003	.00001	.00000	.00000	.00000	.00000	.00000	.00000
700.0	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
900.0	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
1100.0	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
1300.0	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

Y

X

TIME = 20075.000 DAYS

1

55 (20) 2014

DISTANCE ACROSS(M)

DISTANCE DOWN(M)	.0	10.0	20.0	30.0	40.0	50.0	75.0	100.0	125.0	150.0	200.0
.0	******	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
40.0	.00399	.00062	.00003	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
100.0	.00236	.00115	.00019	.00001	.00000	.00000	.00000	.00000	.00000	.00000	.00000
150.0	.00189	.00120	.00034	.00004	.00001	.00000	.00000	.00000	.00000	.00000	.00000
300.0	.00131	.00107	.00058	.00017	.00006	.00001	.00000	.00000	.00000	.00000	.00000
400.0	.00113	.00098	.00063	.00024	.00011	.00003	.00000	.00000	.00000	.00000	.00000
500.0	.00101	.00090	.00064	.00028	.00017	.00005	.00000	.00000	.00000	.00000	.00000
700.0	.00085	.00079	.00062	.00033	.00025	.00010	.00001	.00000	.00000	.00000	.00000
900.0	.00065	.00061	.00051	.00030	.00026	.00012	.00002	.00000	.00000	.00000	.00000
1100.0	.00021	.00020	.00017	.00010	.00009	.00004	.00001	.00000	.00000	.00000	.00000
1300.0	.00001	.00001	.00001	.00001	.00000	.00000	.00000	.00000	.00000	.00000	.00000

Y

X

TIME = 51100.000 DAYS

1

140 (105)

DISTANCE ACROSS(M)

DISTANCE DOWN(M)	.0	10.0	20.0	30.0	40.0	50.0	75.0	100.0	125.0	150.0	200.0
.0	******	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
40.0	.00399	.00062	.00003	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
100.0	.00236	.00115	.00019	.00001	.00000	.00000	.00000	.00000	.00000	.00000	.00000
150.0	.00189	.00120	.00034	.00004	.00001	.00000	.00000	.00000	.00000	.00000	.00000
300.0	.00123	.00100	.00053	.00015	.00005	.00001	.00000	.00000	.00000	.00000	.00000
400.0	.00066	.00056	.00033	.00011	.00005	.00001	.00000	.00000	.00000	.00000	.00000
500.0	.00014	.00012	.00007	.00003	.00001	.00000	.00000	.00000	.00000	.00000	.00000
700.0	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
900.0	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
1100.0	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
1300.0	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

Y

X

TIME = 20075.000 DAYS

1

165 (130) 2124

DISTANCE ACROSS(M)

DISTANCE DOWN(M)	.0	10.0	20.0	30.0	40.0	50.0	75.0	100.0	125.0	150.0	200.0
.0	******	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
40.0	.00399	.00062	.00003	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
100.0	.00236	.00115	.00019	.00001	.00000	.00000	.00000	.00000	.00000	.00000	.00000
150.0	.00189	.00120	.00034	.00004	.00001	.00000	.00000	.00000	.00000	.00000	.00000
300.0	.00131	.00107	.00058	.00017	.00006	.00001	.00000	.00000	.00000	.00000	.00000
400.0	.00113	.00098	.00063	.00024	.00011	.00003	.00000	.00000	.00000	.00000	.00000
500.0	.00101	.00090	.00064	.00028	.00017	.00005	.00000	.00000	.00000	.00000	.00000
700.0	.00085	.00079	.00063	.00033	.00025	.00010	.00001	.00000	.00000	.00000	.00000
900.0	.00075	.00071	.00060	.00035	.00031	.00015	.00002	.00000	.00000	.00000	.00000
1100.0	.00068	.00065	.00057	.00036	.00034	.00018	.00004	.00000	.00000	.00000	.00000
1300.0	.00062	.00060	.00054	.00036	.00036	.00021	.00006	.00001	.00000	.00000	.00000

Y

X

TIME = 83950.000 DAYS

230 (195) 2189

GROUNDWATER POLLUTION AND HYDROLOGY

MATHEMATICAL MODELS
AND
COMPUTER PROGRAMS

PROF. ROBERT W. CLEARY, LECTURER

Reference: Report No. 78-WR-15
by Robert W. Cleary and Michael J. Ungs
Water Resources Program
Princeton University
Princeton, New Jersey, 08540

FOREWARD

This manual contains mathematical models and associated user-oriented computer programs which have been designed for groundwater pollution and hydrology problems.

The models are based on the convective-dispersive mass transport equation or groundwater flow equation. The solutions are all analytical and have been derived by integral transform methods. In most cases the final solution is in closed-form; in a few models, part of the solution is in integral format which is evaluated by a variable point (up to 256 points) Gauss quadrature scheme.

Each program contains a generous amount of comment cards to aid the user. All of the programs are constructed in the same manner; thus if a person learns to operate one program, he can easily operate all of them. In general, parametric data,e.g., velocity, dispersion coefficients, transmissivities, are read in as Fortran statements near the beginning of the program and space and time locations,where output is desired,are read in as data cards at the end of the program. The output for all of the programs is tabular in style. Computer memory requirements for most of the programs are minimal and in many cases they should be adaptable to mini/micro computers or programmable hand calculators. All of the programs have been thoroughly tested and at the end of each is a sample data set which is immediately followed by a sample output listing.

The models may be used as primary tools of analysis where costs or lack of a data base preclude the use of sophisticated numerical models. Where numerical models can be justified, they are excellent for testing the accuracy of the models or for inexpensive,exploratory parametric manipulation in preparation for designing computer experiments with the numerical model. In all cases models should be selected to be commensurate with the questions being asked. Most problems the practicing groundwater hydrologist deals with do not require sophisticated numerical models. Analytical models may satisfy as much as 70% or more of his quantitative analysis needs. These models have been developed especially for the practicing professional dealing with problems in groundwater pollution and hydrology.

********** CAVEAT **********

While every effort has been made to insure the models will run correctly, the user must accept full responsibility for their use and any associated problems that may arise; the authors do not accept any responsibility and in particular are not liable for any costs or damages where the models have been used for consulting or other profit-making activities.

****

POSSIBLE PROBLEMS

The feedback from users has, in general, shown the models to be extremely

useful. However, two problem areas have arisen. In both cases, infinite serie are involved. For certain parameters, Model 3 has been found to be non-uniformly convergent. This is a difficulty which can arise with any infinite series Model 3 one which can be difficult to correct. Fortunately, an alternative exists in Model 4. Model 3 has finite boundaries (usually common in groundwater pollution problems where lateral spreading is negligible) and Model 4 is infinite in the lateral domain. We recommend using Model 4 in cases where a strip source is appropriate; it is free of the non-uniformly convergent problems of Model 3 but should also be checked for formal convergence by confirming that the result for using 104 cross points is the same as the result of using 256 points.

Model 6 is a 3-D patch source problem which results in a double infinite series solution. In practice, one often uses 300 or more terms in each series, resulting in an enormous amount of calculations for the computer. The cost is often prohibitive (possibly $80 or more per run) and CPU computer time can be very high. To date we have not discovered any non-uniformly convergent problems and the results seem to be correct; it is just very expensive and time-consuming to run. For such cases one might consider Model 7 and use small variances (to approach a patch source condition); this model does not involve infinite series but does involve numerical integration with DGAUSS (it should be less expensive to run than Model 6 but probably still costly for many cases).

The output of Model 8 shows asteriks in certain cases where Darcian velocities are printed out. This is simply a formating problem which has been corrected.

MATHEMATICAL MODELS AND ANALYTICAL SOLUTIONS

There are seven mass transport models and 3 groundwater flow models whose individual characteristics are described below under computer programs. The equations and solutions precede the computer programs but are in the same order as their corresponding programs. The format for each model is:

1. Figure
2. Mathematical Model (Partial Differential Equation)
3. Analytical Solution

COMPUTER PROGRAMS

Each of the models in the first section of the manual has a user-oriented computer program. At the end of this program is a list of data which is immediately followed by a sample output listing. A list of the models follows:

MODEL	EXPLANATION
Model 1	One-Dimensional Mass Transport: First Type Boundary Condition
Model 2	One-Dimensional Mass Transport: Third Type Boundary Condition
Model 3	Two-Dimensional Mass Transport: Strip B.C.; Finite Width
Model 4	Two-Dimensional Mass Transport: Strip B.C.; Infinite Width
Model 5	Two-Dimensional Mass Transport: Gaussian, Infinite Width B.C.
Model 6	Three-Dimensional Mass Transport: Patch Source; Finite Dimensions
Model 7	Three-Dimensional Mass Transport: Bivariate Gaussian Source
Model 8	Two-Dimensional Groundwater Flow: infinite dimensions; recharge bound.
Model 9	Two-Dimensional Groundwater Flow: finite dimensions; recharge bound.
Model 10	Two-Dimensional Groundwater Flow: infinite dimensions; no recharge bound.
DGAUSS	Double Precision Gaussian Quadrature Program: up to 256 Gauss Pts

SYMBOL	EXPLANATION
ρ	correlation coefficient of the source $= \mathrm{cov}[Y,Z]/S_y S_z$
γ	first order decay constant for the exponential boundary source

CALCULATION OF GAUSSIAN AND BIVARIATE GUASSIAN COEFFICIENTS

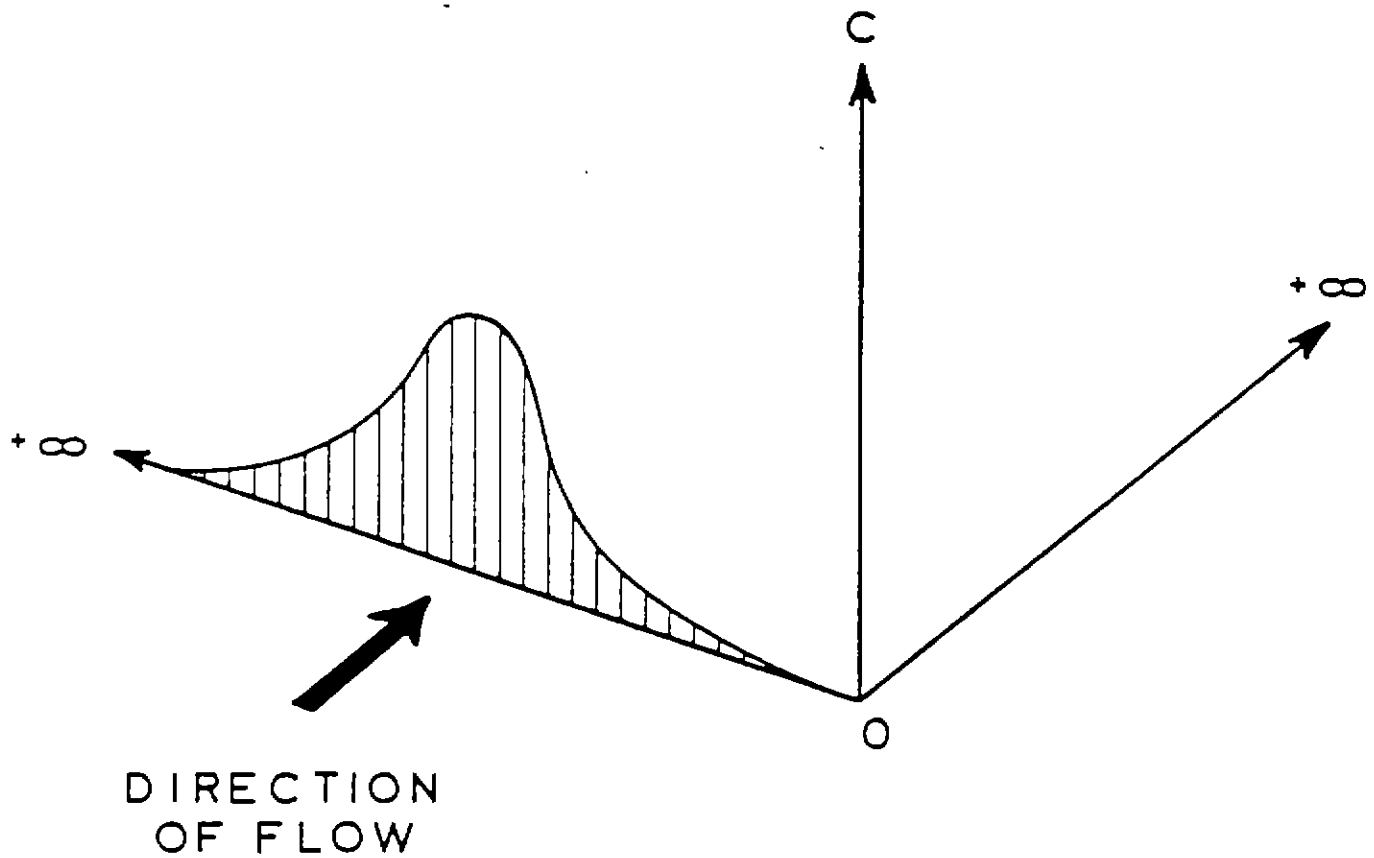
$$S = \frac{e^{\gamma t}}{C_p\sqrt{2\pi}} \int_{-\infty}^{\infty} C(0,Y,t)\,dY$$

$$(S_y)^2 = \frac{\int_{-\infty}^{\infty} (Y-Y_o)^2\, C(0,Y,Z,t)\,dY}{\int_{-\infty}^{\infty} C(0,Y,Z,t)\,dY} \qquad (S_z)^2 = \frac{\int_{-\infty}^{\infty} (Z-Z_o)^2\, C(0,Y,Z,t)\,dZ}{\int_{-\infty}^{\infty} C(0,Y,Z,t)\,dY}$$

$$\sqrt{1-\rho^2} = \frac{e^{\gamma t}}{C_p^2\, S_y S_z} \int_{-\infty}^{\infty}\int C(0,Y,Z,t)\,dY\,dZ$$

$C(0,Y,Z,t)$ and $C(0,Y,t)$ are the observed (field data) concentration distributions which one is trying to fit a Gaussian form to. For example, in the case of $C(0,Y,t)$ one would plot $C_{observed}$ vs. Y and the area under the curve would equal the integral above.

TWO-DIMENSIONAL GROUNDWATER POLLUTION



GAUSSIAN DISTRIBUTED BOUNDARY SOURCE

TWO-DIMENSIONAL MASS TRANSPORT EQUATION

(GAUSSIAN SOURCE — Infinite Width)

$$\frac{\partial C}{\partial t} + V_x \frac{\partial C}{\partial X} + V_y \frac{\partial C}{\partial Y} = D_x \frac{\partial^2 C}{\partial X^2} + D_y \frac{\partial^2 C}{\partial Y^2} - KC$$

Subject to:

$$C = C_p e^{-\gamma t} e^{-\frac{(Y-Y_o)^2}{2S^2}} \qquad X = 0$$

$$\frac{\partial C}{\partial Y} \text{ ----> } 0 \qquad Y \text{ ----> } \pm \infty$$

$$\frac{\partial C}{\partial X} \text{ ----> } 0 \qquad X \text{ ----> } + \infty$$

$$C = 0 \qquad t = 0$$

$$C_p e^{-\gamma t} \qquad \gamma = \frac{0.693}{t_{1/2}}$$

Example: source has 10 yr half-life ($t_{1/2}$) 3650 days

take ln of both sides $e^{-\gamma t} = 1/2$ i.e $C = 1/2\, C_p$ w/ time

$\gamma t = 0.693$

$\gamma(10) = 0.693$

$\gamma = \frac{0.693}{10} \rightarrow$ where 10 is $t_{1/2}$

.0019

ANALYTICAL SOLUTION

$$C(X,Y,t) = \frac{C_p\, X\, S}{2\sqrt{2\pi D_x}} \cdot e^{\left\{-\gamma t + \frac{V_x X}{2D_x} - \frac{(Y-Y_o)^2}{2S^2} + \frac{S^2}{2}\left(\frac{V_y}{2D_y} + \frac{(Y-Y_o)}{S^2}\right)^2\right\}}$$

$$\cdot \int_{\eta=0}^{(t\beta)^{1/4}} \frac{4\,\sqrt{\beta}\, e^{-\eta^4 - \frac{X^2\beta}{4D_x\eta^4} - \frac{\left(\frac{S^2 V_y}{2D_y} + (Y-Y_o)\right)^2}{4(D_y\eta^4/\beta + S^2/2)}}}{\eta^3\,\left(D_y\,\frac{\eta^4}{\beta} + \frac{S^2}{2}\right)^{1/2}}\, d\eta$$

where $\beta = \left(-\gamma + K + \frac{V_x^2}{4D_x} + \frac{V_y^2}{4D_y}\right)$

3DD

NAS CECIL FIELD -- SUBSURFACE SOIL
TOTAL ORGANIC CARBON

Lab Sample Number:	02101			02102			02103			02105		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MS188			CF16MS3525			CF16MS4535			CF16MS8878		
Collect Date:	13-JUN-94			13-JUN-94			14-JUN-94			14-JUN-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
TOC												
Total organic carbon	5200	mg/kg	100	330	mg/kg	100	790	mg/kg	100	940	mg/kg	100

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- SUBSURFACE SOIL
TOTAL ORGANIC CARBON

Lab Sample Number:	12913			12915			12916			12917		
Site	CECIL2			CECIL2			CECIL2			CECIL2		
Locator	CF17MW28DD10			CF17MW28DD35			CF17MW28DD50			CF17MW28DD65		
Collect Date:	03-DEC-93			03-DEC-93			03-DEC-93			03-DEC-93		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
TOC												
Total organic carbon	21000	mg/kg	250	1200	mg/kg	120	230	mg/kg	120	480	mg/kg	120

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = P[illegible]T IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- SUBSURFACE SOIL
TOTAL ORGANIC CARBON

Lab Sample Number:	I2918			I3495			K3569			K3570		
Site	CECIL2			CECIL2			CECIL8			CECIL8		
Locator	CF17MW28DD80			CF17MW28DD110			CF3MW33DD20			CF3MW33DD30		
Collect Date:	03-DEC-93			08-DEC-93			21-FEB-94			21-FEB-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
TOC												
Total organic carbon	3500	mg/kg	130	1200	mg/kg	120	130 U	mg/kg	130	330	mg/kg	140

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- SUBSURFACE SOIL
TOTAL ORGANIC CARBON

Lab Sample Number:	K3571				K3572				K3573				K3574			
Site	CECIL8				CECIL8				CECIL8				CECIL8			
Locator	CF3MW33DD45				CF3MW33DD50				CF3MW33DD60				CF3MW33DD70			
Collect Date:	21-FEB-94				21-FEB-94				21-FEB-94				21-FEB-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
OC																
Total organic carbon	140	U	mg/kg	140	1700		mg/kg	140	1100		mg/kg	130	6200		mg/kg	150

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = R[illegible]T IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- SUBSURFACE SOIL
TOTAL ORGANIC CARBON

Lab Sample Number:	K3575			K4599			G6650			G4863		
Site	CECIL8			CECIL8			CECIL2			CECIL2		
Locator	CF3MW33DD90			CF3MW33DD10S			CF5MS13S10			CF5MS19S10		
Collect Date:	21-FEB-94			24-FEB-94			11-OCT-93			05-OCT-93		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
TOC												
Total organic carbon	1000	mg/kg	160	1300	mg/kg	130	5800	mg/kg	130	9900	mg/kg	120

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- SUBSURFACE SOIL
TOTAL ORGANIC CARBON

Lab Sample Number:	G4531			G1099			G1466			G1096		
Site	CECIL2			CECIL2			CECIL2			CECIL2		
Locator	CF5MS20S10			CF5MS23S10			CF5MS29S12			CF5MS30S14		
Collect Date:	04-OCT-93			21-SEP-93			22-SEP-93			20-SEP-93		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
TOC												
Total organic carbon	✓ 4700	mg/kg	120	✓ 1200	mg/kg	130	✓ 410	mg/kg	140	✓ 3500	mg/kg	120

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = R[illegible]T IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- SUBSURFACE SOIL
TOTAL ORGANIC CARBON

Lab Sample Number:	G6655		
Site	CECIL2		
Locator	CF5MS8S6		
Collect Date:	12-OCT-93		
	VALUE QUAL	UNITS	DL
TOC			
Total organic carbon	610	mg/kg	130

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

SUMMARY OF LABORATORY TEST RESULTS

PROJECT: NAS - Cecil Field
CLIENT: ABB Environmental Services, Inc.
PROJECT NO.: 93-1361

Boring/ Sample No.	Sample Depth (ft.)	Organic Content %	Bulk Density pcf	Natural Moisture Content %	Atterberg Limits Liquid Limit %	Plastic Limit %	Plasticity Index %	Pocket Pen. (tsf)
CF16SB4S			71.5	9.5	No LL	Non-Plastic		
CF16SB1S			74.9	9.5	No LL	Non-Plastic		

1992
Florida

STATION ANALYSIS

02245913 Sal Taylor near Maxville, Florida

PERIOD OF ANALYSIS: June 17, 1992 to September 30, 1992.

EQUIPMENT: PS-2 pressure transducer with CR10 electronic datalogger. Outside staff gage for comparison and verification. Telemetry provided by cellular phone. Auxiliary staff gage located downstream of dam structure.

The gage height data was complete and satisfactory except for June 17-23, when the PS-2 pressure transducer was drifting and Aug. 23-26, Sept. 10-19, and Sept. 24-30, when the orifice was plugged.

MEASUREMENTS: Eight discharge measurements, Nos. 1-8, and one point of zero flow were made during the period of analysis. They ranged in stage from 2.65 to 8.87 ft and in discharge from 6.89 to 374 cfs.

DISCHARGE: The control at this site consists of a dam with three 4 ft culvert pipes with gates at each entrance and seven 2.5 ft siphon tubes which flow at a stage of about 6.0 ft. Flow over the road occurs at about 8.5 ft.

The gates were fixed during the period of this analysis.

Measurement Nos. 1-8 were used to develop rating No. 1 which was used direct during the entire period. They checked the rating within 3.7 percent.

Mean daily discharges for periods of no gage height record, June 17-23, Aug. 23-26, Sept. 10-19, and Sept. 24-30, were estimated based on the trend of the stream and by hydrographic comparison with the Rowell Creek near Fiftone gage.

Prepared by: J.E. Sohm
Checked by: R.A. Craig

UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY - ORLANDO 10/16/92

STATION NUMBER 02245813 SAL TAYLOR CREEK NEAR MAXVILLE, FL STREAM SOURCE AGENCY USGS
LATITUDE 301227 LONGITUDE 0815327 DRAINAGE AREA 15.7 DATUM STATE 12 COUNTY 031
PROVISIONAL DATA SUBJECT TO REVISION

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	62	9.2	10
2	---	---	---	---	---	---	---	---	---	28	7.8	9.0
3	---	---	---	---	---	---	---	---	---	e20	7.4	8.1
4	---	---	---	---	---	---	---	---	---	e15	7.6	7.9
5	---	---	---	---	---	---	---	---	---	10	9.3	7.9
6	---	---	---	---	---	---	---	---	---	9.0	9.1	8.4
7	---	---	---	---	---	---	---	---	---	8.3	24	7.9
8	---	---	---	---	---	---	---	---	---	7.7	55	8.0
9	---	---	---	---	---	---	---	---	---	9.1	33	7.8
10	---	---	---	---	---	---	---	---	---	6.8	e25	e212
11	---	---	---	---	---	---	---	---	---	6.3	e20	e195
12	---	---	---	---	---	---	---	---	---	6.1	e15	e90
13	---	---	---	---	---	---	---	---	---	5.9	11	e66
14	---	---	---	---	---	---	---	---	---	5.6	19	e54
15	---	---	---	---	---	---	---	---	---	5.4	25	e51
16	---	---	---	---	---	---	---	---	---	5.6	28	e101
17	---	---	---	---	---	---	---	---	e15	8.9	67	e132
18	---	---	---	---	---	---	---	---	e14	12	48	e80
19	---	---	---	---	---	---	---	---	13	8.4	35	e48
20	---	---	---	---	---	---	---	---	13	17	30	32
21	---	---	---	---	---	---	---	---	e12	7.8	38	26
22	---	---	---	---	---	---	---	---	e12	7.8	63	23
23	---	---	---	---	---	---	---	---	e11	9.2	51	20
24	---	---	---	---	---	---	---	---	11	6.8	43	e80
25	---	---	---	---	---	---	---	---	10	6.6	32	e282
26	---	---	---	---	---	---	---	---	14	6.0	21	e166
27	---	---	---	---	---	---	---	---	10	5.7	16	e94
28	---	---	---	---	---	---	---	---	10	5.7	13	e65
29	---	---	---	---	---	---	---	---	14	16	12	e48
30	---	---	---	---	---	---	---	---	39	21	11	e35
31	---	---	---	---	---	---	---	---	---	16	10	---
TOTAL	---	---	---	---	---	---	---	---	---	365.0	798.4	1975.0
MEAN	---	---	---	---	---	---	---	---	---	11.8	25.8	65.8
MAX	---	---	---	---	---	---	---	---	---	62	67	282
MIN	---	---	---	---	---	---	---	---	---	5.4	7.4	7.8
CFSM	---	---	---	---	---	---	---	---	---	.75	1.64	4.19
IN.	---	---	---	---	---	---	---	---	---	.86	1.89	4.68

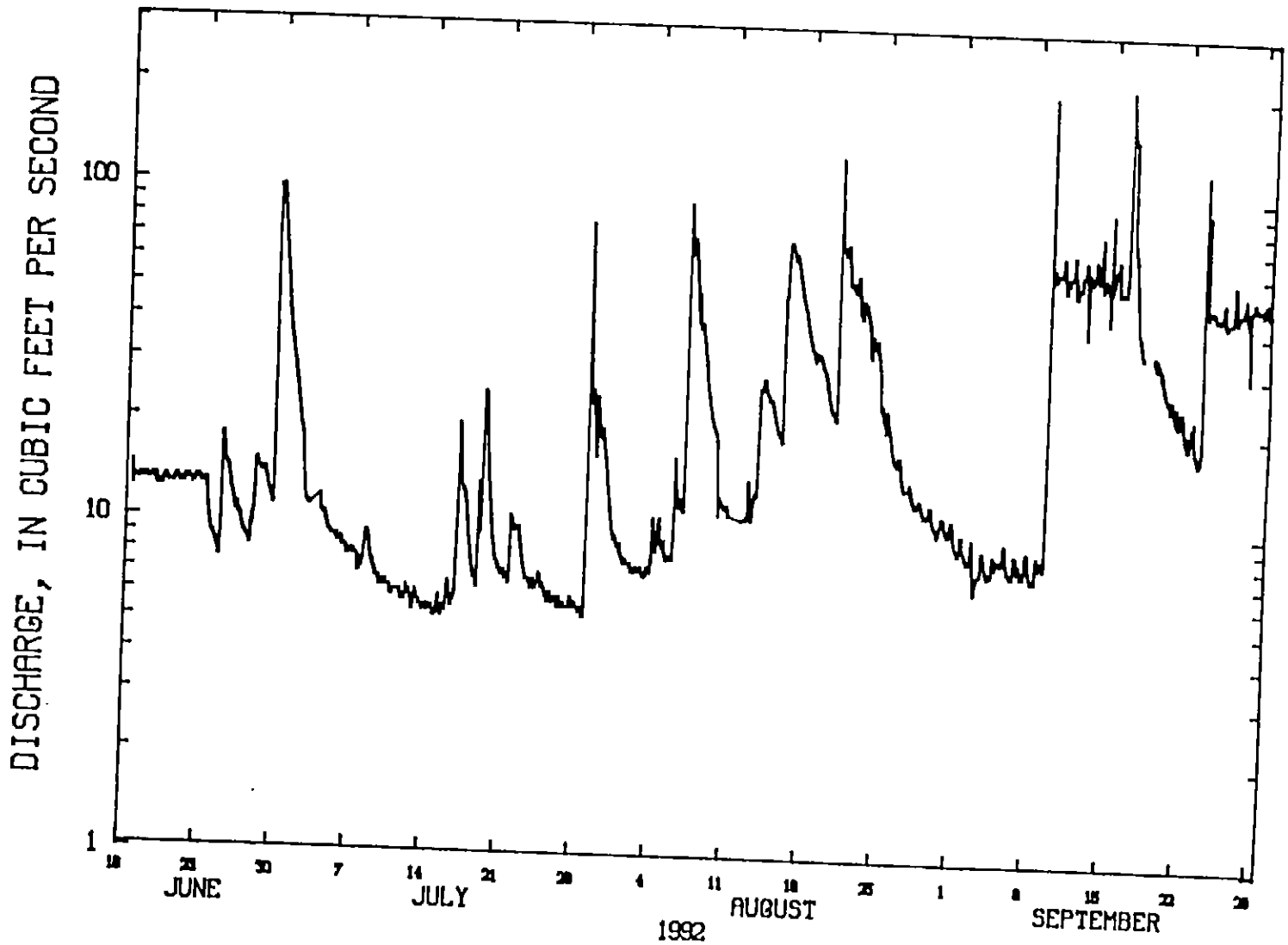
e Estimated

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION
SUMMARY OF DISCHARGE MEASUREMENT DATA

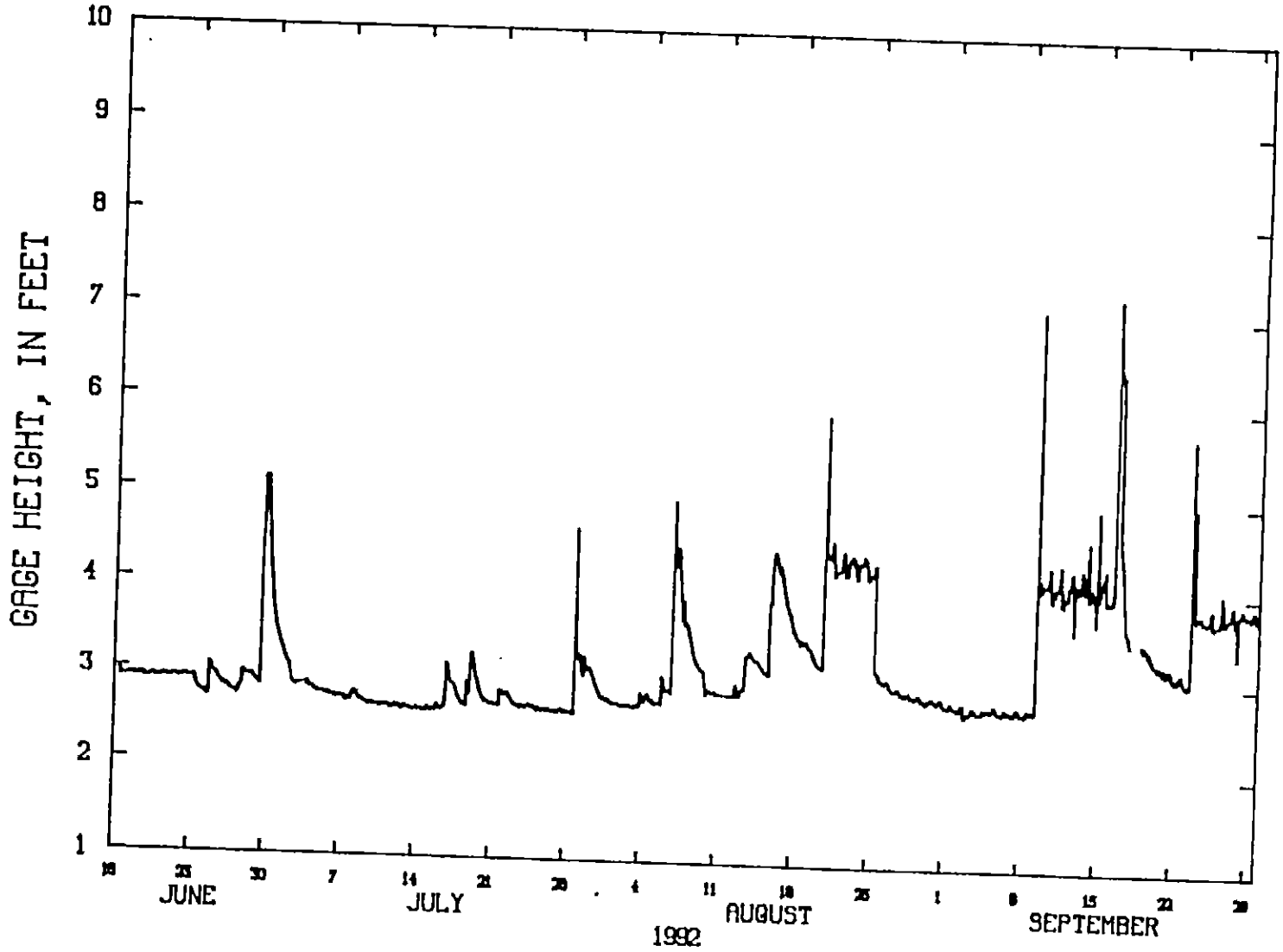
02245913
^'L TAYLOR CREEK NEAR MAXVILLE, FL — 1992 WATER YEAR — DATE PROCESSED: 16-OCT-92 08:

RATING NO. 1.0

NO.	DATE / TIME	MADE BY	WIDTH	AREA	MEAN VEL.	GAGE HEIGHT	DISCHARGE CFS	SHIFT ADJ.	PCT. DIFF.	NO. SECT.	GHT. CHG.	TIME	RATED	CONTROL
1	07/10/92 0845	CVP/JES	17.0	10.6	0.65	2.65	6.89	+0.9		25	0.00	0.4	F	CLEAR
	REMARKS: PZF 2.05													
2	07/23/92 1225	CVP/JES	23.0	14.5	0.67	2.78	9.64	-2.0		23	0.00	0.5	F	CLEAR
	REMARKS: GATES ABOVE WATER													
3	07/31/92 1015	CVP/JES	22.6	20.0	0.81	3.00	16.2	0.0		22	0.00	0.5	F	CLEAR
	REMARKS: WADING 300 FT BELOW GAGE													
4	08/17/92 1120	CVP/JES	24.0	64.6	1.03	4.26	66.4	+0.3		23	-0.03	0.8	G	
5	08/19/92 1022	CVP/JES	22.0	42.0	0.82	3.46	34.3	-0.3		23	0.00	0.4	G	
6	09/10/92 1305	CVP/MJS	33.0	188.	1.92	8.87	374	0.0		45	+0.04	0.8	F	
	REMARKS: WIDTH/AREA/MEAN VEL ARE MAIN CHANNEL ONLY													
7	09/17/92 1138	CVP/JES		25.6	5.16	6.02	132	-0.8		9	0.00	0.1	F	
	REMARKS: DWNSTR SIDE CULVERTS													
8	09/25/92 1323	CVP/JES		61.3	4.61	8.12	283	-3.7		16	0.00	0.4	P	
	REMARKS: 7 SIPHONS FLOWING													



02245913 SAL TAYLOR CREEK NEAR MAXVILLE, FL
INSTANTANEOUS DISCHARGE (CFS)



02245913 SAL TAYLOR CREEK NEAR MAXVILLE, FL
INSTANTANEOUS GAGE HEIGHT (FEET), STAGE, EDITED

1993
Florida

STATION ANALYSIS

02245913 Sal Taylor near Maxville, Florida

PERIOD OF ANALYSIS: Oct. 1, 1992 to Dec. 31, 1992.

EQUIPMENT: PS-2 pressure transducer with CR10 electronic datalogger. Outside staff gage for comparison and verification. Telemetry provided by cellular phone. Auxiliary staff gage located downstream of dam structure.

Equipment problems were experienced during the period Oct. 1 to Dec. 22, gage height record was fragmentary. No record existed for Oct. 2-15, Nov. 4-18, Nov. 26-Dec. 21. It appears that the problem was corrected on Dec. 22. The flood peak of October 3-4, reached a stage of 9.65 ft, from high water marks.

MEASUREMENTS: Three discharge measurements, Nos. 9-11, and were made during the period of this analysis. They ranged in stage from 2.69 to 8.58 ft and in discharge from 5.92 to 545 cfs.

DISCHARGE: The control at this site consists of a dam with three 4 ft culvert pipes with gates at each entrance and seven 2.5 ft siphon tubes which flow at a stage of about 6.0 ft. Flow over the road occurs at about 8.5 ft.

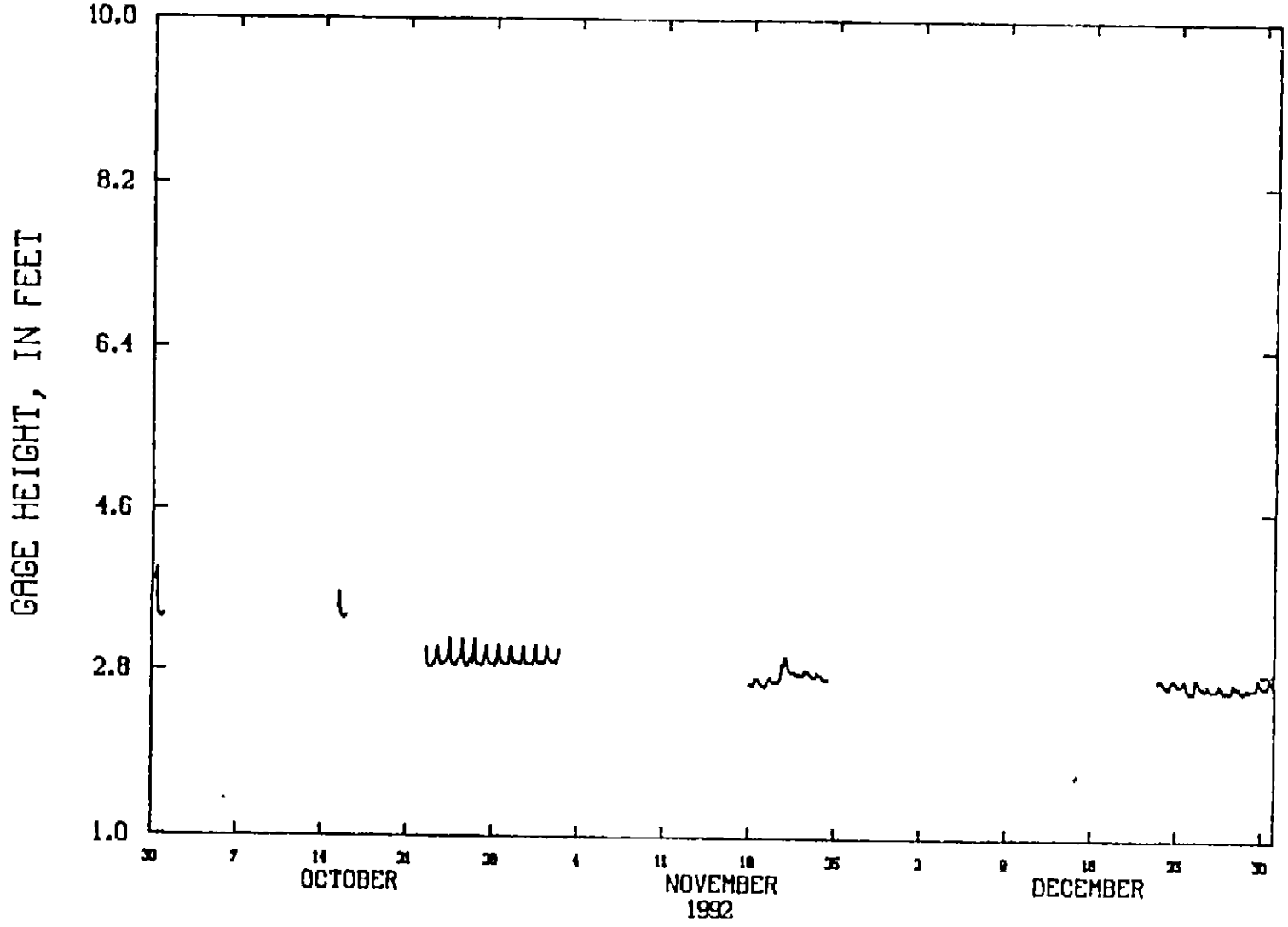
The gates were fixed during the period of this analysis.

Measurement No. 9 was made Oct. 5 on the recession of a major peak which occurred on Oct. 3-4. The measurement plotted considerably to the right of rating No. 1. This was caused by the stream cutting a large break in the road in the vicinity of the gage. A temporary shift rating curve No. 2 was drawn based on No. 9 and measurement No. 6 which was made at a gage height where the road cut would have no effect. The shift curve was used from Oct. 3 to Oct. 10, when the stream returned below 6 ft and rating No. 1 was again put into effect.

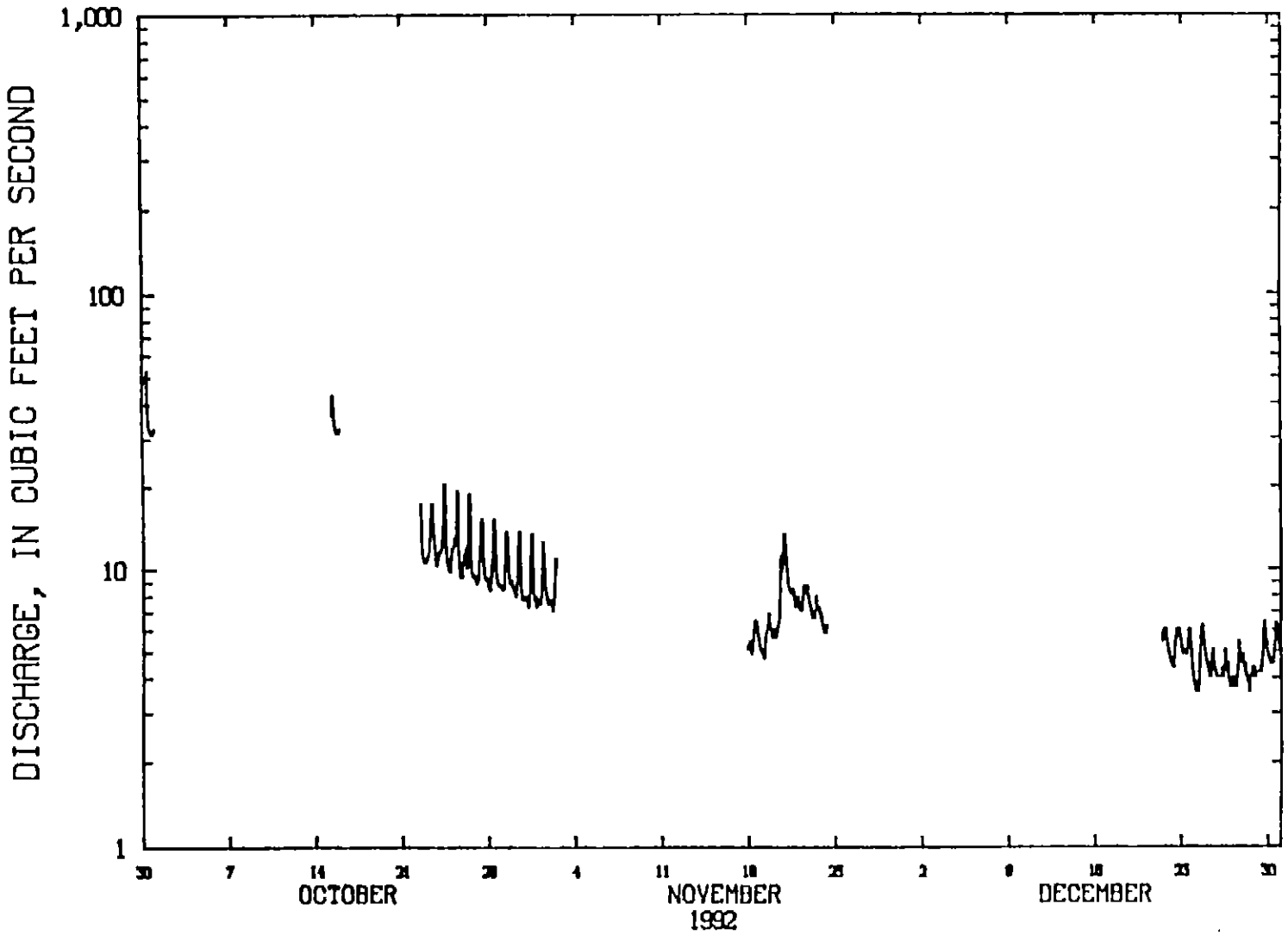
Measurement Nos. 10-11 both required minor negative shifts to rating No. 1 to bring them within limits. A variable stage shift was used from Oct. 16 through the end of the year for the discharge adjustments.

Mean daily discharges for the periods of no gage height record were estimated by graphically recreating the stage record from available information, and by hydrographic comparison with the Rowell Creek near Maxville gage.

Prepared by: J.E. Sohm
Checked by: R.A. Craig



02245913 SAL TAYLOR CREEK NEAR MAXVILLE, FL
INSTANTANEOUS GAGE HEIGHT (FEET), STAGE, EDITED



02245913 SAL TAYLOR CREEK NEAR MAXVILLE, FL
INSTANTANEOUS DISCHARGE (CFS)

UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY - ORLANDO 01/14/93

STATION NUMBER 02245913 SAL TAYLOR CREEK NEAR MAXVILLE, FL STREAM SOURCE AGENCY USGS
LATITUDE 301227 LONGITUDE 0815327 DRAINAGE AREA 15.7 DATUM STATE 12 COUNTY 031
PROVISIONAL DATA SUBJECT TO REVISION

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	9.0	e6.4	5.1	---	---	---	---	---	---	---	---
2	e24	8.6	e6.4	4.3	---	---	---	---	---	---	---	---
3	e150	e9.1	e6.4	4.5	---	---	---	---	---	---	---	---
4	e760	e8.6	e6.4	5.8	---	---	---	---	---	---	---	---
5	e560	e8.4	e6.4	---	---	---	---	---	---	---	---	---
6	e380	e9.0	e6.2	---	---	---	---	---	---	---	---	---
7	e290	e7.9	e6.2	---	---	---	---	---	---	---	---	---
8	e240	e7.9	e6.2	---	---	---	---	---	---	---	---	---
9	e190	e7.7	e6.2	---	---	---	---	---	---	---	---	---
10	e140	e7.6	e6.2	---	---	---	---	---	---	---	---	---
11	e105	e7.5	e6.2	---	---	---	---	---	---	---	---	---
12	e80	e7.4	e6.0	---	---	---	---	---	---	---	---	---
13	e60	e8.0	e6.0	---	---	---	---	---	---	---	---	---
14	e50	e7.2	e6.0	---	---	---	---	---	---	---	---	---
15	e40	e7.2	e6.0	---	---	---	---	---	---	---	---	---
16	e35	e7.1	e5.8	---	---	---	---	---	---	---	---	---
17	e30	e7.0	e5.8	---	---	---	---	---	---	---	---	---
18	e25	e6.5	e5.8	---	---	---	---	---	---	---	---	---
19	e20	e6.0	e5.6	---	---	---	---	---	---	---	---	---
20	e18	5.6	e5.6	---	---	---	---	---	---	---	---	---
21	e16	7.7	e5.6	---	---	---	---	---	---	---	---	---
22	e15	9.1	e5.6	---	---	---	---	---	---	---	---	---
23	e14	7.7	5.2	---	---	---	---	---	---	---	---	---
24	13	6.9	5.1	---	---	---	---	---	---	---	---	---
25	13	e6.2	4.6	---	---	---	---	---	---	---	---	---
26	12	e6.2	4.3	---	---	---	---	---	---	---	---	---
27	12	e6.2	4.2	---	---	---	---	---	---	---	---	---
28	11	e6.2	4.2	---	---	---	---	---	---	---	---	---
29	10	e6.4	4.1	---	---	---	---	---	---	---	---	---
30	10	e6.4	4.9	---	---	---	---	---	---	---	---	---
31	9.4	---	5.2	---	---	---	---	---	---	---	---	---
TOTAL	3362.4	222.3	174.8	---	---	---	---	---	---	---	---	---
MEAN	108	7.41	5.64	---	---	---	---	---	---	---	---	---
MAX	760	9.1	6.4	---	---	---	---	---	---	---	---	---
MIN	9.4	5.6	4.1	---	---	---	---	---	---	---	---	---
CFSM	6.91	.47	.36	---	---	---	---	---	---	---	---	---
IN.	7.97	.53	.41	---	---	---	---	---	---	---	---	---

e Estimated

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION
SUMMARY OF DISCHARGE MEASUREMENT DATA

:245913
-L TAYLOR CREEK NEAR MAXVILLE, FL

DATE PROCESSED: 14-JAN-93 10:14

NO.	DATE / TIME	MADE BY	WIDTH	AREA	MEAN VEL.	GAGE HEIGHT	DISCHARGE CFS	SHIFT ADJ.	PCT. DIFF.	NO. SECT.	GHT. CHG.	TIME	RATED	CONTROL
							RATING NO. 1.0							
1	07/10/92 0845	CVP/JES	17.0	10.6	0.65	2.65	6.89		+0.9	25	0.00	0.4	F	CLEAR
		REMARKS: PZF 2.05												
2	07/23/92 1225	CVP/JES	23.0	14.5	0.67	2.78	9.64		-2.0	23	0.00	0.5	F	CLEAR
		REMARKS: GATES ABOVE WATER												
3	07/31/92 1015	CVP/JES	22.6	20.0	0.81	3.00	16.2		0.0	22	0.00	0.5	F	CLEAR
		REMARKS: WADING 300 FT BELOW GAGE												
4	08/17/92 1120	CVP/JES	24.0	64.6	1.03	4.26	66.4		+0.3	23	-0.03	0.8	G	
5	08/19/92 1022	CVP/JES	22.0	42.0	0.82	3.46	34.3		-0.3	23	0.00	0.4	G	
6	09/10/92 1305	CVP/MJS	33.0	188.	1.92	8.87	374		0.0	45	+0.04	0.8	F	
		REMARKS: WIDTH/AREA/MEAN VEL ARE MAIN CHANNEL ONLY												
7	09/17/92 1138	CVP/JES		25.6	5.16	6.02	132		-0.8	9	0.00	0.1	F	
		REMARKS: DWNSTR SIDE CULVERTS												
8	09/25/92 1323	CVP/JES		61.3	4.61	8.12	283		-3.7	16	0.00	0.4	P	
		REMARKS: 7 SIPHONS FLOWING												
							RATING NO. 2.0							
9	10/05/92 1200	CVP/MJS		203.	2.68	8.58	545		-1.6	29	-0.02	1.4	F	SUBMERGED
		REMARKS: O.S. GH BY RP to WS METHOD. FLOW BREACHED & CUT AWAY ROAD.(BOAT,WADED,HANDLINE)												
							RATING NO. 1.0							
10	11/18/92 0950	CVP/JES	20.0	20.8	0.34	2.76	7.12	-0.10	+1.1	21	0.00	0.4	F	CLEAR
		REMARKS: OS GH DETERMINED BY RP to WS METHOD. CHANGED OUT CR10 EQUIPMENT, & VOLTAGE REG.'s.												
11	12/22/92 1010	JES/CVP	20.0	23.5	0.25	2.69	5.92	-0.13	-1.5		0.00	0.3	F	CLEAR

1993
Florida

STATION ANALYSIS

02245913 Sal Taylor Creek near Maxville, Florida

PERIOD OF ANALYSIS: January 1 to March 31, 1993.

EQUIPMENT: PS-2 pressure transducer with CR10 electronic datalogger. Outside staff gage for comparison and verification. Telemetry provided by cellular phone. Auxiliary staff gage located downstream of dam structure.

Record was complete for the period. Some problems with the PS-2 "drifting" are evident upon examination of the stage record. Corrections were made to the record based on differences in the OS and recorded gage heights noted at the time of each visit.

MEASUREMENTS: Three discharge measurements, Nos. 12-14, were made during the period of this analysis. They ranged in stage from 2.95 to 3.08 ft and in discharge from 14.2 to 15.8 cfs.

DISCHARGE: The control at this site consists of a dam with three 4 ft culvert pipes with gates and seven 2.5 ft siphon tubes which flow at a stage of about 6.0 ft. Flow over the road occurs at about 8.5 ft.

Measurement Nos. 12-14 required minor shifts, both negative and positive, to bring them within acceptable limits. Shifting techniques were used for the adjustments.

Prepared by: J.E. Sohm
Checked by: R.A. Craig

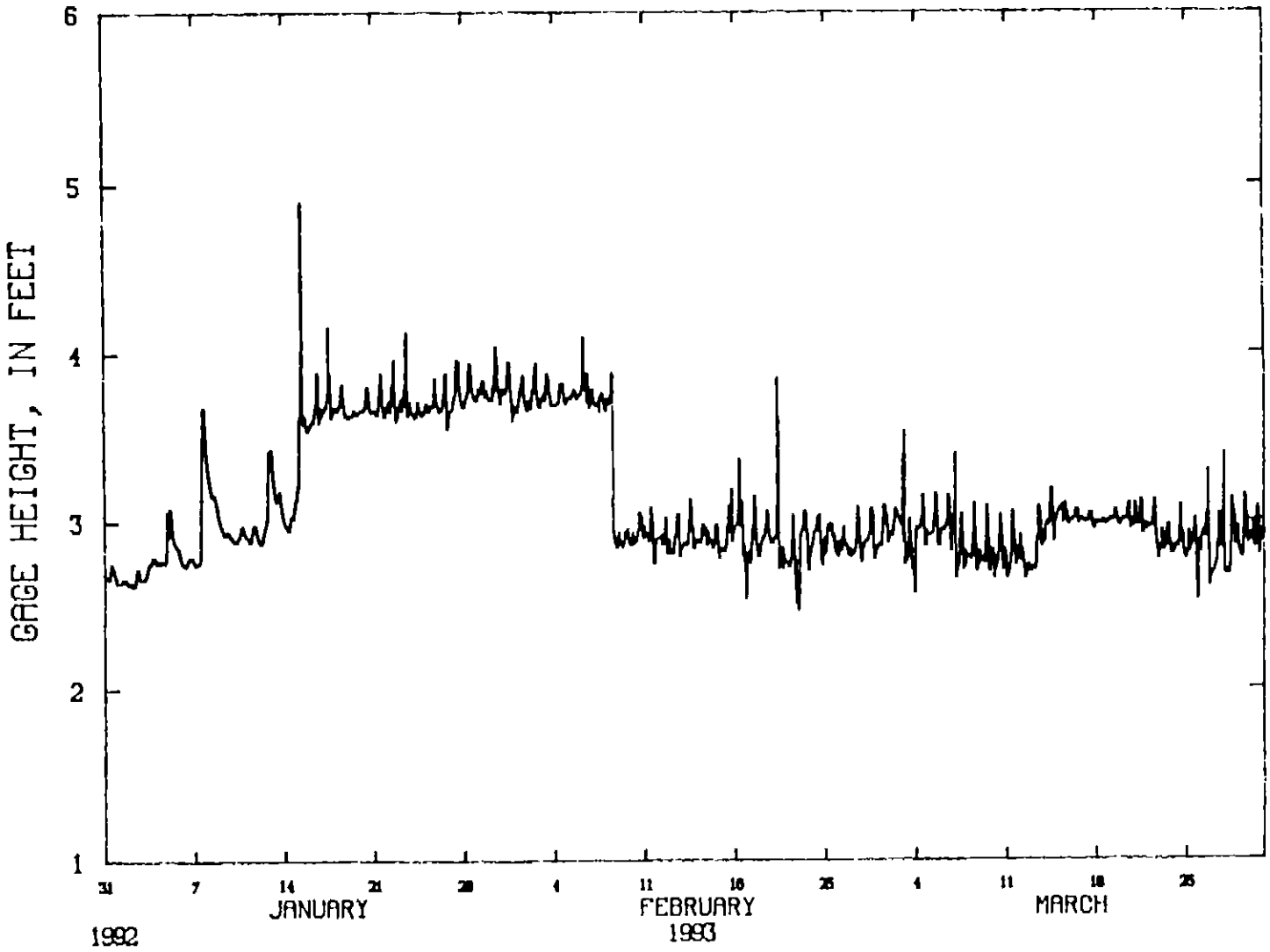
UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY - ORLANDO 04/13/93

STATION NUMBER 02245913 SAL TAYLOR CREEK NEAR MAXVILLE, FL STREAM SOURCE AGENCY USGS
LATITUDE 301227 LONGITUDE 0815327 DRAINAGE AREA 15.7 DATUM STATE 12 COUNTY 031
PROVISIONAL DATA SUBJECT TO REVISION

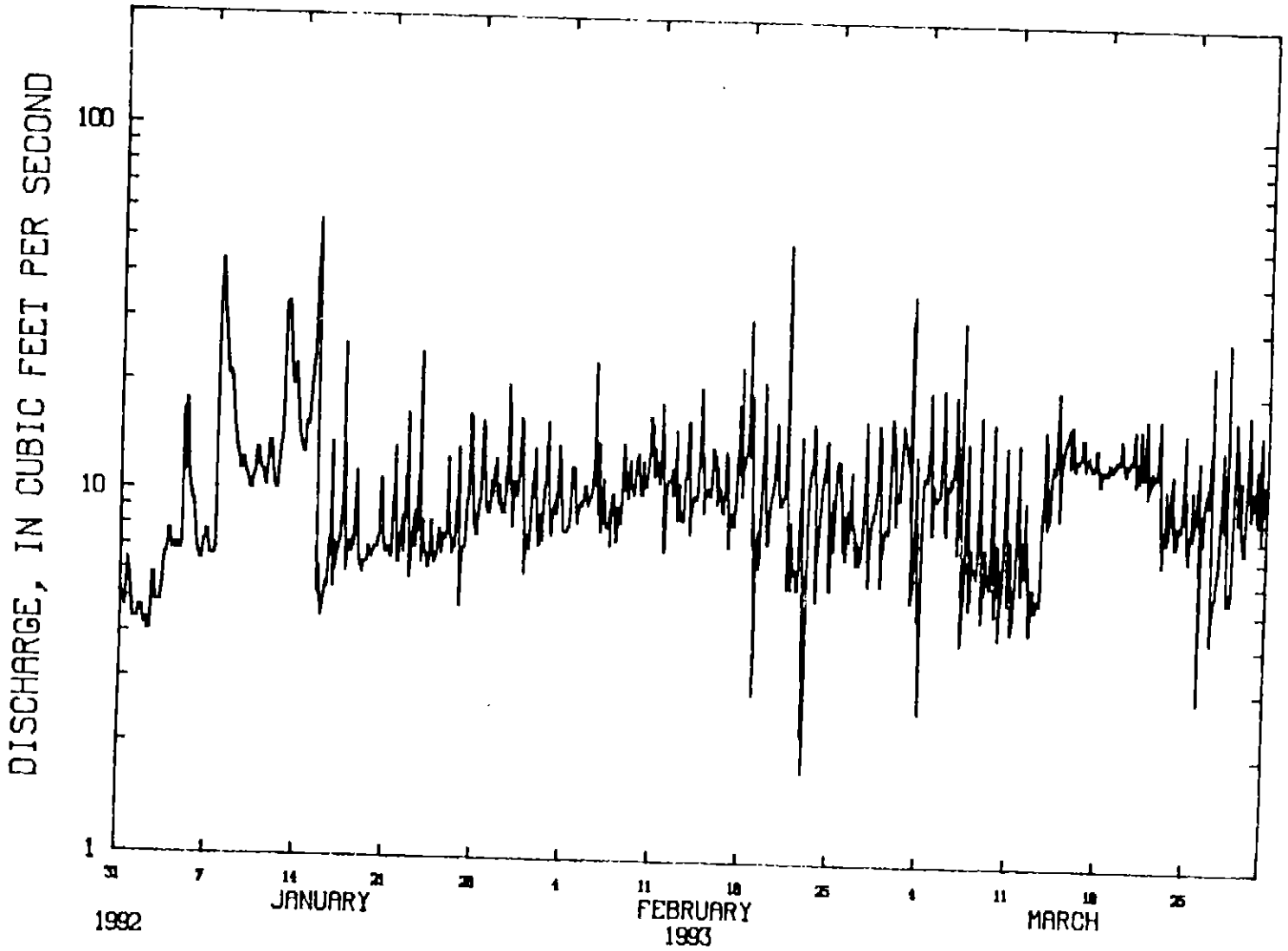
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	9.0	e6.4	5.3	11	10	12	---	---	---	---	---
2	e24	8.6	e6.4	4.5	9.1	11	11	---	---	---	---	---
3	e150	e9.1	e6.4	4.7	9.8	14	12	---	---	---	---	---
4	e760	e8.6	e6.4	6.2	9.8	8.1	9.6	---	---	---	---	---
5	e560	e8.4	e6.4	7.8	9.5	12	---	---	---	---	---	---
6	e380	e9.0	e6.2	11	9.7	12	---	---	---	---	---	---
7	e290	e7.9	e6.2	7.0	11	12	---	---	---	---	---	---
8	e240	e7.9	e6.2	19	8.8	7.8	---	---	---	---	---	---
9	e190	e7.7	e6.2	21	10	7.5	---	---	---	---	---	---
10	e140	e7.6	e6.2	12	11	7.3	---	---	---	---	---	---
11	e105	e7.5	e6.2	11	13	7.3	---	---	---	---	---	---
12	e80	e7.4	e6.0	12	12	7.3	---	---	---	---	---	---
13	e60	e8.0	e6.0	17	11	5.9	---	---	---	---	---	---
14	e50	e7.2	e6.0	22	11	9.2	---	---	---	---	---	---
15	e40	e7.2	e6.0	15	12	14	---	---	---	---	---	---
16	e35	e7.1	e5.8	19	11	14	---	---	---	---	---	---
17	e30	e7.0	e5.8	6.7	10	14	---	---	---	---	---	---
18	e25	e6.5	e5.8	8.4	12	13	---	---	---	---	---	---
19	e20	e6.0	e5.6	7.7	12	13	---	---	---	---	---	---
20	e18	5.6	e5.6	6.6	10	13	---	---	---	---	---	---
21	e16	7.7	e5.6	7.9	11	13	---	---	---	---	---	---
22	e15	9.1	e5.6	7.9	11	13	---	---	---	---	---	---
23	e14	7.7	p5.2	8.6	6.2	11	---	---	---	---	---	---
24	13	6.9	5.1	8.9	10	9.1	---	---	---	---	---	---
25	13	e6.2	4.6	6.8	10	9.3	---	---	---	---	---	---
26	12	e6.2	4.3	8.0	10	8.7	---	---	---	---	---	---
27	12	e6.2	4.2	7.9	8.4	9.7	---	---	---	---	---	---
28	11	e6.2	4.2	10	8.9	8.8	---	---	---	---	---	---
29	10	e6.4	4.1	11	---	9.7	---	---	---	---	---	---
30	10	e6.4	4.9	10	---	11	---	---	---	---	---	---
31	9.4	---	5.2	11	---	11	---	---	---	---	---	---
TOTAL	3362.4	222.3	174.8	321.9	289.2	326.7	---	---	---	---	---	---
MEAN	108	7.41	5.64	10.4	10.3	10.5	---	---	---	---	---	---
MAX	760	9.1	6.4	22	13	14	---	---	---	---	---	---
MIN	9.4	5.6	4.1	4.5	6.2	5.9	---	---	---	---	---	---
CFSM	6.91	.47	.36	.66	.66	.67	---	---	---	---	---	---
IN.	7.97	.53	.41	.76	.69	.77	---	---	---	---	---	---

e Estimated



——— 02245913 SAL TAYLOR CREEK NEAR MAXVILLE, FL
INSTANTANEOUS GAGE HEIGHT (FEET), STAGE, EDITED



02245913 SAL TAYLOR CREEK NEAR MAXVILLE, FL
INSTANTANEOUS DISCHARGE (CFS)

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION
SUMMARY OF DISCHARGE MEASUREMENT DATA

02245913
SAL TAYLOR CREEK NEAR MAXVILLE, FL

DATE PROCESSED: 13-APR-93 07 00

NO.	DATE / TIME	MADE BY	WIDTH	AREA	MEAN VEL.	GAGE HEIGHT	DISCHARGE CFS	SHIFT ADJ.	PCT. DIFF.	NO. SECT.	GHT. CHG.	TIME	RATED	CONTROL
							RATING NO. 1.0							
1	07/10/92 0845	CVP/JES	17.0	10.6	0.65	2.65	6.89	+0.9		25	0.00	0.4	F	CLEAR
		REMARKS: PZF 2.05												
2	07/23/92 1225	CVP/JES	23.0	14.5	0.67	2.78	9.64	-2.0		23	0.00	0.5	F	CLEAR
		REMARKS: GATES ABOVE WATER												
3	07/31/92 1015	CVP/JES	22.6	20.0	0.81	3.00	16.2	0.0		22	0.00	0.5	F	CLEAR
		REMARKS: WADING 300 FT BELOW GAGE												
4	08/17/92 1120	CVP/JES	24.0	64.6	1.03	4.26	66.4	+0.3		23	-0.03	0 8	G	
5	08/19/92 1022	CVP/JES	22.0	42.0	0.82	3.46	34.3	-0.3		23	0.00	0.4	G	
6	09/10/92 1305	CVP/MJS	33.0	188.	1.92	8.87	374	0.0		45	+0.04	0.8	F	
		REMARKS: WIDTH/AREA/MEAN VEL ARE MAIN CHANNEL ONLY												
7	09/17/92 1138	CVP/JES		25.6	5.16	6.02	132	-0.8		9	0.00	0.1	F	
		REMARKS: DWNSTR SIDE CULVERTS												
8	09/25/92 1323	CVP/JES		61.3	4.61	8.12	283	-3.7		16	0.00	0.4	P	
		REMARKS: 7 SIPHONS FLOWING												
							RATING NO. 2.0							
9	10/05/92 1200	CVP/MJS		203.	2.68	8.58	545	-1.6		29	-0.02	1.4	F	SUBMERGED
		REMARKS: O.S. GH BY RP to WS METHOD. FLOW BREACHED & CUT AWAY ROAD.(BOAT,WADED,HANDLINE)												
							RATING NO. 1.0							
10	11/18/92 0950	CVP/JES	20.0	20.8	0 34	2.76	7.12	-0.10	+1.1	21	0.00	0.4	F	CLEAR
		REMARKS: OS GH DETERMINED BY RP to WS METHOD. CHANGED OUT CR10 EQUIPMENT, & VOLTAGE REG.'s.												
11	12/22/92 1010	JES/CVP	20.0	23.5	0.25	2.69	5.92	-0.13	-1.5		0.00	0.3	F	CLEAR
12	02/09/93 1300	jes/cvp	25.0	25.7	0.55	2 97	14 2	-0.04	+1.4	26	0.00	0.6	F	CLEAR
		REMARKS: WADING 250 FT BELOW DAM												
	03/02/93 1335	JES/CVP	20.6	32.2	0 48	3.08	15.4	-0 07	-7.2	24	0.00	0 5	G	CLEAR
14	04/05/93 1155	JES/CVP	11.4	11.7	1 35	2.95	15.8	+0.03	+1.3	24	0.00	0 5	F	CLEAR
		REMARKS: 300 FT BELOW DAM												

1993
Florida

STATION ANALYSIS

02245913 Sal Taylor near Maxville, Florida

PERIOD OF ANALYSIS: July 1, 1993 to September 30, 1993.

EQUIPMENT: PS-2 pressure transducer with CR10 electronic datalogger. Outside staff gage for comparison and verification. Telemetry provided by cellular phone. Auxiliary staff gage located downstream of dam structure.

Record was complete for the period. Some problems with the PS-2 "drifting" continued and are evident upon examination of the stage record. Corrections were made to the record based on differences in the OS and recorded gage heights noted at the time of each visit.

MEASUREMENTS: Four discharge measurements, Nos. 17-20, and were made during the period of this analysis. They ranged in stage from 2.56 to 2.88 ft and in discharge from 3.72 to 11.5 cfs.

DISCHARGE: The control at this site consists of a dam with three 4 ft culvert pipes with gates and seven 2.5 ft siphon tubes which flow at a stage of about 6.0 ft. Flow over the road occurs at about 8.5 ft.

Measurement Nos. 17-20 required shifts that ranged from -.04 to -.34 ft, to bring them within acceptable limits of rating No. 1. Shifting techniques were used for the discharge adjustments.

Prepared by: J.E. Sohm
Checked by: R.A. Craig

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION
SUMMARY OF DISCEARGE MEASUREMENT DATA

DATE PROCESSED: 08-OCT-93 14:46

:45913
. TAYLOR CREEK NEAR MAXVILLE, FL

	DATE TIME	MADE BY	WIDTH	AREA	MEAN VEL.	GAGE HEIGHT	DISCHARGE CFS	SHIFT ADJ.	PCT. DIFF.	NO. SECT.	GHT. CHG.	TIME	RATED	CONTROL
							RATING NO. 1.0							
1	07/10/92 0845	CVP/JES	17.0	10.6	0.65	2.65	6.89	+0.9	25	0.00	0.4	F		CLEAR
		REMARKS: PZF 2.05												
2	07/23/92 1225	CVP/JES	23.0	14.5	0.67	2.78	9.64	-2.0	23	0.00	0.5	F		CLEAR
		REMARKS: GATES ABOVE WATER												
3	07/31/92 1015	CVP/JES	22.6	20.0	0.81	3.00	16.2	0.0	22	0.00	0.5	F		CLEAR
		REMARKS: WADING 300 FT BELOW GAGE												
4	08/17/92 1120	CVP/JES	24.0	64.6	1.03	4.26	66.4	+0.3	23	-0.03	0.8	G		
5	08/19/92 1022	CVP/JES	22.0	42.0	0.82	3.46	34.3	-0.3	23	0.00	0.4	G		
6	09/10/92 1305	CVP/MJS	33.0	188.	1.92	8.87	374	0.0	45	+0.04	0.8	F		
		REMARKS: WIDTH/AREA/MEAN VEL ARE MAIN CHANNEL ONLY												
7	09/17/92 1138	CVP/JES		25.6	5.16	6.02	132	-0.8	9	0.00	0.1	F		
		REMARKS: DWNSTR SIDE CULVERTS												
8	09/25/92 1323	CVP/JES		61.3	4.61	8.12	283	-3.7	16	0.00	0.4	P		
		REMARKS: 7 SIPHONS FLOWING												
							RATING NO. 2.0							
9	10/05/92 1200	CVP/MJS		203.	2.68	8.58	545	-1.6	29	-0.02	1.4	F	SUBMERGED	
		REMARKS: O.S. GH BY RP to WS METHOD. FLOW BREACHED & CUT AWAY ROAD.(BOAT,WADED,HANDLINE)												
							RATING NO. 1.0							
10	11/18/92 0950	CVP/JES	20.0	20.8	0.34	2.76	7.12	-0.10	+1.1	21	0.00	0.4	F	CLEAR
		REMARKS: OS GH DETERMINED BY RP to WS METHOD. CHANGED OUT CR10 EQUIPMENT, & VOLTAGE REG.'s.												
11	12/22/92 1010	JES/CVP	20.0	23.5	0.25	2.69	5.92	-0.13	-1.5		0.00	0.3	F	CLEAR
	02/09/93 1300	jes/cvp	25.0	25.7	0.55	2.97	14.2	-0.04	+1.4	26	0.00	0.6	F	CLEAR
		REMARKS: WADING 250 FT BELOW DAM												
13	03/02/93 1335	JES/CVP	20.6	32.2	0.48	3.08	15.4	-0.07	-7 2	24	0.00	0.5	G	CLEAR
14	04/05/93 1155	JES/CVP	11.4	11.7	1.35	2.95	15.8	+0.03	+1 3	24	0.00	0.5	F	CLEAR
		REMARKS: 300 FT BELOW DAM												
15	05/03/93 1215	JES	10.0	7.60	0.74	1 76	5.61	-0.05	-0 2	21	-0.01	0.4	F	
		REMARKS: BDR MALFUNCTIONING - G H. OFF. O.S. USED AS REFERENCE GAGE.												
16	06/11/93 1000	JES/CVP	8.20	7.51	0 42	1.55	2.90	-0.04	+2.1	22	0.00	0.4	F	
		REMARKS: PS2 DRIFTING. CORRECTED												
17	07/01/93 1250	RAB/CVP	14.5	13.2	0.87	2.88	11.5	-0.04	+0.9	23	0.00	0.4	P	CLEAR
18	08/02/93 1035	JES	10.0	8.40	0 52	2.67	4.37	-0.15	+0.2	24	-0 01	0.5	F	
		REMARKS: CULVERTS OPEN. MOSS ON LOW WATER CONTROL.												
19	09/01/93 1005	JES	10.0	7.67	0.48	2.56	3.72	-0.08	0 0	23	0.00	0 4	F	
		REMARKS: GATES OPEN. PS2 DRIFTING, HENCE O.S. G.H. USED.												
20	09/30/93 0820	jes/cvp	11.9	8.39	0.62	2.84	3.94	-0.34	-2.5	25	0.00	0.6	F	
		REMARKS: TWO GATES CLOSED. WADE 200 FTR DS												

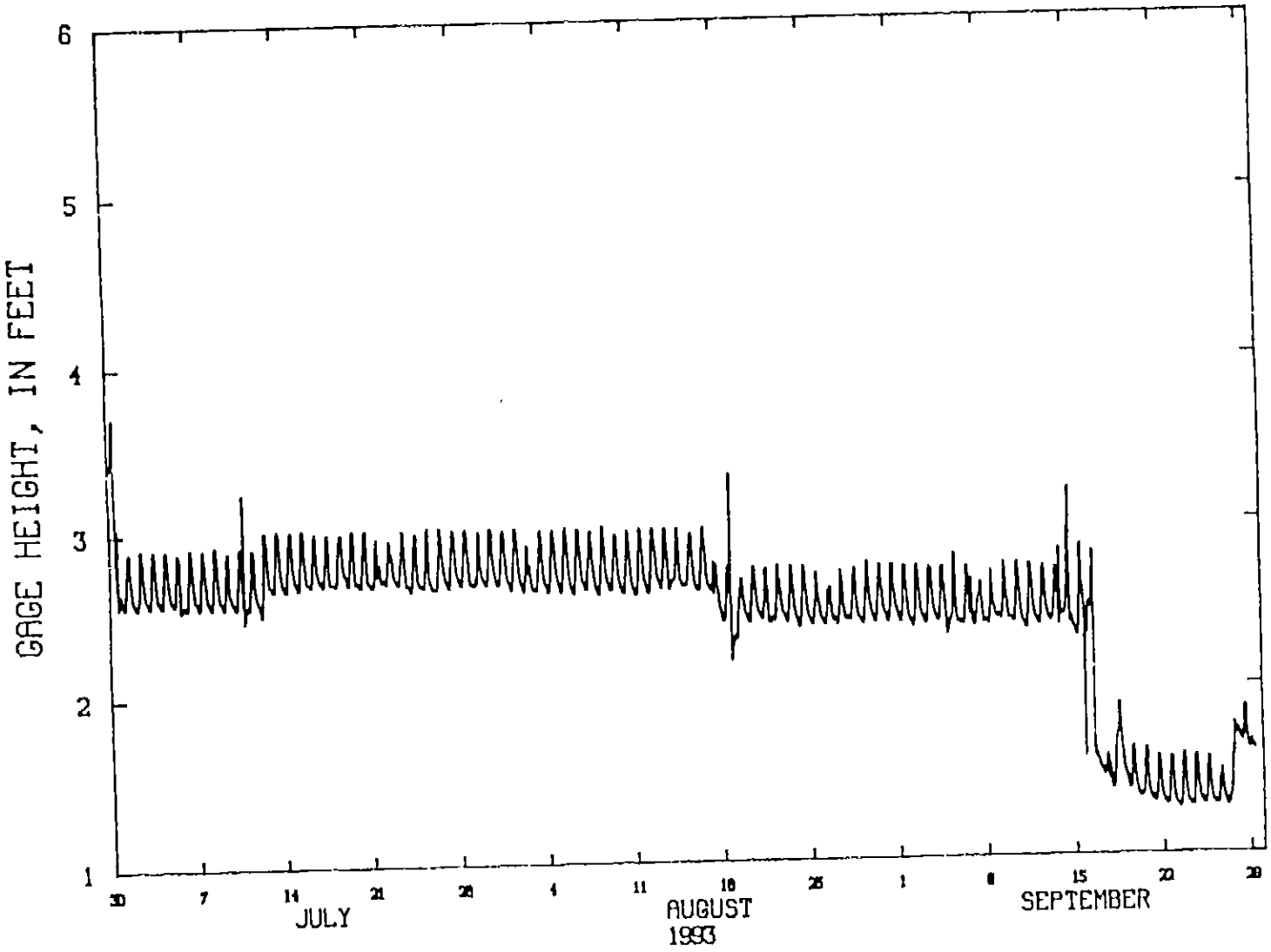
UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY - ORLANDO 10/18/93

STATION NUMBER 02245913 SAL TAYLOR CREEK NEAR MAXVILLE, FL STREAM SOURCE AGENCY USGS
LATITUDE 301227 LONGITUDE 0815327 DRAINAGE AREA 15.7 DATUM STATE 12 COUNTY 031
PROVISIONAL DATA SUBJECT TO REVISION

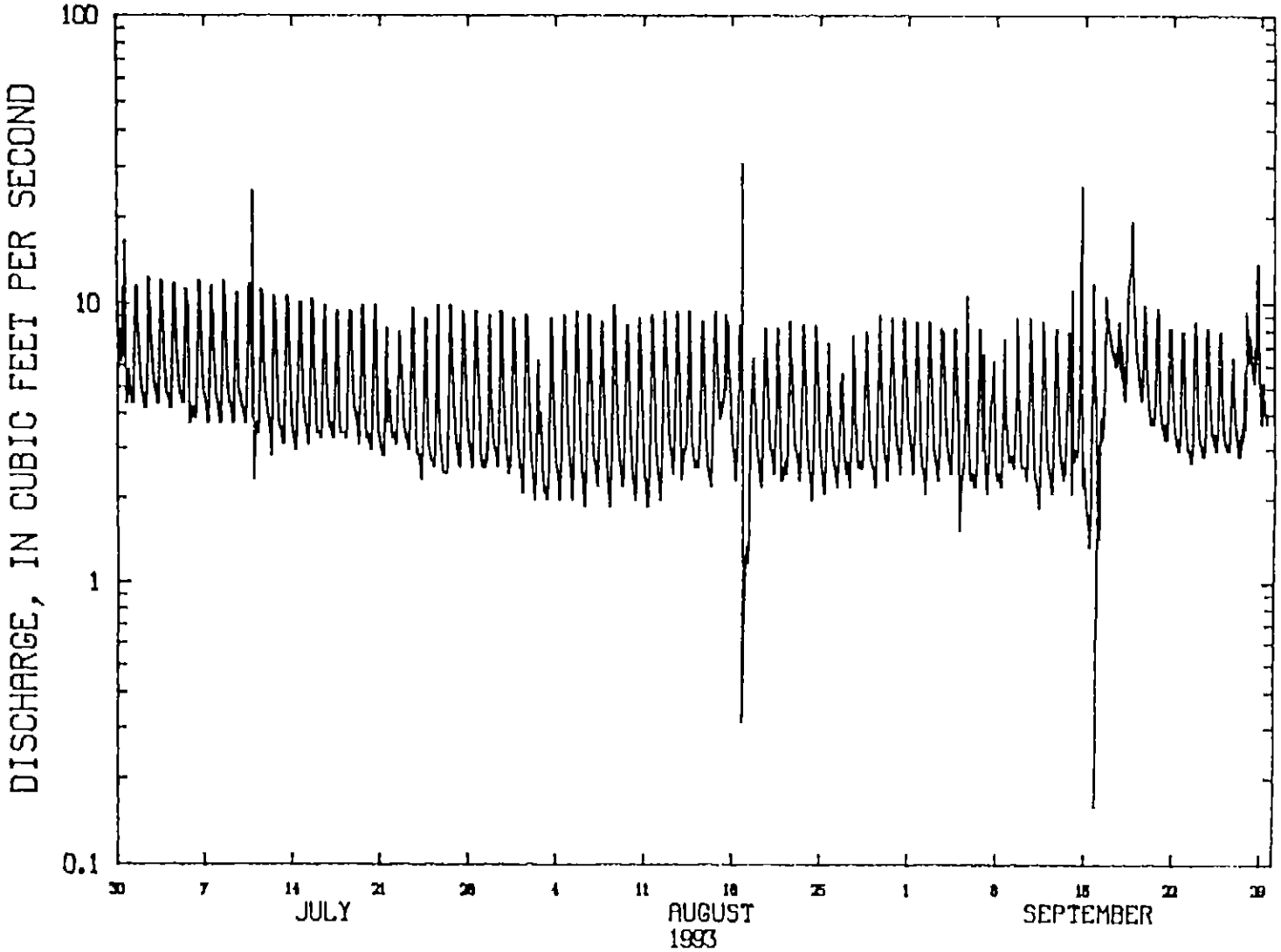
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	9.0	e6.4	5.3	11	10	12	4.6	5.2	7.5	4.6	4.6
2	e24	8.6	e6.4	4.5	9.1	11	11	4.7	6.1	6.8	4.5	4.5
3	e150	e9.1	e6.4	4.7	9.8	14	12	5.0	3.9	6.7	3.2	4.2
4	e760	e8.6	e6.4	6.2	9.8	8.1	9.8	5.0	3.3	6.8	4.1	4.5
5	e560	e8.4	e6.4	7.8	9.5	12	12	4.3	3.3	6.8	4.5	4.3
6	e380	e9.0	e6.2	11	9.7	12	9.0	3.9	3.3	6.1	4.5	3.8
7	e290	e7.9	e6.2	7.0	11	12	9.8	3.4	3.3	6.5	4.4	4.3
8	e240	e7.9	e6.2	19	8.8	7.8	10	3.0	3.1	6.2	4.2	3.5
9	e190	e7.7	e6.2	21	10	7.5	11	2.7	3.0	6.3	4.4	3.4
10	e140	e7.8	e6.2	12	11	7.3	11	2.9	2.9	5.6	4.3	4.1
11	e105	e7.5	e6.2	11	13	7.3	11	2.8	2.5	6.5	4.1	4.1
12	e80	e7.4	e6.0	12	12	7.3	9.7	3.0	2.4	5.8	4.2	4.1
13	e60	e8.0	e6.0	17	11	5.9	9.6	3.0	8.6	5.4	4.6	4.1
14	e50	e7.2	e6.0	22	11	9.2	9.1	3.0	13	5.6	4.6	4.4
15	e40	e7.2	e6.0	15	12	14	9.3	2.7	5.3	5.4	4.3	4.9
16	e35	e7.1	e5.8	19	11	14	7.1	5.4	3.6	5.4	4.4	3.6
17	e30	e7.0	e5.8	6.7	10	14	7.5	9.9	3.1	5.1	4.8	6.0
18	e25	e6.5	e5.8	8.4	12	13	8.2	5.5	3.0	4.9	5.5	6.5
19	e20	e6.0	e5.6	7.7	12	13	8.3	5.0	3.1	5.5	4.3	10
20	e18	5.6	e5.6	6.6	10	13	8.2	4.8	3.1	5.2	3.3	6.0
21	e16	7.7	e5.6	7.9	11	13	8.5	4.5	3.1	5.0	4.3	5.3
22	e15	9.1	e5.6	7.9	11	13	7.3	5.2	3.4	4.1	3.8	4.9
23	e14	7.7	p5.2	8.6	6.2	11	8.3	5.5	5.4	4.5	4.2	4.6
24	13	6.9	5.1	8.9	10	9.1	8.7	5.0	3.7	4.9	4.3	4.5
25	13	e6.2	4.6	6.8	10	9.3	8.8	5.1	3.1	4.3	4.1	4.5
26	12	e6.2	4.3	8.0	10	8.7	9.0	4.9	3.0	4.1	3.5	4.4
27	12	e6.2	4.2	7.9	8.4	9.7	8.1	4.8	6.4	4.8	3.3	3.8
28	11	e6.2	4.2	10	8.9	8.8	7.9	4.6	9.0	4.9	3.7	4.7
29	10	e6.4	4.1	11	---	9.7	7.1	5.3	23	5.0	4.1	7.0
30	10	e6.4	4.9	10	---	11	6.6	5.1	20	4.0	4.3	---
31	9.4	---	5.2	11	---	11	---	5.0	---	4.8	4.5	---
TOTAL	3362.4	222.3	174.8	321.9	289.2	326.7	275.9	139.6	165.2	170.5	130.9	---
MEAN	108	7.41	5.64	10.4	10.3	10.5	9.20	4.50	5.51	5.50	4.22	---
MAX	760	9.1	6.4	22	13	14	12	9.9	23	7.5	5.5	---
MIN	9.4	5.6	4.1	4.5	6.2	5.9	6.6	2.7	2.4	4.0	3.2	---
CFSM	6.91	.47	.36	.66	.66	.67	.59	.29	.35	.35	.27	---
IN.	7.97	.53	.41	.76	.69	.77	.65	.33	.39	.40	.31	---

e Estimated



02245913 SAL TAYLOR CREEK NEAR MAXVILLE, FL
INSTANTANEOUS GAGE HEIGHT (FEET), STAGE, EDITED



——— 02245913 SAL TAYLOR CREEK NEAR MAXVILLE, FL
INSTANTANEOUS DISC RGE (CFS)

1994
Florida

STATION ANALYSIS

02245913 Sal Taylor Creek near Maxville, Florida

PERIOD OF ANALYSIS: Oct. 1, 1993 to Dec. 31, 1993.

EQUIPMENT: PS-2 pressure transducer with CR10 electronic datalogger. Outside staff gage for comparison and verification. Telemetry provided by cellular phone. Auxiliary staff gage located downstream of dam structure.

Record was incomplete for the entire period. The stage record available was considered unreliable when compared to nearby sites.

MEASUREMENTS: Three discharge measurements, Nos. 21-23, and were made during the period of this analysis. They ranged in stage from 2.82 to 3.87 ft and in discharge from 8.26 to 39.9 cfs.

DISCHARGE: The control at this site consists of a dam with three 4 ft culvert pipes with gates and seven 2.5 ft siphon tubes which flow at a stage of about 6.0 ft. Flow over the road occurs at about 8.5 ft.

Measurement Nos. 21-23 required shifts that ranged from +.03 to -.27 ft, to bring them within acceptable limits of rating No. 1.

Daily discharges were estimated using regression analysis (Estwat) and hydrographic comparison with the Rowell Creek near Maxville gages. The estimates were also compared with the Rowell Creek near Fiftone site.

REMARKS: Records poor.

Prepared by: J.E. Sohm
Checked by: R.A. Craig

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION
SUMMARY OF DISCEARGE MEASUREMENT DATA

02245913
SAL TAYLOR CREEK NEAR MAXVILLE, FL

DATE PROCESSED: 13-JAN-94 15:25

NO.	DATE / TIME	MADE BY	WIDTH	AREA	MEAN VEL.	GAGE HEIGHT	DISCHARGE CFS	SHIFT ADJ.	PCT. DIFF.	NO. SECT.	GHT. CHG.	TIME	RATED	CONTROL
								RATING NO. 1.0						
1	07/10/92 0845	CVP/JES	17.0	10.6	0.65	2.65	6.89		+0.9	25	0.00	0.4	F	CLEAR
		REMARKS: PZF 2.05												
2	07/23/92 1225	CVP/JES	23.0	14.5	0.67	2.78	9.64		-2.0	23	0.00	0.5	F	CLEAR
		REMARKS: GATES ABOVE WATER												
3	07/31/92 1015	CVP/JES	22.6	20.0	0.81	3.00	16.2		0.0	22	0.00	0.5	F	CLEAR
		REMARKS: WADING 300 FT BELOW GAGE												
4	08/17/92 1120	CVP/JES	24.0	64.6	1.03	4.26	66.4		+0.3	23	-0.03	0.8	G	
5	08/19/92 1022	CVP/JES	22.0	42.0	0.82	3.46	34.3		-0.3	23	0.00	0.4	G	
6	09/10/92 1305	CVP/MJS	33.0	188.	1.92	8.87	374		0.0	45	+0.04	0.8	F	
		REMARKS: WIDTH/AREA/MEAN VEL ARE MAIN CEANNEL ONLY												
7	09/17/92 1138	CVP/JES		25.6	5.16	6.02	132		-0.8	9	0.00	0.1	F	
		REMARKS: DWNSTR SIDE CULVERTS												
8	09/25/92 1323	CVP/JES		61.3	4.61	8.12	283		-3.7	16	0.00	0.4	P	
		REMARKS: 7 SIPHONS FLOWING												
								RATING NO. 2.0						
9	10/05/92 1200	CVP/MJS		203.	2.68	8.58	545		-1.6	29	-0.02	1.4	F	SUBMERGED
		REMARKS: O.S. GH BY RP to WS METHOD. FLOW BREACHED & CUT AWAY ROAD.(BOAT,WADED,HANDLINE)												
								RATING NO. 1.0						
10	11/18/92 0950	CVP/JES	20.0	20.8	0.34	2.76	7.12	-0.10	+1.1	21	0.00	0.4	F	CLEAR
		REMARKS: OS GH DETERMINED BY RP to WS METHOD. CEANGED OUT CR10 EQUIPMENT, & VOLTAGE REG.'s.												
11	12/22/92 1010	JES/CVP	20.0	23.5	0.25	2.69	5.92	-0.13	-1.5		0.00	0.3	F	CLEAR
12	02/09/93 1300	jes/cvp	25.0	25.7	0.55	2.97	14.2	-0.04	+1.4	26	0.00	0.6	F	CLEAR
		REMARKS: WADING 250 FT BELOW DAM												
13	03/02/93 1335	JES/CVP	20.6	32.2	0.48	3.08	15.4	-0.07	-7.2	24	0.00	0.5	G	CLEAR
14	04/05/93 1155	JES/CVP	11.4	11.7	1.35	2.95	15.8	+0 03	+1.3	24	0.00	0 5	F	CLEAR
		REMARKS: 300 FT BELOW DAM												
15	05/03/93 1215	JES	10.0	7.60	0.74	1.76	5.61	-0.05	-0.2	21	-0.01	0.4	F	
		REMARKS: BDR MALFUNCTIONING - G.H. OFF. O S. USED AS REFERENCE GAGE.												
16	06/11/93 1000	JES/CVP	8.20	7.51	0.42	1.55	2.90	-0.04	-2.1	22	0.00	0.4	F	
		REMARKS: PS2 DRIFTING. CORRECTED												
17	07/01/93 1250	RAB/CVP	14.5	13.2	0.87	2.88	11.5	-0 04	+0.9	23	0 00	0.4	P	CLEAR
18	08/02/93 1035	JES	10.0	8.40	0.52	2.67	4.37	-0.15	+0.2	24	-0.01	0.5	F	
		REMARKS: CULVERTS OPEN. MOSS ON LOW WATER CONTROL.												
19	09/01/93 1005	JES	10.0	7.67	0.48	2.56	3.72	-0.08	0.0	23	0.00	0.4	F	
		REMARKS: GATES OPEN. PS2 DRIFTING, EENCE O.S. G.H. USED.												
20	09/30/93 0820	jes/cvp	11 9	6.45	0.62	2.84	3.97	-0.34	-1.5	25	0.00	0.6	F	
		REMARKS: TWO GATES CLOSED. WADE 200 FTR DS												
21	11/18/93 1000	CVP/JES	18.5	25.5	0.59	2.93	15 0	-0.03	+0.7	23	-0.01	0.5	F	CLEAR
		REMARKS: INSTALLED NEW EDR320 & PS2												
22	12/09/93 1000	JES/CVP	14.3	11.3	0.73	2.82	8.26	-0.22	-1 4	23	0.00	0.4	F	CLEAR
23	01/04/94 0955	JES/CVP	26.5	52.9	0.75	3.87	39.9	-0.27	-0 2	23	-0.01	0 6	F	CLEAR
		REMARKS: 2 GATES CLEAR. 250 FT DWNSTR												

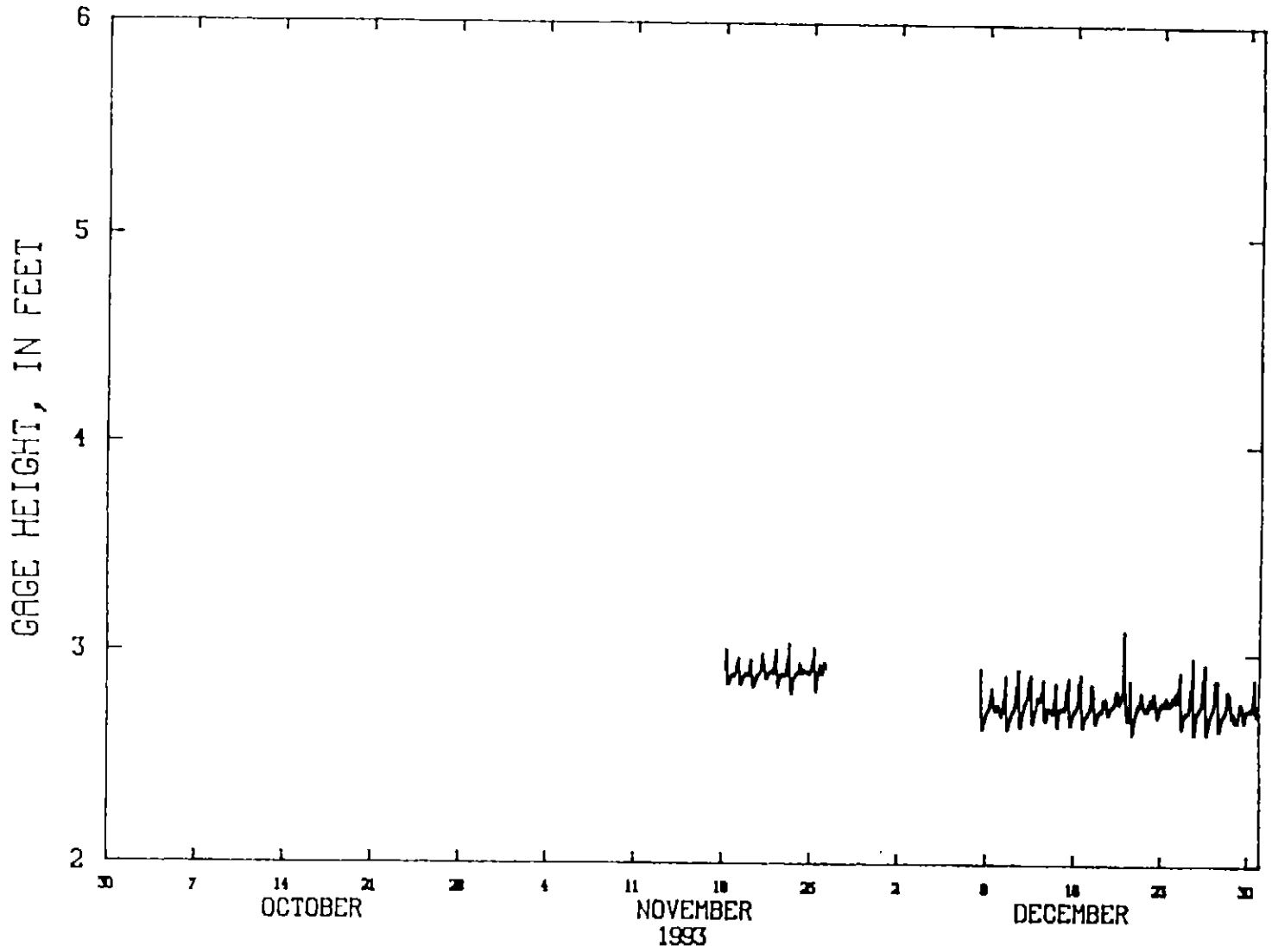
UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY - ORLANDO 01/13/94

STATION NUMBER 02245913 SAL TAYLOR CREEK NEAR MAXVILLE, FL STREAM SOURCE AGENCY USGS
LATITUDE 301227 LONGITUDE 0815327 DRAINAGE AREA 15.7 DATUM STATE 12 COUNTY 031
PROVISIONAL DATA SUBJECT TO REVISION

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3.7	e173	e16	e14	---	---	---	---	---	---	---	---
2	e3.3	e80	e15	e170	---	---	---	---	---	---	---	---
3	e3.2	e54	e14	e65	---	---	---	---	---	---	---	---
4	e3.2	e40	e12	---	---	---	---	---	---	---	---	---
5	e3.3	e31	e12	---	---	---	---	---	---	---	---	---
6	e4.3	e128	e11	---	---	---	---	---	---	---	---	---
7	e14	e85	e10	---	---	---	---	---	---	---	---	---
8	e9.0	49	e9.0	---	---	---	---	---	---	---	---	---
9	e9.0	e38	e9.0	---	---	---	---	---	---	---	---	---
10	e11	e98	e8.0	---	---	---	---	---	---	---	---	---
11	e8.0	e96	e8.0	---	---	---	---	---	---	---	---	---
12	e7.0	e56	e8.0	---	---	---	---	---	---	---	---	---
13	e5.5	e42	e8.0	---	---	---	---	---	---	---	---	---
14	e5.0	e32	e8.0	---	---	---	---	---	---	---	---	---
15	e9.0	e27	e8.0	---	---	---	---	---	---	---	---	---
16	e80	e22	e8.0	---	---	---	---	---	---	---	---	---
17	e170	e20	e7.0	---	---	---	---	---	---	---	---	---
18	e35	e17	e7.0	---	---	---	---	---	---	---	---	---
19	e18	e15	e7.0	---	---	---	---	---	---	---	---	---
20	e13	e14	e7.0	---	---	---	---	---	---	---	---	---
21	e10	e14	e43	---	---	---	---	---	---	---	---	---
22	e9.0	e14	e22	---	---	---	---	---	---	---	---	---
23	e8.0	e13	e25	---	---	---	---	---	---	---	---	---
24	e8.0	e13	e23	---	---	---	---	---	---	---	---	---
25	e9.0	e13	e52	---	---	---	---	---	---	---	---	---
26	e10	e18	e40	---	---	---	---	---	---	---	---	---
27	e9.0	e32	e27	---	---	---	---	---	---	---	---	---
28	e8.0	e31	e22	---	---	---	---	---	---	---	---	---
29	e7.0	e25	e17	---	---	---	---	---	---	---	---	---
30	e220	e19	e16	---	---	---	---	---	---	---	---	---
31	e348	---	e14	---	---	---	---	---	---	---	---	---
TOTAL	1060.5	1309	493.0	---	---	---	---	---	---	---	---	---
MEAN	34.2	43.6	15.9	---	---	---	---	---	---	---	---	---
MAX	348	173	52	---	---	---	---	---	---	---	---	---
MIN	3.2	13	7.0	---	---	---	---	---	---	---	---	---
CFSM	2.18	2.78	1.01	---	---	---	---	---	---	---	---	---
IN.	2.51	3.10	1.17	---	---	---	---	---	---	---	---	---

e Estimated



02245913 SAL TAYLOR CREEK NEAR MAXVILLE, FL
INSTANTANEOUS GAGE HEIGHT (FEET), STAGE, EDITED

1994
Florida

STATION ANALYSIS

02245913 Sal Taylor Creek near Maxville, Florida

PERIOD OF ANALYSIS: Jan. 1, 1994 to Mar. 31, 1994.

EQUIPMENT: PS-2 pressure transducer with CR10 electronic datalogger. Outside staff gage for comparison and verification. Telemetry provided by cellular phone. Auxiliary staff gage located downstream of dam structure.

Record was incomplete for the entire period. The stage record available was considered unreliable when compared to nearby sites.

MEASUREMENTS: Four discharge measurements, Nos. 23-26, and were made during the period of this analysis. They ranged in stage from 2.66 to 6.12 ft and in discharge from 6.37 to 112 cfs.

DISCHARGE: The control at this site consists of a dam with three 4 ft culvert pipes with gates and seven 2.5 ft siphon tubes which flow at a stage of about 6.0 ft. Flow over the road occurs at about 8.5 ft.

Daily discharges were estimated using the flow measurements and hydrographic comparison with gages at Rowell Creek near Maxville and Rowell Creek near Fiftone.

REMARKS: Records poor.

Prepared by: J.E. Sohm
Checked by: R.A. Craig

UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY - ORLANDO

04/13/94

STATION NUMBER 02245913 SAL TAYLOR CREEK NEAR MAXVILLE, FL STREAM SOURCE AGENCY USGS
LATITUDE 301227 LONGITUDE 0815327 DRAINAGE AREA 15.7 DATUM STATE 12 COUNTY 031
PROVISIONAL DATA SUBJECT TO REVISION

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3.7	e173	e16	e14	e110	e8.0	---	---	---	---	---	---
2	e3.3	e80	e15	e170	88	e50	---	---	---	---	---	---
3	e3.2	e54	e14	e65	e40	e30	---	---	---	---	---	---
4	e3.2	e40	e12	29	e25	e20	---	---	---	---	---	---
5	e3.3	e31	e12	e25	e22	e15	---	---	---	---	---	---
6	e4.3	e128	e11	e15	e18	e10	---	---	---	---	---	---
7	e14	e85	e10	e12	e15	e12	---	---	---	---	---	---
8	e9.0	---	e9.0	e9.0	e13	e11	---	---	---	---	---	---
9	e9.0	e38	e9.0	e8.0	e12	e10	---	---	---	---	---	---
10	e11	e98	e8.0	e7.0	e10	e9.5	---	---	---	---	---	---
11	e8.0	e96	e8.0	e6.0	e9.0	e9.0	---	---	---	---	---	---
12	e7.0	e56	e8.0	e5.5	e8.5	e9.0	---	---	---	---	---	---
13	e5.5	e42	e8.0	e25	e8.0	e8.5	---	---	---	---	---	---
14	e5.0	e32	e8.0	e80	e7.5	e8.5	---	---	---	---	---	---
15	e9.0	e27	e8.0	e35	e7.0	e8.0	---	---	---	---	---	---
16	e80	e22	e8.0	e20	e7.0	e8.0	---	---	---	---	---	---
17	e170	e20	e7.0	e15	e6.5	e7.5	---	---	---	---	---	---
18	e35	e17	e7.0	e100	e6.5	e7.5	---	---	---	---	---	---
19	e18	e15	e7.0	e45	e6.5	e7.0	---	---	---	---	---	---
20	e13	e14	e7.0	e25	e6.5	e7.0	---	---	---	---	---	---
21	e10	e14	e43	e18	e6.0	e7.0	---	---	---	---	---	---
22	e9 0	e14	e22	e15	e6.0	e6.5	---	---	---	---	---	---
23	e8.0	e13	e25	e11	e7.0	e6.5	---	---	---	---	---	---
24	e8.0	e13	e23	e9.0	e9.0	e6.5	---	---	---	---	---	---
25	e9.0	e13	e52	e8.0	e12	e7.0	---	---	---	---	---	---
26	e10	e18	e40	e7.0	e11	e10	---	---	---	---	---	---
27	e9 0	e32	e27	e7.0	e10	e9.0	---	---	---	---	---	---
28	e8 0	e31	e22	e7.0	e9.0	e8.5	---	---	---	---	---	---
29	e7 0	e25	e17	e120	---	e8.0	---	---	---	---	---	---
30	e220	e19	e16	e300	---	e7.5	---	---	---	---	---	---
31	e348	---	e14	e180	---	e7.0	---	---	---	---	---	---
TOTAL	1060.5	---	493.0	1392.5	496.0	339.0	---	---	---	---	---	---
MEAN	34.2	---	15.9	44.9	17.7	10.9	---	---	---	---	---	---
MAX	348	---	52	300	110	50	---	---	---	---	---	---
MIN	3.2	---	7.0	5.5	6.0	6.5	---	---	---	---	---	---
CFSM	2.18	---	1.01	2.86	1.13	.70	---	---	---	---	---	---
IN.	2.51	---	1.17	3.30	1.18	.80	---	---	---	---	---	---

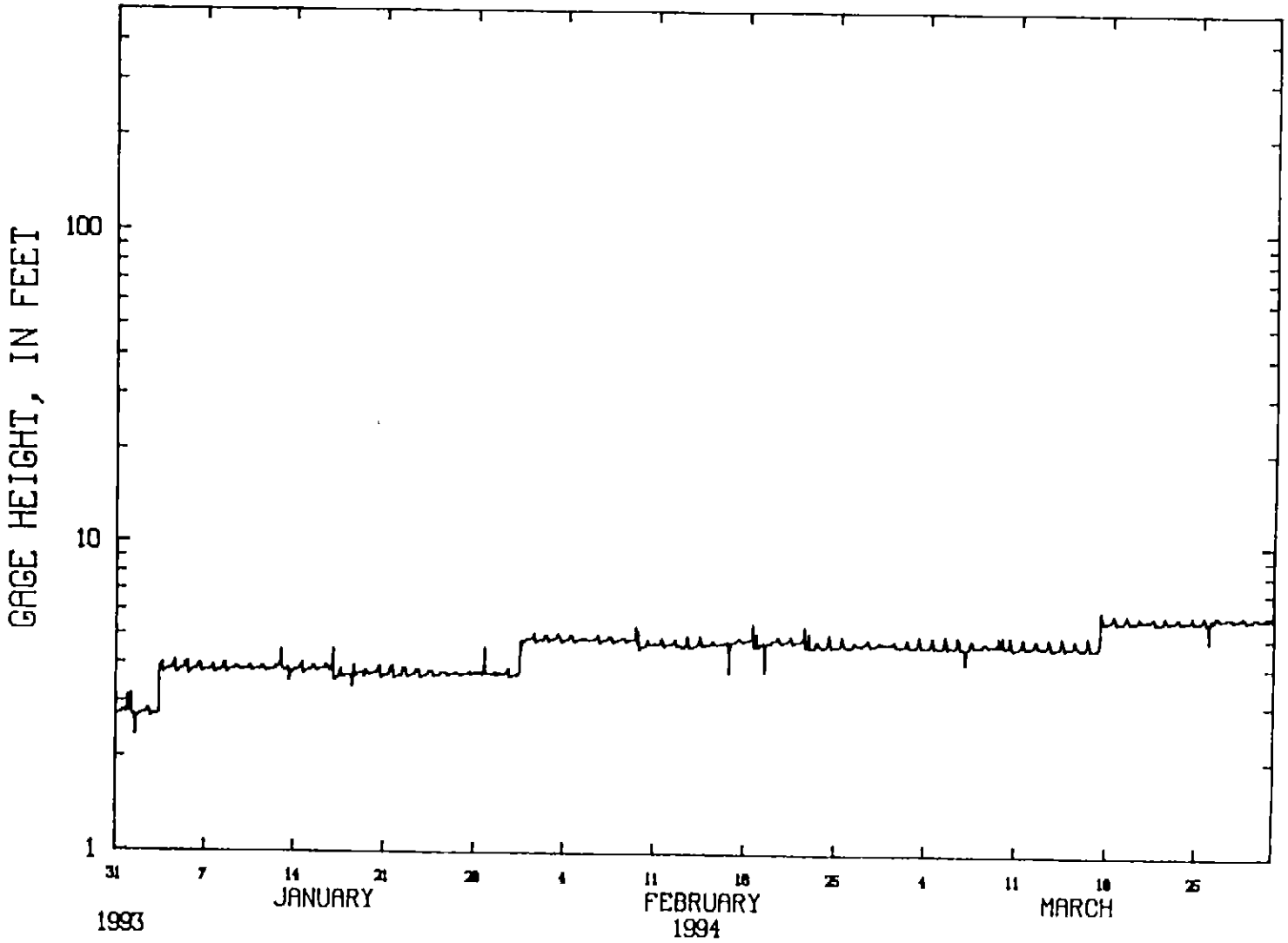
e Estimated

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION
SUMMARY OF DISCHARGE MEASUREMENT DATA

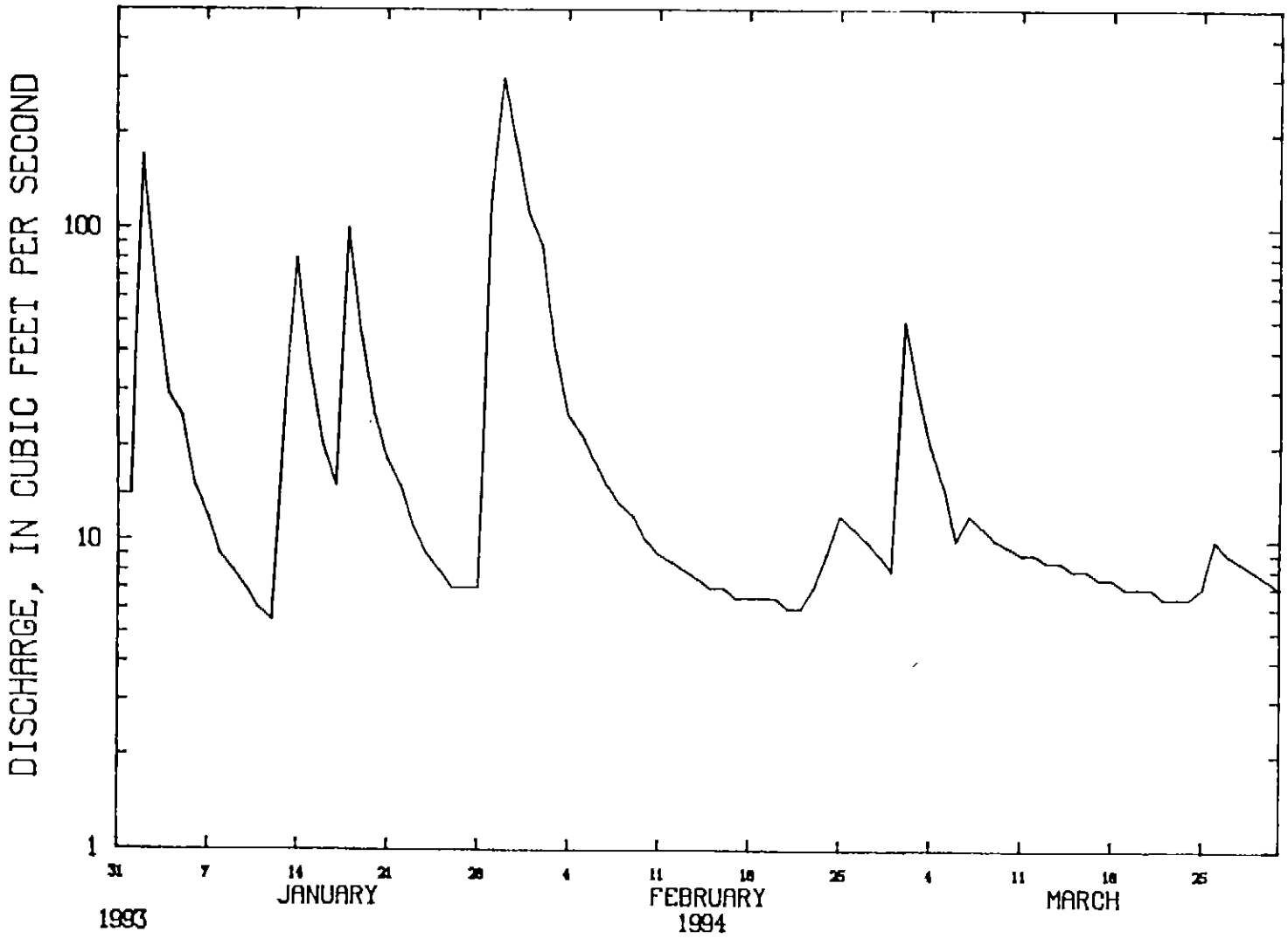
DATE PROCESSED: 12-APR-94 15:34

2245913
AL TAYLOR CREEK NEAR MAXVILLE, FL

	DATE TIME	MADE BY	WIDTH	AREA	MEAN VEL.	GAGE HEIGHT	DISCHARGE CFS	SHIFT ADJ.	PCT. DIFF.	NO. SECT.	GHT. CHG.	TIME	RATED	CONTROL
							RATING NO. 1.0							
1	07/10/92 0845	CVP/JES	17.0	10.6	0.65	2.65	6.89		+0.9	25	0.00	0.4	F	CLEAR
		REMARKS: PZF 2.05												
2	07/23/92 1225	CVP/JES	23.0	14.5	0.67	2.78	9.64		-2.0	23	0.00	0.5	F	CLEAR
		REMARKS: GATES ABOVE WATER												
3	07/31/92 1015	CVP/JES	22.6	20.0	0.81	3.00	16.2		0.0	22	0.00	0.5	F	CLEAR
		REMARKS: WADING 300 FT BELOW GAGE												
4	08/17/92 1120	CVP/JES	24.0	64.6	1.03	4.26	66.4		+0.3	23	-0.03	0.8	G	
5	08/19/92 1022	CVP/JES	22.0	42.0	0.82	3.46	34.3		-0.3	23	0.00	0.4	G	
6	09/10/92 1305	CVP/MJS	33.0	188.	1.92	8.87	374		0.0	45	+0.04	0.8	F	
		REMARKS: WIDTH/AREA/MEAN VEL ARE MAIN CHANNEL ONLY												
7	09/17/92 1138	CVP/JES		25.6	5.16	6.02	132		-0.8	9	0.00	0.1	F	
		REMARKS: DWNSTR SIDE CULVERTS												
8	09/25/92 1323	CVP/JES		61.3	4.61	8.12	283		-3.7	16	0.00	0.4	P	
		REMARKS: 7 SIPHONS FLOWING												
							RATING NO. 2.0							
9	10/05/92 1200	CVP/MJS		203.	2 68	8.58	545		-1.6	29	-0.02	1.4	F	SUBMERGED
		REMARKS: O.S. GH BY RP to WS METHOD. FLOW BREACHED & CUT AWAY ROAD.(BOAT,WADED,HANDLINE)												
							RATING NO. 1.0							
10	11/18/92 0950	CVP/JES	20.0	20 8	0.34	2.76	7.12	-0.10	+1.1	21	0.00	0.4	F	CLEAR
		REMARKS: OS GH DETERMINED BY RP to WS METHOD. CHANGED OUT CR10 EQUIPMENT, & VOLTAGE REG.'s.												
11	12/22/92 1010	JES/CVP	20.0	23.5	0.25	2.69	5.92	-0.13	-1.5		0.00	0.3	F	CLEAR
	02/09/93 1300	jes/cvp	25.0	25.7	0.55	2.97	14.2	-0.04	+1.4	26	0.00	0.6	F	CLEAR
		REMARKS: WADING 250 FT BELOW DAM												
13	03/02/93 1335	JES/CVP	20.6	32.2	0.48	3.08	15.4	-0.07	-7 2	24	0.00	0.5	G	CLEAR
14	04/05/93 1155	JES/CVP	11.4	11.7	1 35	2.95	15.8	+0 03	+1.3	24	0.00	0.5	F	CLEAR
		REMARKS: 300 FT BELOW DAM												
15	05/03/93 1215	JES	10 0	7 60	0 74	2.64	5.61	-0 05	-0.2	21	-0.01	0.4	F	
		REMARKS: BDR MALFUNCTIONING - G.H. OFF O.S. USED AS REFERENCE GAGE.												
16	06/11/93 1000	JES/CVP	8.20	7 51	0.42	2.46	2.90	-0.04	+2 1	22	0 00	0.4	F	
		REMARKS: PS2 DRIFTING. CORRECTED												
17	07/01/93 1250	RAB/CVP	14.5	13.2	0.87	2.88	11.5	-0.04	+0 9	23	0.00	0.4	F	CLEAR
18	08/02/93 1035	JES	10.0	8.40	0.52	2.67	4.37	-0.15	+0.2	24	-0.01	0.5	F	
		REMARKS: CULVERTS OPEN. MOSS ON LOW WATER CONTROL.												
19	09/01/93 1005	JES	10.0	7.67	0.48	2.56	3.72	-0 08	0.0	23	0.00	0.4	F	
		REMARKS: GATES OPEN PS2 DRIFTING, EENCE O.S. G.H. USED.												
20	09/30/93 0820	jes/cvp	11.9	6.45	0.62	2.84	3.97	-0.34	-1 5	25	0.00	0 6	F	
		REMARKS: TWO GATES CLOSED. WADE 200 FTR DS												
21	11/18/93 1000	CVP/JES	18.5	25.5	0 59	2 93	15.0	+0 03	+0.7	23	-0.01	0.5	F	CLEAR
		REMARKS: INSTALLED NEW BDR320 & PS2												
22	12/09/93 1000	JES/CVP	14.3	11.3	0 73	2 87	8 26	-0.15	-1.4	23	0 00	0 4	F	CLEAR
23	01/04/94 0955	JES/CVP	26.5	52 9	0 75	3.87	39.9	-0 27	-0.2	23	-0.01	0.6	F	CLEAR
		REMARKS: 2 GATES CLEAR. 250 FT DWNSTR												
24	02/01/94 1218	JES/CVP		25.6	4 38	4.77	112			9	-0 02	0.4	F	
		REMARKS: DSS CULVERTS												
25	03/18/94 1058	JES/CVP	12.0	11 6	0 64	6.12	7 47			21	0 00	0 4	F	
		REMARKS. 300' BEL GAGE.--GATES ALL CLOSED												
	04/01/94 1120	JES/CVP	12.0	11 3	0 56	2 66	6 37			23	0 00	0 4	F	
		REMARKS ALL GATES OPEN. 300 FT DWNSTR												



—— 02245913 SAL TAYLOR CREEK NEAR MAXVILLE, FL
INSTANTANEOUS GAGE , .GHT (FEET), STAGE, EDITED



—— 02245913 SAL TAYLOR CREEK NEAR MAXVILLE, FL
MEAN DAILY DISCHARGE (CFS)

1994
Florida

STATION ANALYSIS

02245913 Sal Taylor Creek near Maxville, Florida

PERIOD OF ANALYSIS: April 1, 1994 to June 30, 1994.

EQUIPMENT: PS-2 pressure transducer with CR10 electronic datalogger. Outside staff gage for comparison and verification. Telemetry provided by cellular phone. Auxiliary staff gage located downstream of dam structure.

The stage record was incomplete for this period, despite the fact a new orifice and pressure tubing were replaced in an attempt to solve the drift problem encountered with the PS-2 system. The record available was considered unreliable when compared to nearby sites.

MEASUREMENTS: Two discharge measurements, Nos. 26,27, and were made during the period of this analysis. They ranged in stage from 2.55 to 2.66 ft and in discharge from 3.72 to 6.37 cfs.

DISCHARGE: The control at this site consists of a dam with three 4 ft culvert pipes with gates and seven 2.5 ft siphon tubes which flow at a stage of about 6.0 ft. Flow over the road occurs at about 8.5 ft.

Daily discharges were estimated using the flow measurements and hydrographic comparison with gages at Rowell Creek near Maxville and Rowell Creek near Fiftone.

REMARKS: Records poor.

Prepared by: R.A. Broxton
Checked by: R.A. Craig

UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY - ORLANDO 07/13/94

STATION NUMBER 02245913 SAL TAYLOR CREEK NEAR MAXVILLE, FL STREAM SOURCE AGENCY USGS
LATITUDE 301227 LONGITUDE 0815327 DRAINAGE AREA 15.7 DATUM STATE 12 COUNTY 031
PROVISIONAL DATA SUBJECT TO REVISION

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3.7	e173	e16	e14	e110	e8.0	e6.5	3.9	e4.2	---	---	---
2	e3.3	e80	e15	e170	88	e50	5.2	3.9	e4.5	---	---	---
3	e3.2	e54	e14	e65	e40	e30	5.1	18	e4.3	---	---	---
4	e3.2	e40	e12	e39	e25	e20	5.0	e30	e6.8	---	---	---
5	e3.3	e31	e12	e25	e22	e15	4.9	e10	e6.3	---	---	---
6	e4.3	e128	e11	e15	e18	e10	4.7	e7.0	e14	---	---	---
7	e14	e85	e10	e12	e15	e12	4.6	e6.0	e54	---	---	---
8	e9.0	e49	e8.0	e9.0	e13	e11	4.5	e5.0	e52	---	---	---
9	e9.0	e38	e9.0	e8.0	e12	e10	4.5	e4.6	e22	---	---	---
10	e11	e98	e8.0	e7.0	e10	e9.5	4.4	e4.7	e13	---	---	---
11	e8.0	e96	e8.0	e6.0	e9.0	e9.0	4.3	e4.9	e20	---	---	---
12	e7.0	e56	e8.0	e5.5	e8.5	e9.0	4.2	e4.9	e34	---	---	---
13	e5.5	e42	e8.0	e25	e8.0	e8.5	5.9	e4.8	e19	---	---	---
14	e5.0	e32	e8.0	e80	e7.5	e8.5	8.6	e4.5	e21	---	---	---
15	e9.0	e27	e8.0	e35	e7.0	e8.0	4.9	e4.3	e96	---	---	---
16	e80	e22	e8.0	e20	e7.0	e8.0	4.5	e4.2	e260	---	---	---
17	e170	e20	e7.0	e15	e6.5	e7.5	4.4	e4.2	e180	---	---	---
18	e35	e17	e7.0	e100	e6.5	e7.5	4.3	e4.1	e90	---	---	---
19	e18	e15	e7.0	e45	e6.5	e7.0	4.2	e3.9	e60	---	---	---
20	e13	e14	e7.0	e25	e6.5	e7.0	4.1	e3.9	e85	---	---	---
21	e10	e14	e43	e18	e6.0	e7.0	4.2	e3.8	e210	---	---	---
22	e9.0	e14	e22	e15	e6.0	e6.5	6.1	e3.7	e140	---	---	---
23	e8.0	e13	e25	e11	e7.0	e6.5	9.5	e3.8	e125	---	---	---
24	e8.0	e13	e23	e9.0	e9.0	e6.5	5.1	e3.7	e240	---	---	---
25	e9.0	e13	e52	e8.0	e12	e7.0	4.4	e3.7	e130	---	---	---
26	e10	e18	e40	e7.0	e11	e10	4.3	e3.0	e155	---	---	---
27	e9.0	e32	e27	e7.0	e10	e9.0	4.2	e3.3	e115	---	---	---
28	e8.0	e31	e22	e7.0	e9.0	e8.5	4.1	e4.0	e55	---	---	---
29	e7.0	e25	e17	e120	---	e8.0	4.0	e4.0	e36	---	---	---
30	e220	e19	e16	e300	---	e7.5	4.0	e4.2	e20	---	---	---
31	e348	---	e14	e180	---	e7.0	---	e4.0	---	---	---	---
TOTAL	1060.5	1309	493.0	1402.5	496.0	339.0	148.7	178.0	2272.1	---	---	---
MEAN	34.2	43.6	15.9	45.2	17.7	10.9	4.96	5.74	75.7	---	---	---
MAX	348	173	52	300	110	50	9.5	30	260	---	---	---
MIN	3.2	13	7.0	5.5	6.0	6.5	4.0	3.0	4.2	---	---	---
CFSM	2.18	2.78	1.01	2.88	1.13	.70	32	37	4.82	---	---	---
IN.	2.51	3 10	1.17	3.32	1.18	.80	35	42	5.38	---	---	---

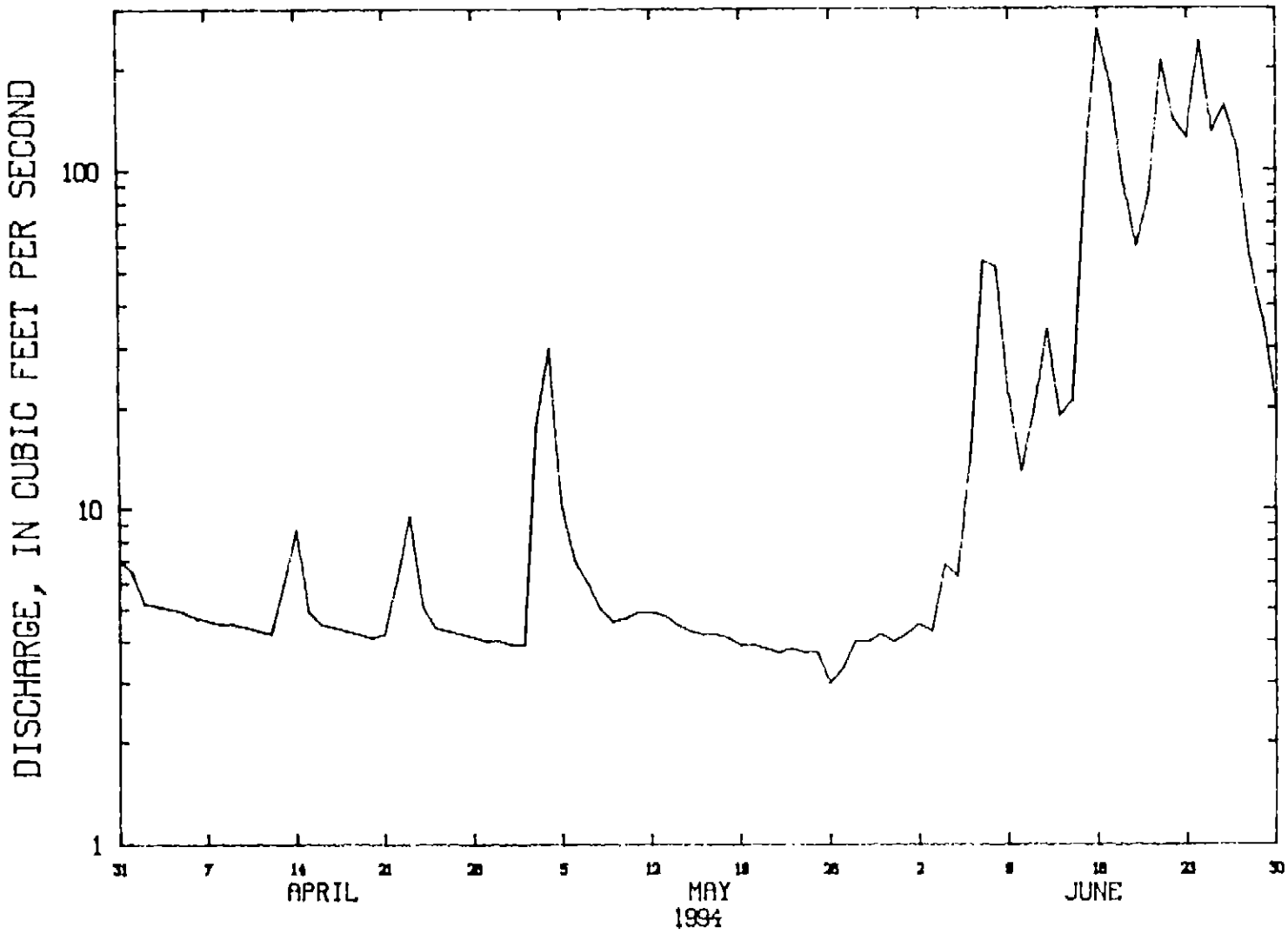
e Estimated

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION
SUMMARY OF DISCHARGE MEASUREMENT DATA

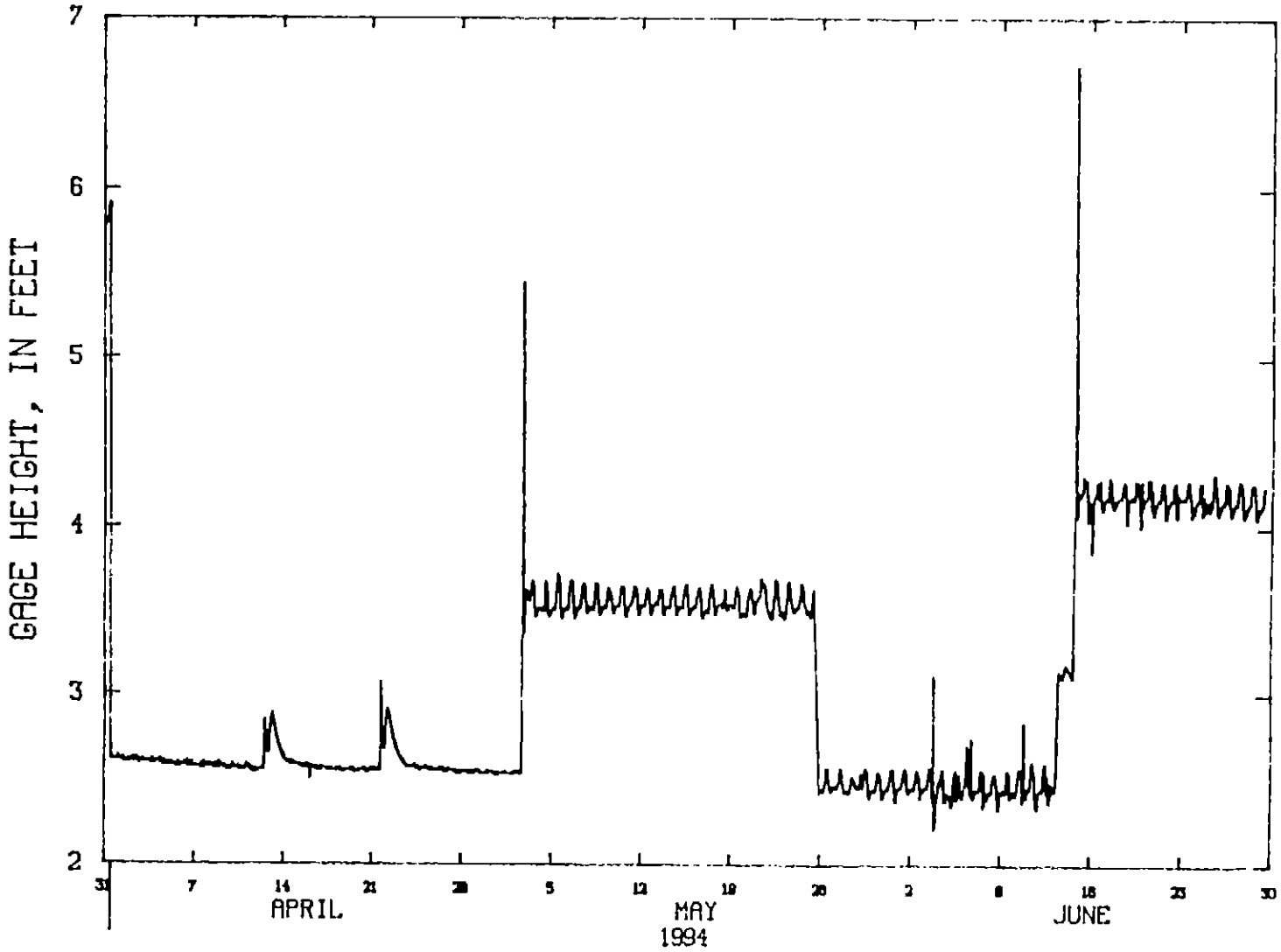
02245913
SAL TAYLOR CREEK NEAR MAXVILLE, FL

DATE PROCESSED: 13-JUL-94 10:52

NO.	DATE / TIME	MADE BY	WIDTH	AREA	MEAN VEL.	GAGE HEIGHT	DISCHARGE CFS	SHIFT ADJ.	PCT. DIFF.	NO. SECT.	GHT. CHG.	TIME	RATED	CONTRC
							RATING NO. 1.0							
1	07/10/92 0845	CVP/JES	17.0	10.6	0.65	2.65	6.89		+0.9	25	0.00	0.4	F	CLEAR
	REMARKS: PZF 2.05													
2	07/23/92 1225	CVP/JES	23.0	14.5	0.67	2.78	9.64		-2.0	23	0.00	0.5	F	CLEAR
	REMARKS: GATES ABOVE WATER													
3	07/31/92 1015	CVP/JES	22.6	20.0	0.81	3.00	16.2		0.0	22	0.00	0.5	F	CLEAR
	REMARKS: WADING 300 FT BELOW GAGE													
4	08/17/92 1120	CVP/JES	24.0	64.6	1.03	4.26	66.4		+0.3	23	-0.03	0.8	G	
5	08/19/92 1022	CVP/JES	22.0	42.0	0.82	3.46	34.3		-0.3	23	0.00	0.4	G	
6	09/10/92 1305	CVP/MJS	33.0	188.	1 92	8.87	374		0.0	45	+0.04	0.8	F	
	REMARKS: WIDTH/AREA/MEAN VEL ARE MAIN CHANNEL ONLY													
7	09/17/92 1138	CVP/JES		25.6	5.16	6.02	132		-0.8	9	0.00	0.1	F	
	REMARKS: DWNSTR SIDE CULVERTS													
8	09/25/92 1323	CVP/JES		61.3	4.61	8.12	283		-3.7	16	0.00	0.4	P	
	REMARKS: 7 SIPHONS FLOWING													
							RATING NO. 2.0							
9	10/05/92 1200	CVP/MJS		203.	2.68	8.58	545		-1.6	29	-0.02	1.4	F	SUBMERGED
	REMARKS: O.S. GH BY RP to WS METHOD. FLOW BREACHED & CUT AWAY ROAD.(BOAT,WADED,HANDLINE)													
							RATING NO. 1.0							
10	11/18/92 0950	CVP/JES	20.0	20.8	0 34	2.76	7.12	-0.10	+1.1	21	0.00	0.4	F	CLEAR
	REMARKS: OS GH DETERMINED BY RP to WS METHOD. CHANGED OUT CR10 EQUIPMENT, & VOLTAGE REG.'s.													
11	12/22/92 1010	JES/CVP	20.0	23.5	0.25	2.69	5.92	-0.13	-1.5		0.00	0.3	F	CLEAR
12	02/09/93 1300	jes/cvp	25.0	25.7	0.55	2.97	14.2	-0.04	+1.4	26	0.00	0.6	F	CLEAR
	REMARKS: WADING 250 FT BELOW DAM													
13	03/02/93 1335	JES/CVP	20.6	32.2	0.48	3.08	15.4	-0.07	-7.2	24	0.00	0.5	G	CLEAR
14	04/05/93 1155	JES/CVP	11 4	11.7	1.35	2.95	15.8	+0 03	+1.3	24	0.00	0.5	F	CLEAR
	REMARKS: 300 FT BELOW DAM													
15	05/03/93 1215	JES	10.0	7.60	0 74	2.64	5 61	-0.05	-0 2	21	-0.01	0.4	F	
	REMARKS: BDR MALFUNCTIONING - G H. OFF. O.S. USED AS REFERENCE GAGE.													
16	06/11/93 1000	JES/CVP	8.20	7.51	0.42	2.46	2 90	-0.04	+2 1	22	0.00	0.4	F	
	REMARKS: PS2 DRIFTING. CORRECTED													
17	07/01/93 1250	RAB/CVP	14.5	13.2	0.87	2.88	11.5	-0 04	+0.9	23	0.00	0.4	P	CLEAR
18	08/02/93 1035	JES	10.0	8.40	0 52	2.67	4 37	-0 15	+0.2	24	-0.01	0.5	F	
	REMARKS: CULVERTS OPEN. MOSS ON LOW WATER CONTROL.													
19	09/01/93 1005	JES	10.0	7.67	0.48	2.56	3 72	-0.08	0.0	23	0.00	0.4	F	
	REMARKS: GATES OPEN. PS2 DRIFTING, HENCE O.S. G.H. USED.													
20	09/30/93 0820	jes/cvp	11 9	6.45	0 62	2.84	3.97	-0 34	-1.5	25	0.00	0.6	F	
	REMARKS: TWO GATES CLOSED. WADE 200 FTR DS													
21	11/18/93 1000	CVP/JES	18.5	25.5	0.59	2.93	15.0	+0.03	+0 7	23	-0.01	0.5	F	CLEAR
	REMARKS: INSTALLED NEW BDR320 & PS2													
22	12/09/93 1000	JES/CVP	14.3	11.3	0 73	2.87	8 26	-0 15	-1.4	23	0.00	0 4	F	CLEAR
23	01/04/94 0955	JES/CVP	26.5	52.9	0.75	3.87	39.9	-0.27	-0 2	23	-0 01	0 6	F	CLEAR
	REMARKS: 2 GATES CLEAR. 250 FT DWNSTR													
24	02/01/94 1218	JES/CVP		25.6	4 38	4 77	112			9	-0.02	0 4	F	
	REMARKS: DSS CULVERTS													
25	03/18/94 1058	JES/CVP	12.0	11 6	0 64	6 12	7 47			21	0.00	0.4	F	
	REMARKS: 300' BEL GAGE --GATES ALL CLOSED													
26	04/01/94 1120	JES/CVP	12.0	11 3	0 56	2.66	6 37			23	0.00	0 4	F	
	REMARKS: ALL GATES OPEN. 300 FT DWNSTR													
27	05/26/94 1215	CVP/RAB	8.80	8 80	0 42	2.55	3 72			26	0 00	0 4	G	CLEAR
	REMARKS: ALL GATES OPEN													



—— 02245913 SAL TAYLOR CREEK NEAR MAXVILLE, FL
MEAN DAILY DISCHARGE (CFS)



02245913 SAL TAYLOR CREEK NEAR MAXVILLE, FL
INSTANTANEOUS GAGE ' .GHT (FEET), STAGE, EDITED

APPENDIX L

APPENDIX L

COMPARATIVE STATISTICS FOR SELECT INORGANICS (AND WET CHEMISTRY) IN GROUNDWATER AT OU 7

SHALLOW

Chem.name is chemical name
Min.dl is minimum reported detection level
Max.dl is maximum reported detection level
Min.lv is minimum level reported
Max.lv is maximum level reported
ADL.Avg is above detection level average value
Median is median of all values above and below detection level
Num.Det/Tot.Sample is number of detects / total number sampled

Chem.name	Min.dl	Max.dl	Min.lv	Max.lv	ADL.Avg	Median	Num.Det/Tot.Sample
ALKALINITY, BICARBONATE	10.000	10.000	15.000	130.000	50.000	15.000	7/13
ALKALINITY, CARBONATE	10.000	10.000	N/A	N/A	N/A	10.000 U	0/13
ALKALINITY, TOTAL	10.000	10.000	15.000	130.000	50.000	15.000	7/13
ALUMINUM	112.000	292.000	304.000	11100.000	2141.667	867.000 J	12/15
ANTIMONY	2.000	2.000	2.100	2.100	2.100	2.000 U	1/15
ARSENIC	3.000	3.000	3.300	3.800	3.550	3.000 U	2/15
BARIUM	N/A	N/A	4.700	30.600	18.753	18.900	15/15
BERYLLIUM	1.000	1.000	N/A	N/A	N/A	1.000 U	0/15
CADMIUM	1.000	1.000	2.400	4.200	3.300	1.000 U	2/15
CALCIUM	557.000	557.000	1310.000	34300.000	10497.857	4540.000	14/15
CHLORIDE	N/A	N/A	3.000	85.000	17.692	10.000	13/13
CHROMIUM	2.000	2.000	2.100	9.200	5.875	2.000 U	4/15
COBALT	2.000	2.000	2.300	2.300	2.300	2.000 U	2/15
COPPER	2.000	7.200	2.100	2.100	2.100	2.100 U	3/15
CYANIDE	10.000	10.000	N/A	N/A	N/A	10.000 U	0/15
DISS. ALUMINUM	42.100	143.000	1440.000	2330.000	1885.000	143.000 U	2/5
DISS. ANTIMONY	N/A	N/A	3.000	7.900	5.400	5.600	5/5
DISS. ARSENIC	3.000	3.000	N/A	N/A	N/A	3.000 U	0/5
DISS. BARIUM	N/A	N/A	11.800	24.200	18.200	15.700	5/5
DISS. BERYLLIUM	1.000	1.000	N/A	N/A	N/A	1.000 U	0/5
DISS. CADMIUM	1.000	1.000	1.300	1.500	1.400	1.000 U	2/5
DISS. CALCIUM	N/A	N/A	1320.000	31400.000	18204.000	16300.000	5/5
DISS. CHROMIUM	2.000	2.000	2.300	13.600	6.867	2.300	3/5
DISS. COBALT	2.000	2.000	2.200	2.400	2.300	2.000 U	2/5
DISS. COPPER	2.100	6.100	N/A	N/A	N/A	3.100 U	0/5
DISS. IRON	N/A	N/A	172.000	1020.000	445.250	294.500 J	4/4
DISS. LEAD	1.000	1.000	N/A	N/A	N/A	1.000 U	0/5
DISS. MAGNESIUM	N/A	N/A	276.000	2740.000	1809.200	2050.000	5/5
DISS. MANGANESE	3.000	3.500	38.100	41.600	39.850	20.800	2/4
DISS. MERCURY	0.200	0.200	N/A	N/A	N/A	0.200 U	0/5
DISS. NICKEL	6.000	25.800	N/A	N/A	N/A	10.800 U	0/5
DISS. POTASSIUM	N/A	N/A	168.000	4170.000	1984.200	854.000 J	5/5
DISS. SELENIUM	4.000	4.000	N/A	N/A	N/A	4.000 U	0/5
DISS. SILVER	1.000	1.000	N/A	N/A	N/A	1.000 U	0/5
DISS. SODIUM	N/A	N/A	2880.000	34200.000	16886.000	7120.000 J	5/5
DISS. THALLIUM	6.000	7.600	N/A	N/A	N/A	6.000 U	0/5
DISS. VANADIUM	1.000	1.000	2.700	9.800	7.167	2.700	3/5
DISS. ZINC	10.000	31.800	N/A	N/A	N/A	21.400 U	0/5
HARDNESS	25.000	120.000	10.000	100.000	49.250	48.000	8/13
IRON	N/A	N/A	239.000	9150.000	1626.786	883.500 R	14/14
LEAD	1.000	1.000	3.600	3.600	3.600	1.000 U	1/15
MAGNESIUM	N/A	N/A	254.000	3120.000	1181.267	797.000	15/15
MANGANESE	3.600	4.100	4.400	140.000	27.542	6.850	12/14
MERCURY	0.200	0.200	1.000	1.000	1.000	0.200 U	1/15
NICKEL	2.000	22.300	N/A	N/A	N/A	2.000 U	0/15
POTASSIUM	N/A	N/A	125.000	4730.000	975.800	297.000	15/15
SELENIUM	4.000	4.000	4.200	4.200	4.200	4.000 U	1/15
SILVER	1.000	1.000	N/A	N/A	N/A	1.000 U	0/15
SODIUM	N/A	N/A	2600.000	32600.000	9211.333	4900.000	15/15
SULFATE	N/A	N/A	5.000	78.000	25.923	17.000	13/13
SULFIDE	1.000	1.000	1.000	2.000	1.333	1.000	9/13
THALLIUM	6.000	6.700	6.300	6.300	6.300	6.000 U	1/15
TOTAL DISSOLVED SOLIDS	N/A	N/A	34.000	390.000	124.846	86.000	13/13
TOTAL PETROLEUM HYDROCARB	0.500	0.500	0.900	1.300	1.100	0.500 U	2/13
VANADIUM	1.000	3.500	1.400	14.900	5.300	2.700	13/15
ZINC	3.000	25.500	21.900	50.000	34.920	17.700 U	5/15

INTERMEDIATE

Chem.name is chemical name
Min.dl is minimum reported detection level
Max.dl is maximum reported detection level
Min.lv is minimum level reported
Max.lv is maximum level reported
ADL.Avg is above detection level average value
Median is median of all values above and below detection level
Num.Det/Tot.Sample is number of detects / total number sampled

Chem.name	Min.dl	Max.dl	Min.lv	Max.lv	ADL.Avg	Median		Num.Det/Tot.Sample
ALKALINITY, BICARBONATE	10.000	10.000	10.000	16.000	13.667	10.000		3/5
ALKALINITY, CARBONATE	10.000	10.000	N/A	N/A	N/A	10.000	U	0/5
ALKALINITY, TOTAL	10.000	10.000	10.000	16.000	13.667	10.000		3/5
ALUMINUM	123.000	184.000	743.000	1170.000	956.500	184.000	U	2/5
ANTIMONY	2.000	2.000	2.200	2.200	2.200	2.000	U	1/5
ARSENIC	N/A	N/A	4.500	56.200	21.660	5.000		5/5
BARIUM	N/A	N/A	6.500	20.200	14.280	16.100		5/5
BERYLLIUM	1.000	1.000	N/A	N/A	N/A	1.000	U	0/5
CADMIUM	1.000	1.000	N/A	N/A	N/A	1.000	U	0/5
CALCIUM	N/A	N/A	479.000	1330.000	829.600	686.000	J	5/5
CHLORIDE	N/A	N/A	4.000	9.000	7.400	8.000		5/5
CHROMIUM	2.000	2.000	2.400	2.400	2.400	2.000	U	1/5
COBALT	2.000	2.000	5.500	5.900	5.700	2.000	U	2/5
COPPER	2.000	5.000	N/A	N/A	N/A	2.000	U	0/5
CYANIDE	10.000	10.000	N/A	N/A	N/A	10.000	UJ	0/5
DISS. ALUMINUM	78.800	303.000	588.000	588.000	588.000	303.000	U	1/3
DISS. ANTIMONY	N/A	N/A	5.200	9.800	7.567	7.700		3/3
DISS. ARSENIC	3.000	3.000	37.300	52.400	44.850	37.300		2/3
DISS. BARIUM	N/A	N/A	6.300	16.800	11.000	9.900		3/3
DISS. BERYLLIUM	1.000	1.000	N/A	N/A	N/A	1.000	U	0/3
DISS. CADMIUM	1.000	1.000	N/A	N/A	N/A	1.000	U	0/3
DISS. CALCIUM	N/A	N/A	560.000	1590.000	1233.333	1550.000		3/3
DISS. CHROMIUM	2.000	2.000	N/A	N/A	N/A	2.000	U	0/3
DISS. COBALT	2.000	2.000	5.700	5.900	5.800	5.700		2/3
DISS. COPPER	2.000	5.000	5.400	5.400	5.400	5.000	U	1/3
DISS. IRON	N/A	N/A	973.000	5340.000	2677.667	1720.000	J	3/3
DISS. LEAD	1.000	1.000	N/A	N/A	N/A	1.000	U	0/3
DISS. MAGNESIUM	N/A	N/A	396.000	832.000	600.667	574.000		3/3
DISS. MANGANESE	N/A	N/A	7.900	10.500	9.400	9.800		3/3
DISS. MERCURY	0.200	0.200	N/A	N/A	N/A	0.200	U	0/3
DISS. NICKEL	10.900	13.100	12.100	12.100	12.100	12.100		1/3
DISS. POTASSIUM	N/A	N/A	139.000	352.000	246.000	247.000		3/3
DISS. SELENIUM	4.000	4.000	N/A	N/A	N/A	4.000	U	0/3
DISS. SILVER	1.000	1.000	N/A	N/A	N/A	1.000	U	0/3
DISS. SODIUM	N/A	N/A	3670.000	6550.000	5453.333	6140.000		3/3
DISS. THALLIUM	6.000	6.000	N/A	N/A	N/A	6.000	U	0/3
DISS. VANADIUM	1.000	1.000	3.900	3.900	3.900	1.000	U	1/3
DISS. ZINC	27.400	42.100	70.500	70.500	70.500	42.100	U	1/3
HARDNESS	5.000	5.000	6.000	6.000	6.000	5.000	U	1/5
IRON	N/A	N/A	1160.000	5960.000	3372.000	2510.000		5/5
LEAD	1.000	1.000	N/A	N/A	N/A	1.000	U	0/5
MAGNESIUM	N/A	N/A	410.000	843.000	628.400	573.000		5/5
MANGANESE	N/A	N/A	5.100	21.600	11.240	9.700		5/5
MERCURY	0.200	0.200	N/A	N/A	N/A	0.200	U	0/5
NICKEL	2.000	25.400	12.500	12.500	12.500	10.800	U	1/5
POTASSIUM	N/A	N/A	133.000	333.000	228.200	177.000		5/5
SELENIUM	4.000	4.000	N/A	N/A	N/A	4.000	U	0/5
SILVER	1.000	1.000	N/A	N/A	N/A	1.000	U	0/5
SODIUM	N/A	N/A	3620.000	6100.000	5226.000	5570.000		5/5
SULFATE	5.000	5.000	5.000	9.000	7.000	5.000		3/5
SULFIDE	1.000	1.000	1.000	1.000	1.000	1.000		3/5
THALLIUM	6.000	11.700	6.300	6.300	6.300	6.000	U	1/5
TOTAL DISSOLVED SOLIDS	N/A	N/A	31.000	48.000	39.600	39.000		5/5
TOTAL PETROLEUM HYDROCARB	0.500	0.500	N/A	N/A	N/A	0.500	U	0/5
VANADIUM	1.000	1.000	1.100	3.300	2.200	1.000	U	2/5
ZINC	11.600	34.600	67.200	67.200	67.200	18.400	U	1/5

DEEP

Chem.name is chemical name
Min.dl is minimum reported detection level
Max.dl is maximum reported detection level
Min.lv is minimum level reported
Max.lv is maximum level reported
ADL.Avg is above detection level average value
Median is median of all values above and below detection level
Num.Det/Tot.Sample is number of detects / total number sampled

Chem.name	Min.dl	Max.dl	Min.lv	Max.lv	ADL.Avg	Median	Num.Det/Tot.Sample
ALKALINITY, BICARBONATE	N/A	N/A	33.000	260.000	195.611	250.000	18/18
ALKALINITY, CARBONATE	10.000	10.000	N/A	N/A	N/A	10.000 U	0/18
ALKALINITY, TOTAL	N/A	N/A	33.000	260.000	195.611	250.000	18/18
ALUMINUM	41.000	349.000	251.000	662.000	437.200	125.000 U	5/18
ANTIMONY	2.000	2.000	3.100	10.300	5.633	2.000 U	3/18
ARSENIC	3.000	3.000	3.000	10.700	5.329	3.000 U	7/18
BARIUM	N/A	N/A	7.000	108.000	37.950	34.400	18/18
BERYLLIUM	1.000	1.000	N/A	N/A	N/A	1.000 U	0/18
CADMIUM	1.000	1.000	N/A	N/A	N/A	1.000 U	0/18
CALCIUM	N/A	N/A	8030.000	63400.000	41542.778	54200.000 J	18/18
CHLORIDE	N/A	N/A	8.000	16.000	10.778	10.000	18/18
CHROMIUM	2.000	2.000	2.200	9.800	6.933	2.000 U	3/18
COBALT	2.000	2.000	N/A	N/A	N/A	2.000 U	0/18
COPPER	2.000	5.100	2.300	8.200	4.614	2.900	7/18
CYANIDE	10.000	10.000	N/A	N/A	N/A	10.000 U	0/18
DISS. ALUMINUM	34.600	93.400	N/A	N/A	N/A	49.400 U	0/7
DISS. ANTIMONY	N/A	N/A	3.800	12.600	6.971	6.600	7/7
DISS. ARSENIC	3.000	3.000	3.300	4.300	3.800	3.000 U	2/7
DISS. BARIUM	N/A	N/A	28.000	32.600	30.357	30.000	7/7
DISS. BERYLLIUM	1.000	1.000	N/A	N/A	N/A	1.000 U	0/7
DISS. CADMIUM	1.000	1.000	N/A	N/A	N/A	1.000 U	0/7
DISS. CALCIUM	N/A	N/A	8350.000	64200.000	43735.714	55300.000	7/7
DISS. CHROMIUM	2.000	2.000	N/A	N/A	N/A	2.000 U	0/7
DISS. COBALT	2.000	2.000	N/A	N/A	N/A	2.000 U	0/7
DISS. COPPER	2.000	3.200	N/A	N/A	N/A	2.300 U	0/7
DISS. IRON	46.900	47.200	166.000	1210.000	499.200	184.000 J	5/7
DISS. LEAD	1.000	1.000	N/A	N/A	N/A	1.000 U	0/7
DISS. MAGNESIUM	N/A	N/A	2390.000	29200.000	19684.286	25200.000	7/7
DISS. MANGANESE	N/A	N/A	19.000	59.200	41.357	49.000	7/7
DISS. MERCURY	0.200	0.200	N/A	N/A	N/A	0.200 U	0/7
DISS. NICKEL	6.000	15.400	N/A	N/A	N/A	8.500 U	0/7
DISS. POTASSIUM	N/A	N/A	751.000	970.000	874.143	908.000 J	

DD DEEP

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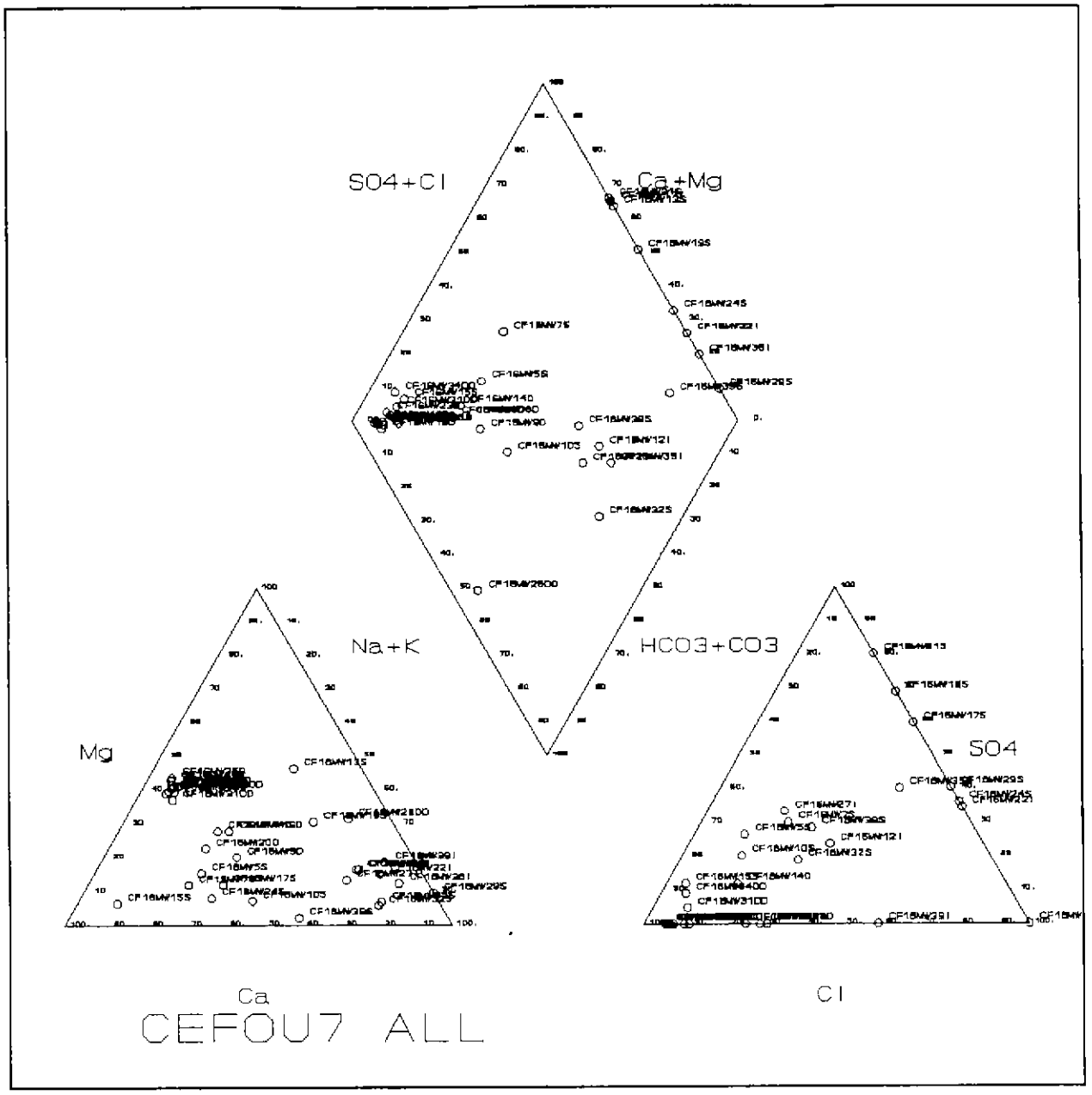
Median is median of all values above and below detection level
Num.Det/Tot.Sample is number of detects / total number sampled

Chem.name	Min.dl	Max.dl	Min.lv	Max.lv	ADL.Avg	Median		Num.Det/Tot.Sample
ALKALINITY, BICARBONATE	N/A	N/A	230.000	260.000	247.500	250.000		4/4
ALKALINITY, CARBONATE	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4
ALKALINITY, TOTAL	N/A	N/A	230.000	260.000	247.500	250.000		4/4
ALUMINUM	44.700	199.000	N/A	N/A	N/A	125.000	U	0/4
ANTIMONY	2.000	2.000	3.100	10.300	6.700	2.550	J	2/4
ARSENIC	3.000	3.000	N/A	N/A	N/A	3.000	U	0/4
BARIUM	N/A	N/A	7.000	41.800	27.275	30.150		4/4
BERYLLIUM	1.000	1.000	N/A	N/A	N/A	1.000	U	0/4
CADMIUM	1.000	1.000	N/A	N/A	N/A	1.000	U	0/4
CALCIUM	N/A	N/A	9160.000	63400.000	49290.000	62300.000	J	4/4
CHLORIDE	N/A	N/A	10.000	15.000	11.500	10.500		4/4
CHROMIUM	2.000	2.000	9.800	9.800	9.800	2.000	U	1/4
COBALT	2.000	2.000	N/A	N/A	N/A	2.000	U	0/4
COPPER	2.200	5.100	8.000	8.200	8.100	6.550		2/4
CYANIDE	10.000	10.000	N/A	N/A	N/A	10.000	U	0/4
DISS. ALUMINUM	45.700	54.600	N/A	N/A	N/A	50.150	U	0/2
DISS. ANTIMONY	N/A	N/A	8.100	12.600	10.350	10.350		2/2
DISS. ARSENIC	3.000	3.000	N/A	N/A	N/A	3.000	U	0/2
DISS. BARIUM	N/A	N/A	28.000	30.000	29.000	29.000		2/2
DISS. BERYLLIUM	1.000	1.000	N/A	N/A	N/A	1.000	U	0/2
DISS. CADMIUM	1.000	1.000	N/A	N/A	N/A	1.000	U	0/2
DISS. CALCIUM	N/A	N/A	55800.000	64200.000	60000.000	60000.000		2/2
DISS. CHROMIUM	2.000	2.000	N/A	N/A	N/A	2.000	U	0/2
DISS. COBALT	2.000	2.000	N/A	N/A	N/A	2.000	U	0/2
DISS. COPPER	2.300	2.400	N/A	N/A	N/A	2.350	U	0/2
DISS. IRON	47.200	47.200	166.000	166.000	166.000	106.600	J	1/2
DISS. LEAD	1.000	1.000	N/A	N/A	N/A	1.000	U	0/2
DISS. MAGNESIUM	N/A	N/A	25200.000	29200.000	27200.000	27200.000		2/2
DISS. MANGANESE	N/A	N/A	36.900	59.200	48.050	48.050		2/2
DISS. MERCURY	0.200	0.200	N/A	N/A	N/A	0.200	U	0/2
DISS. NICKEL	8.500	10.000	N/A	N/A	N/A	9.250	U	0/2
DISS. POTASSIUM	N/A	N/A	806.000	910.000	858.000	858.000	J	2/2
DISS. SELENIUM	4.000	4.000	N/A	N/A	N/A	4.000	U	0/2
DISS. SILVER	1.000	1.000	N/A	N/A	N/A	1.000	U	0/2
DISS. SODIUM	N/A	N/A	7750.000	9280.000	8515.000	8515.000	J	2/2
DISS. THALLIUM	6.000	6.800	N/A	N/A	N/A	6.400	U	0/2
DISS. VANADIUM	1.000	1.000	N/A	N/A	N/A	1.000	U	0/2
DISS. ZINC	14.400	33.400	N/A	N/A	N/A	23.900	U	0/2
HARDNESS	N/A	N/A	230.000	260.000	247.500	250.000		4/4
IRON	N/A	N/A	69.600	444.000	249.650	242.500		4/4
LEAD	1.000	1.000	N/A	N/A	N/A	1.000	U	0/4
MAGNESIUM	N/A	N/A	16000.000	28700.000	24525.000	26700.000		4/4
MANGANESE	N/A	N/A	6.700	57.500	40.500	48.900		4/4
MERCURY	0.200	0.200	N/A	N/A	N/A	0.200	U	0/4
NICKEL	2.000	9.300	N/A	N/A	N/A	4.000	U	0/4
POTASSIUM	N/A	N/A	853.000	39900.000	10721.000	1065.500		4/4
SELENIUM	4.000	4.000	N/A	N/A	N/A	4.000	U	0/4
SILVER	1.000	1.000	N/A	N/A	N/A	1.000	U	0/4
SODIUM	N/A	N/A	8050.000	30600.000	14797.500	10270.000		4/4
SULFATE	5.000	5.000	11.000	21.000	16.000	8.000		2/4
SULFIDE	1.000	1.000	1.000	1.000	1.000	1.000	U	1/4
THALLIUM	6.000	7.900	N/A	N/A	N/A	6.350	U	0/4
TOTAL DISSOLVED SOLIDS	N/A	N/A	260.000	280.000	267.500	265.000		4/4
TOTAL PETROLEUM HYDROCARB	0.500	0.500	0.500	0.500	0.500	0.500		2/4
VANADIUM	1.000	1.000	N/A	N/A	N/A	1.000	U	0/4
ZINC	13.600	13.600	48.600	98.500	75.733	64.350		3/4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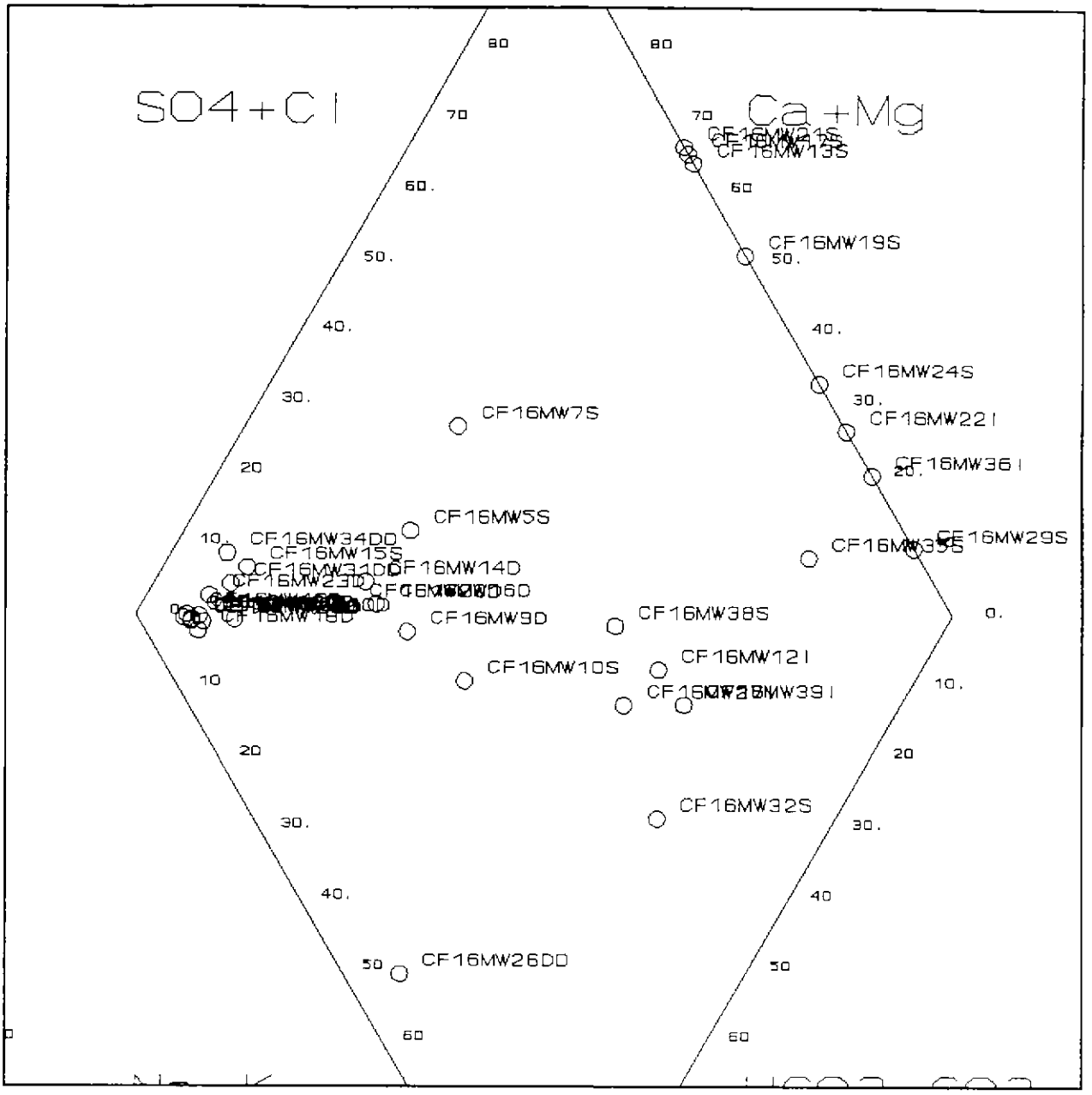
Ca+Mg
Na+K
HCO3+CO3
Mg
SO4
Ca
Cl
CEFOU7 ALL


SO4+Cl
Ca+Mg
CF16MW13S
CF16MW19S
CF16MW24S
CF16MW22I
CF16MW36I
CF16MW29S
CF16MW7S
CF16MW5S
CF16MW34DD
CF16MW15S
CF16MW14D
CF16MW9D
CF16MW38S
CF16MW12I
CF16MW10S
CF16MW32S
CF16MW26DD

```
Sample: CF16MW10S
Ionic balance =        3.89327025 % (should be near 0)
Sum of cations =        3.57246733
Sum of anions  =        3.30471992

Calc. TDS in mg/l =     324.29000900

Equlib. pH =        7.64759827

Calcium     =       47.91002660 %  (       1.71157002 meq/l)
Magnesium   =        7.18414402 %  (       0.25665119 meq/l)
Sodium      =       41.52032470 %  (       1.48329997 meq/l)
Potassium   =        3.38550615 %  (       0.12094610 meq/l)

Sulfate     =       20.16025540 %  (       0.66623998 meq/l)
Chloride    =       15.36529450 %  (       0.50777996 meq/l)
Bicarbonate =       64.47444920 %  (       2.13069987 meq/l)
Carbonate   =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW10S
Carbonate


Sample: CF16MW11DD
Ionic balance =       13.44769480 % (should be near 0)
Sum of cations =        5.95535326
Sum of anions  =        4.54349995

Calc. TDS in mg/l =     371.98101800

Equlib. pH =        7.07977295

Calcium     =       53.12296300 %  (       3.16366005 meq/l)
Magnesium   =       39.64268490 %  (       2.36086202 meq/l)
Sodium      =        6.83032560 %  (       0.40677002 meq/l)
Potassium   =        0.40402928 %  (  2.40613706E-02 meq/l)

Sulfate     =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
Chloride    =        6.20886993 %  (       0.28209999 meq/l)
Bicarbonate =       93.79112240 %  (       4.26139975 meq/l)
Carbonate   =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW11DD
Sulfate
Carbonate
```

```
 Sample: CF16MW12I
 Ionic balance =      -18.90394780 % (should be near 0)
 Sum of cations =       0.42099661
 Sum of anions  =       0.61726999

 Calc. TDS in mg/l =      38.59099960

 Equlib. pH =       9.99689293

Calcium     =      15.76426030 %  (  6.63670003E-02 meq/l)
Magnesium   =      16.33489610 %  (  6.87693581E-02 meq/l)
Sodium      =      65.92690280 %  (      0.27755001 meq/l)
Potassium   =       1.97394705 %  (  8.31025001E-03 meq/l)

Sulfate     =      23.61041450 %  (      0.14574000 meq/l)
Chloride    =      36.56098560 %  (      0.22567999 meq/l)
Bicarbonate =      39.82860180 %  (      0.24585000 meq/l)
Carbonate   =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW12I
Carbonate


 Sample: CF16MW13S
 Ionic balance =       -6.72895956 % (should be near 0)
 Sum of cations =       0.39618513
 Sum of anions  =       0.45335001

 Calc. TDS in mg/l =      26.93600080

 Equlib. pH = ??????????????

Calcium     =      17.50721930 %  (  6.93610013E-02 meq/l)
Magnesium   =      46.30153270 %  (      0.18343979 meq/l)
Sodium      =      33.76451870 %  (      0.13377000 meq/l)
Potassium   =       2.42672396 %  (  9.61431954E-03 meq/l)

Sulfate     =      68.88716890 %  (      0.31230000 meq/l)
Chloride    =      31.11282540 %  (      0.14105000 meq/l)
Bicarbonate =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
Carbonate   =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW13S
Carbonate
Bicarbonate
```

```
 Sample: CF16MW14D
 Ionic balance =       -6.66189575 % (should be near 0)
 Sum of cations =        1.07084012
 Sum of anions  =        1.22369993

 Calc. TDS in mg/l =       86.99099730

 Equlib. pH =        8.58170128

Calcium     =       46.50572970 %  (       0.49800202 meq/l)
Magnesium   =       27.73136710 %  (       0.29695860 meq/l)
Sodium      =       23.92187120 %  (       0.25616500 meq/l)
Potassium   =        1.84102821 %  (  1.97144691E-02 meq/l)

Sulfate     =       11.90978240 %  (       0.14574000 meq/l)
Chloride    =       18.44242860 %  (       0.22567999 meq/l)
Bicarbonate =       69.64778900 %  (       0.85227996 meq/l)
Carbonate   =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW14D
Carbonate


 Sample: CF16MW15S
 Ionic balance =       -3.50409770 % (should be near 0)
 Sum of cations =        1.61766410
 Sum of anions  =        1.73514998

 Calc. TDS in mg/l =      133.05200200

 Equlib. pH =        7.92098904

Calcium     =       83.28676610 %  (       1.34730005 meq/l)
Magnesium   =        6.40723848 %  (       0.10364760 meq/l)
Sodium      =        9.84444237 %  (       0.15925001 meq/l)
Potassium   =        0.46155688 %  (  7.46644009E-03 meq/l)

Sulfate     =       11.99896240 %  (       0.20819999 meq/l)
Chloride    =        4.87738800 %  (  8.46299976E-02 meq/l)
Bicarbonate =       83.12364960 %  (       1.44231999 meq/l)
Carbonate   =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW15S
Carbonate
```

```
 Sample: CF16MW16D
 Ionic balance =      10.74995040 % (should be near 0)
 Sum of cations =       1.39630473
 Sum of anions  =       1.12523997

 Calc. TDS in mg/l =      86.09500120

 Equlib. pH =       8.52923489

Calcium     =      43.59936900 %  (      0.60878003 meq/l)
Magnesium   =      27.74785230 %  (      0.38744459 meq/l)
Sodium      =      27.01380160 %  (      0.37719500 meq/l)
Potassium   =       1.63897955 %  (  2.28851493E-02 meq/l)

Sulfate     =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
Chloride    =      30.08424950 %  (      0.33851999 meq/l)
Bicarbonate =      69.91574860 %  (      0.78671998 meq/l)
Carbonate   =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW16D
Sulfate
Carbonate


 Sample: CF16MW17S
 Ionic balance =      -2.23084450 % (should be near 0)
 Sum of cations =       0.40080908
 Sum of anions  =       0.41909999

 Calc. TDS in mg/l =      25.97900010

 Equlib. pH = ??????????????

Calcium     =      53.16072080 %  (      0.21307300 meq/l)
Magnesium   =      11.98571590 %  (  4.80398387E-02 meq/l)
Sodium      =      34.05611420 %  (      0.13650000 meq/l)
Potassium   =       0.79744947 %  (  3.19624995E-03 meq/l)

Sulfate     =      59.61345670 %  (      0.24983999 meq/l)
Chloride    =      40.38654330 %  (      0.16926000 meq/l)
Bicarbonate =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
Carbonate   =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW17S
Carbonate
Bicarbonate
```

```
Sample: CF16MW18D
Ionic balance =        1.13668168 % (should be near 0)
Sum of cations =        3.58424711
Sum of anions  =        3.50367975

Calc. TDS in mg/l =     269.17599500

Equlib. pH =        7.43950319

Calcium     =      50.11931230 %  (      1.79640007 meq/l)
Magnesium   =      41.08126070 %  (      1.47245395 meq/l)
Sodium      =       8.23868942 %  (      0.29529500 meq/l)
Potassium   =       0.56073195 %  (  2.00980194E-02 meq/l)

Sulfate     =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
Chloride    =       6.44122791 %  (      0.22567999 meq/l)
Bicarbonate =      93.55877690 %  (      3.27799988 meq/l)
Carbonate   =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW18D
Sulfate
Carbonate
```

```
Sample: CF16MW19S
Ionic balance =        6.31635094 % (should be near 0)
Sum of cations =        0.41158530
Sum of anions  =        0.36267999

Calc. TDS in mg/l =      24.36999890

Equlib. pH = ??????????????

Calcium     =      20.36807440 %  (  8.38320032E-02 meq/l)
Magnesium   =      30.57878880 %  (      0.12585780 meq/l)
Sodium      =      38.80240630 %  (      0.15970500 meq/l)
Potassium   =      10.25073050 %  (  4.21904996E-02 meq/l)

Sulfate     =      68.88717650 %  (      0.24983999 meq/l)
Chloride    =      31.11282730 %  (      0.11284000 meq/l)
Bicarbonate =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
Carbonate   =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW19S
Carbonate
Bicarbonate
```

```
Sample: CF16MW20D
Ionic balance =        9.32499599 % (should be near 0)
Sum of cations =        1.28865433
Sum of anions  =        1.06882000

Calc. TDS in mg/l =       82.57600400

Equlib. pH =        8.48526096

Calcium     =       52.27546310 %  (       0.67365003 meq/l)
Magnesium   =       22.66108130 %  (       0.29202300 meq/l)
Sodium      =       23.12683870 %  (       0.29802501 meq/l)
Potassium   =        1.93661857 %  (  2.49563195E-02 meq/l)

Sulfate     =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
Chloride    =       26.39359280 %  (       0.28209999 meq/l)
Bicarbonate =       73.60640720 %  (       0.78671998 meq/l)
Carbonate   =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW20D
Sulfate
Carbonate


Sample: CF16MW21S
Ionic balance =      -62.95281220 % (should be near 0)
Sum of cations =        0.38936731
Sum of anions  =        1.71264005

Calc. TDS in mg/l =       93.97899630

Equlib. pH = ??????????????

Calcium     =       58.18310930 %  (       0.22654600 meq/l)
Magnesium   =        7.96472073 %  (  3.10120191E-02 meq/l)
Sodium      =       31.90175250 %  (       0.12421500 meq/l)
Potassium   =        1.95041788 %  (  7.59428972E-03 meq/l)

Sulfate     =       80.23402400 %  (       1.37412000 meq/l)
Chloride    =       19.76597400 %  (       0.33851999 meq/l)
Bicarbonate =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
Carbonate   =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW21S
Carbonate
Bicarbonate
```

```
 Sample: CF16MW22I
 Ionic balance =        1.77709460 % (should be near 0)
 Sum of cations =        0.31248227
 Sum of anions  =        0.30157000

 Calc. TDS in mg/l =      18.41600040

 Equlib. pH = ????????????????

Calcium     =      10.95467000 %  (  3.42314020E-02 meq/l)
Magnesium   =      15.08405020 %  (  4.71349806E-02 meq/l)
Sodium      =      72.51291660 %  (      0.22659001 meq/l)
Potassium   =       1.44836700 %  (  4.52589011E-03 meq/l)

Sulfate     =      34.51934810 %  (      0.10410000 meq/l)
Chloride    =      65.48065190 %  (      0.19746999 meq/l)
Bicarbonate =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
Carbonate   =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW22I
Carbonate
Bicarbonate


 Sample: CF16MW23D
 Ionic balance =        9.29942417 % (should be near 0)
 Sum of cations =        5.28412962
 Sum of anions  =        4.38496017

 Calc. TDS in mg/l =     346.35000600

 Equlib. pH =       7.17705202

Calcium     =      51.84411240 %  (      2.73951006 meq/l)
Magnesium   =      40.47515870 %  (      2.13875985 meq/l)
Sodium      =       7.09520864 %  (      0.37492001 meq/l)
Potassium   =       0.58552122 %  (  3.09397001E-02 meq/l)

Sulfate     =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
Chloride    =      10.29336550 %  (      0.45135999 meq/l)
Bicarbonate =      89.70662690 %  (      3.93359995 meq/l)
Carbonate   =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW23D
Sulfate
Carbonate
```

```
 Sample: CF16MW24S
 Ionic balance =      -57.90356060 % (should be near 0)
 Sum of cations =       0.40001643
 Sum of anions  =       1.50045991

 Calc. TDS in mg/l =      68.14099880

 Equlib. pH = ??????????????

Calcium     =      16.34157940 %  (  6.53690025E-02 meq/l)
Magnesium   =      16.38963130 %  (  6.55612200E-02 meq/l)
Sodium      =      65.51731110 %  (      0.26208001 meq/l)
Potassium   =       1.75147307 %  (  7.00618001E-03 meq/l)

Sulfate     =      36.07693480 %  (      0.54131997 meq/l)
Chloride    =      63.92306520 %  (      0.95913994 meq/l)
Bicarbonate =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
Carbonate   =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW24S
Carbonate
Bicarbonate


 Sample: CF16MW25D
 Ionic balance =       7.83049440 % (should be near 0)
 Sum of cations =       5.28250551
 Sum of anions  =       4.51528978

 Calc. TDS in mg/l =     357.75598100

 Equlib. pH =       7.15595055

Calcium     =      50.25418470 %  (      2.65468001 meq/l)
Magnesium   =      43.60203550 %  (      2.30327988 meq/l)
Sodium      =       5.67618942 %  (      0.29984501 meq/l)
Potassium   =       0.46759287 %  (  2.47006193E-02 meq/l)

Sulfate     =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
Chloride    =       5.62289429 %  (      0.25388998 meq/l)
Bicarbonate =      94.37710570 %  (      4.26139975 meq/l)
Carbonate   =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW25D
Sulfate
Carbonate
```

```
 Sample: CF16MW26DD
 Ionic balance =        1.62653339 % (should be near 0)
 Sum of cations =        4.18578672
 Sum of anions  =        4.05179977

 Calc. TDS in mg/l =      335.66000400

 Equlib. pH =        7.97321224

Calcium     =       10.91990660 %  (       0.45708400 meq/l)
Magnesium   =       31.44355010 %  (       1.31615996 meq/l)
Sodium      =       33.26256560 %  (       1.39230001 meq/l)
Potassium   =       24.37398340 %  (       1.02024293 meq/l)

Sulfate     =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
Chloride    =        6.96233797 %  (       0.28209999 meq/l)
Bicarbonate =       93.03766630 %  (       3.76969981 meq/l)
Carbonate   =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW26DD
Sulfate
Carbonate


 Sample: CF16MW27I
 Ionic balance =      -37.74096300 % (should be near 0)
 Sum of cations =        0.25423241
 Sum of anions  =        0.56245995

 Calc. TDS in mg/l =       34.21299740

 Equlib. pH =       10.07152650

Calcium     =       20.60909650 %  (  5.23950011E-02 meq/l)
Magnesium   =       13.26605030 %  (  3.37265991E-02 meq/l)
Sodium      =       64.78717800 %  (       0.16471000 meq/l)
Potassium   =        1.33767760 %  (  3.40081006E-03 meq/l)

Sulfate     =       33.31436920 %  (       0.18737999 meq/l)
Chloride    =       20.06187250 %  (       0.11284000 meq/l)
Bicarbonate =       46.62376400 %  (       0.26223999 meq/l)
Carbonate   =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW27I
Carbonate
```

```
 Sample: CF16MW28D
 Ionic balance =      10.38965610 % (should be near 0)
 Sum of cations =       5.46466732
 Sum of anions  =       4.43601990

 Calc. TDS in mg/l =     727.36303700

 Equlib. pH =       7.14378309

Calcium     =      51.95760350 %  (      2.83931017 meq/l)
Magnesium   =      39.28850170 %  (      2.14698601 meq/l)
Sodium      =       8.32621574 %  (      0.45500001 meq/l)
Potassium   =       0.42767432 %  (  2.33709794E-02 meq/l)

Sulfate     =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
Chloride    =       7.63116503 %  (      0.33851999 meq/l)
Bicarbonate =      92.36883540 %  (      4.09749985 meq/l)
Carbonate   =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW28D
Sulfate
Carbonate


 Sample: CF16MW29S
 Ionic balance =     -88.30641170 % (should be near 0)
 Sum of cations =       0.24974933
 Sum of anions  =       4.02181005

 Calc. TDS in mg/l =     168.31399500

 Equlib. pH = ??????????????

Calcium     =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
Magnesium   =       9.41998863 %  (  2.35263593E-02 meq/l)
Sodium      =      89.26951600 %  (      0.22295001 meq/l)
Potassium   =       1.31049800 %  (  3.27295996E-03 meq/l)

Sulfate     =      40.37883000 %  (      1.62395990 meq/l)
Chloride    =      59.62116620 %  (      2.39785004 meq/l)
Bicarbonate =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
Carbonate   =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW29S
Carbonate
Bicarbonate
Calcium
```

```
Sample: CF16MW30D
Ionic balance =        7.50738668 % (should be near 0)
Sum of cations =        2.80448127
Sum of anions  =        2.41279984

Calc. TDS in mg/l =     188.46899400

Equlib. pH =        7.75475740

Calcium     =       47.68511580 %  (       1.33732009 meq/l)
Magnesium   =       39.89101410 %  (       1.11873603 meq/l)
Sodium      =       11.56773660 %  (       0.32441500 meq/l)
Potassium   =        0.85613799 %  (  2.40102299E-02 meq/l)

Sulfate     =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
Chloride    =       11.69181060 %  (       0.28209999 meq/l)
Bicarbonate =       88.30818940 %  (       2.13069987 meq/l)
Carbonate   =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW30D
Sulfate
Carbonate


Sample: CF16MW31DD
Ionic balance =       10.80175970 % (should be near 0)
Sum of cations =        5.90002441
Sum of anions  =        4.74967003

Calc. TDS in mg/l =     378.58999600

Equlib. pH =        7.09817839

Calcium     =       53.45198440 %  (       3.15368009 meq/l)
Magnesium   =       37.08655550 %  (       2.18811584 meq/l)
Sodium      =        8.94572639 %  (       0.52780002 meq/l)
Potassium   =        0.51573175 %  (  3.04282997E-02 meq/l)

Sulfate     =        4.82180882 %  (       0.22902000 meq/l)
Chloride    =        8.90904045 %  (       0.42315000 meq/l)
Bicarbonate =       86.26914980 %  (       4.09749985 meq/l)
Carbonate   =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW31DD
Carbonate
```

```
Sample: CF16MW32S
Ionic balance =      -11.61482430 % (should be near 0)
Sum of cations =       0.43710798
Sum of anions  =       0.55198997

Calc. TDS in mg/l =      37.59799960

Equlib. pH =       9.92025852

Calcium     =      15.98232170 %  (  6.98600039E-02 meq/l)
Magnesium   =       5.81511688 %  (  2.54183393E-02 meq/l)
Sodium      =      73.17757420 %  (      0.31986502 meq/l)
Potassium   =       5.02498960 %  (  2.19646301E-02 meq/l)

Sulfate     =      18.85903740 %  (      0.10410000 meq/l)
Chloride    =      30.66359900 %  (      0.16926000 meq/l)
Bicarbonate =      50.47736360 %  (      0.27862999 meq/l)
Carbonate   =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW32S
Carbonate
```

```
Sample: CF16MW33D
Ionic balance =      10.32476430 % (should be near 0)
Sum of cations =       5.38809061
Sum of anions  =       4.37960005

Calc. TDS in mg/l =     351.45098900

Equlib. pH =       7.15538597

Calcium     =      51.30685810 %  (      2.76446009 meq/l)
Magnesium   =      41.52625270 %  (      2.23747206 meq/l)
Sodium      =       6.77252913 %  (      0.36491001 meq/l)
Potassium   =       0.39436364 %  (  2.12486703E-02 meq/l)

Sulfate     =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
Chloride    =       6.44122744 %  (      0.28209999 meq/l)
Bicarbonate =      93.55876920 %  (      4.09749985 meq/l)
Carbonate   =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW33D
Sulfate
Carbonate
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```
 Sample: CF16MW34DD
 Ionic balance =        7.72728729 % (should be near 0)
 Sum of cations =        5.65651417
 Sum of anions  =        4.84502983

 Calc. TDS in mg/l =     379.10299700

 Equlib. pH =        7.11072731

Calcium     =       54.16516490 %  (       3.06386018 meq/l)
Magnesium   =       38.97396470 %  (       2.20456791 meq/l)
Sodium      =        6.47527790 %  (       0.36627501 meq/l)
Potassium   =        0.38559455 %  (  2.18112096E-02 meq/l)

Sulfate     =        9.02409267 %  (       0.43721998 meq/l)
Chloride    =        6.40470791 %  (       0.31031001 meq/l)
Bicarbonate =       84.57119750 %  (       4.09749985 meq/l)
Carbonate   =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW34DD
Carbonate


 Sample: CF16MW35S
 Ionic balance =      -36.06039050 % (should be near 0)
 Sum of cations =        0.85568208
 Sum of anions  =        1.82085001

 Calc. TDS in mg/l =      98.10099790

 Equlib. pH =        9.71762371

Calcium     =       14.75396160 %  (       0.12624700 meq/l)
Magnesium   =        6.83511543 %  (  5.84868565E-02 meq/l)
Sodium      =       77.63397980 %  (       0.66430002 meq/l)
Potassium   =        0.77694744 %  (  6.64820010E-03 meq/l)

Sulfate     =       40.01977160 %  (       0.72869998 meq/l)
Chloride    =       46.47829440 %  (       0.84630001 meq/l)
Bicarbonate =       13.50193600 %  (       0.24585000 meq/l)
Carbonate   =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW35S
Carbonate
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```
 Sample: CF16MW36I
 Ionic balance =       11.71124840 % (should be near 0)
 Sum of cations =        0.32124552
 Sum of anions  =        0.25388998

 Calc. TDS in mg/l =       15.70199970

 Equlib. pH = ??????????????

Calcium     =        7.44044638 %  (  2.39021014E-02 meq/l)
Magnesium   =       12.29115960 %  (  3.94847989E-02 meq/l)
Sodium      =       78.89138030 %  (       0.25343502 meq/l)
Potassium   =        1.37701845 %  (  4.42360993E-03 meq/l)

Sulfate     =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
Chloride    =      100.00000000 %  (       0.25388998 meq/l)
Bicarbonate =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
Carbonate   =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW36I
Sulfate
Carbonate
Bicarbonate


 Sample: CF16MW37D
 Ionic balance =        8.69589901 % (should be near 0)
 Sum of cations =        5.28100252
 Sum of anions  =        4.43601990

 Calc. TDS in mg/l =      352.05902100

 Equlib. pH =        7.16409588

Calcium     =       51.30787660 %  (       2.70957017 meq/l)
Magnesium   =       40.81065750 %  (       2.15521193 meq/l)
Sodium      =        7.42680979 %  (       0.39221001 meq/l)
Potassium   =        0.45465288 %  (  2.40102299E-02 meq/l)

Sulfate     =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
Chloride    =        7.63116503 %  (       0.33851999 meq/l)
Bicarbonate =       92.36883540 %  (       4.09749985 meq/l)
Carbonate   =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW37D
Sulfate
Carbonate
```

```
 Sample: CF16MW38S
 Ionic balance =      -10.50932220 % (should be near 0)
 Sum of cations =       1.00832498
 Sum of anions  =       1.24514997

 Calc. TDS in mg/l =      83.34500120

 Equlib. pH =       8.90126419

Calcium     =      38.45218660 %  (      0.38772300 meq/l)
Magnesium   =       2.07215333 %  (  2.08940394E-02 meq/l)
Sodium      =      58.66164020 %  (      0.59149998 meq/l)
Potassium   =       0.81402034 %  (  8.20797030E-03 meq/l)

Sulfate     =      28.42548940 %  (      0.35393998 meq/l)
Chloride    =      29.45267490 %  (      0.36672997 meq/l)
Bicarbonate =      42.12183380 %  (      0.52447999 meq/l)
Carbonate   =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW38S
Carbonate


 Sample: CF16MW39I
 Ionic balance =       -5.45329905 % (should be near 0)
 Sum of cations =       0.37457967
 Sum of anions  =       0.41778997

 Calc. TDS in mg/l =      26.63899990

 Equlib. pH =      10.51651860

Calcium     =       8.03292370 %  (  3.00897006E-02 meq/l)
Magnesium   =      18.51279830 %  (  6.93451762E-02 meq/l)
Sodium      =      71.18111420 %  (      0.26662999 meq/l)
Potassium   =       2.27316403 %  (  8.51481035E-03 meq/l)

Sulfate     =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
Chloride    =      60.76976390 %  (      0.25388998 meq/l)
Bicarbonate =      39.23023610 %  (      0.16389999 meq/l)
Carbonate   =   0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW39I
Sulfate
Carbonate
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```
 Sample: CF16MW40D
 Ionic balance =        7.69760180 % (should be near 0)
 Sum of cations =        5.30131435
 Sum of anions  =        4.54349995

 Calc. TDS in mg/l =     709.45300300

 Equlib. pH =        7.14866495

Calcium     =       50.92303470 %  (       2.69959021 meq/l)
Magnesium   =       42.82666020 %  (       2.27037597 meq/l)
Sodium      =        5.90495110 %  (       0.31304002 meq/l)
Potassium   =        0.34535059 %  (  1.83081198E-02 meq/l)

Sulfate     =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
Chloride    =        6.20886993 %  (       0.28209999 meq/l)
Bicarbonate =       93.79112240 %  (       4.26139975 meq/l)
Carbonate   =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW40D
Sulfate
Carbonate


 Sample: CF16MW5S
 Ionic balance =      -13.24639610 % (should be near 0)
 Sum of cations =        0.66366893
 Sum of anions  =        0.86633998

 Calc. TDS in mg/l =      59.94899750

 Equlib. pH =        8.91087151

Calcium     =       57.14295200 %  (       0.37924001 meq/l)
Magnesium   =       15.24552250 %  (       0.10117979 meq/l)
Sodium      =       26.80628780 %  (       0.17790501 meq/l)
Potassium   =        0.80524033 %  (  5.34413010E-03 meq/l)

Sulfate     =       26.43534850 %  (       0.22902000 meq/l)
Chloride    =       13.02490900 %  (       0.11284000 meq/l)
Bicarbonate =       60.53974150 %  (       0.52447999 meq/l)
Carbonate   =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW5S
Carbonate
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```
 Sample: CF16MW7S
 Ionic balance =        3.37983012 % (should be near 0)
 Sum of cations =        1.33413446
 Sum of anions  =        1.24689996

 Calc. TDS in mg/l =       90.44200130

 Equlib. pH =        8.52042484

Calcium     =       62.08819960 %  (       0.82834005 meq/l)
Magnesium   =       11.83832650 %  (       0.15793920 meq/l)
Sodium      =       24.86218830 %  (       0.33169502 meq/l)
Potassium   =        1.21129024 %  (  1.61602404E-02 meq/l)

Sulfate     =       30.05533600 %  (       0.37475997 meq/l)
Chloride    =       22.62410740 %  (       0.28209999 meq/l)
Bicarbonate =       47.32055280 %  (       0.59003997 meq/l)
Carbonate   =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW7S
Carbonate


 Sample: CF16MW9D
 Ionic balance =        5.11597347 % (should be near 0)
 Sum of cations =        0.88046402
 Sum of anions  =        0.79475999

 Calc. TDS in mg/l =       59.14699940

 Equlib. pH =        8.87360573

Calcium     =       45.50975420 %  (       0.40069702 meq/l)
Magnesium   =       20.08702090 %  (       0.17685899 meq/l)
Sodium      =       32.34998700 %  (       0.28483000 meq/l)
Potassium   =        2.05323434 %  (  1.80779900E-02 meq/l)

Sulfate     =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
Chloride    =       31.94548990 %  (       0.25388998 meq/l)
Bicarbonate =       68.05451200 %  (       0.54087001 meq/l)
Carbonate   =    0.00000000E-01 %  (  0.00000000E-01 meq/l)
 MISSING MAJOR CONSTITUENT(S) FOR CF16MW9D
Sulfate
Carbonate
```

APPENDIX M

APPENDIX M

COMPLETE VALIDATED DATA SET

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- VOLATILES

Lab Sample Number:	Q4203			Q4207			Q3531			Q4204		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW5S			CF16MW5ST			CF16MW7S			CF16MW9D		
Collect Date:	11-AUG-94			11-AUG-94			10-AUG-94			11-AUG-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP VOLATILES 90-SOW												
Chloromethane	2 U	ug/l	2	2 U	ug/l	2	33 U	ug/l	33	2 U	ug/l	2
Bromomethane	2 U	ug/l	2	2 U	ug/l	2	33 U	ug/l	33	2 U	ug/l	2
Vinyl chloride	2 U	ug/l	2	2 U	ug/l	2	33 U	ug/l	33	2 U	ug/l	2
Chloroethane	2 U	ug/l	2	2 U	ug/l	2	33 U	ug/l	33	2 U	ug/l	2
Methylene chloride	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1
Acetone	2 U	ug/l	2	11	ug/l	2	33 U	ug/l	33	2 U	ug/l	2
Carbon disulfide	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1
1,1-Dichloroethene	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1
1,1-Dichloroethane	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1
1,2-Dichloroethene (total)	1 U	ug/l	1	1 U	ug/l	1	270 J	ug/l	33	1 U	ug/l	1
Chloroform	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1
1,2-Dichloroethane	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1
2-Butanone	2 U	ug/l	2	2 U	ug/l	2	33 U	ug/l	33	2 U	ug/l	2
1,1,1-Trichloroethane	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1
Carbon tetrachloride	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1
Bromodichloromethane	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1
1,2-Dichloropropane	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1
cis-1,3-Dichloropropene	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1
Trichloroethene	20 J	ug/l	2	1 U	ug/l	1	500 J	ug/l	33	20 J	ug/l	2
Dibromochloromethane	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1
1,1,2-Trichloroethane	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1
Benzene	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1
trans-1,3-Dichloropropene	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1
Bromoform	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1
4-Methyl-2-pentanone	2 U	ug/l	2	2 U	ug/l	2	33 U	ug/l	33	2 U	ug/l	2
2-Hexanone	2 U	ug/l	2	2 U	ug/l	2	33 U	ug/l	33	2 U	ug/l	2
Tetrachloroethene	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1
Toluene	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1
1,1,2,2-Tetrachloroethane	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1
Chlorobenzene	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1
Ethylbenzene	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1
Styrene	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1
Xylenes (total)	1 U	ug/l	1	1 U	ug/l	1	17 U	ug/l	17	1 U	ug/l	1

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- VOLATILES

Lab Sample Number:	Q3528				Q3530				Q3533				Q3532			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW10S				CF16MW10SD				CF16MW10ST				CF16MW11DD			
Collect Date:	10-AUG-94				10-AUG-94				10-AUG-94				10-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	830	U	ug/l	830	830	U	ug/l	830	2	U	ug/l	2	2	U	ug/l	2
Bromomethane	830	U	ug/l	830	830	U	ug/l	830	2	U	ug/l	2	2	U	ug/l	2
Vinyl chloride	830	U	ug/l	830	830	U	ug/l	830	2	U	ug/l	2	2	U	ug/l	2
Chloroethane	830	U	ug/l	830	830	U	ug/l	830	2	U	ug/l	2	2	U	ug/l	2
Methylene chloride	420	U	ug/l	420	420	U	ug/l	420	1	U	ug/l	1	1	U	ug/l	1
Acetone	830	U	ug/l	830	830	U	ug/l	830	4		ug/l	2	2	U	ug/l	2
Carbon disulfide	420	U	ug/l	420	420	U	ug/l	420	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethene	420	U	ug/l	420	590		ug/l	830	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethane	420	U	ug/l	420	420	U	ug/l	420	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethene (total)	15000	J	ug/l	830	9900	J	ug/l	830	1	U	ug/l	1	1	U	ug/l	1
Chloroform	420	U	ug/l	420	420	U	ug/l	420	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethane	420	U	ug/l	420	420	U	ug/l	420	1	U	ug/l	1	1	U	ug/l	1
2-Butanone	830	U	ug/l	830	830	U	ug/l	830	2	U	ug/l	2	2	U	ug/l	2
1,1,1-Trichloroethane	1700	J	ug/l	830	4300	J	ug/l	830	1	U	ug/l	1	1	U	ug/l	1
Carbon tetrachloride	420	U	ug/l	420	420	U	ug/l	420	1	U	ug/l	1	1	U	ug/l	1
Bromodichloromethane	420	U	ug/l	420	420	U	ug/l	420	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloropropane	420	U	ug/l	420	420	U	ug/l	420	1	U	ug/l	1	1	U	ug/l	1
cis-1,3-Dichloropropene	420	U	ug/l	420	420	U	ug/l	420	1	U	ug/l	1	1	U	ug/l	1
Trichloroethene	570	J	ug/l	830	690	J	ug/l	830	1	U	ug/l	1	1	U	ug/l	1
Dibromochloromethane	420	U	ug/l	420	420	U	ug/l	420	1	U	ug/l	1	1	U	ug/l	1
1,1,2-Trichloroethane	420	U	ug/l	420	420	U	ug/l	420	1	U	ug/l	1	1	U	ug/l	1
Benzene	420	U	ug/l	420	420	U	ug/l	420	1	U	ug/l	1	1	U	ug/l	1
trans-1,3-Dichloropropene	420	U	ug/l	420	420	U	ug/l	420	1	U	ug/l	1	1	U	ug/l	1
Bromoform	420	U	ug/l	420	420	U	ug/l	420	1	U	ug/l	1	1	U	ug/l	1
4-Methyl-2-pentanone	830	U	ug/l	830	830	U	ug/l	830	2	U	ug/l	2	2	U	ug/l	2
2-Hexanone	830	U	ug/l	830	830	U	ug/l	830	2	U	ug/l	2	2	U	ug/l	2
Tetrachloroethene	420	U	ug/l	420	420	U	ug/l	420	1	U	ug/l	1	1	U	ug/l	1
Toluene	420	U	ug/l	420	420	U	ug/l	420	1	U	ug/l	1	1	U	ug/l	1
1,1,2,2-Tetrachloroethane	420	U	ug/l	420	420	U	ug/l	420	1	U	ug/l	1	1	U	ug/l	1
Chlorobenzene	420	U	ug/l	420	420	U	ug/l	420	1	U	ug/l	1	1	U	ug/l	1
Ethylbenzene	420	U	ug/l	420	420	U	ug/l	420	1	U	ug/l	1	1	U	ug/l	1
Styrene	420	U	ug/l	420	420	U	ug/l	420	1	U	ug/l	1	1	U	ug/l	1
Xylenes (total)	420	U	ug/l	420	420	U	ug/l	420	1	U	ug/l	1	1	U	ug/l	1

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- VOLATILES

Lab Sample Number:	Q3532MS			Q3532MSD			Q4205			A00FB		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW11DDMS			CF16MW11DDMSD			CF16MW12I			CF16MW12IR		
Collect Date:	10-AUG-94			10-AUG-94			11-AUG-94			16-AUG-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP VOLATILES 90-SOW												
Chloromethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Bromomethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Vinyl chloride	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Chloroethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Methylene chloride	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Acetone	2 U	ug/l	2	2 U	ug/l	2	6 U	ug/l	6	2 U	ug/l	2
Carbon disulfide	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1-Dichloroethene	10	ug/l	2	10	ug/l	2	1 U	ug/l	1	1 U	ug/l	1
1,1-Dichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloroethene (total)	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Chloroform	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
2-Butanone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
1,1,1-Trichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Carbon tetrachloride	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Bromodichloromethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloropropane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
cis-1,3-Dichloropropene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Trichloroethene	11	ug/l	2	10	ug/l	2	1 U	ug/l	1	1 U	ug/l	1
Dibromochloromethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1,2-Trichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Benzene	9	ug/l	2	9	ug/l	2	1 U	ug/l	1	1 U	ug/l	1
trans-1,3-Dichloropropene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Bromoform	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
4-Methyl-2-pentanone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
2-Hexanone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Tetrachloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Toluene	10	ug/l	2	10	ug/l	2	1 U	ug/l	1	1 U	ug/l	1
1,1,2,2-Tetrachloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Chlorobenzene	10	ug/l	2	10	ug/l	2	1 U	ug/l	1	1 U	ug/l	1
Ethylbenzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Styrene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Xylenes (total)	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1

U = NOT DETECTED J = ESTIMATED VALUE
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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- VOLATILES

Lab Sample Number:	A00FD				P4911				P4913				P4912			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW12IRT				CF16MW13S				CF16MW14D				CF16MW15S			
Collect Date:	16-AUG-94				17-JUL-94				17-JUL-94				17-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Bromomethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Vinyl chloride	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Chloroethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Methylene chloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Acetone	13		ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Carbon disulfide	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethene (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chloroform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
2-Butanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
1,1,1-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Carbon tetrachloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromodichloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloropropane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
cis-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Trichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Dibromochloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1,2-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Benzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
trans-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromoform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
4-Methyl-2-pentanone	2	U	ug/l	2	2	R	ug/l	2	2	R	ug/l	2	2	R	ug/l	2
2-Hexanone	2	U	ug/l	2	2	R	ug/l	2	2	R	ug/l	2	2	R	ug/l	2
Tetrachloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Toluene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1,2,2-Tetrachloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chlorobenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Ethylbenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Styrene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Xylenes (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- VOLATILES

Lab Sample Number:	P9355			P9360			P4910			P4917		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW16D			CF16MW16DT			CF16MW17S			CF16MW17ST		
Collect Date:	29-JUL-94			29-JUL-94			17-JUL-94			17-JUL-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP VOLATILES 90-SOW												
Chloromethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Bromomethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Vinyl chloride	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Chloroethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Methylene chloride	2 U	ug/l	2	2	ug/l	2	1 U	ug/l	1	1 U	ug/l	1
Acetone	2 U	ug/l	2	17	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Carbon disulfide	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1-Dichloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1-Dichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloroethene (total)	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Chloroform	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
2-Butanone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
1,1,1-Trichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Carbon tetrachloride	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Bromodichloromethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloropropane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
cis-1,3-Dichloropropene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Trichloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Dibromochloromethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1,2-Trichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Benzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
trans-1,3-Dichloropropene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Bromoform	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
4-Methyl-2-pentanone	2 U	ug/l	2	2 U	ug/l	2	2 R	ug/l	2	2 R	ug/l	2
2-Hexanone	2 U	ug/l	2	2 U	ug/l	2	2 R	ug/l	2	2 R	ug/l	2
Tetrachloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Toluene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1,2,2-Tetrachloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Chlorobenzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Ethylbenzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Styrene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Xylenes (total)	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- VOLATILES

Lab Sample Number:	P3792			P3794			P9356			A00FC		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW18D			CF16MW18DT			CF16MW19S			CF16MW20D		
Collect Date:	14-JUL-94			14-JUL-94			29-JUL-94			16-AUG-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP VOLATILES 90-SOW												
Chloromethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Bromomethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Vinyl chloride	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Chloroethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Methylene chloride	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Acetone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Carbon disulfide	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1-Dichloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1-Dichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloroethene (total)	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Chloroform	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
2-Butanone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
1,1,1-Trichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Carbon tetrachloride	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Bromodichloromethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloropropane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
cis-1,3-Dichloropropene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Trichloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Dibromochloromethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1,2-Trichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Benzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
trans-1,3-Dichloropropene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Bromoform	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
4-Methyl-2-pentanone	2 R	ug/l	2	2 R	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
2-Hexanone	2 R	ug/l	2	2 R	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Tetrachloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Toluene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1,2,2-Tetrachloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Chlorobenzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Ethylbenzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Styrene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Xylenes (total)	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- VOLATILES

Lab Sample Number:	P4914				P4916				P9358				P9361			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW21S				CF16MW21SD				CF16MW22I				CF16MW22IR			
Collect Date:	18-JUL-94				18-JUL-94				29-JUL-94				29-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Bromomethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Vinyl chloride	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Chloroethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Methylene chloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	2		ug/l	2
Acetone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	28		ug/l	2
Carbon disulfide	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethene (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chloroform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
2-Butanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
1,1,1-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Carbon tetrachloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromodichloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloropropane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
cis-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Trichloroethene	1	U	ug/l	1	1	U	ug/l	1	15		ug/l	2	1	U	ug/l	1
Dibromochloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1,2-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Benzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
trans-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromoform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
4-Methyl-2-pentanone	2	R	ug/l	2	2	R	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
2-Hexanone	2	R	ug/l	2	2	R	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Tetrachloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Toluene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1,2,2-Tetrachloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chlorobenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Ethylbenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Styrene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Xylenes (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- VOLATILES

Lab Sample Number:	P5958			P5958MS			P5958MSD			P5960		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW23O			CF16MW23DMS			CF16MW23DMSD			CF16MW23DT		
Collect Date:	20-JUL-94			20-JUL-94			20-JUL-94			20-JUL-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP VOLATILES 90-SOW												
Chloromethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Bromomethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Vinyl chloride	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Chloroethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Methylene chloride	1 U	ug/l	1	1	ug/l	2	1 U	ug/l	1	1 U	ug/l	1
Acetone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Carbon disulfide	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1-Dichloroethene	1 U	ug/l	1	11	ug/l	2	10	ug/l	2	1 U	ug/l	1
1,1-Dichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloroethene (total)	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Chloroform	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
2-Butanone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
1,1,1-Trichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Carbon tetrachloride	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Bromodichloromethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloropropane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
cis-1,3-Dichloropropene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Trichloroethene	1 U	ug/l	1	10	ug/l	2	10	ug/l	2	1 U	ug/l	1
Dibromochloromethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1,2-Trichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Benzene	1 U	ug/l	1	10	ug/l	2	10	ug/l	2	1 U	ug/l	1
trans-1,3-Dichloropropene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Bromoform	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
4-Methyl-2-pentanone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
2-Hexanone	2 R	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 R	ug/l	2
Tetrachloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Toluene	1 U	ug/l	1	10	ug/l	2	9	ug/l	2	1 U	ug/l	1
1,1,2,2-Tetrachloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Chlorobenzene	1 U	ug/l	1	10	ug/l	2	10	ug/l	2	1 U	ug/l	1
Ethylbenzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Styrene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Xylenes (total)	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- VOLATILES

Lab Sample Number:	P3222			P3220			P3217			P3235		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW24S			CF16MW25D			CF16MW26DD			CF16MW26DDT		
Collect Date:	13-JUL-94			13-JUL-94			13-JUL-94			13-JUL-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP VOLATILES 90-SOW												
Chloromethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Bromomethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Vinyl chloride	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Chloroethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Methylene chloride	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Acetone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Carbon disulfide	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1-Dichloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1-Dichloroethane	1	ug/l	2	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloroethene (total)	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Chloroform	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
2-Butanone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
1,1,1-Trichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Carbon tetrachloride	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Bromodichloromethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloropropane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
cis-1,3-Dichloropropene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Trichloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Dibromochloromethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1,2-Trichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Benzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
trans-1,3-Dichloropropene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Bromoform	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
4-Methyl-2-pentanone	2 R	ug/l	2	2 R	ug/l	2	2 R	ug/l	2	2 R	ug/l	2
2-Hexanone	2 R	ug/l	2	2 R	ug/l	2	2 R	ug/l	2	2 R	ug/l	2
Tetrachloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Toluene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1,2,2-Tetrachloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Chlorobenzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Ethylbenzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Styrene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Xylenes (total)	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- VOLATILES

Lab Sample Number:	Q2485			Q2494			Q2491			Q2492		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW27I			CF16MW27IT			CF16MW28D			CF16MW28DD		
Collect Date:	08-AUG-94			08-AUG-94			08-AUG-94			08-AUG-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP VOLATILES 90-SOW												
Chloromethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Bromomethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Vinyl chloride	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Chloroethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Methylene chloride	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Acetone	2 U	ug/l	2	4	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Carbon disulfide	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1-Dichloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1-Dichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloroethene (total)	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Chloroform	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
2-Butanone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
1,1,1-Trichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Carbon tetrachloride	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Bromodichloromethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloropropane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
cis-1,3-Dichloropropene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Trichloroethene	12 J	ug/l	2	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Dibromochloromethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1,2-Trichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Benzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
trans-1,3-Dichloropropene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Bromoform	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
4-Methyl-2-pentanone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
2-Hexanone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Tetrachloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Toluene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1,2,2-Tetrachloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Chlorobenzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Ethylbenzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Styrene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Xylenes (total)	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- VOLATILES

Lab Sample Number:	Q0289				Q0292				Q0288				Q2493			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW29S				CF16MW30D				CF16MW31DD				CF16MW32S			
Collect Date:	02-AUG-94				02-AUG-94				02-AUG-94				08-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	33	U	ug/l	33
Bromomethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	33	U	ug/l	33
Vinyl chloride	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	33	U	ug/l	33
Chloroethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	33	U	ug/l	33
Methylene chloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
Acetone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	33	U	ug/l	33
Carbon disulfide	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
1,1-Dichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
1,1-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
1,2-Dichloroethene (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
Chloroform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
1,2-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
2-Butanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	33	U	ug/l	33
1,1,1-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
Carbon tetrachloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
Bromodichloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
1,2-Dichloropropane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
cis-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
Trichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	470	J	ug/l	33
Dibromochloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
1,1,2-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
Benzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
trans-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
Bromoform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
4-Methyl-2-pentanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	33	U	ug/l	33
2-Hexanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	33	U	ug/l	33
Tetrachloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
Toluene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
1,1,2,2-Tetrachloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
Chlorobenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
Ethylbenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
Styrene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17
Xylenes (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	17	U	ug/l	17

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- VOLATILES

Lab Sample Number:	Q2907			Q3527			Q2906			Q2908		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW33D			CF16MW33DR			CF16MW34DD			CF16MW34DDT		
Collect Date:	09-AUG-94			10-AUG-94			09-AUG-94			09-AUG-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP VOLATILES 90-SOW												
Chloromethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Bromomethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Vinyl chloride	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Chloroethane	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Methylene chloride	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Acetone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	6	ug/l	2
Carbon disulfide	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1-Dichloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1-Dichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloroethene (total)	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Chloroform	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
2-Butanone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
1,1,1-Trichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Carbon tetrachloride	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Bromodichloromethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,2-Dichloropropane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
cis-1,3-Dichloropropene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Trichloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Dibromochloromethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1,2-Trichloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Benzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
trans-1,3-Dichloropropene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Bromoform	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
4-Methyl-2-pentanone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
2-Hexanone	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2	2 U	ug/l	2
Tetrachloroethene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Toluene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
1,1,2,2-Tetrachloroethane	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Chlorobenzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Ethylbenzene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Styrene	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1
Xylenes (total)	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1	1 U	ug/l	1

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- VOLATILES

Lab Sample Number:	Q0286				Q0293				Q0046				Q0050			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW35S				CF16MW35ST				CF16MW36I				CF16MW37D			
Collect Date:	02-AUG-94				02-AUG-94				01-AUG-94				01-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Bromomethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Vinyl chloride	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Chloroethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Methylene chloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Acetone	2	U	ug/l	2	10		ug/l	2	2	U	ug/l	2	7	U	ug/l	7
Carbon disulfide	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethene (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chloroform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
2-Butanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
1,1,1-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Carbon tetrachloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromodichloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloropropane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
cis-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Trichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Dibromochloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1,2-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Benzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
trans-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromoform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
4-Methyl-2-pentanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
2-Hexanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Tetrachloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Toluene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1,2,2-Tetrachloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chlorobenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Ethylbenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Styrene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Xylenes (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- VOLATILES

Lab Sample Number:	Q0050MS				Q0050MSD				Q0044				Q0043			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW37DMS				CF16MW37DMSD				CF16MW38S				CF16MW39I			
Collect Date:	01-AUG-94				01-AUG-94				31-JUL-94				31-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Bromomethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Vinyl chloride	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Chloroethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Methylene chloride	1	U	ug/l	1	2		ug/l	2	1	U	ug/l	1	1	U	ug/l	1
Acetone	2	U	ug/l	2	8		ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Carbon disulfide	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethene	11		ug/l	2	10		ug/l	2	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethene (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chloroform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
2-Butanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
1,1,1-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Carbon tetrachloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromodichloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloropropane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
cis-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Trichloroethene	9		ug/l	2	9		ug/l	2	1	U	ug/l	1	1	U	ug/l	1
Dibromochloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1,2-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Benzene	10		ug/l	2	10		ug/l	2	1	U	ug/l	1	1	U	ug/l	1
trans-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromoform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
4-Methyl-2-pentanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	1	J	ug/l	2
2-Hexanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Tetrachloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Toluene	9		ug/l	2	9		ug/l	2	1	U	ug/l	1	1	U	ug/l	1
1,1,2,2-Tetrachloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chlorobenzene	10		ug/l	2	10		ug/l	2	1	U	ug/l	1	1	U	ug/l	1
Ethylbenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Styrene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Xylenes (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- VOLATILES

Lab Sample Number:	Q0041				Q0042				Q0052			
Site	CECIL7				CECIL7				CECIL7			
Locator	CF16MW40D				CF16MW40DD				CF16MW40DT			
Collect Date:	31-JUL-94				31-JUL-94				01-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW												
Chloromethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Bromomethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Vinyl chloride	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Chloroethane	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Methylene chloride	2	U	ug/l	2	1	U	ug/l	1	3		ug/l	2
Acetone	6	U	ug/l	6	2	U	ug/l	2	23		ug/l	2
Carbon disulfide	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethene (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chloroform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
2-Butanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
1,1,1-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Carbon tetrachloride	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromodichloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloropropane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
cis-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Trichloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Dibromochloromethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1,2-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Benzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
trans-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Bromoform	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
4-Methyl-2-pentanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
2-Hexanone	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Tetrachloroethene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Toluene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
1,1,2,2-Tetrachloroethane	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Chlorobenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Ethylbenzene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Styrene	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Xylenes (total)	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	Q4203				Q3531				Q4204				Q3528			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW5S				CF16MW7S				CF16MW9D				CF16MW10S			
Collect Date:	11-AUG-94				10-AUG-94				11-AUG-94				10-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Chloroethyl) ether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Chlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,3-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,4-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,2-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,2-oxybis(1-Chloropropane)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
N-Nitroso-di-n-propylamine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachloroethane	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Nitrobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Isophorone	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Nitrophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dimethylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Chloroethoxy) methane	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dichlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,2,4-Trichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	4	J	ug/l	10
Naphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chloroaniline	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobutadiene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chloro-3-methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	.5	J	ug/l	10
2-Methylnaphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorocyclopentadiene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4,6-Trichlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4,5-Trichlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
2-Chloronaphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Dimethylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Acenaphthylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,6-Dinitrotoluene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Acenaphthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dinitrophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4-Nitrophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Dibenzofuran	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dinitrotoluene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Diethylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chlorophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluorene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Phenanthrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Carbazole	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	Q4203				Q3531				Q4204				Q3528			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW5S				CF16MW7S				CF16MW9D				CF16MW10S			
Collect Date:	11-AUG-94				10-AUG-94				11-AUG-94				10-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	2	J	ug/l	10	.5	J	ug/l	10	.7	J	ug/l	10	2	J	ug/l	10
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	Q3530			Q3532			Q3532MS			Q3532MSD		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW10SD			CF16MW11DD			CF16MW11DDMS			CF16MW11DDMSD		
Collect Date:	10-AUG-94			10-AUG-94			10-AUG-94			10-AUG-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	10 U	ug/l	10	10 U	ug/l	10	50	ug/l	10	57	ug/l	10
bis(2-Chloroethyl) ether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Chlorophenol	10 U	ug/l	10	10 U	ug/l	10	52	ug/l	10	57	ug/l	10
1,3-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,4-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	32	ug/l	10	35	ug/l	10
1,2-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,2-oxybis(1-Chloropropane)	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
N-Nitroso-di-n-propylamine	10 U	ug/l	10	10 U	ug/l	10	35	ug/l	10	38	ug/l	10
Hexachloroethane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Nitrobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Isophorone	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitrophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dimethylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
bis(2-Chloroethoxy) methane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2,4-Trichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	35	ug/l	10	38	ug/l	10
Naphthalene	3 J	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloroaniline	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorobutadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloro-3-methylphenol	10 U	ug/l	10	10 U	ug/l	10	63	ug/l	10	71	ug/l	10
2-Methylnaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorocyclopentadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,6-Trichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,5-Trichlorophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
2-Chloronaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Dimethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Acenaphthylene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,6-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
3-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Acenaphthene	10 U	ug/l	10	10 U	ug/l	10	39	ug/l	10	46	ug/l	10
2,4-Dinitrophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
4-Nitrophenol	25 U	ug/l	25	25 U	ug/l	25	71	ug/l	25	69	ug/l	25
Dibenzofuran	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	43	ug/l	10	49	ug/l	10
Diethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chlorophenyl-phenylether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Fluorene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	Q3530				Q3532				Q3532MS				Q3532MSD			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW10SD				CF16MW11DD				CF16MW11DDMS				CF16MW11DDMSD			
Collect Date:	10-AUG-94				10-AUG-94				10-AUG-94				10-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	25	U	ug/l	25	25	U	ug/l	25	100		ug/l	25	110		ug/l	25
Phenanthrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Carbazole	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	10	U	ug/l	10	42		ug/l	10	46		ug/l	10
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	4	J	ug/l	10	6	J	ug/l	10	8	J	ug/l	10	12		ug/l	10
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	Q4205			A00FB			P4911			P4913		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW12I			CF16MW12IR			CF16MW13S			CF16MW14D		
Collect Date:	11-AUG-94			16-AUG-94			17-JUL-94			17-JUL-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	.5 J	ug/l	10
bis(2-Chloroethyl) ether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Chlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,3-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,4-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,2-oxybis(1-Chloropropane)	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
N-Nitroso-di-n-propylamine	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachloroethane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Nitrobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Isophorone	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitrophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dimethylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
bis(2-Chloroethoxy) methane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2,4-Trichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Naphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloroaniline	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorobutadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloro-3-methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylnaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorocyclopentadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,6-Trichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,5-Trichlorophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
2-Chloronaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Dimethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Acenaphthylene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,6-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
3-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Acenaphthene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dinitrophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
4-Nitrophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Dibenzofuran	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Diethylphthalate	10 U	ug/l	10	10 U	ug/l	10	.5 J	ug/l	10	10 U	ug/l	10
4-Chlorophenyl-phenylether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Fluorene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	Q4205				A00FB				P4911				P4913			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW12I				CF16MW12IR				CF16MW13S				CF16MW14D			
Collect Date:	11-AUG-94				16-AUG-94				17-JUL-94				17-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Phenanthrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Carbazole	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	1	J	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	3	J	ug/l	10	.7	J	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	P4912			P9355			P4910			P3792		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW15S			CF16MW16D			CF16MW17S			CF16MW18D		
Collect Date:	17-JUL-94			29-JUL-94			17-JUL-94			14-JUL-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	1 J	ug/l	10	10 U	ug/l	10	1 J	ug/l	10	10 U	ug/l	10
bis(2-Chloroethyl) ether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Chlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,3-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,4-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,2-oxybis(1-Chloropropane)	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
N-Nitroso-di-n-propylamine	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachloroethane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Nitrobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Isophorone	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitrophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dimethylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
bis(2-Chloroethoxy) methane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2,4-Trichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Naphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloroaniline	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorobutadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloro-3-methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylnaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorocyclopentadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,6-Trichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,5-Trichlorophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
2-Chloronaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Dimethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Acenaphthylene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,6-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
3-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Acenaphthene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dinitrophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
4-Nitrophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Dibenzofuran	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Diethylphthalate	.9 J	ug/l	10	10 U	ug/l	10	1 J	ug/l	10	10 U	ug/l	10
4-Chlorophenyl-phenylether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Fluorene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	P4912				P9355				P4910				P3792			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW15S				CF16MW16D				CF16MW17S				CF16MW18D			
Collect Date:	17-JUL-94				29-JUL-94				17-JUL-94				14-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Phenanthrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Carbazole	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	10	U	ug/l	10	1	J	ug/l	10	10	U	ug/l	10	3	J	ug/l	10
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	P9356				A00FC				P4914				P4916			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW19S				CF16MW20D				CF16MW21S				CF16MW21SD			
Collect Date:	29-JUL-94				16-AUG-94				18-JUL-94				18-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	10	U	ug/l	10	10	U	ug/l	10	.9	J	ug/l	10	2	J	ug/l	10
bis(2-Chloroethyl) ether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Chlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,3-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,4-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,2-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,2-oxybis(1-Chloropropane)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
N-Nitroso-di-n-propylamine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachloroethane	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Nitrobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Isophorone	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Nitrophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dimethylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Chloroethoxy) methane	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dichlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,2,4-Trichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Naphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chloroaniline	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobutadiene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chloro-3-methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Methylnaphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorocyclopentadiene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4,6-Trichlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4,5-Trichlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
2-Chloronaphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Dimethylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Acenaphthylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,6-Dinitrotoluene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Acenaphthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dinitrophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4-Nitrophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Dibenzofuran	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dinitrotoluene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Diethylphthalate	10	U	ug/l	10	10	U	ug/l	10	1	J	ug/l	10	1	J	ug/l	10
4-Chlorophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluorene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	P9356				A00FC				P4914				P4916			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW19S				CF16MW20D				CF16MW21S				CF16MW21SD			
Collect Date:	29-JUL-94				16-AUG-94				18-JUL-94				18-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Phenanthrene	3	J	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Carbazole	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	2	J	ug/l	10	17	U	ug/l	17	10	U	ug/l	10	10	U	ug/l	10
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	P9358			P9361			P5958			P5958MS		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW22I			CF16MW22IR			CF16MW23D			CF16MW23DMS		
Collect Date:	29-JUL-94			29-JUL-94			20-JUL-94			20-JUL-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	54	ug/l	10
bis(2-Chloroethyl) ether	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Chlorophenol	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	50	ug/l	10
1,3-Dichlorobenzene	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,4-Dichlorobenzene	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	31	ug/l	10
1,2-Dichlorobenzene	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylphenol	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,2-oxybis(1-Chloropropane)	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Methylphenol	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
N-Nitroso-di-n-propylamine	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	35	ug/l	10
Hexachloroethane	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Nitrobenzene	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Isophorone	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitrophenol	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dimethylphenol	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
bis(2-Chloroethoxy) methane	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dichlorophenol	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2,4-Trichlorobenzene	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	32	ug/l	10
Naphthalene	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloroaniline	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorobutadiene	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloro-3-methylphenol	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	69	ug/l	10
2-Methylnaphthalene	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorocyclopentadiene	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,6-Trichlorophenol	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,5-Trichlorophenol	25 UJ	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
2-Chloronaphthalene	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitroaniline	25 UJ	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Dimethylphthalate	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Acenaphthylene	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,6-Dinitrotoluene	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
3-Nitroaniline	25 UJ	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Acenaphthene	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	39	ug/l	10
2,4-Dinitrophenol	25 UJ	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
4-Nitrophenol	25 UJ	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	54	ug/l	25
Dibenzofuran	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dinitrotoluene	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	44	ug/l	10
Diethylphthalate	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chlorophenyl-phenylether	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Fluorene	10 UJ	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	P9358				P9361				P5958				P5958MS			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW22I				CF16MW22IR				CF16MW23D				CF16MW23DMS			
Collect Date:	29-JUL-94				29-JUL-94				20-JUL-94				20-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	25	UJ	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	UJ	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
N-Nitrosodiphenylamine (1)	10	UJ	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	UJ	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	UJ	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	25	UJ	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	77		ug/l	25
Phenanthrene	10	UJ	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	UJ	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Carbazole	10	UJ	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	UJ	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluoranthene	10	UJ	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	UJ	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	47		ug/l	10
Butylbenzylphthalate	10	UJ	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3,3-Dichlorobenzidine	10	UJ	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) anthracene	10	UJ	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	UJ	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	9	J	ug/l	10	10	U	ug/l	10	7	J	ug/l	10	8	J	ug/l	10
Di-n-octylphthalate	10	UJ	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	UJ	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	UJ	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	UJ	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	UJ	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	UJ	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	UJ	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	P5958MSD			P3222			P3220			P3217		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW23DMSD			CF16MW24S			CF16MW25D			CF16MW26DD		
Collect Date:	20-JUL-94			13-JUL-94			13-JUL-94			13-JUL-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	50	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
bis(2-Chloroethyl) ether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Chlorophenol	46	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,3-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,4-Dichlorobenzene	28	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,2-oxybis(1-Chloropropane)	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
N-Nitroso-di-n-propylamine	31	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachloroethane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Nitrobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Isophorone	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitrophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dimethylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
bis(2-Chloroethoxy) methane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2,4-Trichlorobenzene	26	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Naphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloroaniline	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorobutadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloro-3-methylphenol	68	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylnaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorocyclopentadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,6-Trichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,5-Trichlorophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
2-Chloronaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Dimethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Acenaphthylene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,6-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
3-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Acenaphthene	36	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dinitrophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
4-Nitrophenol	45	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Dibenzofuran	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dinitrotoluene	41	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Diethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chlorophenyl-phenylether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Fluorene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	P5958MSD				P3222				P3220				P3217			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW23DMSD				CF16MW24S				CF16MW25D				CF16MW26DD			
Collect Date:	20-JUL-94				13-JUL-94				13-JUL-94				13-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	69		ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Phenanthrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Carbazole	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	48		ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	6	J	ug/l	10	10	U	ug/l	10	9	J	ug/l	10	1	J	ug/l	10
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	Q2485			Q2491			Q2492			Q0289		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW27I			CF16MW28D			CF16MW28DD			CF16MW29S		
Collect Date:	08-AUG-94			08-AUG-94			08-AUG-94			02-AUG-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
bis(2-Chloroethyl) ether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Chlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,3-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,4-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,2-oxybis(1-Chloropropane)	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
N-Nitroso-di-n-propylamine	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachloroethane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Nitrobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Isophorone	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitrophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dimethylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
bis(2-Chloroethoxy) methane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2,4-Trichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Naphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloroaniline	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorobutadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloro-3-methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylnaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorocyclopentadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,6-Trichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,5-Trichlorophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
2-Chloronaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Dimethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Acenaphthylene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,6-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
3-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Acenaphthene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dinitrophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
4-Nitrophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Dibenzofuran	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Diethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chlorophenyl-phenylether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Fluorene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	Q2485				Q2491				Q2492				Q0289			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW27I				CF16MW28D				CF16MW28DD				CF16MW29S			
Collect Date:	08-AUG-94				08-AUG-94				08-AUG-94				02-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Phenanthrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Carbazole	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	7	J	ug/l	10	3	J	ug/l	10	2	J	ug/l	10	7	J	ug/l	10
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	Q0292			Q0288			Q2493			Q2907		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW30D			CF16MW31DD			CF16MW32S			CF16MW33D		
Collect Date:	02-AUG-94			02-AUG-94			08-AUG-94			09-AUG-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
bis(2-Chloroethyl) ether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Chlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,3-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,4-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,2-oxybis(1-Chloropropane)	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
N-Nitroso-di-n-propylamine	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachloroethane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Nitrobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Isophorone	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitrophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dimethylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
bis(2-Chloroethoxy) methane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2,4-Trichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Naphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloroaniline	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorobutadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloro-3-methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylnaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorocyclopentadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,6-Trichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,5-Trichlorophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
2-Chloronaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Dimethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Acenaphthylene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,6-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
3-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Acenaphthene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dinitrophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
4-Nitrophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Dibenzofuran	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Diethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chlorophenyl-phenylether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Fluorene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	Q0292				Q0288				Q2493				Q2907			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW30D				CF16MW31DD				CF16MW32S				CF16MW33D			
Collect Date:	02-AUG-94				02-AUG-94				08-AUG-94				09-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Phenanthrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Carbazole	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	7	J	ug/l	10	5	J	ug/l	10	2	J	ug/l	10	8	J	ug/l	10
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	Q3527				Q2906				Q0286				Q0046			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW33DR				CF16MW34DD				CF16MW35S				CF16MW361			
Collect Date:	10-AUG-94				09-AUG-94				02-AUG-94				01-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Chloroethyl) ether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Chlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,3-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,4-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,2-Dichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,2-oxybis(1-Chloropropane)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
N-Nitroso-di-n-propylamine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachloroethane	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Nitrobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Isophorone	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Nitrophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dimethylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Chloroethoxy) methane	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dichlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
1,2,4-Trichlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Naphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chloroaniline	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobutadiene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chloro-3-methylphenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Methylnaphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorocyclopentadiene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4,6-Trichlorophenol	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4,5-Trichlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
2-Chloronaphthalene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Dimethylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Acenaphthylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,6-Dinitrotoluene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Acenaphthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dinitrophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4-Nitrophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Dibenzofuran	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
2,4-Dinitrotoluene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Diethylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Chlorophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluorene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	Q3527				Q2906				Q0286				Q0046			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW33DR				CF16MW34DD				CF16MW35S				CF16MW36I			
Collect Date:	10-AUG-94				09-AUG-94				02-AUG-94				01-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Phenanthrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Carbazole	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	1	J	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	10	U	ug/l	10	10		ug/l	10	10	U	ug/l	10	13		ug/l	10
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	Q0050			Q0050MS			Q0050MSD			Q0044		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW37D			CF16MW37DMS			CF16MW37DMSD			CF16MW38S		
Collect Date:	01-AUG-94			01-AUG-94			01-AUG-94			31-JUL-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	10 U	ug/l	10	46	ug/l	10	53	ug/l	10	.8 J	ug/l	10
bis(2-Chloroethyl) ether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Chlorophenol	10 U	ug/l	10	47	ug/l	10	54	ug/l	10	10 U	ug/l	10
1,3-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,4-Dichlorobenzene	10 U	ug/l	10	30	ug/l	10	33	ug/l	10	10 U	ug/l	10
1,2-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,2-oxybis(1-Chloropropane)	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
N-Nitroso-di-n-propylamine	10 U	ug/l	10	32	ug/l	10	37	ug/l	10	10 U	ug/l	10
Hexachloroethane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Nitrobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Isophorone	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitrophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dimethylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
bis(2-Chloroethoxy) methane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2,4-Trichlorobenzene	10 U	ug/l	10	34	ug/l	10	38	ug/l	10	10 U	ug/l	10
Naphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloroaniline	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorobutadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloro-3-methylphenol	10 U	ug/l	10	87	ug/l	10	98	ug/l	10	10 U	ug/l	10
2-Methylnaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorocyclopentadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,6-Trichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,5-Trichlorophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
2-Chloronaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Dimethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Acenaphthylene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,6-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
3-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Acenaphthene	10 U	ug/l	10	42	ug/l	10	47	ug/l	10	10 U	ug/l	10
2,4-Dinitrophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
4-Nitrophenol	25 U	ug/l	25	59	ug/l	25	62	ug/l	25	25 U	ug/l	25
Dibenzofuran	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dinitrotoluene	10 U	ug/l	10	48	ug/l	10	51	ug/l	10	10 U	ug/l	10
Diethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chlorophenyl-phenylether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Fluorene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	Q0050				Q0050MS				Q0050MSD				Q0044			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW37D				CF16MW37DMS				CF16MW37DMSD				CF16MW38S			
Collect Date:	01-AUG-94				01-AUG-94				01-AUG-94				31-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	25	U	ug/l	25	90		ug/l	25	94		ug/l	25	25	U	ug/l	25
Phenanthrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Carbazole	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	44		ug/l	10	45		ug/l	10	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	13		ug/l	10	13		ug/l	10	14		ug/l	10	2	J	ug/l	10
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	Q0043			Q0041			Q0042		
Site	CECIL7			CECIL7			CECIL7		
Locator	CF16MW391			CF16MW400			CF16MW400D		
Collect Date:	31-JUL-94			31-JUL-94			31-JUL-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW									
Phenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
bis(2-Chloroethyl) ether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Chlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,3-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,4-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2-Dichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,2-oxybis(1-Chloropropane)	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
N-Nitroso-di-n-propylamine	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachloroethane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Nitrobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Isophorone	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitrophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dimethylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
bis(2-Chloroethoxy) methane	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
1,2,4-Trichlorobenzene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Naphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloroaniline	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorobutadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chloro-3-methylphenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Methylnaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Hexachlorocyclopentadiene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,6-Trichlorophenol	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4,5-Trichlorophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
2-Chloronaphthalene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Dimethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Acenaphthylene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,6-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
3-Nitroaniline	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Acenaphthene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dinitrophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
4-Nitrophenol	25 U	ug/l	25	25 U	ug/l	25	25 U	ug/l	25
Dibenzofuran	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
2,4-Dinitrotoluene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Diethylphthalate	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
4-Chlorophenyl-phenylether	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10
Fluorene	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- SEMIVOLATILES

Lab Sample Number:	Q0043				Q0041				Q0042			
Site	CECIL7				CECIL7				CECIL7			
Locator	CF16MW39I				CF16MW40D				CF16MW40DD			
Collect Date:	31-JUL-94				31-JUL-94				31-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pentachlorophenol	25	U	ug/l	25	25	U	ug/l	25	25	U	ug/l	25
Phenanthrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Carbazole	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
3,3-Dichlorobenzidine	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Chrysene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	15		ug/l	10	7	J	ug/l	10	34		ug/l	10
Di-n-octylphthalate	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Dibenz (a,h) anthracene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10	10	U	ug/l	10	10	U	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- PESTICIDES AND PCBs

Lab Sample Number:	Q4203				Q3531				Q4204				Q3528			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW5S				CF16MW7S				CF16MW9D				CF16MW10S			
Collect Date:	11-AUG-94				10-AUG-94				11-AUG-94				10-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
beta-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
delta-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Aldrin	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor epoxide	.02	UJ	ug/l	.02	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Endosulfan I	.02	UJ	ug/l	.02	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Dieldrin	.02	UJ	ug/l	.02	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDE	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endrin	.018	J	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan II	.01	UJ	ug/l	.01	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDD	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan sulfate	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDT	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Methoxychlor	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5
Endrin ketone	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endrin aldehyde	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
alpha-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
gamma-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Toxaphene	5	UJ	ug/l	5	5	UJ	ug/l	5	5	UJ	ug/l	5	5	UJ	ug/l	5
Aroclor-1016	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1221	2	UJ	ug/l	2	2	UJ	ug/l	2	2	UJ	ug/l	2	2	UJ	ug/l	2
Aroclor-1232	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1242	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1248	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1254	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1260	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	Q4540				Q4541				Q4541RE				Q4542			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SS1				CF16SS2				CF16SS2RE				CF16SS3			
Collect Date:	12-AUG-94				12-AUG-94				12-AUG-94				12-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
bis(2-Chloroethyl) ether	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
2-Chlorophenol	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
1,3-Dichlorobenzene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
1,4-Dichlorobenzene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
1,2-Dichlorobenzene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
2-Methylphenol	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
2,2-oxybis(1-Chloropropane)	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
4-Methylphenol	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
N-Nitroso-di-n-propylamine	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
Hexachloroethane	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
Nitrobenzene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
Isophorone	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
2-Nitrophenol	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
2,4-Dimethylphenol	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
bis(2-Chloroethoxy) methane	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
2,4-Dichlorophenol	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
1,2,4-Trichlorobenzene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
Naphthalene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
4-Chloroaniline	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
Hexachlorobutadiene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
4-Chloro-3-methylphenol	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
2-Methylnaphthalene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
Hexachlorocyclopentadiene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
2,4,6-Trichlorophenol	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
2,4,5-Trichlorophenol	880	U	ug/kg	880	930	U	ug/kg	930	930	U	ug/kg	930	890	U	ug/kg	890
2-Chloronaphthalene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
2-Nitroaniline	880	U	ug/kg	880	930	U	ug/kg	930	930	U	ug/kg	930	890	U	ug/kg	890
Dimethylphthalate	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
Acenaphthylene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
2,6-Dinitrotoluene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
3-Nitroaniline	880	U	ug/kg	880	930	U	ug/kg	930	930	U	ug/kg	930	890	U	ug/kg	890
Acenaphthene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	51	J	ug/kg	370
2,4-Dinitrophenol	880	U	ug/kg	880	930	U	ug/kg	930	930	U	ug/kg	930	890	U	ug/kg	890
4-Nitrophenol	880	U	ug/kg	880	930	U	ug/kg	930	930	U	ug/kg	930	890	U	ug/kg	890
Dibenzofuran	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
2,4-Dinitrotoluene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
Diethylphthalate	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
4-Chlorophenyl-phenylether	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
Fluorene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	43	J	ug/kg	370
4-Nitroaniline	880	U	ug/kg	880	930	U	ug/kg	930	930	U	ug/kg	930	890	U	ug/kg	890
4,6-Dinitro-2-methylphenol	880	U	ug/kg	880	930	U	ug/kg	930	930	U	ug/kg	930	890	U	ug/kg	890
N-Nitrosodiphenylamine (1)	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
4-Bromophenyl-phenylether	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
Hexachlorobenzene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
Pentachlorophenol	880	U	ug/kg	880	930	U	ug/kg	930	930	U	ug/kg	930	890	U	ug/kg	890
Phenanthrene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	560		ug/kg	370
Anthracene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	89	J	ug/kg	370
Carbazole	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	79	J	ug/kg	370
Di-n-butylphthalate	390	U	ug/kg	390	450	U	ug/kg	450	700	U	ug/kg	700	370	U	ug/kg	370

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	Q4540				Q4541				Q4541RE				Q4542			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SS1				CF16SS2				CF16SS2RE				CF16SS3			
Collect Date:	12-AUG-94				12-AUG-94				12-AUG-94				12-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Fluoranthene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	870		ug/kg	370
Pyrene	360	U	ug/kg	360	380	U	ug/kg	380	24	J	ug/kg	380	600		ug/kg	370
Butylbenzylphthalate	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	69	J	ug/kg	370
3,3-Dichlorobenzidine	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
Benzo (a) anthracene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	420		ug/kg	370
Chrysene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	360	J	ug/kg	370
bis(2-Ethylhexyl) phthalate	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	450	U	ug/kg	450
Di-n-octylphthalate	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	370	U	ug/kg	370
Benzo (b) fluoranthene	23	J	ug/kg	360	23	J	ug/kg	380	30	J	ug/kg	380	620		ug/kg	370
Benzo (k) fluoranthene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	180	J	ug/kg	370
Benzo (a) pyrene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	310	J	ug/kg	370
Indeno (1,2,3-cd) pyrene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	190	J	ug/kg	370
Dibenz (a,h) anthracene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	52	J	ug/kg	370
Benzo (g,h,i) perylene	360	U	ug/kg	360	380	U	ug/kg	380	380	U	ug/kg	380	130	J	ug/kg	370

U = NOT DETECTED J = ESTIMATED VALUE
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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	Q4543			Q4544			Q4545			Q4546		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16SS4			CF16SS5			CF16SS6			CF16SS7		
Collect Date:	12-AUG-94			12-AUG-94			12-AUG-94			12-AUG-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
bis(2-Chloroethyl) ether	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
2-Chlorophenol	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
1,3-Dichlorobenzene	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
1,4-Dichlorobenzene	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
1,2-Dichlorobenzene	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
2-Methylphenol	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
2,2-oxybis(1-Chloropropane)	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
4-Methylphenol	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
N-Nitroso-di-n-propylamine	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
Hexachloroethane	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
Nitrobenzene	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
Isophorone	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
2-Nitrophenol	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
2,4-Dimethylphenol	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
bis(2-Chloroethoxy) methane	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
2,4-Dichlorophenol	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
1,2,4-Trichlorobenzene	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
Naphthalene	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
4-Chloroaniline	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
Hexachlorobutadiene	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
4-Chloro-3-methylphenol	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
2-Methylnaphthalene	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
Hexachlorocyclopentadiene	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
2,4,6-Trichlorophenol	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
2,4,5-Trichlorophenol	910	U ug/kg	910	890	U ug/kg	890	910	U ug/kg	910	910	U ug/kg	910
2-Chloronaphthalene	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
2-Nitroaniline	910	U ug/kg	910	890	U ug/kg	890	910	U ug/kg	910	910	U ug/kg	910
Dimethylphthalate	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
Acenaphthylene	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
2,6-Dinitrotoluene	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
3-Nitroaniline	910	U ug/kg	910	890	U ug/kg	890	910	U ug/kg	910	910	U ug/kg	910
Acenaphthene	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	32	J ug/kg	380
2,4-Dinitrophenol	910	U ug/kg	910	890	U ug/kg	890	910	U ug/kg	910	910	U ug/kg	910
4-Nitrophenol	910	U ug/kg	910	890	U ug/kg	890	910	U ug/kg	910	910	U ug/kg	910
Dibenzofuran	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
2,4-Dinitrotoluene	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
Diethylphthalate	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
4-Chlorophenyl-phenylether	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	380	U ug/kg	380
Fluorene	380	U ug/kg	380	370	U ug/kg	370	380	U ug/kg	380	26	J ug/kg	380

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	Q4543				Q4544				Q4545				Q4546			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SS4				CF16SS5				CF16SS6				CF16SS7			
Collect Date:	12-AUG-94				12-AUG-94				12-AUG-94				12-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	910	U	ug/kg	910	890	U	ug/kg	890	910	U	ug/kg	910	910	U	ug/kg	910
4,6-Dinitro-2-methylphenol	910	U	ug/kg	910	890	U	ug/kg	890	910	U	ug/kg	910	910	U	ug/kg	910
N-Nitrosodiphenylamine (1)	380	U	ug/kg	380	370	U	ug/kg	370	380	U	ug/kg	380	380	U	ug/kg	380
4-Bromophenyl-phenylether	380	U	ug/kg	380	370	U	ug/kg	370	380	U	ug/kg	380	380	U	ug/kg	380
Hexachlorobenzene	380	U	ug/kg	380	370	U	ug/kg	370	380	U	ug/kg	380	380	U	ug/kg	380
Pentachlorophenol	910	U	ug/kg	910	890	U	ug/kg	890	910	U	ug/kg	910	910	U	ug/kg	910
Phenanthrene	74	J	ug/kg	380	370	U	ug/kg	370	380	U	ug/kg	380	270	J	ug/kg	380
Anthracene	380	U	ug/kg	380	370	U	ug/kg	370	380	U	ug/kg	380	46	J	ug/kg	380
Carbazole	380	U	ug/kg	380	370	U	ug/kg	370	380	U	ug/kg	380	65	J	ug/kg	380
Di-n-butylphthalate	380	U	ug/kg	380	370	U	ug/kg	370	450	U	ug/kg	450	460	U	ug/kg	460
Fluoranthene	100	J	ug/kg	380	41	J	ug/kg	370	380	U	ug/kg	380	450		ug/kg	380
Pyrene	64	J	ug/kg	380	27	J	ug/kg	370	380	U	ug/kg	380	280	J	ug/kg	380
Butylbenzylphthalate	380	U	ug/kg	380	77	J	ug/kg	370	380	U	ug/kg	380	140	J	ug/kg	380
3,3-Dichlorobenzidine	380	U	ug/kg	380	370	U	ug/kg	370	380	U	ug/kg	380	380	U	ug/kg	380
Benzo (a) anthracene	380	U	ug/kg	380	370	U	ug/kg	370	380	U	ug/kg	380	200	J	ug/kg	380
Chrysene	40	J	ug/kg	380	26	J	ug/kg	370	380	U	ug/kg	380	210	J	ug/kg	380
bis(2-Ethylhexyl) phthalate	380	U	ug/kg	380	370	U	ug/kg	370	380	U	ug/kg	380	380	U	ug/kg	380
Di-n-octylphthalate	380	U	ug/kg	380	370	U	ug/kg	370	380	U	ug/kg	380	380	U	ug/kg	380
Benzo (b) fluoranthene	38	J	ug/kg	380	34	J	ug/kg	370	380	U	ug/kg	380	320	J	ug/kg	380
Benzo (k) fluoranthene	380	U	ug/kg	380	370	U	ug/kg	370	380	U	ug/kg	380	100	J	ug/kg	380
Benzo (a) pyrene	380	U	ug/kg	380	370	U	ug/kg	370	380	U	ug/kg	380	180	J	ug/kg	380
Indeno (1,2,3-cd) pyrene	380	U	ug/kg	380	370	U	ug/kg	370	380	U	ug/kg	380	120	J	ug/kg	380
Dibenz (a,h) anthracene	380	U	ug/kg	380	370	U	ug/kg	370	380	U	ug/kg	380	29	J	ug/kg	380
Benzo (g,h,i) perylene	380	U	ug/kg	380	370	U	ug/kg	370	380	U	ug/kg	380	100	J	ug/kg	380

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	Q4547				Q4548				Q4549				Q4550			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SS8				CF16SS8D				CF16SS9				CF16SS10			
Collect Date:	12-AUG-94				12-AUG-94				12-AUG-94				12-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
bis(2-Chloroethyl) ether	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
2-Chlorophenol	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
1,3-Dichlorobenzene	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
1,4-Dichlorobenzene	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
1,2-Dichlorobenzene	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
2-Methylphenol	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
2,2-oxybis(1-Chloropropane)	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
4-Methylphenol	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
N-Nitroso-di-n-propylamine	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
Hexachloroethane	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
Nitrobenzene	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
Isophorone	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
2-Nitrophenol	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
2,4-Dimethylphenol	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
bis(2-Chloroethoxy) methane	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
2,4-Dichlorophenol	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
1,2,4-Trichlorobenzene	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
Naphthalene	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	28	J	ug/kg	360
4-Chloroaniline	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
Hexachlorobutadiene	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
4-Chloro-3-methylphenol	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
2-Methylnaphthalene	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
Hexachlorocyclopentadiene	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
2,4,6-Trichlorophenol	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
2,4,5-Trichlorophenol	890	U	ug/kg	890	880	U	ug/kg	880	900	U	ug/kg	900	880	U	ug/kg	880
2-Chloronaphthalene	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
2-Nitroaniline	890	U	ug/kg	890	880	U	ug/kg	880	900	U	ug/kg	900	880	U	ug/kg	880
Dimethylphthalate	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
Acenaphthylene	370	U	ug/kg	370	360	U	ug/kg	360	31	J	ug/kg	370	360	U	ug/kg	360
2,6-Dinitrotoluene	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
3-Nitroaniline	890	U	ug/kg	890	880	U	ug/kg	880	900	U	ug/kg	900	880	U	ug/kg	880
Acenaphthene	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	82	J	ug/kg	360
2,4-Dinitrophenol	890	U	ug/kg	890	880	U	ug/kg	880	900	U	ug/kg	900	880	U	ug/kg	880
4-Nitrophenol	890	U	ug/kg	890	880	U	ug/kg	880	900	U	ug/kg	900	880	U	ug/kg	880
Dibenzofuran	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	44	J	ug/kg	360
2,4-Dinitrotoluene	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
Diethylphthalate	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
4-Chlorophenyl-phenylether	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
Fluorene	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	97	J	ug/kg	360

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	Q4547				Q4548				Q4549				Q4550			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SS8				CF16SS8D				CF16SS9				CF16SS10			
Collect Date:	12-AUG-94				12-AUG-94				12-AUG-94				12-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	890	U	ug/kg	890	880	U	ug/kg	880	900	U	ug/kg	900	880	U	ug/kg	880
4,6-Dinitro-2-methylphenol	890	U	ug/kg	890	880	U	ug/kg	880	900	U	ug/kg	900	880	U	ug/kg	880
N-Nitrosodiphenylamine (1)	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
4-Bromophenyl-phenylether	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
Hexachlorobenzene	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
Pentachlorophenol	890	U	ug/kg	890	880	U	ug/kg	880	900	U	ug/kg	900	880	U	ug/kg	880
Phenanthrene	35	J	ug/kg	370	43	J	ug/kg	360	44	J	ug/kg	370	740		ug/kg	360
Anthracene	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	170	J	ug/kg	360
Carbazole	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	140	J	ug/kg	360
Di-n-butylphthalate	570	U	ug/kg	570	420	U	ug/kg	420	370	U	ug/kg	370	440	U	ug/kg	440
Fluoranthene	67	J	ug/kg	370	70	J	ug/kg	360	80	J	ug/kg	370	850		ug/kg	360
Pyrene	43	J	ug/kg	370	47	J	ug/kg	360	57	J	ug/kg	370	530		ug/kg	360
Butylbenzylphthalate	36	J	ug/kg	370	28	J	ug/kg	360	97	J	ug/kg	370	54	J	ug/kg	360
3,3-Dichlorobenzidine	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
Benzo (a) anthracene	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	400		ug/kg	360
Chrysene	33	J	ug/kg	370	36	J	ug/kg	360	52	J	ug/kg	370	330	J	ug/kg	360
bis(2-Ethylhexyl) phthalate	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
Di-n-octylphthalate	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	360	U	ug/kg	360
Benzo (b) fluoranthene	47	J	ug/kg	370	52	J	ug/kg	360	130	J	ug/kg	370	490		ug/kg	360
Benzo (k) fluoranthene	21	J	ug/kg	370	19	J	ug/kg	360	44	J	ug/kg	370	170	J	ug/kg	360
Benzo (a) pyrene	27	J	ug/kg	370	31	J	ug/kg	360	82	J	ug/kg	370	290	J	ug/kg	360
Indeno (1,2,3-cd) pyrene	370	U	ug/kg	370	18	J	ug/kg	360	62	J	ug/kg	370	150	J	ug/kg	360
Dibenz (a,h) anthracene	370	U	ug/kg	370	360	U	ug/kg	360	370	U	ug/kg	370	44	J	ug/kg	360
Benzo (g,h,i) perylene	18	J	ug/kg	370	360	U	ug/kg	360	82	J	ug/kg	370	140	J	ug/kg	360

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	Q4538			Q4541MS			Q4541MSD			Q4541REMS		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16SS1R			CF16SS2MS			CF16SS2MSD			CF16SS2REMS		
Collect Date:	12-AUG-94			12-AUG-94			12-AUG-94			12-AUG-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	10 U	ug/l	10	2000	ug/kg	380	64 J	ug/kg	380	1900	ug/kg	380
bis(2-Chloroethyl) ether	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
2-Chlorophenol	10 U	ug/l	10	1900	ug/kg	380	18 J	ug/kg	380	2000	ug/kg	380
1,3-Dichlorobenzene	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
1,4-Dichlorobenzene	10 U	ug/l	10	1200	ug/kg	380	340 J	ug/kg	380	1300	ug/kg	380
1,2-Dichlorobenzene	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
2-Methylphenol	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
2,2-oxybis(1-Chloropropane)	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
4-Methylphenol	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
N-Nitroso-di-n-propylamine	10 U	ug/l	10	1300	ug/kg	380	380 U	ug/kg	380	1300	ug/kg	380
Hexachloroethane	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
Nitrobenzene	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
Isophorone	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
2-Nitrophenol	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
2,4-Dimethylphenol	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
bis(2-Chloroethoxy) methane	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
2,4-Dichlorophenol	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
1,2,4-Trichlorobenzene	10 U	ug/l	10	1400	ug/kg	380	480	ug/kg	380	1400	ug/kg	380
Naphthalene	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
4-Chloroaniline	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
Hexachlorobutadiene	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
4-Chloro-3-methylphenol	10 U	ug/l	10	2600	ug/kg	380	160 J	ug/kg	380	2700	ug/kg	380
2-Methylnaphthalene	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
Hexachlorocyclopentadiene	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
2,4,6-Trichlorophenol	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
2,4,5-Trichlorophenol	25 U	ug/l	25	930 U	ug/kg	930	930 U	ug/kg	930	930 U	ug/kg	930
2-Chloronaphthalene	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
2-Nitroaniline	25 U	ug/l	25	930 U	ug/kg	930	930 U	ug/kg	930	930 U	ug/kg	930
Dimethylphthalate	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
Acenaphthylene	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
2,6-Dinitrotoluene	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
3-Nitroaniline	25 U	ug/l	25	930 U	ug/kg	930	930 U	ug/kg	930	930 U	ug/kg	930
Acenaphthene	10 U	ug/l	10	1600	ug/kg	380	150 J	ug/kg	380	1700	ug/kg	380
2,4-Dinitrophenol	25 U	ug/l	25	930 U	ug/kg	930	930 U	ug/kg	930	930 U	ug/kg	930
4-Nitrophenol	25 U	ug/l	25	2500	ug/kg	930	930 U	ug/kg	930	2300	ug/kg	930
Dibenzofuran	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
2,4-Dinitrotoluene	10 U	ug/l	10	1800	ug/kg	380	380 U	ug/kg	380	1700	ug/kg	380
Diethylphthalate	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
4-Chlorophenyl-phenylether	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380
Fluorene	10 U	ug/l	10	380 U	ug/kg	380	380 U	ug/kg	380	380 U	ug/kg	380

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	Q4538				Q4541MS				Q4541MSD				Q4541REMS			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SS1R				CF16SS2MS				CF16SS2MSD				CF16SS2REMS			
Collect Date:	12-AUG-94				12-AUG-94				12-AUG-94				12-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	25	U	ug/l	25	930	U	ug/kg	930	930	U	ug/kg	930	930	U	ug/kg	930
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	930	U	ug/kg	930	930	U	ug/kg	930	930	U	ug/kg	930
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	380	U	ug/kg	380	380	U	ug/kg	380	19	J	ug/kg	380
4-Bromophenyl-phenylether	10	U	ug/l	10	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380
Hexachlorobenzene	10	U	ug/l	10	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380
Pentachlorophenol	25	U	ug/l	25	2700		ug/kg	930	930	U	ug/kg	930	2900		ug/kg	930
Phenanthrene	10	U	ug/l	10	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380
Anthracene	10	U	ug/l	10	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380
Carbazole	10	U	ug/l	10	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380
Di-n-butylphthalate	10	U	ug/l	10	380	U	ug/kg	380	380	U	ug/kg	380	760	U	ug/kg	760
Fluoranthene	10	U	ug/l	10	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380
Pyrene	10	U	ug/l	10	1600		ug/kg	380	1200		ug/kg	380	1800		ug/kg	380
Butylbenzylphthalate	10	U	ug/l	10	24	J	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380
3,3-Dichlorobenzidine	10	U	ug/l	10	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380
Benzo (a) anthracene	10	U	ug/l	10	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380
Chrysene	10	U	ug/l	10	380	U	ug/kg	380	380	U	ug/kg	380	19	J	ug/kg	380
bis(2-Ethylhexyl) phthalate	2	J	ug/l	10	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380
Di-n-octylphthalate	10	U	ug/l	10	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380
Benzo (b) fluoranthene	10	U	ug/l	10	380	U	ug/kg	380	380	U	ug/kg	380	31	J	ug/kg	380
Benzo (k) fluoranthene	10	U	ug/l	10	380	U	ug/kg	380	380	U	ug/kg	380	33	J	ug/kg	380
Benzo (a) pyrene	10	U	ug/l	10	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380
Dibenz (a,h) anthracene	10	U	ug/l	10	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380
Benzo (g,h,i) perylene	10	U	ug/l	10	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	Q4541REMSD			
Site	CECIL7			
Locator	CF16SS2REMSD			
Collect Date:	12-AUG-94			
	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW				
Phenol	1800		ug/kg	380
bis(2-Chloroethyl) ether	380	U	ug/kg	380
2-Chlorophenol	1900		ug/kg	380
1,3-Dichlorobenzene	380	U	ug/kg	380
1,4-Dichlorobenzene	1200		ug/kg	380
1,2-Dichlorobenzene	380	U	ug/kg	380
2-Methylphenol	380	U	ug/kg	380
2,2-oxybis(1-Chloropropane)	380	U	ug/kg	380
4-Methylphenol	380	U	ug/kg	380
N-Nitroso-di-n-propylamine	1200		ug/kg	380
Hexachloroethane	380	U	ug/kg	380
Nitrobenzene	380	U	ug/kg	380
Isophorone	380	U	ug/kg	380
2-Nitrophenol	380	U	ug/kg	380
2,4-Dimethylphenol	380	U	ug/kg	380
bis(2-Chloroethoxy) methane	380	U	ug/kg	380
2,4-Dichlorophenol	380	U	ug/kg	380
1,2,4-Trichlorobenzene	1200		ug/kg	380
Naphthalene	380	U	ug/kg	380
4-Chloroaniline	380	U	ug/kg	380
Hexachlorobutadiene	380	U	ug/kg	380
4-Chloro-3-methylphenol	2400		ug/kg	380
2-Methylnaphthalene	380	U	ug/kg	380
Hexachlorocyclopentadiene	380	U	ug/kg	380
2,4,6-Trichlorophenol	380	U	ug/kg	380
2,4,5-Trichlorophenol	930	U	ug/kg	930
2-Chloronaphthalene	380	U	ug/kg	380
2-Nitroaniline	930	U	ug/kg	930
Dimethylphthalate	380	U	ug/kg	380
Acenaphthylene	380	U	ug/kg	380
2,6-Dinitrotoluene	380	U	ug/kg	380
3-Nitroaniline	930	U	ug/kg	930
Acenaphthene	1500		ug/kg	380
2,4-Dinitrophenol	930	U	ug/kg	930
4-Nitrophenol	1900		ug/kg	930
Dibenzofuran	380	U	ug/kg	380
2,4-Dinitrotoluene	1400		ug/kg	380
Diethylphthalate	380	U	ug/kg	380
4-Chlorophenyl-phenylether	380	U	ug/kg	380
Fluorene	380	U	ug/kg	380

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	Q4541REMSD			
Site	CECIL7			
Locator	CF16SS2REMSD			
Collect Date:	12-AUG-94			
	VALUE	QUAL	UNITS	DL
4-Nitroaniline	930	U	ug/kg	930
4,6-Dinitro-2-methylphenol	930	U	ug/kg	930
N-Nitrosodiphenylamine (1)	380	U	ug/kg	380
4-Bromophenyl-phenylether	380	U	ug/kg	380
Hexachlorobenzene	380	U	ug/kg	380
Pentachlorophenol	2200		ug/kg	930
Phenanthrene	26	J	ug/kg	380
Anthracene	380	U	ug/kg	380
Carbazole	380	U	ug/kg	380
Di-n-butylphthalate	1100	U	ug/kg	1100
Fluoranthene	380	U	ug/kg	380
Pyrene	1600		ug/kg	380
Butylbenzylphthalate	380	U	ug/kg	380
3,3-Dichlorobenzidine	380	U	ug/kg	380
Benzo (a) anthracene	380	U	ug/kg	380
Chrysene	25	J	ug/kg	380
bis(2-Ethylhexyl) phthalate	380	U	ug/kg	380
Di-n-octylphthalate	380	U	ug/kg	380
Benzo (b) fluoranthene	43	J	ug/kg	380
Benzo (k) fluoranthene	45	J	ug/kg	380
Benzo (a) pyrene	380	U	ug/kg	380
Indeno (1,2,3-cd) pyrene	380	U	ug/kg	380
Dibenz (a,h) anthracene	380	U	ug/kg	380
Benzo (g,h,i) perylene	380	U	ug/kg	380

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	Q4540			Q4541			Q4542			Q4543		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16SS1			CF16SS2			CF16SS3			CF16SS4		
Collect Date:	12-AUG-94			12-AUG-94			12-AUG-94			12-AUG-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW												
alpha-BHC	1.9 U	ug/kg	1.9	2 U	ug/kg	2	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9
beta-BHC	1.9 U	ug/kg	1.9	2 U	ug/kg	2	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9
delta-BHC	1.9 U	ug/kg	1.9	2 U	ug/kg	2	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9
gamma-BHC (Lindane)	1.9 U	ug/kg	1.9	2 U	ug/kg	2	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9
Heptachlor	1.9 U	ug/kg	1.9	2 U	ug/kg	2	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9
Aldrin	1.9 U	ug/kg	1.9	2 U	ug/kg	2	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9
Heptachlor epoxide	1.9 U	ug/kg	1.9	2 U	ug/kg	2	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9
Endosulfan I	1.9 U	ug/kg	1.9	2 U	ug/kg	2	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9
Dieldrin	3.6 U	ug/kg	3.6	3.8 U	ug/kg	3.8	3.7 U	ug/kg	3.7	3.7 U	ug/kg	3.7
4,4-DDE	3.6 U	ug/kg	3.6	.33 J	ug/kg	4	.5 U	ug/kg	4	3.7 U	ug/kg	3.7
Endrin	3.6 U	ug/kg	3.6	.4 U	ug/kg	4	3.7 U	ug/kg	3.7	3.7 U	ug/kg	3.7
Endosulfan II	3.6 U	ug/kg	3.6	3.8 U	ug/kg	3.8	3.7 U	ug/kg	3.7	3.7 U	ug/kg	3.7
4,4-DDD	3.6 U	ug/kg	3.6	3.8 U	ug/kg	3.8	3.7 U	ug/kg	3.7	3.7 U	ug/kg	3.7
Endosulfan sulfate	3.6 U	ug/kg	3.6	3.8 U	ug/kg	3.8	3.7 U	ug/kg	3.7	3.7 U	ug/kg	3.7
4,4-DDT	3.6 U	ug/kg	3.6	3.8 U	ug/kg	3.8	3.7 U	ug/kg	3.7	3.7 U	ug/kg	3.7
Methoxychlor	19 U	ug/kg	19	20 U	ug/kg	20	19 U	ug/kg	19	19 U	ug/kg	19
Endrin ketone	3.6 U	ug/kg	3.6	3.8 U	ug/kg	3.8	3.7 U	ug/kg	3.7	3.7 U	ug/kg	3.7
Endrin aldehyde	3.6 U	ug/kg	3.6	3.8 U	ug/kg	3.8	3.7 U	ug/kg	3.7	3.7 U	ug/kg	3.7
alpha-Chlordane	1.9 U	ug/kg	1.9	2 U	ug/kg	2	1.9 U	ug/kg	1.9	.6 J	ug/kg	2
gamma-Chlordane	1.9 U	ug/kg	1.9	2 U	ug/kg	2	1.9 U	ug/kg	1.9	.2 U	ug/kg	2
Toxaphene	190 U	ug/kg	190	200 U	ug/kg	200	190 U	ug/kg	190	190 U	ug/kg	190
Aroclor-1016	36 U	ug/kg	36	38 U	ug/kg	38	37 U	ug/kg	37	37 U	ug/kg	37
Aroclor-1221	73 U	ug/kg	73	78 U	ug/kg	78	74 U	ug/kg	74	76 U	ug/kg	76
Aroclor-1232	36 U	ug/kg	36	38 U	ug/kg	38	37 U	ug/kg	37	37 U	ug/kg	37
Aroclor-1242	36 U	ug/kg	36	38 U	ug/kg	38	37 U	ug/kg	37	37 U	ug/kg	37
Aroclor-1248	36 U	ug/kg	36	38 U	ug/kg	38	37 U	ug/kg	37	37 U	ug/kg	37
Aroclor-1254	36 U	ug/kg	36	38 U	ug/kg	38	37 U	ug/kg	37	37 U	ug/kg	37
Aroclor-1260	36 U	ug/kg	36	5.5 J	ug/kg	38	37 U	ug/kg	37	37 U	ug/kg	37

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	Q4544				Q4545				Q4546				Q4547			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SS5				CF16SS6				CF16SS7				CF16SS8			
Collect Date:	12-AUG-94				12-AUG-94				12-AUG-94				12-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9
beta-BHC	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9
delta-BHC	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9
gamma-BHC (Lindane)	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9
Heptachlor	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9
Aldrin	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9
Heptachlor epoxide	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	2	U	ug/kg	2
Endosulfan I	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9
Dieldrin	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.8	U	ug/kg	3.8	3.7	U	ug/kg	3.7
4,4-DDE	.32	J	ug/kg	4	1.4	J	ug/kg	4	.41	J	ug/kg	4	.8	J	ug/kg	4
Endrin	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.8	U	ug/kg	3.8	3.7	U	ug/kg	3.7
Endosulfan II	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.8	U	ug/kg	3.8	3.7	U	ug/kg	3.7
4,4-DDD	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.8	U	ug/kg	3.8	4	U	ug/kg	4
Endosulfan sulfate	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	.27	J	ug/kg	4	3.7	U	ug/kg	3.7
4,4-DDT	3.7	U	ug/kg	3.7	.8	U	ug/kg	4	3.8	U	ug/kg	3.8	3.7	U	ug/kg	3.7
Methoxychlor	19	U	ug/kg	19	19	U	ug/kg	19	19	U	ug/kg	19	19	U	ug/kg	19
Endrin ketone	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.8	U	ug/kg	3.8	3.7	U	ug/kg	3.7
Endrin aldehyde	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.8	U	ug/kg	3.8	3.7	U	ug/kg	3.7
alpha-Chlordane	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1	J	ug/kg	2	23		ug/kg	2
gamma-Chlordane	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	2	U	ug/kg	2	27		ug/kg	2
Toxaphene	190	U	ug/kg	190	190	U	ug/kg	190	190	U	ug/kg	190	190	U	ug/kg	190
Aroclor-1016	37	U	ug/kg	37	37	U	ug/kg	37	38	U	ug/kg	38	37	U	ug/kg	37
Aroclor-1221	74	U	ug/kg	74	76	U	ug/kg	76	76	U	ug/kg	76	74	U	ug/kg	74
Aroclor-1232	37	U	ug/kg	37	37	U	ug/kg	37	38	U	ug/kg	38	37	U	ug/kg	37
Aroclor-1242	37	U	ug/kg	37	37	U	ug/kg	37	38	U	ug/kg	38	37	U	ug/kg	37
Aroclor-1248	37	U	ug/kg	37	37	U	ug/kg	37	38	U	ug/kg	38	37	U	ug/kg	37
Aroclor-1254	37	U	ug/kg	37	37	U	ug/kg	37	38	U	ug/kg	38	37	U	ug/kg	37
Aroclor-1260	37	U	ug/kg	37	37	U	ug/kg	37	23	J	ug/kg	38	37	U	ug/kg	37

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	Q4548			Q4549			Q4550			Q4538		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16SS8D			CF16SS9			CF16SS10			CF16SS1R		
Collect Date:	12-AUG-94			12-AUG-94			12-AUG-94			12-AUG-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW												
alpha-BHC	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	.05 U	ug/l	.05
beta-BHC	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	.05 U	ug/l	.05
delta-BHC	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	.05 U	ug/l	.05
gamma-BHC (Lindane)	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	.05 U	ug/l	.05
Heptachlor	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	.05 U	ug/l	.05
Aldrin	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	.05 U	ug/l	.05
Heptachlor epoxide	2 U	ug/kg	2	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	.05 U	ug/l	.05
Endosulfan I	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	.05 U	ug/l	.05
Dieldrin	3.6 U	ug/kg	3.6	3.7 U	ug/kg	3.7	3.6 U	ug/kg	3.6	.1 U	ug/l	.1
4,4-DDE	.87 J	ug/kg	4	3.1 J	ug/kg	4	.36 J	ug/kg	4	.1 U	ug/l	.1
Endrin	.5 U	ug/kg	4	3.7 U	ug/kg	3.7	3.6 U	ug/kg	3.6	.1 U	ug/l	.1
Endosulfan II	3.6 U	ug/kg	3.6	3.7 U	ug/kg	3.7	3.6 U	ug/kg	3.6	.01 U	ug/l	.1
4,4-DDD	9.7	ug/kg	4	3.7 U	ug/kg	3.7	3.6 U	ug/kg	3.6	.1 U	ug/l	.1
Endosulfan sulfate	3.6 U	ug/kg	3.6	3.7 U	ug/kg	3.7	3.6 U	ug/kg	3.6	.1 U	ug/l	.1
4,4-DDT	3.6 U	ug/kg	3.6	3.7 U	ug/kg	3.7	3.6 U	ug/kg	3.6	.1 U	ug/l	.1
Methoxychlor	19 U	ug/kg	19	19 U	ug/kg	19	19 U	ug/kg	19	.5 U	ug/l	.5
Endrin ketone	3.6 U	ug/kg	3.6	3.7 U	ug/kg	3.7	3.6 U	ug/kg	3.6	.1 U	ug/l	.1
Endrin aldehyde	3.6 U	ug/kg	3.6	3.7 U	ug/kg	3.7	3.6 U	ug/kg	3.6	.1 U	ug/l	.1
alpha-Chlordane	29	ug/kg	2	1.9 U	ug/kg	1.9	1.9	ug/kg	2	.05 U	ug/l	.05
gamma-Chlordane	33	ug/kg	2	.2 U	ug/kg	2	2 U	ug/kg	2	.05 U	ug/l	.05
Toxaphene	190 U	ug/kg	190	190 U	ug/kg	190	190 U	ug/kg	190	5 U	ug/l	5
Aroclor-1016	36 U	ug/kg	36	37 U	ug/kg	37	36 U	ug/kg	36	1 U	ug/l	1
Aroclor-1221	73 U	ug/kg	73	75 U	ug/kg	75	73 U	ug/kg	73	2 U	ug/l	2
Aroclor-1232	36 U	ug/kg	36	37 U	ug/kg	37	36 U	ug/kg	36	1 U	ug/l	1
Aroclor-1242	36 U	ug/kg	36	37 U	ug/kg	37	36 U	ug/kg	36	1 U	ug/l	1
Aroclor-1248	36 U	ug/kg	36	37 U	ug/kg	37	36 U	ug/kg	36	1 U	ug/l	1
Aroclor-1254	36 U	ug/kg	36	37 U	ug/kg	37	36 U	ug/kg	36	1 U	ug/l	1
Aroclor-1260	36 U	ug/kg	36	33 J	ug/kg	37	23 J	ug/kg	36	1 U	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	Q4541MS				Q4541MSD			
Site	CECIL7				CECIL7			
Locator	CF16SS2MS				CF16SS2MSD			
Collect Date:	12-AUG-94				12-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90+SOW								
alpha-BHC	2	U	ug/kg	2	2	U	ug/kg	2
beta-BHC	2	U	ug/kg	2	2	U	ug/kg	2
delta-BHC	2	U	ug/kg	2	2	U	ug/kg	2
gamma-BHC (Lindane)	18		ug/kg	2	17		ug/kg	2
Heptachlor	17		ug/kg	2	17		ug/kg	2
Aldrin	16		ug/kg	2	16		ug/kg	2
Heptachlor epoxide	2	U	ug/kg	2	2	U	ug/kg	2
Endosulfan I	2	U	ug/kg	2	2	U	ug/kg	2
Dieldrin	34		ug/kg	4	33		ug/kg	4
4,4-DDE	.2	U	ug/kg	4	3.8	U	ug/kg	3.8
Endrin	35		ug/kg	4	32		ug/kg	4
Endosulfan II	3.8	U	ug/kg	3.8	3.8	U	ug/kg	3.8
4,4-DDD	3.8	U	ug/kg	3.8	3.8	U	ug/kg	3.8
Endosulfan sulfate	3.8	U	ug/kg	3.8	3.8	U	ug/kg	3.8
4,4-DDT	31		ug/kg	4	29		ug/kg	4
Methoxychlor	20	U	ug/kg	20	20	U	ug/kg	20
Endrin ketone	3.8	U	ug/kg	3.8	3.8	U	ug/kg	3.8
Endrin aldehyde	3.8	U	ug/kg	3.8	3.8	U	ug/kg	3.8
alpha-Chlordane	2	U	ug/kg	2	2	U	ug/kg	2
gamma-Chlordane	2	U	ug/kg	2	2	U	ug/kg	2
Toxaphene	200	U	ug/kg	200	200	U	ug/kg	200
Aroclor-1016	38	U	ug/kg	38	38	U	ug/kg	38
Aroclor-1221	78	U	ug/kg	78	78	U	ug/kg	78
Aroclor-1232	38	U	ug/kg	38	38	U	ug/kg	38
Aroclor-1242	38	U	ug/kg	38	38	U	ug/kg	38
Aroclor-1248	38	U	ug/kg	38	38	U	ug/kg	38
Aroclor-1254	38	U	ug/kg	38	38	U	ug/kg	38
Aroclor-1260	38	U	ug/kg	38	38	U	ug/kg	38

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	Q4540			Q4541			Q4542			Q4543		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16SS1			CF16SS2			CF16SS3			CF16SS4		
Collect Date:	12-AUG-94			12-AUG-94			12-AUG-94			12-AUG-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	932	mg/kg	40	2310	mg/kg	40	2350	mg/kg	40	3560	mg/kg	40
Antimony	.45 U	mg/kg	12	.49 U	mg/kg	12	.45 U	mg/kg	12	.45 U	mg/kg	12
Arsenic	.69 U	mg/kg	2	.7 U	mg/kg	2	1.1 U	mg/kg	2	.89 U	mg/kg	2
Barium	1.7	mg/kg	40	3.3	mg/kg	40	6.2	mg/kg	40	8.7	mg/kg	40
Beryllium	.22 U	mg/kg	1	.23 U	mg/kg	1	.22 U	mg/kg	1	.23 U	mg/kg	1
Cadmium	.22 U	mg/kg	1	.23 U	mg/kg	1	.7	mg/kg	1	.23 U	mg/kg	1
Calcium	13000	mg/kg	1000	5270	mg/kg	1000	3830	mg/kg	1000	2090	mg/kg	1000
Chromium	1.8	mg/kg	2	3.4	mg/kg	2	9.7	mg/kg	2	4.5	mg/kg	2
Cobalt	.45 U	mg/kg	10	.47 U	mg/kg	10	.49	mg/kg	10	.54	mg/kg	10
Copper	.45 U	mg/kg	5	.86	mg/kg	5	1.5	mg/kg	5	1.3	mg/kg	5
Iron	207	mg/kg	20	491	mg/kg	20	637	mg/kg	20	1030	mg/kg	20
Lead	3.9 J	mg/kg	.6	6 J	mg/kg	.6	32.1 J	mg/kg	.6	7.3 J	mg/kg	.6
Magnesium	119	mg/kg	1000	88.4	mg/kg	1000	123	mg/kg	1000	127	mg/kg	1000
Manganese	2.9	mg/kg	3	7.8	mg/kg	3	8.4	mg/kg	3	5.6	mg/kg	3
Mercury	.11 U	mg/kg	.1	.12 U	mg/kg	.1	.12 U	mg/kg	.1	.12 U	mg/kg	.1
Nickel	.45 U	mg/kg	8	.81 J	mg/kg	8	1.3	mg/kg	8	1.7	mg/kg	8
Potassium	15.5 UJ	mg/kg	1000	24.7 J	mg/kg	1000	37.6 J	mg/kg	1000	56.1 J	mg/kg	1000
Selenium	.89 U	mg/kg	1	.94 U	mg/kg	1	.9 U	mg/kg	1	.91 U	mg/kg	1
Silver	.22 U	mg/kg	2	.23 U	mg/kg	2	.22 U	mg/kg	2	.23 U	mg/kg	2
Sodium	174	mg/kg	1000	143	mg/kg	1000	163	mg/kg	1000	171	mg/kg	1000
Thallium	1.9 U	mg/kg	2	1.4 U	mg/kg	2	1.3 U	mg/kg	2	1.4 U	mg/kg	2
Vanadium	1.2	mg/kg	10	2.6	mg/kg	10	2.9	mg/kg	10	3.7	mg/kg	10
Zinc	3.2 U	mg/kg	4	11.7	mg/kg	4	16.2	mg/kg	4	9.7	mg/kg	4
Cyanide	.52 U	mg/kg	.5	.54 U	mg/kg	.5	.59 U	mg/kg	.5	.57 U	mg/kg	.5

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	Q4544				Q4545				Q4546				Q4547			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SS5				CF16SS6				CF16SS7				CF16SS8			
Collect Date:	12-AUG-94				12-AUG-94				12-AUG-94				12-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	5040		mg/kg	40	1560		mg/kg	40	2110		mg/kg	40	4920		mg/kg	40
Antimony	.45	U	mg/kg	12	.46	U	mg/kg	12	.49	U	mg/kg	12	.45	U	mg/kg	12
Arsenic	.94	U	mg/kg	2	.91	U	mg/kg	2	.86	U	mg/kg	2	1.4	U	mg/kg	2
Barium	6.5		mg/kg	40	7		mg/kg	40	7.3		mg/kg	40	5.6		mg/kg	40
Beryllium	.22	U	mg/kg	1	.23	U	mg/kg	1	.24	U	mg/kg	1	.23	U	mg/kg	1
Cadmium	.22	U	mg/kg	1	.23	U	mg/kg	1	.94		mg/kg	1	.23		mg/kg	1
Calcium	3020		mg/kg	1000	1510		mg/kg	1000	2450		mg/kg	1000	5820		mg/kg	1000
Chromium	6.5		mg/kg	2	2.4		mg/kg	2	10.1		mg/kg	2	9		mg/kg	2
Cobalt	.71		mg/kg	10	.46	U	mg/kg	10	.49	U	mg/kg	10	.61		mg/kg	10
Copper	1.2		mg/kg	5	.81		mg/kg	5	3.1		mg/kg	5	1.2		mg/kg	5
Iron	976		mg/kg	20	418		mg/kg	20	506		mg/kg	20	735		mg/kg	20
Lead	15.4	J	mg/kg	.6	4	J	mg/kg	.6	29.5	J	mg/kg	.6	15	J	mg/kg	.6
Magnesium	169		mg/kg	1000	92.4		mg/kg	1000	66		mg/kg	1000	156		mg/kg	1000
Manganese	10.1		mg/kg	3	4.8		mg/kg	3	10.6		mg/kg	3	8.1		mg/kg	3
Mercury	.11	U	mg/kg	.1	.1	U	mg/kg	.1	.13	U	mg/kg	.1	.11	U	mg/kg	.1
Nickel	2.1		mg/kg	8	1		mg/kg	8	2.6		mg/kg	8	1.5		mg/kg	8
Potassium	93.7	J	mg/kg	1000	24.7	J	mg/kg	1000	30.8	J	mg/kg	1000	72.8	J	mg/kg	1000
Selenium	.9	U	mg/kg	1	.92	U	mg/kg	1	.98	U	mg/kg	1	.91	U	mg/kg	1
Silver	.22	U	mg/kg	2	.23	U	mg/kg	2	.24	U	mg/kg	2	.23	U	mg/kg	2
Sodium	153		mg/kg	1000	178		mg/kg	1000	192		mg/kg	1000	158		mg/kg	1000
Thallium	1.3	U	mg/kg	2	1.4	U	mg/kg	2	1.5	U	mg/kg	2	1.4	U	mg/kg	2
Vanadium	5		mg/kg	10	1.9		mg/kg	10	2.7		mg/kg	10	4.1		mg/kg	10
Zinc	17.6		mg/kg	4	5.6	U	mg/kg	4	25.2		mg/kg	4	10.6		mg/kg	4
Cyanide	.58	U	mg/kg	.5	.55	U	mg/kg	.5	.59	U	mg/kg	.5	.58	U	mg/kg	.5

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	Q4548			Q4549			Q4550			Q4538		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16SS8D			CF16SS9			CF16SS10			CF16SS1R		
Collect Date:	12-AUG-94			12-AUG-94			12-AUG-94			12-AUG-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	6980	mg/kg	40	1890	mg/kg	40	2040	mg/kg	40	51.6	ug/l	200
Antimony	.43 U	mg/kg	12	.45 U	mg/kg	12	.44 U	mg/kg	12	7.2	ug/l	60
Arsenic	.72 U	mg/kg	2	.97 U	mg/kg	2	1.3 U	mg/kg	2	3 U	ug/l	10
Barium	6.7	mg/kg	40	6.6	mg/kg	40	4.2	mg/kg	40	1.1	ug/l	200
Beryllium	.22 U	mg/kg	1	.22 U	mg/kg	1	.22 U	mg/kg	1	1 U	ug/l	5
Cadmium	.47	mg/kg	1	.56	mg/kg	1	.9	mg/kg	1	1 U	ug/l	5
Calcium	4650	mg/kg	1000	2950	mg/kg	1000	994	mg/kg	1000	86.4	ug/l	5000
Chromium	17	mg/kg	2	7.7	mg/kg	2	5.6	mg/kg	2	2 U	ug/l	10
Cobalt	.75	mg/kg	10	.45 U	mg/kg	10	.44 U	mg/kg	10	2 U	ug/l	50
Copper	2	mg/kg	5	2.9	mg/kg	5	1.9	mg/kg	5	2 U	ug/l	25
Iron	942	mg/kg	20	392	mg/kg	20	539	mg/kg	20	47.5	ug/l	100
Lead	39.8 J	mg/kg	.6	23.2 J	mg/kg	.6	12.3 J	mg/kg	.6	1 U	ug/l	3
Magnesium	189	mg/kg	1000	107	mg/kg	1000	80	mg/kg	1000	28.5	ug/l	5000
Manganese	7.2	mg/kg	3	4.8	mg/kg	3	14	mg/kg	3	1 U	ug/l	15
Mercury	.12 U	mg/kg	.1	.1 U	mg/kg	.1	.12 U	mg/kg	.1	.2 U	ug/l	.2
Nickel	2.6	mg/kg	8	1.3	mg/kg	8	1.7	mg/kg	8	2 U	ug/l	40
Potassium	99 J	mg/kg	1000	21.7 J	mg/kg	1000	32.2 J	mg/kg	1000	32.7	ug/l	5000
Selenium	.87 U	mg/kg	1	.9 U	mg/kg	1	.88 U	mg/kg	1	4 U	ug/l	5
Silver	.22 U	mg/kg	2	.22 U	mg/kg	2	.4 J	mg/kg	2	1 U	ug/l	10
Sodium	160	mg/kg	1000	150	mg/kg	1000	159	mg/kg	1000	117	ug/l	5000
Thallium	1.3 U	mg/kg	2	1.3 U	mg/kg	2	1.3 U	mg/kg	2	7.4	ug/l	10
Vanadium	5	mg/kg	10	2	mg/kg	10	2.1	mg/kg	10	1 U	ug/l	50
Zinc	15.6	mg/kg	4	10.9	mg/kg	4	9.4	mg/kg	4	4.8	ug/l	20
Cyanide	.57 U	mg/kg	.5	.58 U	mg/kg	.5	.54 U	mg/kg	.5	10 U	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:		Q4538F		
Site		CECIL7		
Locator		CF16SS1RF		
Collect Date:		12-AUG-94		
	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE				
Aluminum	51.7	U	ug/l	200
Antimony	7.4		ug/l	60
Arsenic	3	U	ug/l	10
Barium	1	U	ug/l	200
Beryllium	1	U	ug/l	5
Cadmium	1	U	ug/l	5
Calcium	81.6		ug/l	5000
Chromium	2	U	ug/l	10
Cobalt	2	U	ug/l	50
Copper	2	U	ug/l	25
Iron	12	U	ug/l	100
Lead	1	U	ug/l	3
Magnesium	16.9	U	ug/l	5000
Manganese	1	U	ug/l	15
Mercury	.2	U	ug/l	.2
Nickel	2	U	ug/l	40
Potassium	24.6		ug/l	5000
Selenium	4	U	ug/l	5
Silver	1	U	ug/l	10
Sodium	120	U	ug/l	5000
Thallium	6	U	ug/l	10
Vanadium	1	U	ug/l	50
Zinc	14	U	ug/l	20
Cyanide	-			

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- TOTAL DISSOLVED SOLIDS & TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:	Q4509			Q4510			Q4511			Q4512		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16SS1			CF16SS2			CF16SS3			CF16SS4		
Collect Date:	12-AUG-94			12-AUG-94			12-AUG-94			12-AUG-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
Total dissolved solids	-			-			-			-		
Total petroleum hydrocarbons	11	U mg/kg	11	170	mg/kg	12	85	mg/kg	11	16	mg/kg	11

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- TOTAL DISSOLVED SOLIDS & TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:	Q4514				Q4515				Q4517				Q4518			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SS5				CF16SS6				CF16SS7				CF16SS8			
Collect Date:	12-AUG-94				12-AUG-94				12-AUG-94				12-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Total dissolved solids	-				-				-				-			
Total petroleum hydrocarbons	49		mg/kg	11	18		mg/kg	11	12	U	mg/kg	12	11		mg/kg	11

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- TOTAL DISSOLVED SOLIDS & TOTAL PETROLEUM HYDROCARBONS

Lab Sample Number:	Q4519			Q4520			Q4522			Q4508		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16SS8D			CF16SS9			CF16SS10			CF16SS1R		
Collect Date:	12-AUG-94			12-AUG-94			12-AUG-94			12-AUG-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
Total dissolved solids	-			-			-			-		
Total petroleum hydrocarbons	42	mg/kg	11	18	mg/kg	10	14	mg/kg	11	.5 U	mg/l	.5

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- VOLATILES

Lab Sample Number:	A008K				A008KMS				A008KMSD				A008L			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB1S0				CF16SB1S0MS				CF16SB1S0MSD				CF16SB1S6			
Collect Date:	14-AUG-94				14-AUG-94				14-AUG-94				14-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12
Bromomethane	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12
Vinyl chloride	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12
Chloroethane	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12
Methylene chloride	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Acetone	27	U	ug/kg	27	11	U	ug/kg	11	14	U	ug/kg	14	12	U	ug/kg	12
Carbon disulfide	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
1,1-Dichloroethene	5	U	ug/kg	5	47		ug/kg	11	50		ug/kg	11	6	U	ug/kg	6
1,1-Dichloroethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
1,2-Dichloroethene (total)	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Chloroform	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
1,2-Dichloroethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
2-Butanone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12
1,1,1-Trichloroethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Carbon tetrachloride	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Bromodichloromethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
1,2-Dichloropropane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
cis-1,3-Dichloropropene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Trichloroethene	5	U	ug/kg	5	47		ug/kg	11	51		ug/kg	11	6	U	ug/kg	6
Dibromochloromethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
1,1,2-Trichloroethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Benzene	5	U	ug/kg	5	52		ug/kg	11	55		ug/kg	11	6	U	ug/kg	6
trans-1,3-Dichloropropene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Bromoform	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
4-Methyl-2-pentanone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12
2-Hexanone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12
Tetrachloroethene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Toluene	5	U	ug/kg	5	50		ug/kg	11	53		ug/kg	11	6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Chlorobenzene	5	U	ug/kg	5	49		ug/kg	11	52		ug/kg	11	6	U	ug/kg	6
Ethylbenzene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Styrene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Xylenes (total)	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- VOLATILES

Lab Sample Number:	A008N				A008O				A008P				A008S			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB2S2				CF16SB2S4				CF16SB3S0				CF16SB3S6			
Collect Date:	15-AUG-94				15-AUG-94				15-AUG-94				15-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	11	U	ug/kg	11	12	U	ug/kg	12	54	U	ug/kg	54	12	U	ug/kg	12
Bromomethane	11	U	ug/kg	11	12	U	ug/kg	12	54	U	ug/kg	54	12	U	ug/kg	12
Vinyl chloride	11	U	ug/kg	11	12	U	ug/kg	12	54	U	ug/kg	54	12	U	ug/kg	12
Chloroethane	11	U	ug/kg	11	12	U	ug/kg	12	54	U	ug/kg	54	12	U	ug/kg	12
Methylene chloride	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
Acetone	11	U	ug/kg	11	14	U	ug/kg	14	75	U	ug/kg	75	200		ug/kg	12
Carbon disulfide	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
1,1-Dichloroethene	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
1,1-Dichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
1,2-Dichloroethene (total)	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
Chloroform	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
1,2-Dichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
2-Butanone	11	U	ug/kg	11	12	U	ug/kg	12	54	U	ug/kg	54	12	U	ug/kg	12
1,1,1-Trichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
Carbon tetrachloride	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
Bromodichloromethane	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
1,2-Dichloropropane	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
cis-1,3-Dichloropropene	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
Trichloroethene	6	U	ug/kg	6	6	U	ug/kg	6	650		ug/kg	54	49		ug/kg	12
Dibromochloromethane	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
1,1,2-Trichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
Benzene	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
trans-1,3-Dichloropropene	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
Bromoform	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
4-Methyl-2-pentanone	11	U	ug/kg	11	12	U	ug/kg	12	54	U	ug/kg	54	12	U	ug/kg	12
2-Hexanone	11	U	ug/kg	11	12	U	ug/kg	12	54	U	ug/kg	54	12	U	ug/kg	12
Tetrachloroethene	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
Toluene	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
Chlorobenzene	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
Ethylbenzene	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
Styrene	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6
Xylenes (total)	6	U	ug/kg	6	6	U	ug/kg	6	27	U	ug/kg	27	6	U	ug/kg	6

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- VOLATILES

Lab Sample Number:	A008T				A008TMS				A008TMSD				A008U			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB4S2				CF16SB4S2MS				CF16SB4S2MSD				CF16SB4S6			
Collect Date:	15-AUG-94				15-AUG-94				15-AUG-94				15-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12
Bromomethane	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12
Vinyl chloride	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12
Chloroethane	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12
Methylene chloride	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Acetone	20	U	ug/kg	20	4	J	ug/kg	11	6	J	ug/kg	11	40	U	ug/kg	40
Carbon disulfide	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
1,1-Dichloroethene	5	U	ug/kg	5	50		ug/kg	11	53		ug/kg	11	6	U	ug/kg	6
1,1-Dichloroethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
1,2-Dichloroethene (total)	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Chloroform	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
1,2-Dichloroethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
2-Butanone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12
1,1,1-Trichloroethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Carbon tetrachloride	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Bromodichloromethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
1,2-Dichloropropane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
cis-1,3-Dichloropropene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Trichloroethene	5	U	ug/kg	5	48		ug/kg	11	50		ug/kg	11	6	U	ug/kg	6
Dibromochloromethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
1,1,2-Trichloroethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Benzene	5	U	ug/kg	5	55		ug/kg	11	56		ug/kg	11	6	U	ug/kg	6
trans-1,3-Dichloropropene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Bromoform	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
4-Methyl-2-pentanone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12
2-Hexanone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12
Tetrachloroethene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Toluene	5	U	ug/kg	5	53		ug/kg	11	55		ug/kg	11	6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Chlorobenzene	5	U	ug/kg	5	50		ug/kg	11	53		ug/kg	11	6	U	ug/kg	6
Ethylbenzene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Styrene	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6
Xylenes (total)	5	U	ug/kg	5	5	U	ug/kg	5	5	U	ug/kg	5	6	U	ug/kg	6

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- VOLATILES

Lab Sample Number:	A008V				A008W				A008X				A008Y			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB5S2				CF16SB5S2D				CF16SB5S6				CF16SB6S2			
Collect Date:	15-AUG-94				15-AUG-94				15-AUG-94				15-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12	11	U	ug/kg	11
Bromomethane	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12	11	U	ug/kg	11
Vinyl chloride	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12	11	U	ug/kg	11
Chloroethane	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12	11	U	ug/kg	11
Methylene chloride	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6		ug/kg	11
Acetone	12	U	ug/kg	12	27	U	ug/kg	27	17	U	ug/kg	17	11	U	ug/kg	11
Carbon disulfide	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethene (total)	6	U	ug/kg	6	3	J	ug/kg	11	6	U	ug/kg	6	6	U	ug/kg	6
Chloroform	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
2-Butanone	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12	11	U	ug/kg	11
1,1,1-Trichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Carbon tetrachloride	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Bromodichloromethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloropropane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
cis-1,3-Dichloropropene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Trichloroethene	100		ug/kg	11	130		ug/kg	11	6	U	ug/kg	6	6	U	ug/kg	6
Dibromochloromethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2-Trichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Benzene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
trans-1,3-Dichloropropene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Bromoform	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
4-Methyl-2-pentanone	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12	11	U	ug/kg	11
2-Hexanone	11	U	ug/kg	11	11	U	ug/kg	11	12	U	ug/kg	12	11	U	ug/kg	11
Tetrachloroethene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Toluene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Chlorobenzene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Ethylbenzene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Styrene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Xylenes (total)	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- VOLATILES

Lab Sample Number:	A0090				A0091				A0092				A001F			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB6S4				CF16SB6S4R				CF16SB6S4RT				CF16SB7S2			
Collect Date:	15-AUG-94				15-AUG-94				15-AUG-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	12	U	ug/kg	12	2	U	ug/l	2	2	U	ug/l	2	19	U	ug/kg	19
Bromomethane	12	U	ug/kg	12	2	U	ug/l	2	2	U	ug/l	2	19	U	ug/kg	19
Vinyl chloride	12	U	ug/kg	12	2	U	ug/l	2	2	U	ug/l	2	19	U	ug/kg	19
Chloroethane	12	U	ug/kg	12	2	U	ug/l	2	2	U	ug/l	2	19	U	ug/kg	19
Methylene chloride	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9
Acetone	150	U	ug/kg	150	2	U	ug/l	2	13	J	ug/l	2	19	U	ug/kg	19
Carbon disulfide	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9
1,1-Dichloroethene	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9
1,1-Dichloroethane	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9
1,2-Dichloroethene (total)	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	270		ug/kg	19
Chloroform	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9
1,2-Dichloroethane	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9
2-Butanone	12	U	ug/kg	12	2	U	ug/l	2	2	U	ug/l	2	19	U	ug/kg	19
1,1,1-Trichloroethane	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9
Carbon tetrachloride	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9
Bromodichloromethane	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9
1,2-Dichloropropane	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9
cis-1,3-Dichloropropene	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9
Trichloroethene	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	28		ug/kg	19
Dibromochloromethane	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9
1,1,2-Trichloroethane	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9
Benzene	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9
trans-1,3-Dichloropropene	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9
Bromoform	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9
4-Methyl-2-pentanone	12	U	ug/kg	12	2	U	ug/l	2	2	U	ug/l	2	19	U	ug/kg	19
2-Hexanone	12	U	ug/kg	12	2	U	ug/l	2	2	U	ug/l	2	19	U	ug/kg	19
Tetrachloroethene	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9
Toluene	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9
Chlorobenzene	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9
Ethylbenzene	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9
Styrene	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9
Xylenes (total)	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	9	U	ug/kg	9

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- VOLATILES

Lab Sample Number:	A001H				A001I				A001J				A001K			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB7S2D				CF16SB7S4				CF16SB8S2				CF16SB8S4			
Collect Date:	16-AUG-94				16-AUG-94				16-AUG-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	23	U	ug/kg	23	28	U	ug/kg	28	11	U	ug/kg	11	12	U	ug/kg	12
Bromomethane	23	U	ug/kg	23	28	U	ug/kg	28	11	U	ug/kg	11	12	U	ug/kg	12
Vinyl chloride	23	U	ug/kg	23	28	U	ug/kg	28	11	U	ug/kg	11	12	U	ug/kg	12
Chloroethane	23	U	ug/kg	23	28	U	ug/kg	28	11	U	ug/kg	11	12	U	ug/kg	12
Methylene chloride	8	J	ug/kg	23	10	J	ug/kg	28	5	J	ug/kg	11	6		ug/kg	12
Acetone	23	U	ug/kg	23	28	U	ug/kg	28	13	U	ug/kg	13	21	U	ug/kg	21
Carbon disulfide	11	U	ug/kg	11	14	U	ug/kg	14	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethene	11	U	ug/kg	11	14	U	ug/kg	14	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethane	11	U	ug/kg	11	14	U	ug/kg	14	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethene (total)	430		ug/kg	23	81		ug/kg	28	6	U	ug/kg	6	6	U	ug/kg	6
Chloroform	11	U	ug/kg	11	14	U	ug/kg	14	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethane	11	U	ug/kg	11	14	U	ug/kg	14	6	U	ug/kg	6	6	U	ug/kg	6
2-Butanone	23	U	ug/kg	23	28	U	ug/kg	28	11	U	ug/kg	11	12	U	ug/kg	12
1,1,1-Trichloroethane	11	U	ug/kg	11	14	U	ug/kg	14	6	U	ug/kg	6	6	U	ug/kg	6
Carbon tetrachloride	11	U	ug/kg	11	14	U	ug/kg	14	6	U	ug/kg	6	6	U	ug/kg	6
Bromodichloromethane	11	U	ug/kg	11	14	U	ug/kg	14	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloropropane	11	U	ug/kg	11	14	U	ug/kg	14	6	U	ug/kg	6	6	U	ug/kg	6
cis-1,3-Dichloropropene	11	U	ug/kg	11	14	U	ug/kg	14	6	U	ug/kg	6	6	U	ug/kg	6
Trichloroethene	18		ug/kg	23	350		ug/kg	28	3	J	ug/kg	11	6	U	ug/kg	6
Dibromochloromethane	11	U	ug/kg	11	14	U	ug/kg	14	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2-Trichloroethane	11	U	ug/kg	11	14	U	ug/kg	14	6	U	ug/kg	6	6	U	ug/kg	6
Benzene	11	U	ug/kg	11	14	U	ug/kg	14	6	U	ug/kg	6	6	U	ug/kg	6
trans-1,3-Dichloropropene	11	U	ug/kg	11	14	U	ug/kg	14	6	U	ug/kg	6	6	U	ug/kg	6
Bromoform	11	U	ug/kg	11	14	U	ug/kg	14	6	U	ug/kg	6	6	U	ug/kg	6
4-Methyl-2-pentanone	23	U	ug/kg	23	28	U	ug/kg	28	11	U	ug/kg	11	12	U	ug/kg	12
2-Hexanone	23	U	ug/kg	23	28	U	ug/kg	28	11	U	ug/kg	11	12	U	ug/kg	12
Tetrachloroethene	11	U	ug/kg	11	14	U	ug/kg	14	6	U	ug/kg	6	6	U	ug/kg	6
Toluene	11	U	ug/kg	11	14	U	ug/kg	14	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	11	U	ug/kg	11	14	U	ug/kg	14	6	U	ug/kg	6	6	U	ug/kg	6
Chlorobenzene	11	U	ug/kg	11	14	U	ug/kg	14	6	U	ug/kg	6	6	U	ug/kg	6
Ethylbenzene	11	U	ug/kg	11	14	U	ug/kg	14	6	U	ug/kg	6	6	U	ug/kg	6
Styrene	11	U	ug/kg	11	14	U	ug/kg	14	6	U	ug/kg	6	6	U	ug/kg	6
Xylenes (total)	11	U	ug/kg	11	14	U	ug/kg	14	6	U	ug/kg	6	6	U	ug/kg	6

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- VOLATILES

Lab Sample Number:	A00I0				A00IM				A00IT				A00J0			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB9S4				CF16SB9S6				CF16SB10S2				CF16SB10S2D			
Collect Date:	16-AUG-94				16-AUG-94				16-AUG-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	20	U	ug/kg	20	12	U	ug/kg	12	11	U	ug/kg	11	11	U	ug/kg	11
Bromomethane	20	U	ug/kg	20	12	U	ug/kg	12	11	U	ug/kg	11	11	U	ug/kg	11
Vinyl chloride	20	U	ug/kg	20	12	U	ug/kg	12	11	U	ug/kg	11	11	U	ug/kg	11
Chloroethane	20	U	ug/kg	20	12	U	ug/kg	12	11	U	ug/kg	11	11	U	ug/kg	11
Methylene chloride	10	U	ug/kg	10	5	J	ug/kg	12	6	U	ug/kg	6	2	J	ug/kg	11
Acetone	220		ug/kg	20	210	J	ug/kg	12	15	U	ug/kg	15	11	U	ug/kg	11
Carbon disulfide	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethene	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethane	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethene (total)	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Chloroform	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethane	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
2-Butanone	20	U	ug/kg	20	12	U	ug/kg	12	11	U	ug/kg	11	11	U	ug/kg	11
1,1,1-Trichloroethane	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Carbon tetrachloride	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Bromodichloromethane	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloropropane	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
cis-1,3-Dichloropropene	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Trichloroethene	10	U	ug/kg	10	6	U	ug/kg	6	2	J	ug/kg	11	18		ug/kg	11
Dibromochloromethane	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2-Trichloroethane	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Benzene	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
trans-1,3-Dichloropropene	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Bromoform	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
4-Methyl-2-pentanone	20	U	ug/kg	20	12	U	ug/kg	12	11	U	ug/kg	11	11	U	ug/kg	11
2-Hexanone	20	U	ug/kg	20	12	U	ug/kg	12	11	U	ug/kg	11	11	U	ug/kg	11
Tetrachloroethene	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Toluene	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Chlorobenzene	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Ethylbenzene	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Styrene	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Xylenes (total)	10	U	ug/kg	10	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- VOLATILES

Lab Sample Number:	A00J6				A00KE				A00KEMS				A00KEMSD			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB10S4				CF16SB11S2				CF16SB11S2MS				CF16SB11S2MSD			
Collect Date:	16-AUG-94				16-AUG-94				16-AUG-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12
Bromomethane	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12
Vinyl chloride	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12
Chloroethane	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12
Methylene chloride	5	J	ug/kg	12	8		ug/kg	12	6		ug/kg	12	5	J	ug/kg	12
Acetone	68	U	ug/kg	68	33	U	ug/kg	33	19	U	ug/kg	19	16	U	ug/kg	16
Carbon disulfide	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethene	6	U	ug/kg	6	6	U	ug/kg	6	62		ug/kg	12	61		ug/kg	12
1,1-Dichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethene (total)	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Chloroform	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
2-Butanone	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12
1,1,1-Trichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Carbon tetrachloride	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Bromodichloromethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloropropane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
cis-1,3-Dichloropropene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Trichloroethene	110		ug/kg	12	3	J	ug/kg	12	62		ug/kg	12	60		ug/kg	12
Dibromochloromethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2-Trichloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Benzene	6	U	ug/kg	6	6	U	ug/kg	6	66		ug/kg	12	64		ug/kg	12
trans-1,3-Dichloropropene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Bromoform	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
4-Methyl-2-pentanone	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12
2-Hexanone	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12	12	U	ug/kg	12
Tetrachloroethene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Toluene	6	U	ug/kg	6	6	U	ug/kg	6	67		ug/kg	12	68		ug/kg	12
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Chlorobenzene	6	U	ug/kg	6	6	U	ug/kg	6	63		ug/kg	12	61		ug/kg	12
Ethylbenzene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Styrene	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Xylenes (total)	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6

U = NOT DETECTED J = ESTIMATED VALUE
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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- VOLATILES

Lab Sample Number:	A00KG				A00KM				A00KJ				A00BD			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB11S6				CF16SB11S6R				CF16SB11S6RT				CF16SB12S2			
Collect Date:	16-AUG-94				16-AUG-94				16-AUG-94				13-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	12	U	ug/kg	12	2	U	ug/l	2	2	U	ug/l	2	12	U	ug/kg	12
Bromomethane	12	U	ug/kg	12	2	U	ug/l	2	2	U	ug/l	2	12	U	ug/kg	12
Vinyl chloride	12	U	ug/kg	12	2	U	ug/l	2	2	U	ug/l	2	12	U	ug/kg	12
Chloroethane	12	U	ug/kg	12	2	U	ug/l	2	2	U	ug/l	2	12	U	ug/kg	12
Methylene chloride	6		ug/kg	12	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
Acetone	120	U	ug/kg	120	2	U	ug/l	2	9	J	ug/l	2	46		ug/kg	12
Carbon disulfide	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
1,1-Dichloroethene	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
1,1-Dichloroethane	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
1,2-Dichloroethene (total)	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
Chloroform	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
1,2-Dichloroethane	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
2-Butanone	12	U	ug/kg	12	2	U	ug/l	2	2	U	ug/l	2	6	J	ug/kg	12
1,1,1-Trichloroethane	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
Carbon tetrachloride	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
Bromodichloromethane	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
1,2-Dichloropropane	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
cis-1,3-Dichloropropene	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
Trichloroethene	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
Dibromochloromethane	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
1,1,2-Trichloroethane	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
Benzene	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
trans-1,3-Dichloropropene	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
Bromoform	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
4-Methyl-2-pentanone	12	U	ug/kg	12	2	U	ug/l	2	2	U	ug/l	2	12	U	ug/kg	12
2-Hexanone	12	U	ug/kg	12	2	U	ug/l	2	2	U	ug/l	2	12	U	ug/kg	12
Tetrachloroethene	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
Toluene	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
Chlorobenzene	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
Ethylbenzene	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
Styrene	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6
Xylenes (total)	6	U	ug/kg	6	1	U	ug/l	1	1	U	ug/l	1	6	U	ug/kg	6

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- VOLATILES

Lab Sample Number:		A008F		
Site		CECIL7		
Locator		CF16SB12S6		
Collect Date:		13-AUG-94		
	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW				
Chloromethane	12	U	ug/kg	12
Bromomethane	12	U	ug/kg	12
Vinyl chloride	12	U	ug/kg	12
Chloroethane	12	U	ug/kg	12
Methylene chloride	6	U	ug/kg	6
Acetone	26	U	ug/kg	26
Carbon disulfide	6	U	ug/kg	6
1,1-Dichloroethene	6	U	ug/kg	6
1,1-Dichloroethane	6	U	ug/kg	6
1,2-Dichloroethene (total)	6	U	ug/kg	6
Chloroform	6	U	ug/kg	6
1,2-Dichloroethane	6	U	ug/kg	6
2-Butanone	12	U	ug/kg	12
1,1,1-Trichloroethane	6	U	ug/kg	6
Carbon tetrachloride	6	U	ug/kg	6
Bromodichloromethane	6	U	ug/kg	6
1,2-Dichloropropane	6	U	ug/kg	6
cis-1,3-Dichloropropene	6	U	ug/kg	6
Trichloroethene	6	U	ug/kg	6
Dibromochloromethane	6	U	ug/kg	6
1,1,2-Trichloroethane	6	U	ug/kg	6
Benzene	6	U	ug/kg	6
trans-1,3-Dichloropropene	6	U	ug/kg	6
Bromoform	6	U	ug/kg	6
4-Methyl-2-pentanone	12	U	ug/kg	12
2-Hexanone	12	U	ug/kg	12
Tetrachloroethene	6	U	ug/kg	6
Toluene	6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	6	U	ug/kg	6
Chlorobenzene	6	U	ug/kg	6
Ethylbenzene	6	U	ug/kg	6
Styrene	6	U	ug/kg	6
Xylenes (total)	6	U	ug/kg	6

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UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A008K				A008KMS				A008KMSD				A008L			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB1S0				CF16SB1S0MS				CF16SB1S0MSD				CF16SB1S6			
Collect Date:	14-AUG-94				14-AUG-94				14-AUG-94				14-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	360	U	ug/kg	360	1800		ug/kg	360	2300		ug/kg	360	400	U	ug/kg	400
bis(2-Chloroethyl) ether	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
2-Chlorophenol	360	U	ug/kg	360	1800		ug/kg	360	2400		ug/kg	360	400	U	ug/kg	400
1,3-Dichlorobenzene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
1,4-Dichlorobenzene	360	U	ug/kg	360	1200		ug/kg	360	1600		ug/kg	360	400	U	ug/kg	400
1,2-Dichlorobenzene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
2-Methylphenol	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
2,2-oxybis(1-Chloropropane)	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
4-Methylphenol	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
N-Nitroso-di-n-propylamine	360	U	ug/kg	360	1200		ug/kg	360	1700		ug/kg	360	400	U	ug/kg	400
Hexachloroethane	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Nitrobenzene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Isophorone	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
2-Nitrophenol	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
2,4-Dimethylphenol	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
bis(2-Chloroethoxy) methane	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
2,4-Dichlorophenol	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
1,2,4-Trichlorobenzene	360	U	ug/kg	360	1200		ug/kg	360	1700		ug/kg	360	400	U	ug/kg	400
Naphthalene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
4-Chloroaniline	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Hexachlorobutadiene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
4-Chloro-3-methylphenol	360	U	ug/kg	360	2300		ug/kg	360	2900		ug/kg	360	400	U	ug/kg	400
2-Methylnaphthalene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Hexachlorocyclopentadiene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
2,4,6-Trichlorophenol	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
2,4,5-Trichlorophenol	870	U	ug/kg	870	870	U	ug/kg	870	870	U	ug/kg	870	980	U	ug/kg	980
2-Chloronaphthalene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
2-Nitroaniline	870	U	ug/kg	870	870	U	ug/kg	870	870	U	ug/kg	870	980	U	ug/kg	980
Dimethylphthalate	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Acenaphthylene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
2,6-Dinitrotoluene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
3-Nitroaniline	870	U	ug/kg	870	870	U	ug/kg	870	870	U	ug/kg	870	980	U	ug/kg	980
Acenaphthene	360	U	ug/kg	360	1400		ug/kg	360	1800		ug/kg	360	400	U	ug/kg	400
2,4-Dinitrophenol	870	U	ug/kg	870	870	U	ug/kg	870	870	U	ug/kg	870	980	U	ug/kg	980
4-Nitrophenol	870	U	ug/kg	870	2400		ug/kg	870	2600		ug/kg	870	980	U	ug/kg	980
Dibenzofuran	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
2,4-Dinitrotoluene	360	U	ug/kg	360	1600		ug/kg	360	1900		ug/kg	360	400	U	ug/kg	400
Diethylphthalate	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
4-Chlorophenyl-phenylether	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Fluorene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
4-Nitroaniline	870	U	ug/kg	870	870	U	ug/kg	870	870	U	ug/kg	870	980	U	ug/kg	980
4,6-Dinitro-2-methylphenol	870	U	ug/kg	870	870	U	ug/kg	870	870	U	ug/kg	870	980	U	ug/kg	980
N-Nitrosodiphenylamine (1)	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
4-Bromophenyl-phenylether	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Hexachlorobenzene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Pentachlorophenol	870	U	ug/kg	870	2300		ug/kg	870	2300		ug/kg	870	980	U	ug/kg	980
Phenanthrene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Anthracene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Carbazole	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Di-n-butylphthalate	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A008K				A008KMS				A008KMSD				A008L			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB1S0				CF16SB1S0MS				CF16SB1S0MSD				CF16SB1S6			
Collect Date:	14-AUG-94				14-AUG-94				14-AUG-94				14-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Fluoranthene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Pyrene	360	U	ug/kg	360	1400		ug/kg	360	1500		ug/kg	360	400	U	ug/kg	400
Butylbenzylphthalate	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
3,3-Dichlorobenzidine	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Benzo (a) anthracene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Chrysene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
bis(2-Ethylhexyl) phthalate	29	J	ug/kg	360	48	J	ug/kg	360	56	J	ug/kg	360	49	J	ug/kg	400
Di-n-octylphthalate	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Benzo (b) fluoranthene	360	U	ug/kg	360	25	J	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Benzo (k) fluoranthene	360	U	ug/kg	360	24	J	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Benzo (a) pyrene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Indeno (1,2,3-cd) pyrene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Dibenz (a,h) anthracene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Benzo (g,h,i) perylene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A008N				A008O				A008P				A008S			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB2S2				CF16SB2S4				CF16SB3S0				CF16SB3S6			
Collect Date:	15-AUG-94				15-AUG-94				15-AUG-94				15-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
bis(2-Chloroethyl) ether	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
2-Chlorophenol	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
1,3-Dichlorobenzene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
1,4-Dichlorobenzene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
1,2-Dichlorobenzene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
2-Methylphenol	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
2,2-oxybis(1-Chloropropane)	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
4-Methylphenol	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
N-Nitroso-di-n-propylamine	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
Hexachloroethane	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
Nitrobenzene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
Isophorone	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
2-Nitrophenol	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
2,4-Dimethylphenol	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
bis(2-Chloroethoxy) methane	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
2,4-Dichlorophenol	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
1,2,4-Trichlorobenzene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
Naphthalene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
4-Chloroaniline	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
Hexachlorobutadiene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
4-Chloro-3-methylphenol	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
2-Methylnaphthalene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
Hexachlorocyclopentadiene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
2,4,6-Trichlorophenol	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
2,4,5-Trichlorophenol	920	U	ug/kg	920	940	U	ug/kg	940	870	U	ug/kg	870	980	U	ug/kg	980
2-Chloronaphthalene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
2-Nitroaniline	920	U	ug/kg	920	940	U	ug/kg	940	870	U	ug/kg	870	980	U	ug/kg	980
Dimethylphthalate	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
Acenaphthylene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
2,6-Dinitrotoluene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
3-Nitroaniline	920	U	ug/kg	920	940	U	ug/kg	940	870	U	ug/kg	870	980	U	ug/kg	980
Acenaphthene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
2,4-Dinitrophenol	920	U	ug/kg	920	940	U	ug/kg	940	870	U	ug/kg	870	980	U	ug/kg	980
4-Nitrophenol	920	U	ug/kg	920	940	U	ug/kg	940	870	U	ug/kg	870	980	U	ug/kg	980
Dibenzofuran	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
2,4-Dinitrotoluene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
Diethylphthalate	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
4-Chlorophenyl-phenylether	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
Fluorene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A008N				A008O				A008P				A008S			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB2S2				CF16SB2S4				CF16SB3S0				CF16SB3S6			
Collect Date:	15-AUG-94				15-AUG-94				15-AUG-94				15-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	920	U	ug/kg	920	940	U	ug/kg	940	870	U	ug/kg	870	980	U	ug/kg	980
4,6-Dinitro-2-methylphenol	920	U	ug/kg	920	940	U	ug/kg	940	870	U	ug/kg	870	980	U	ug/kg	980
N-Nitrosodiphenylamine (1)	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
4-Bromophenyl-phenylether	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
Hexachlorobenzene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
Pentachlorophenol	920	U	ug/kg	920	940	U	ug/kg	940	870	U	ug/kg	870	980	U	ug/kg	980
Phenanthrene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
Anthracene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
Carbazole	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
Di-n-butylphthalate	380	U	ug/kg	380	540	U	ug/kg	540	360	U	ug/kg	360	430	U	ug/kg	430
Fluoranthene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
Pyrene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
Butylbenzylphthalate	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
3,3-Dichlorobenzidine	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
Benzo (a) anthracene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
Chrysene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
bis(2-Ethylhexyl) phthalate	32	J	ug/kg	380	23	J	ug/kg	390	46	J	ug/kg	360	400	U	ug/kg	400
Di-n-octylphthalate	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
Benzo (b) fluoranthene	380	U	ug/kg	380	390	U	ug/kg	390	35	J	ug/kg	360	400	U	ug/kg	400
Benzo (k) fluoranthene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
Benzo (a) pyrene	380	U	ug/kg	380	390	U	ug/kg	390	20	J	ug/kg	360	400	U	ug/kg	400
Indeno (1,2,3-cd) pyrene	380	U	ug/kg	380	390	U	ug/kg	390	20	J	ug/kg	360	400	U	ug/kg	400
Dibenz (a,h) anthracene	380	U	ug/kg	380	390	U	ug/kg	390	360	U	ug/kg	360	400	U	ug/kg	400
Benzo (g,h,i) perylene	380	U	ug/kg	380	390	U	ug/kg	390	19	J	ug/kg	360	400	U	ug/kg	400

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R - RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A008T			A008TMS			A008TMSD			A008U		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16SB4S2			CF16SB4S2MS			CF16SB4S2MSD			CF16SB4S6		
Collect Date:	15-AUG-94			15-AUG-94			15-AUG-94			15-AUG-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	360 U	ug/kg	360	2300	ug/kg	360	2200	ug/kg	360	400 U	ug/kg	400
bis(2-Chloroethyl) ether	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
2-Chlorophenol	360 U	ug/kg	360	2400	ug/kg	360	2300	ug/kg	360	400 U	ug/kg	400
1,3-Dichlorobenzene	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
1,4-Dichlorobenzene	360 U	ug/kg	360	1600	ug/kg	360	1500	ug/kg	360	400 U	ug/kg	400
1,2-Dichlorobenzene	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
2-Methylphenol	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
2,2-oxybis(1-Chloropropane)	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
4-Methylphenol	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
N-Nitroso-di-n-propylamine	360 U	ug/kg	360	1600	ug/kg	360	1500	ug/kg	360	400 U	ug/kg	400
Hexachloroethane	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
Nitrobenzene	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
Isophorone	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
2-Nitrophenol	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
2,4-Dimethylphenol	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
bis(2-Chloroethoxy) methane	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
2,4-Dichlorophenol	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
1,2,4-Trichlorobenzene	360 U	ug/kg	360	1700	ug/kg	360	1700	ug/kg	360	400 U	ug/kg	400
Naphthalene	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
4-Chloroaniline	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
Hexachlorobutadiene	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
4-Chloro-3-methylphenol	360 U	ug/kg	360	2800	ug/kg	360	2800	ug/kg	360	400 U	ug/kg	400
2-Methylnaphthalene	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
Hexachlorocyclopentadiene	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
2,4,6-Trichlorophenol	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
2,4,5-Trichlorophenol	870 U	ug/kg	870	870 U	ug/kg	870	870 U	ug/kg	870	960 U	ug/kg	960
2-Chloronaphthalene	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
2-Nitroaniline	870 U	ug/kg	870	870 U	ug/kg	870	870 U	ug/kg	870	960 U	ug/kg	960
Dimethylphthalate	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
Acenaphthylene	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
2,6-Dinitrotoluene	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
3-Nitroaniline	870 U	ug/kg	870	870 U	ug/kg	870	870 U	ug/kg	870	960 U	ug/kg	960
Acenaphthene	360 U	ug/kg	360	1800	ug/kg	360	1800	ug/kg	360	400 U	ug/kg	400
2,4-Dinitrophenol	870 U	ug/kg	870	870 U	ug/kg	870	870 U	ug/kg	870	960 U	ug/kg	960
4-Nitrophenol	870 U	ug/kg	870	2600	ug/kg	870	2500	ug/kg	870	960 U	ug/kg	960
Dibenzofuran	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
2,4-Dinitrotoluene	360 U	ug/kg	360	1700	ug/kg	360	1800	ug/kg	360	400 U	ug/kg	400
Diethylphthalate	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
4-Chlorophenyl-phenylether	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400
Fluorene	360 U	ug/kg	360	360 U	ug/kg	360	360 U	ug/kg	360	400 U	ug/kg	400

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A008T				A008TMS				A008TMSD				A008U			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB4S2				CF16SB4S2MS				CF16SB4S2MSD				CF16SB4S6			
Collect Date:	15-AUG-94				15-AUG-94				15-AUG-94				15-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	870	U	ug/kg	870	870	U	ug/kg	870	870	U	ug/kg	870	960	U	ug/kg	960
4,6-Dinitro-2-methylphenol	870	U	ug/kg	870	870	U	ug/kg	870	870	U	ug/kg	870	960	U	ug/kg	960
N-Nitrosodiphenylamine (1)	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
4-Bromophenyl-phenylether	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Hexachlorobenzene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Pentachlorophenol	870	U	ug/kg	870	3000		ug/kg	870	2900		ug/kg	870	960	U	ug/kg	960
Phenanthrene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Anthracene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Carbazole	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Di-n-butylphthalate	430	U	ug/kg	430	470		ug/kg	360	260	J	ug/kg	360	480	U	ug/kg	480
Fluoranthene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Pyrene	360	U	ug/kg	360	1600		ug/kg	360	1600		ug/kg	360	400	U	ug/kg	400
Butylbenzylphthalate	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
3,3-Dichlorobenzidine	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Benzo (a) anthracene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Chrysene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
bis(2-Ethylhexyl) phthalate	360	U	ug/kg	360	25	J	ug/kg	360	25	J	ug/kg	360	400	U	ug/kg	400
Di-n-octylphthalate	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Benzo (b) fluoranthene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Benzo (k) fluoranthene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Benzo (a) pyrene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Indeno (1,2,3-cd) pyrene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Dibenz (a,h) anthracene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400
Benzo (g,h,i) perylene	360	U	ug/kg	360	360	U	ug/kg	360	360	U	ug/kg	360	400	U	ug/kg	400

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A008V			A008W			A008X			A008Y		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16SB5S2			CF16SB5S2D			CF16SB5S6			CF16SB6S2		
Collect Date:	15-AUG-94			15-AUG-94			15-AUG-94			15-AUG-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
bis(2-Chloroethyl) ether	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
2-Chlorophenol	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
1,3-Dichlorobenzene	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
1,4-Dichlorobenzene	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
1,2-Dichlorobenzene	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
2-Methylphenol	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
2,2-oxybis(1-Chloropropane)	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
4-Methylphenol	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
N-Nitroso-di-n-propylamine	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
Hexachloroethane	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
Nitrobenzene	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
Isophorone	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
2-Nitrophenol	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
2,4-Dimethylphenol	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
bis(2-Chloroethoxy) methane	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
2,4-Dichlorophenol	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
1,2,4-Trichlorobenzene	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
Naphthalene	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
4-Chloroaniline	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
Hexachlorobutadiene	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
4-Chloro-3-methylphenol	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
2-Methylnaphthalene	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
Hexachlorocyclopentadiene	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
2,4,6-Trichlorophenol	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
2,4,5-Trichlorophenol	890 U	ug/kg	890	900 U	ug/kg	900	950 U	ug/kg	950	920 U	ug/kg	920
2-Chloronaphthalene	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
2-Nitroaniline	890 U	ug/kg	890	900 U	ug/kg	900	950 U	ug/kg	950	920 U	ug/kg	920
Dimethylphthalate	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
Acenaphthylene	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
2,6-Dinitrotoluene	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
3-Nitroaniline	890 U	ug/kg	890	900 U	ug/kg	900	950 U	ug/kg	950	920 U	ug/kg	920
Acenaphthene	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
2,4-Dinitrophenol	890 U	ug/kg	890	900 U	ug/kg	900	950 U	ug/kg	950	920 U	ug/kg	920
4-Nitrophenol	890 U	ug/kg	890	900 U	ug/kg	900	950 U	ug/kg	950	920 U	ug/kg	920
Dibenzofuran	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
2,4-Dinitrotoluene	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
Diethylphthalate	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
4-Chlorophenyl-phenylether	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380
Fluorene	370 U	ug/kg	370	370 U	ug/kg	370	390 U	ug/kg	390	380 U	ug/kg	380

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A008V				A008W				A008X				A008Y			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB5S2				CF16SB5S2D				CF16SB5S6				CF16SB6S2			
Collect Date:	15-AUG-94				15-AUG-94				15-AUG-94				15-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	890	U	ug/kg	890	900	U	ug/kg	900	950	U	ug/kg	950	920	U	ug/kg	920
4,6-Dinitro-2-methylphenol	890	U	ug/kg	890	900	U	ug/kg	900	950	U	ug/kg	950	920	U	ug/kg	920
N-Nitrosodiphenylamine (1)	370	U	ug/kg	370	370	U	ug/kg	370	390	U	ug/kg	390	380	U	ug/kg	380
4-Bromophenyl-phenylether	370	U	ug/kg	370	370	U	ug/kg	370	390	U	ug/kg	390	380	U	ug/kg	380
Hexachlorobenzene	370	U	ug/kg	370	370	U	ug/kg	370	390	U	ug/kg	390	380	U	ug/kg	380
Pentachlorophenol	890	U	ug/kg	890	900	U	ug/kg	900	950	U	ug/kg	950	920	U	ug/kg	920
Phenanthrene	370	U	ug/kg	370	370	U	ug/kg	370	390	U	ug/kg	390	380	U	ug/kg	380
Anthracene	370	U	ug/kg	370	370	U	ug/kg	370	390	U	ug/kg	390	380	U	ug/kg	380
Carbazole	370	U	ug/kg	370	370	U	ug/kg	370	390	U	ug/kg	390	380	U	ug/kg	380
Di-n-butylphthalate	370	U	ug/kg	370	370	U	ug/kg	370	390	U	ug/kg	390	380	U	ug/kg	380
Fluoranthene	370	U	ug/kg	370	370	U	ug/kg	370	390	U	ug/kg	390	380	U	ug/kg	380
Pyrene	370	U	ug/kg	370	370	U	ug/kg	370	390	U	ug/kg	390	380	U	ug/kg	380
Butylbenzylphthalate	370	U	ug/kg	370	370	U	ug/kg	370	390	U	ug/kg	390	21	J	ug/kg	380
3,3-Dichlorobenzidine	370	U	ug/kg	370	370	U	ug/kg	370	390	U	ug/kg	390	380	U	ug/kg	380
Benzo (a) anthracene	370	U	ug/kg	370	370	U	ug/kg	370	390	U	ug/kg	390	380	U	ug/kg	380
Chrysene	370	U	ug/kg	370	370	U	ug/kg	370	390	U	ug/kg	390	380	U	ug/kg	380
bis(2-Ethylhexyl) phthalate	370	U	ug/kg	370	370	U	ug/kg	370	390	U	ug/kg	390	380	U	ug/kg	380
Di-n-octylphthalate	370	U	ug/kg	370	370	U	ug/kg	370	390	U	ug/kg	390	380	U	ug/kg	380
Benzo (b) fluoranthene	370	U	ug/kg	370	370	U	ug/kg	370	390	U	ug/kg	390	380	U	ug/kg	380
Benzo (k) fluoranthene	370	U	ug/kg	370	370	U	ug/kg	370	390	U	ug/kg	390	380	U	ug/kg	380
Benzo (a) pyrene	370	U	ug/kg	370	370	U	ug/kg	370	390	U	ug/kg	390	380	U	ug/kg	380
Indeno (1,2,3-cd) pyrene	370	U	ug/kg	370	370	U	ug/kg	370	390	U	ug/kg	390	380	U	ug/kg	380
Dibenz (a,h) anthracene	370	U	ug/kg	370	370	U	ug/kg	370	390	U	ug/kg	390	380	U	ug/kg	380
Benzo (g,h,i) perylene	370	U	ug/kg	370	370	U	ug/kg	370	390	U	ug/kg	390	380	U	ug/kg	380

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R SULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A0090				A0091				A001F				A001H			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB6S4				CF16SB6S4R				CF16SB7S2				CF16SB7S2D			
Collect Date:	15-AUG-94				15-AUG-94				16-AUG-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
bis(2-Chloroethyl) ether	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
2-Chlorophenol	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
1,3-Dichlorobenzene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
1,4-Dichlorobenzene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
1,2-Dichlorobenzene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
2-Methylphenol	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
2,2-oxybis(1-Chloropropane)	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
4-Methylphenol	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
N-Nitroso-di-n-propylamine	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
Hexachloroethane	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
Nitrobenzene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
Isophorone	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
2-Nitrophenol	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
2,4-Dimethylphenol	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
bis(2-Chloroethoxy) methane	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
2,4-Dichlorophenol	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
1,2,4-Trichlorobenzene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
Naphthalene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
4-Chloroaniline	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
Hexachlorobutadiene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
4-Chloro-3-methylphenol	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
2-Methylnaphthalene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
Hexachlorocyclopentadiene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
2,4,6-Trichlorophenol	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
2,4,5-Trichlorophenol	940	U	ug/kg	940	25	U	ug/l	25	900	U	ug/kg	900	910	U	ug/kg	910
2-Chloronaphthalene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
2-Nitroaniline	940	U	ug/kg	940	25	U	ug/l	25	900	U	ug/kg	900	910	U	ug/kg	910
Dimethylphthalate	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
Acenaphthylene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
2,6-Dinitrotoluene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
3-Nitroaniline	940	U	ug/kg	940	25	U	ug/l	25	900	U	ug/kg	900	910	U	ug/kg	910
Acenaphthene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
2,4-Dinitrophenol	940	U	ug/kg	940	25	U	ug/l	25	900	U	ug/kg	900	910	U	ug/kg	910
4-Nitrophenol	940	U	ug/kg	940	25	U	ug/l	25	900	U	ug/kg	900	910	U	ug/kg	910
Dibenzofuran	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
2,4-Dinitrotoluene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
Diethylphthalate	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
4-Chlorophenyl-phenylether	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
Fluorene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A0090				A0091				A001F				A001H			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB6S4				CF16SB6S4R				CF16SB7S2				CF16SB7S2D			
Collect Date:	15-AUG-94				15-AUG-94				16-AUG-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	940	U	ug/kg	940	25	U	ug/l	25	900	U	ug/kg	900	910	U	ug/kg	910
4,6-Dinitro-2-methylphenol	940	U	ug/kg	940	25	U	ug/l	25	900	U	ug/kg	900	910	U	ug/kg	910
N-Nitrosodiphenylamine (1)	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
4-Bromophenyl-phenylether	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
Hexachlorobenzene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
Pentachlorophenol	940	U	ug/kg	940	25	U	ug/l	25	900	U	ug/kg	900	910	U	ug/kg	910
Phenanthrene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
Anthracene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
Carbazole	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
Di-n-butylphthalate	390	U	ug/kg	390	.8	J	ug/l	20	370	U	ug/kg	370	380	U	ug/kg	380
Fluoranthene	390	U	ug/kg	390	10	U	ug/l	10	19	J	ug/kg	370	28	J	ug/kg	380
Pyrene	390	U	ug/kg	390	10	U	ug/l	10	22	J	ug/kg	370	24	J	ug/kg	380
Butylbenzylphthalate	390	U	ug/kg	390	10	U	ug/l	10	30	J	ug/kg	370	380	U	ug/kg	380
3,3-Dichlorobenzidine	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
Benzo (a) anthracene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
Chrysene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
bis(2-Ethylhexyl) phthalate	390	U	ug/kg	390	.6	J	ug/l	20	370	U	ug/kg	370	380	U	ug/kg	380
Di-n-octylphthalate	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
Benzo (b) fluoranthene	390	U	ug/kg	390	10	U	ug/l	10	30	J	ug/kg	370	31	J	ug/kg	380
Benzo (k) fluoranthene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
Benzo (a) pyrene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
Indeno (1,2,3-cd) pyrene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
Dibenz (a,h) anthracene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380
Benzo (g,h,i) perylene	390	U	ug/kg	390	10	U	ug/l	10	370	U	ug/kg	370	380	U	ug/kg	380

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R ~SULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A001I				A001J				A001K				A001O			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB7S4				CF16SB8S2				CF16SB8S4				CF16SB9S4			
Collect Date:	16-AUG-94				16-AUG-94				16-AUG-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
bis(2-Chloroethyl) ether	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
2-Chlorophenol	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
1,3-Dichlorobenzene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
1,4-Dichlorobenzene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
1,2-Dichlorobenzene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
2-Methylphenol	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
2,2-oxybis(1-Chloropropane)	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
4-Methylphenol	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
N-Nitroso-di-n-propylamine	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Hexachloroethane	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Nitrobenzene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Isophorone	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
2-Nitrophenol	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
2,4-Dimethylphenol	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
bis(2-Chloroethoxy) methane	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
2,4-Dichlorophenol	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
1,2,4-Trichlorobenzene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Naphthalene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
4-Chloroaniline	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Hexachlorobutadiene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
4-Chloro-3-methylphenol	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
2-Methylnaphthalene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Hexachlorocyclopentadiene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
2,4,6-Trichlorophenol	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
2,4,5-Trichlorophenol	910	U	ug/kg	910	890	U	ug/kg	890	940	U	ug/kg	940	950	U	ug/kg	950
2-Chloronaphthalene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
2-Nitroaniline	910	U	ug/kg	910	890	U	ug/kg	890	940	U	ug/kg	940	950	U	ug/kg	950
Dimethylphthalate	380	U	ug/kg	380	29	J	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Acenaphthylene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
2,6-Dinitrotoluene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
3-Nitroaniline	910	U	ug/kg	910	890	U	ug/kg	890	940	U	ug/kg	940	950	U	ug/kg	950
Acenaphthene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
2,4-Dinitrophenol	910	U	ug/kg	910	890	U	ug/kg	890	940	U	ug/kg	940	950	U	ug/kg	950
4-Nitrophenol	910	U	ug/kg	910	890	U	ug/kg	890	940	U	ug/kg	940	950	U	ug/kg	950
Dibenzofuran	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
2,4-Dinitrotoluene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Diethylphthalate	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
4-Chlorophenyl-phenylether	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Fluorene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A001I				A001J				A001K				A001O			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB7S4				CF16SB8S2				CF16SB8S4				CF16SB9S4			
Collect Date:	16-AUG-94				16-AUG-94				16-AUG-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	910	U	ug/kg	910	890	U	ug/kg	890	940	U	ug/kg	940	950	U	ug/kg	950
4,6-Dinitro-2-methylphenol	910	U	ug/kg	910	890	U	ug/kg	890	940	U	ug/kg	940	950	U	ug/kg	950
N-Nitrosodiphenylamine (1)	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
4-Bromophenyl-phenylether	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Hexachlorobenzene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Pentachlorophenol	910	U	ug/kg	910	890	U	ug/kg	890	940	U	ug/kg	940	950	U	ug/kg	950
Phenanthrene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Anthracene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Carbazole	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Di-n-butylphthalate	380	U	ug/kg	380	490	U	ug/kg	490	410	U	ug/kg	410	730	U	ug/kg	730
Fluoranthene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Pyrene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Butylbenzylphthalate	380	U	ug/kg	380	95	J	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
3,3-Dichlorobenzidine	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Benzo (a) anthracene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Chrysene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
bis(2-Ethylhexyl) phthalate	380	U	ug/kg	380	600		ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Di-n-octylphthalate	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Benzo (b) fluoranthene	23	J	ug/kg	380	25	J	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Benzo (k) fluoranthene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Benzo (a) pyrene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Indeno (1,2,3-cd) pyrene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Dibenz (a,h) anthracene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390
Benzo (g,h,i) perylene	380	U	ug/kg	380	370	U	ug/kg	370	390	U	ug/kg	390	390	U	ug/kg	390

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = SULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A00IM				A00IT				A00J0				A00J6			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB9S6				CF16SB10S2				CF16SB10S2D				CF16SB10S4			
Collect Date:	16-AUG-94				16-AUG-94				16-AUG-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
bis(2-Chloroethyl) ether	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
2-Chlorophenol	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
1,3-Dichlorobenzene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
1,4-Dichlorobenzene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
1,2-Dichlorobenzene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
2-Methylphenol	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
2,2-oxybis(1-Chloropropane)	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
4-Methylphenol	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
N-Nitroso-di-n-propylamine	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Hexachloroethane	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Nitrobenzene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Isophorone	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
2-Nitrophenol	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
2,4-Dimethylphenol	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
bis(2-Chloroethoxy) methane	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
2,4-Dichlorophenol	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
1,2,4-Trichlorobenzene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Naphthalene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
4-Chloroaniline	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Hexachlorobutadiene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
4-Chloro-3-methylphenol	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
2-Methylnaphthalene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Hexachlorocyclopentadiene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
2,4,6-Trichlorophenol	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
2,4,5-Trichlorophenol	960	U	ug/kg	960	900	U	ug/kg	900	910	U	ug/kg	910	950	U	ug/kg	950
2-Chloronaphthalene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
2-Nitroaniline	960	U	ug/kg	960	900	U	ug/kg	900	910	U	ug/kg	910	950	U	ug/kg	950
Dimethylphthalate	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Acenaphthylene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
2,6-Dinitrotoluene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
3-Nitroaniline	960	U	ug/kg	960	900	U	ug/kg	900	910	U	ug/kg	910	950	U	ug/kg	950
Acenaphthene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
2,4-Dinitrophenol	960	U	ug/kg	960	900	U	ug/kg	900	910	U	ug/kg	910	950	U	ug/kg	950
4-Nitrophenol	960	U	ug/kg	960	900	U	ug/kg	900	910	U	ug/kg	910	950	U	ug/kg	950
Dibenzofuran	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
2,4-Dinitrotoluene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Diethylphthalate	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
4-Chlorophenyl-phenylether	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Fluorene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A0DIM				A0DIT				A0DJ0				A0DJ6			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB9S6				CF16SB10S2				CF16SB10S2D				CF16SB10S4			
Collect Date:	16-AUG-94				16-AUG-94				16-AUG-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	960	U	ug/kg	960	900	U	ug/kg	900	910	U	ug/kg	910	950	U	ug/kg	950
4,6-Dinitro-2-methylphenol	960	U	ug/kg	960	900	U	ug/kg	900	910	U	ug/kg	910	950	U	ug/kg	950
N-Nitrosodiphenylamine (1)	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
4-Bromophenyl-phenylether	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Hexachlorobenzene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Pentachlorophenol	960	U	ug/kg	960	900	U	ug/kg	900	910	U	ug/kg	910	950	U	ug/kg	950
Phenanthrene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Anthracene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Carbazole	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Di-n-butylphthalate	430	U	ug/kg	430	370	U	ug/kg	370	420	U	ug/kg	420	420	U	ug/kg	420
Fluoranthene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Pyrene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Butylbenzylphthalate	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
3,3-Dichlorobenzidine	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Benzo (a) anthracene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Chrysene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
bis(2-Ethylhexyl) phthalate	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Di-n-octylphthalate	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Benzo (b) fluoranthene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Benzo (k) fluoranthene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Benzo (a) pyrene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Indeno (1,2,3-cd) pyrene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Dibenz (a,h) anthracene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390
Benzo (g,h,i) perylene	400	U	ug/kg	400	370	U	ug/kg	370	380	U	ug/kg	380	390	U	ug/kg	390

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- PESTICIDES AND PCBs

Lab Sample Number:	Q3530				Q3532				Q3532MS				Q3532MSD			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW10SD				CF16MW11DD				CF16MW11DDMS				CF16MW11DDMSD			
Collect Date:	10-AUG-94				10-AUG-94				10-AUG-94				10-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
beta-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
delta-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.54		ug/l	.05	.57		ug/l	.05
Heptachlor	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.44		ug/l	.05	.53		ug/l	.05
Aldrin	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.47		ug/l	.05	.45		ug/l	.05
Heptachlor epoxide	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.003	J	ug/l	.05	.005	J	ug/l	.05
Endosulfan I	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Dieldrin	.1	UJ	ug/l	.1	.1	U	ug/l	.1	1		ug/l	.1	1.1		ug/l	.1
4,4-DDE	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Endrin	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.99		ug/l	.1	1		ug/l	.1
Endosulfan II	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
4,4-DDD	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Endosulfan sulfate	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
4,4-DDT	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.87		ug/l	.1	.66		ug/l	.1
Methoxychlor	.5	UJ	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5
Endrin ketone	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Endrin aldehyde	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
alpha-Chlordane	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
gamma-Chlordane	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Toxaphene	5	UJ	ug/l	5	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
Aroclor-1016	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1221	2	UJ	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Aroclor-1232	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1242	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1248	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1254	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1260	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- PESTICIDES AND PCBs

Lab Sample Number:	Q4205				A00FB				P4911				P4913			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW12I				CF16MW12IR				CF16MW13S				CF16MW14D			
Collect Date:	11-AUG-94				16-AUG-94				17-JUL-94				17-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
beta-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
delta-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Aldrin	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor epoxide	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Endosulfan I	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Dieldrin	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDE	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endrin	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan II	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDD	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan sulfate	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDT	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Methoxychlor	.5	UJ	ug/l	.5	.5	U	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5
Endrin ketone	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endrin aldehyde	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
alpha-Chlordane	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
gamma-Chlordane	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Toxaphene	5	UJ	ug/l	5	5	U	ug/l	5	5	UJ	ug/l	5	5	UJ	ug/l	5
Aroclor-1016	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1221	2	UJ	ug/l	2	2	U	ug/l	2	2	UJ	ug/l	2	2	UJ	ug/l	2
Aroclor-1232	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1242	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1248	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1254	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1260	1	UJ	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1

U = NOT DETECTED J = ESTIMATED VALUE
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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- PESTICIDES AND PCBs

Lab Sample Number:	P4912				P9355				P4910				P3792			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW15S				CF16MW16D				CF16MW17S				CF16MW18D			
Collect Date:	17-JUL-94				29-JUL-94				17-JUL-94				14-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
beta-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
delta-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Aldrin	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor epoxide	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Endosulfan I	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Dieldrin	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDE	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endrin	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan II	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDD	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan sulfate	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDT	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Methoxychlor	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5
Endrin ketone	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endrin aldehyde	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
alpha-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
gamma-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Toxaphene	5	UJ	ug/l	5	5	UJ	ug/l	5	5	UJ	ug/l	5	5	UJ	ug/l	5
Aroclor-1016	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1221	2	UJ	ug/l	2	2	UJ	ug/l	2	2	UJ	ug/l	2	2	UJ	ug/l	2
Aroclor-1232	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1242	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1248	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1254	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1260	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- PESTICIDES AND PCBs

Lab Sample Number:	P9356				A00FC				P4914				P4916			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW19S				CF16MW20D				CF16MW21S				CF16MW21SD			
Collect Date:	29-JUL-94				16-AUG-94				18-JUL-94				18-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	R	ug/l	.05	.05	UJ	ug/l	.05
beta-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	R	ug/l	.05	.05	UJ	ug/l	.05
delta-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	R	ug/l	.05	.05	UJ	ug/l	.05
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	R	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	R	ug/l	.05	.05	UJ	ug/l	.05
Aldrin	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	R	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor epoxide	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	R	ug/l	.05	.05	UJ	ug/l	.05
Endosulfan I	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	R	ug/l	.05	.05	UJ	ug/l	.05
Dieldrin	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	R	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDE	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	R	ug/l	.1	.1	UJ	ug/l	.1
Endrin	.01	UJ	ug/l	.01	.1	UJ	ug/l	.1	.1	R	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan II	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	R	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDD	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	R	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan sulfate	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	R	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDT	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	R	ug/l	.1	.1	UJ	ug/l	.1
Methoxychlor	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	.5	R	ug/l	.5	.5	UJ	ug/l	.5
Endrin ketone	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	R	ug/l	.1	.1	UJ	ug/l	.1
Endrin aldehyde	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	R	ug/l	.1	.1	UJ	ug/l	.1
alpha-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	R	ug/l	.05	.05	UJ	ug/l	.05
gamma-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	R	ug/l	.05	.05	UJ	ug/l	.05
Toxaphene	5	UJ	ug/l	5	5	UJ	ug/l	5	5	R	ug/l	5	5	UJ	ug/l	5
Aroclor-1016	1	UJ	ug/l	1	1	UJ	ug/l	1	1	R	ug/l	1	1	UJ	ug/l	1
Aroclor-1221	2	UJ	ug/l	2	2	UJ	ug/l	2	2	R	ug/l	2	2	UJ	ug/l	2
Aroclor-1232	1	UJ	ug/l	1	1	UJ	ug/l	1	1	R	ug/l	1	1	UJ	ug/l	1
Aroclor-1242	1	UJ	ug/l	1	1	UJ	ug/l	1	1	R	ug/l	1	1	UJ	ug/l	1
Aroclor-1248	1	UJ	ug/l	1	1	UJ	ug/l	1	1	R	ug/l	1	1	UJ	ug/l	1
Aroclor-1254	1	UJ	ug/l	1	1	UJ	ug/l	1	1	R	ug/l	1	1	UJ	ug/l	1
Aroclor-1260	1	UJ	ug/l	1	1	UJ	ug/l	1	1	R	ug/l	1	1	UJ	ug/l	1

U = NOT DETECTED J = ESTIMATED VALUE
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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- PESTICIDES AND PCBs

Lab Sample Number:	P9358				P9361				P5958				P5958MS			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW22I				CF16MW22IR				CF16MW23D				CF16MW23DMS			
Collect Date:	29-JUL-94				29-JUL-94				20-JUL-94				20-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
beta-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
delta-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.53		ug/l	.05
Heptachlor	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.49		ug/l	.05
Aldrin	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.52		ug/l	.05
Heptachlor epoxide	.05	UJ	ug/l	.05	.005	J	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Endosulfan I	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Dieldrin	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	1.1		ug/l	.1
4,4-DDE	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Endrin	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	1.1		ug/l	.1
Endosulfan II	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
4,4-DDD	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Endosulfan sulfate	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
4,4-DDT	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	1.1		ug/l	.1
Methoxychlor	.5	UJ	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5
Endrin ketone	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
Endrin aldehyde	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1
alpha-Chlordane	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
gamma-Chlordane	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05
Toxaphene	5	UJ	ug/l	5	5	U	ug/l	5	5	U	ug/l	5	5	U	ug/l	5
Aroclor-1016	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1221	2	UJ	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	U	ug/l	2
Aroclor-1232	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1242	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1248	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1254	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1
Aroclor-1260	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	U	ug/l	1

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- PESTICIDES AND PCBs

Lab Sample Number:	P5958MSD			P3222			P3220			P3217		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW23DMSD			CF16MW24S			CF16MW25D			CF16MW26DD		
Collect Date:	20-JUL-94			13-JUL-94			13-JUL-94			13-JUL-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
CLP PESTICIDES/PCBS 90-SOW												
alpha-BHC	.05	U ug/l	.05	.05	UJ ug/l	.05	.05	UJ ug/l	.05	.05	UJ ug/l	.05
beta-BHC	.05	U ug/l	.05	.05	UJ ug/l	.05	.05	UJ ug/l	.05	.05	UJ ug/l	.05
delta-BHC	.05	U ug/l	.05	.05	UJ ug/l	.05	.05	UJ ug/l	.05	.05	UJ ug/l	.05
gamma-BHC (Lindane)	.58	ug/l	.05	.05	UJ ug/l	.05	.05	UJ ug/l	.05	.05	UJ ug/l	.05
Heptachlor	.52	ug/l	.05	.05	UJ ug/l	.05	.05	UJ ug/l	.05	.05	UJ ug/l	.05
Aldrin	.58	ug/l	.05	.05	UJ ug/l	.05	.05	UJ ug/l	.05	.05	UJ ug/l	.05
Heptachlor epoxide	.05	U ug/l	.05	.05	UJ ug/l	.05	.05	UJ ug/l	.05	.05	UJ ug/l	.05
Endosulfan I	.05	U ug/l	.05	.05	UJ ug/l	.05	.05	UJ ug/l	.05	.05	UJ ug/l	.05
Dieldrin	1.3	ug/l	.1	.1	UJ ug/l	.1	.1	UJ ug/l	.1	.1	UJ ug/l	.1
4,4-DDE	.1	U ug/l	.1	.1	UJ ug/l	.1	.1	UJ ug/l	.1	.1	UJ ug/l	.1
Endrin	1.2	ug/l	.1	.1	UJ ug/l	.1	.1	UJ ug/l	.1	.1	UJ ug/l	.1
Endosulfan II	.1	U ug/l	.1	.1	UJ ug/l	.1	.1	UJ ug/l	.1	.1	UJ ug/l	.1
4,4-DDD	.1	U ug/l	.1	.1	UJ ug/l	.1	.1	UJ ug/l	.1	.1	UJ ug/l	.1
Endosulfan sulfate	.1	U ug/l	.1	.1	UJ ug/l	.1	.1	UJ ug/l	.1	.1	UJ ug/l	.1
4,4-DDT	1.1	ug/l	.1	.1	UJ ug/l	.1	.1	UJ ug/l	.1	.1	UJ ug/l	.1
Methoxychlor	.5	U ug/l	.5	.5	UJ ug/l	.5	.5	UJ ug/l	.5	.5	UJ ug/l	.5
Endrin ketone	.1	U ug/l	.1	.1	UJ ug/l	.1	.1	UJ ug/l	.1	.1	UJ ug/l	.1
Endrin aldehyde	.1	U ug/l	.1	.1	UJ ug/l	.1	.1	UJ ug/l	.1	.1	UJ ug/l	.1
alpha-Chlordane	.05	U ug/l	.05	.05	UJ ug/l	.05	.05	UJ ug/l	.05	.05	UJ ug/l	.05
gamma-Chlordane	.05	U ug/l	.05	.05	UJ ug/l	.05	.05	UJ ug/l	.05	.05	UJ ug/l	.05
Toxaphene	5	U ug/l	5	5	UJ ug/l	5	5	UJ ug/l	5	5	UJ ug/l	5
Aroclor-1016	1	U ug/l	1	1	UJ ug/l	1	1	UJ ug/l	1	1	UJ ug/l	1
Aroclor-1221	2	U ug/l	2	2	UJ ug/l	2	2	UJ ug/l	2	2	UJ ug/l	2
Aroclor-1232	1	U ug/l	1	1	UJ ug/l	1	1	UJ ug/l	1	1	UJ ug/l	1
Aroclor-1242	1	U ug/l	1	1	UJ ug/l	1	1	UJ ug/l	1	1	UJ ug/l	1
Aroclor-1248	1	U ug/l	1	1	UJ ug/l	1	1	UJ ug/l	1	1	UJ ug/l	1
Aroclor-1254	1	U ug/l	1	1	UJ ug/l	1	1	UJ ug/l	1	1	UJ ug/l	1
Aroclor-1260	1	U ug/l	1	1	UJ ug/l	1	1	UJ ug/l	1	1	UJ ug/l	1

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- PESTICIDES AND PCBs

Lab Sample Number:	Q2485				Q2491				Q2492				Q0289			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW27I				CF16MW28D				CF16MW28DD				CF16MW29S			
Collect Date:	08-AUG-94				08-AUG-94				08-AUG-94				02-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
beta-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
delta-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
Aldrin	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor epoxide	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
Endosulfan I	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
Dieldrin	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDE	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
Endrin	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan II	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDD	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan sulfate	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDT	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
Methoxychlor	.5	UJ	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	UJ	ug/l	.5
Endrin ketone	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
Endrin aldehyde	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
alpha-Chlordane	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
gamma-Chlordane	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
Toxaphene	5	UJ	ug/l	5	5	U	ug/l	5	5	U	ug/l	5	5	UJ	ug/l	5
Aroclor-1016	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1
Aroclor-1221	2	UJ	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	UJ	ug/l	2
Aroclor-1232	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1
Aroclor-1242	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1
Aroclor-1248	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1
Aroclor-1254	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1
Aroclor-1260	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- PESTICIDES AND PCBs

Lab Sample Number:	Q0292				Q0288				Q2493				Q2907			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW30D				CF16MW31DD				CF16MW32S				CF16MW33D			
Collect Date:	02-AUG-94				02-AUG-94				08-AUG-94				09-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
beta-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
delta-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Heptachlor	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Aldrin	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Heptachlor epoxide	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Endosulfan I	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Dieldrin	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
4,4-DDE	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Endrin	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Endosulfan II	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
4,4-DDD	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Endosulfan sulfate	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
4,4-DDT	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Methoxychlor	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	.5	U	ug/l	.5
Endrin ketone	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
Endrin aldehyde	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	U	ug/l	.1
alpha-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
gamma-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	U	ug/l	.05
Toxaphene	5	UJ	ug/l	5	5	UJ	ug/l	5	5	UJ	ug/l	5	5	U	ug/l	5
Aroclor-1016	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1221	2	UJ	ug/l	2	2	UJ	ug/l	2	2	UJ	ug/l	2	2	U	ug/l	2
Aroclor-1232	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1242	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1248	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1254	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1
Aroclor-1260	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1	1	U	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- PESTICIDES AND PCBs

Lab Sample Number:	Q3527				Q2906				Q0286				Q0046			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW33DR				CF16MW34DD				CF16MW35S				CF16MW36I			
Collect Date:	10-AUG-94				09-AUG-94				02-AUG-94				01-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
beta-BHC	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
delta-BHC	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
gamma-BHC (Lindane)	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Aldrin	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor epoxide	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Endosulfan I	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Dieldrin	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDE	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endrin	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan II	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDD	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan sulfate	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDT	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Methoxychlor	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5
Endrin ketone	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endrin aldehyde	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
alpha-Chlordane	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
gamma-Chlordane	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Toxaphene	5	U	ug/l	5	5	U	ug/l	5	5	UJ	ug/l	5	5	UJ	ug/l	5
Aroclor-1016	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1221	2	U	ug/l	2	2	U	ug/l	2	2	UJ	ug/l	2	2	UJ	ug/l	2
Aroclor-1232	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1242	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1248	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1254	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1260	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- PESTICIDES AND PCBs

Lab Sample Number:	Q0050				Q0050MS				Q0050MSD				Q0044			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW37D				CF16MW37DMS				CF16MW37DMSD				CF16MW38S			
Collect Date:	01-AUG-94				01-AUG-94				01-AUG-94				31-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
beta-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
delta-BHC	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	.3		ug/l	.05	.36		ug/l	.05	.05	UJ	ug/l	.05
Heptachlor	.05	UJ	ug/l	.05	.35		ug/l	.05	.31		ug/l	.05	.05	UJ	ug/l	.05
Aldrin	.05	UJ	ug/l	.05	.28		ug/l	.05	.25		ug/l	.05	.05	UJ	ug/l	.05
Heptachlor epoxide	.05	UJ	ug/l	.05	.004	J	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
Endosulfan I	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
Dieldrin	.1	UJ	ug/l	.1	.74		ug/l	.1	.65		ug/l	.1	.1	UJ	ug/l	.1
4,4-DDE	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
Endrin	.1	UJ	ug/l	.1	.69		ug/l	.1	.67		ug/l	.1	.1	UJ	ug/l	.1
Endosulfan II	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDD	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan sulfate	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDT	.1	UJ	ug/l	.1	.54		ug/l	.1	.42		ug/l	.1	.1	UJ	ug/l	.1
Methoxychlor	.5	UJ	ug/l	.5	.5	U	ug/l	.5	.5	U	ug/l	.5	.5	UJ	ug/l	.5
Endrin ketone	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
Endrin aldehyde	.1	UJ	ug/l	.1	.1	U	ug/l	.1	.1	U	ug/l	.1	.1	UJ	ug/l	.1
alpha-Chlordane	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
gamma-Chlordane	.05	UJ	ug/l	.05	.05	U	ug/l	.05	.05	U	ug/l	.05	.05	UJ	ug/l	.05
Toxaphene	5	UJ	ug/l	5	5	U	ug/l	5	5	U	ug/l	5	5	UJ	ug/l	5
Aroclor-1016	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1
Aroclor-1221	2	UJ	ug/l	2	2	U	ug/l	2	2	U	ug/l	2	2	UJ	ug/l	2
Aroclor-1232	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1
Aroclor-1242	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1
Aroclor-1248	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1
Aroclor-1254	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1
Aroclor-1260	1	UJ	ug/l	1	1	U	ug/l	1	1	U	ug/l	1	1	UJ	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- PESTICIDES AND PCBs

Lab Sample Number:	Q0043				Q0041				Q0042			
Site	CECIL7				CECIL7				CECIL7			
Locator	CF16MW39I				CF16MW40D				CF16MW40DD			
Collect Date:	31-JUL-94				31-JUL-94				31-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW												
alpha-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
beta-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
delta-BHC	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
gamma-BHC (Lindane)	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Aldrin	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Heptachlor epoxide	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Endosulfan I	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Dieldrin	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDE	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endrin	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan II	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDD	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endosulfan sulfate	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
4,4-DDT	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Methoxychlor	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5	.5	UJ	ug/l	.5
Endrin ketone	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
Endrin aldehyde	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1	.1	UJ	ug/l	.1
alpha-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
gamma-Chlordane	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05	.05	UJ	ug/l	.05
Toxaphene	5	UJ	ug/l	5	5	UJ	ug/l	5	5	UJ	ug/l	5
Aroclor-1016	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1221	2	UJ	ug/l	2	2	UJ	ug/l	2	2	UJ	ug/l	2
Aroclor-1232	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1242	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1248	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1254	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1
Aroclor-1260	1	UJ	ug/l	1	1	UJ	ug/l	1	1	UJ	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- METALS AND CYANIDE

Lab Sample Number:	Q4203			Q4203F			Q3531			Q3531F		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW5S			CF16MW5SF			CF16MW7S			CF16MW7SF		
Collect Date:	11-AUG-94			11-AUG-94			10-AUG-94			10-AUG-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	2420	ug/l	200	42.1 U	ug/l	200	188 U	ug/l	200	59.2 U	ug/l	200
Antimony	2 U	ug/l	60	3	ug/l	60	2 U	ug/l	60	4.3	ug/l	60
Arsenic	3.8	ug/l	10	3 U	ug/l	10	3 U	ug/l	10	3 U	ug/l	10
Barium	12	ug/l	200	15.4	ug/l	200	11	ug/l	200	11.8	ug/l	200
Beryllium	1 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5
Cadmium	1 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5
Calcium	7600 J	ug/l	5000	11000 J	ug/l	5000	16600	ug/l	5000	16300	ug/l	5000
Chromium	2 U	ug/l	10	2 U	ug/l	10	7.9	ug/l	10	4.7	ug/l	10
Cobalt	2 U	ug/l	50	2 U	ug/l	50	2 U	ug/l	50	2 U	ug/l	50
Copper	7 U	ug/l	25	3.1 U	ug/l	25	2.6 U	ug/l	25	2.6 U	ug/l	25
Iron	9150 J	ug/l	100	1020 J	ug/l	100	420 J	ug/l	100	172 J	ug/l	100
Lead	1 U	ug/l	3	1 U	ug/l	3	1 U	ug/l	3	1 U	ug/l	3
Magnesium	1230	ug/l	5000	1270	ug/l	5000	1920	ug/l	5000	2050	ug/l	5000
Manganese	4.1 U	ug/l	15	3 U	ug/l	15	3.6 U	ug/l	15	3.5 U	ug/l	15
Mercury	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2
Nickel	14.1 U	ug/l	40	14.3 U	ug/l	40	16.8 U	ug/l	40	6 U	ug/l	40
Potassium	209 J	ug/l	5000	168 J	ug/l	5000	632 J	ug/l	5000	609 J	ug/l	5000
Selenium	4 U	ug/l	5	4 U	ug/l	5	4 U	ug/l	5	4 U	ug/l	5
Silver	1 U	ug/l	10	1 U	ug/l	10	1 U	ug/l	10	1 U	ug/l	10
Sodium	3910 J	ug/l	5000	2880 J	ug/l	5000	7290 J	ug/l	5000	7120 J	ug/l	5000
Thallium	6 U	ug/l	10	7.6 U	ug/l	10	6 U	ug/l	10	6 U	ug/l	10
Vanadium	14.3	ug/l	50	1 U	ug/l	50	1.4	ug/l	50	1 U	ug/l	50
Zinc	17.1 U	ug/l	20	10 U	ug/l	20	24.7 U	ug/l	20	21.4 U	ug/l	20
Cyanide	10 U	ug/l	10	-			10 U	ug/l	10	-		

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- METALS AND CYANIDE

Lab Sample Number:	Q4204			Q4204F			Q3528			Q3528F		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW9D			CF16MW9DF			CF16MW10S			CF16MW10SF		
Collect Date:	11-AUG-94			11-AUG-94			10-AUG-94			10-AUG-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	662 J	ug/l	200	73.7 U	ug/l	200	4830	ug/l	200	1440	ug/l	200
Antimony	2 U	ug/l	60	6.9	ug/l	60	2 U	ug/l	60	7.9	ug/l	60
Arsenic	3 U	ug/l	10	3 U	ug/l	10	3 U	ug/l	10	3 U	ug/l	10
Barium	108	ug/l	200	29.3	ug/l	200	23.9	ug/l	200	24.2	ug/l	200
Beryllium	1 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5
Cadmium	1 U	ug/l	5	1 U	ug/l	5	2.4	ug/l	5	1.5	ug/l	5
Calcium	8030	ug/l	5000	8350	ug/l	5000	31800	ug/l	5000	31400	ug/l	5000
Chromium	2.2	ug/l	10	2 U	ug/l	10	4.3	ug/l	10	2.3	ug/l	10
Cobalt	2 U	ug/l	50	2 U	ug/l	50	2.3	ug/l	50	2.2	ug/l	50
Copper	4.4 U	ug/l	25	3.2 U	ug/l	25	4.8 U	ug/l	25	4.6 U	ug/l	25
Iron	736 J	ug/l	100	670 J	ug/l	100	907 J	ug/l	100	265 J	ug/l	100
Lead	1 U	ug/l	3	1 U	ug/l	3	1 U	ug/l	3	1 U	ug/l	3
Magnesium	2150	ug/l	5000	2390	ug/l	5000	2730	ug/l	5000	2710	ug/l	5000
Manganese	18.6	ug/l	15	19	ug/l	15	52.9	ug/l	15	41.6	ug/l	15
Mercury	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2
Nickel	14.3 U	ug/l	40	15.4 U	ug/l	40	14.8 U	ug/l	40	10.8 U	ug/l	40
Potassium	707 J	ug/l	5000	751 J	ug/l	5000	4210 J	ug/l	5000	4170 J	ug/l	5000
Selenium	4 U	ug/l	5	4 U	ug/l	5	4 U	ug/l	5	4 U	ug/l	5
Silver	1 U	ug/l	10	1 U	ug/l	10	1 U	ug/l	10	1 U	ug/l	10
Sodium	6260 J	ug/l	5000	5780 J	ug/l	5000	30800 J	ug/l	5000	33800 J	ug/l	5000
Thallium	6 U	ug/l	10	6 U	ug/l	10	6 U	ug/l	10	6 U	ug/l	10
Vanadium	1.3	ug/l	50	1 U	ug/l	50	11.7	ug/l	50	9	ug/l	50
Zinc	40.8 U	ug/l	20	19.6 U	ug/l	20	46.7	ug/l	20	31 U	ug/l	20
Cyanide	10 U	ug/l	10	-			10 U	ug/l	10	-		

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- METALS AND CYANIDE

Lab Sample Number:	Q3530				Q3530F				Q3532				Q3532F			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW10SD				CF16MW10SDF				CF16MW11DD				CF16MW11DDF			
Collect Date:	10-AUG-94				10-AUG-94				10-AUG-94				10-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	11100		ug/l	200	2330		ug/l	200	44.7	U	ug/l	200	54.6	U	ug/l	200
Antimony	2	U	ug/l	60	6.2		ug/l	60	10.3		ug/l	60	12.6		ug/l	60
Arsenic	3	U	ug/l	10	3	U	ug/l	10	3	U	ug/l	10	3	U	ug/l	10
Barium	27.4		ug/l	200	23.9		ug/l	200	29.1		ug/l	200	30		ug/l	200
Beryllium	1	U	ug/l	5	1	U	ug/l	5	1	U	ug/l	5	1	U	ug/l	5
Cadmium	4.2		ug/l	5	1.3		ug/l	5	1	U	ug/l	5	1	U	ug/l	5
Calcium	34300		ug/l	5000	31000		ug/l	5000	63400		ug/l	5000	64200		ug/l	5000
Chromium	9.2		ug/l	10	2	U	ug/l	10	2	U	ug/l	10	2	U	ug/l	10
Cobalt	2.3		ug/l	50	2	U	ug/l	50	2	U	ug/l	50	2	U	ug/l	50
Copper	7.2	U	ug/l	25	6.1	U	ug/l	25	2.2	U	ug/l	25	2.4	U	ug/l	25
Iron	1750	J	ug/l	100	324	J	ug/l	100	124	J	ug/l	100	166	J	ug/l	100
Lead	3.6		ug/l	3	1	U	ug/l	3	1	U	ug/l	3	1	U	ug/l	3
Magnesium	3120		ug/l	5000	2740		ug/l	5000	28700		ug/l	5000	29200		ug/l	5000
Manganese	57.6		ug/l	15	38.1		ug/l	15	57.5		ug/l	15	59.2		ug/l	15
Mercury	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2
Nickel	22.3	U	ug/l	40	25.8	U	ug/l	40	6	U	ug/l	40	10	U	ug/l	40
Potassium	4730	J	ug/l	5000	4120	J	ug/l	5000	941	J	ug/l	5000	910	J	ug/l	5000
Selenium	4	U	ug/l	5	4	U	ug/l	5	4	U	ug/l	5	4	U	ug/l	5
Silver	1	U	ug/l	10	1	U	ug/l	10	1	U	ug/l	10	1	U	ug/l	10
Sodium	32600	J	ug/l	5000	34200	J	ug/l	5000	8940	J	ug/l	5000	9280	J	ug/l	5000
Thallium	6.7	U	ug/l	10	6	U	ug/l	10	7.9	U	ug/l	10	6	U	ug/l	10
Vanadium	14.9		ug/l	50	9.8		ug/l	50	1	U	ug/l	50	1	U	ug/l	50
Zinc	50		ug/l	20	31.8	U	ug/l	20	13.6	U	ug/l	20	14.4	U	ug/l	20
Cyanide	10	U	ug/l	10	-				10	U	ug/l	10	-			

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- METALS AND CYANIDE

Lab Sample Number:	Q4205			Q4205F			A00FB			A00FBF		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW12I			CF16MW12IF			CF16MW12IR			CF16MW12IRF		
Collect Date:	11-AUG-94			11-AUG-94			16-AUG-94			16-AUG-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	1170 J	ug/l	200	303 U	ug/l	200	82.1	ug/l	200	160	ug/l	200
Antimony	2 U	ug/l	60	7.7	ug/l	60	2 U	ug/l	60	6.1	ug/l	60
Arsenic	56.2	ug/l	10	52.4	ug/l	10	3 U	ug/l	10	3 U	ug/l	10
Barium	20.2	ug/l	200	16.8	ug/l	200	1 U	ug/l	200	1 U	ug/l	200
Beryllium	1 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5
Cadmium	1 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5
Calcium	1330	ug/l	5000	1550	ug/l	5000	43	ug/l	5000	16.9	ug/l	5000
Chromium	2 U	ug/l	10	2 U	ug/l	10	2 U	ug/l	10	2 U	ug/l	10
Cobalt	5.9	ug/l	50	5.9	ug/l	50	2 U	ug/l	50	2 U	ug/l	50
Copper	5 U	ug/l	25	5 U	ug/l	25	2	ug/l	25	4.9	ug/l	25
Iron	5960 J	ug/l	100	5340 J	ug/l	100	12 U	ug/l	100	19.5	ug/l	100
Lead	1 U	ug/l	3	1 U	ug/l	3	1 U	ug/l	3	1 U	ug/l	3
Magnesium	836	ug/l	5000	832	ug/l	5000	14.1	ug/l	5000	5 U	ug/l	5000
Manganese	10.4	ug/l	15	10.5	ug/l	15	1 U	ug/l	15	1.4	ug/l	15
Mercury	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2
Nickel	25.4 U	ug/l	40	13.1 U	ug/l	40	14.5	ug/l	40	9.8	ug/l	40
Potassium	325 J	ug/l	5000	352 J	ug/l	5000	18.4	ug/l	5000	19.1	ug/l	5000
Selenium	4 U	ug/l	5	4 U	ug/l	5	4 U	ug/l	5	4 U	ug/l	5
Silver	1 U	ug/l	10	1 U	ug/l	10	1 U	ug/l	10	1 U	ug/l	10
Sodium	6100 J	ug/l	5000	6550 J	ug/l	5000	113	ug/l	5000	140	ug/l	5000
Thallium	6 U	ug/l	10	6 U	ug/l	10	6.8	ug/l	10	6 U	ug/l	10
Vanadium	1.1	ug/l	50	1 U	ug/l	50	1 U	ug/l	50	1 U	ug/l	50
Zinc	34.6 U	ug/l	20	42.1 U	ug/l	20	6.6	ug/l	20	11.3	ug/l	20
Cyanide	10 U	ug/l	10	-			10 U	ug/l	10	-		

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- METALS AND CYANIDE

Lab Sample Number:	P4911			P4913			P4912			P9355		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW13S			CF16MW14D			CF16MW15S			CF16MW16D		
Collect Date:	17-JUL-94			17-JUL-94			17-JUL-94			29-JUL-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	1160 J	ug/l	200	342 J	ug/l	200	112 U	ug/l	200	171 U	ug/l	200
Antimony	2 U	ug/l	60	2 U	ug/l	60	2 U	ug/l	60	2 U	ug/l	60
Arsenic	3 U	ug/l	10	3 U	ug/l	10	3 U	ug/l	10	3	ug/l	10
Barium	24.7	ug/l	200	31.4	ug/l	200	8.5	ug/l	200	24.2	ug/l	200
Beryllium	1 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5
Cadmium	1 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5
Calcium	1390	ug/l	5000	9980	ug/l	5000	27000	ug/l	5000	12200 J	ug/l	5000
Chromium	2 U	ug/l	10	2 U	ug/l	10	2 U	ug/l	10	8.8	ug/l	10
Cobalt	2 U	ug/l	50	2 U	ug/l	50	2 U	ug/l	50	2 U	ug/l	50
Copper	2 U	ug/l	25	2 U	ug/l	25	2.1	ug/l	25	2 U	ug/l	25
Iron	868	ug/l	100	1030	ug/l	100	476	ug/l	100	717	ug/l	100
Lead	1 U	ug/l	3	1 U	ug/l	3	1 U	ug/l	3	1 U	ug/l	3
Magnesium	2230	ug/l	5000	3610	ug/l	5000	1260	ug/l	5000	4710	ug/l	5000
Manganese	4.7	ug/l	15	20.1	ug/l	15	23.9	ug/l	15	24.2	ug/l	15
Mercury	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2
Nickel	2 U	ug/l	40	2 U	ug/l	40	2 U	ug/l	40	2 U	ug/l	40
Potassium	376	ug/l	5000	771 J	ug/l	5000	292	ug/l	5000	895	ug/l	5000
Selenium	4.2 J	ug/l	5	4 U	ug/l	5	4 U	ug/l	5	4 U	ug/l	5
Silver	1 U	ug/l	10	1 U	ug/l	10	1 U	ug/l	10	1 U	ug/l	10
Sodium	2940 J	ug/l	5000	5630 J	ug/l	5000	3500 J	ug/l	5000	8290	ug/l	5000
Thallium	6 U	ug/l	10	6 U	ug/l	10	6 U	ug/l	10	6 U	ug/l	10
Vanadium	2.6	ug/l	50	1 U	ug/l	50	2.7	ug/l	50	1 U	ug/l	50
Zinc	8.8 U	ug/l	20	27.6	ug/l	20	3 U	ug/l	20	21.6 U	ug/l	20
Cyanide	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 UJ	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- METALS AND CYANIDE

Lab Sample Number:	P9355C				P4910				P3792				P9356			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW16DC				CF16MW17S				CF16MW18D				CF16MW19S			
Collect Date:	29-JUL-94				17-JUL-94				14-JUL-94				29-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	-				881	J	ug/l	200	581	J	ug/l	200	689		ug/l	200
Antimony	-				2	U	ug/l	60	2	U	ug/l	60	2	U	ug/l	60
Arsenic	-				3	U	ug/l	10	3.6	J	ug/l	10	3	U	ug/l	10
Barium	-				18.9		ug/l	200	37.7		ug/l	200	29.5		ug/l	200
Beryllium	-				1	U	ug/l	5	1	U	ug/l	5	1	U	ug/l	5
Cadmium	-				1	U	ug/l	5	1	U	ug/l	5	1	U	ug/l	5
Calcium	-				4270		ug/l	5000	36000		ug/l	5000	1680	J	ug/l	5000
Chromium	-				2	U	ug/l	10	2	U	ug/l	10	2	U	ug/l	10
Cobalt	-				2	U	ug/l	50	2	U	ug/l	50	2	U	ug/l	50
Copper	-				2	U	ug/l	25	3.8		ug/l	25	2	U	ug/l	25
Iron	-				1070		ug/l	100	1920		ug/l	100	2500		ug/l	100
Lead	-				1	U	ug/l	3	1	U	ug/l	3	1	U	ug/l	3
Magnesium	-				584		ug/l	5000	17900		ug/l	5000	1530		ug/l	5000
Manganese	-				10		ug/l	15	52.5		ug/l	15	5.5		ug/l	15
Mercury	-				.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2
Nickel	-				2	U	ug/l	40	2	U	ug/l	40	2	U	ug/l	40
Potassium	-				125	J	ug/l	5000	786	J	ug/l	5000	1650		ug/l	5000
Selenium	-				4	U	ug/l	5	4	U	ug/l	5	4	U	ug/l	5
Silver	-				1	U	ug/l	10	1	U	ug/l	10	1	U	ug/l	10
Sodium	-				3000	J	ug/l	5000	6490	J	ug/l	5000	3510		ug/l	5000
Thallium	-				6	U	ug/l	10	6	U	ug/l	10	6	U	ug/l	10
Vanadium	-				2.5		ug/l	50	1.3		ug/l	50	1.6		ug/l	50
Zinc	-				12.1	U	ug/l	20	21.9		ug/l	20	27.7	J	ug/l	20
Cyanide	10	UJ	ug/l	10	10	U	ug/l	10	10	U	ug/l	10	10	UJ	ug/l	10

U = NOT DETECTED J = ESTIMATED VALUE
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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- METALS AND CYANIDE

Lab Sample Number:	P9356C				A00FC				A00FCF				P4914			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW19SC				CF16MW20D				CF16MW20DF				CF16MW21S			
Collect Date:	29-JUL-94				16-AUG-94				16-AUG-94				18-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	-				349	U	ug/l	200	93.4	U	ug/l	200	1400	J	ug/l	200
Antimony	-				2	U	ug/l	60	5.9		ug/l	60	2	U	ug/l	60
Arsenic	-				4.4		ug/l	10	3.3		ug/l	10	3	U	ug/l	10
Barium	-				36.3		ug/l	200	32.6		ug/l	200	30.3		ug/l	200
Beryllium	-				1	U	ug/l	5	1	U	ug/l	5	1	U	ug/l	5
Cadmium	-				1	U	ug/l	5	1	U	ug/l	5	1	U	ug/l	5
Calcium	-				13500		ug/l	5000	13100		ug/l	5000	4780		ug/l	5000
Chromium	-				2	U	ug/l	10	2	U	ug/l	10	2	U	ug/l	10
Cobalt	-				2	U	ug/l	50	2	U	ug/l	50	2	U	ug/l	50
Copper	-				2.6	U	ug/l	25	2	U	ug/l	25	2.1		ug/l	25
Iron	-				1360	J	ug/l	100	1210	J	ug/l	100	281		ug/l	100
Lead	-				1	U	ug/l	3	1	U	ug/l	3	1	U	ug/l	3
Magnesium	-				3550		ug/l	5000	3500		ug/l	5000	381		ug/l	5000
Manganese	-				24.5		ug/l	15	22.6		ug/l	15	5.4		ug/l	15
Mercury	-				.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2
Nickel	-				7.7	U	ug/l	40	13.1	U	ug/l	40	2	U	ug/l	40
Potassium	-				976	J	ug/l	5000	970	J	ug/l	5000	274		ug/l	5000
Selenium	-				4	U	ug/l	5	4	U	ug/l	5	4	U	ug/l	5
Silver	-				1	U	ug/l	10	1	U	ug/l	10	1	U	ug/l	10
Sodium	-				6550	J	ug/l	5000	6430	J	ug/l	5000	2600	J	ug/l	5000
Thallium	-				6	U	ug/l	10	6	U	ug/l	10	6	U	ug/l	10
Vanadium	-				1	U	ug/l	50	1	U	ug/l	50	4.1		ug/l	50
Zinc	-				10.6	U	ug/l	20	14.8	U	ug/l	20	17.7	U	ug/l	20
Cyanide	10	UJ	ug/l	10	10	U	ug/l	10	-				10	U	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- METALS AND CYANIDE

Lab Sample Number:	P4916			P9358			P9358C			P9358F		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW21SD			CF16MW22I			CF16MW22IC			CF16MW22IF		
Collect Date:	18-JUL-94			29-JUL-94			29-JUL-94			29-JUL-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	996 J	ug/l	200	743	ug/l	200	-			588	ug/l	200
Antimony	2.1 J	ug/l	60	2 U	ug/l	60	-			5.2	ug/l	60
Arsenic	3 U	ug/l	10	37.9	ug/l	10	-			37.3	ug/l	10
Barium	30.6	ug/l	200	16.1	ug/l	200	-			9.9	ug/l	200
Beryllium	1 U	ug/l	5	1 U	ug/l	5	-			1 U	ug/l	5
Cadmium	1 U	ug/l	5	1 U	ug/l	5	-			1 U	ug/l	5
Calcium	4540	ug/l	5000	686 J	ug/l	5000	-			1590 J	ug/l	5000
Chromium	2 U	ug/l	10	2.4	ug/l	10	-			2 U	ug/l	10
Cobalt	2 U	ug/l	50	5.5	ug/l	50	-			5.7	ug/l	50
Copper	2.1	ug/l	25	2 U	ug/l	25	-			5.4	ug/l	25
Iron	239	ug/l	100	1160	ug/l	100	-			973	ug/l	100
Lead	1 U	ug/l	3	1 U	ug/l	3	-			1 U	ug/l	3
Magnesium	377	ug/l	5000	573	ug/l	5000	-			574	ug/l	5000
Manganese	4.4	ug/l	15	5.1	ug/l	15	-			7.9	ug/l	15
Mercury	.2 U	ug/l	.2	.2 U	ug/l	.2	-			.2 U	ug/l	.2
Nickel	2 U	ug/l	40	12.5	ug/l	40	-			12.1	ug/l	40
Potassium	297	ug/l	5000	177	ug/l	5000	-			247	ug/l	5000
Selenium	4 U	ug/l	5	4 U	ug/l	5	-			4 U	ug/l	5
Silver	1 U	ug/l	10	1 U	ug/l	10	-			1 U	ug/l	10
Sodium	2730 J	ug/l	5000	4980	ug/l	5000	-			6140	ug/l	5000
Thallium	6 U	ug/l	10	6.3	ug/l	10	-			6 U	ug/l	10
Vanadium	4	ug/l	50	3.3	ug/l	50	-			3.9	ug/l	50
Zinc	21.9	ug/l	20	13.9 U	ug/l	20	-			70.5 J	ug/l	20
Cyanide	10 U	ug/l	10	10 UJ	ug/l	10	10 UJ	ug/l	10	-		

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- METALS AND CYANIDE

Lab Sample Number:	P9361				P9361C				P9361F				P5958			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW22IR				CF16MW22IRC				CF16MW22IRF				CF16MW23D			
Collect Date:	29-JUL-94				29-JUL-94				29-JUL-94				20-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	45.3		ug/l	200	-				36.5		ug/l	200	76.5	U	ug/l	200
Antimony	2	U	ug/l	60	-				6.4		ug/l	60	2	U	ug/l	60
Arsenic	3	U	ug/l	10	-				3	U	ug/l	10	3	U	ug/l	10
Barium	1	U	ug/l	200	-				1	U	ug/l	200	41		ug/l	200
Beryllium	1	U	ug/l	5	-				1	U	ug/l	5	1	U	ug/l	5
Cadmium	1	U	ug/l	5	-				1	U	ug/l	5	1	U	ug/l	5
Calcium	36.5		ug/l	5000	-				173		ug/l	5000	54900		ug/l	5000
Chromium	2	U	ug/l	10	-				2	U	ug/l	10	2	U	ug/l	10
Cobalt	2	U	ug/l	50	-				2	U	ug/l	50	2	U	ug/l	50
Copper	2	U	ug/l	25	-				2	U	ug/l	25	2.3		ug/l	25
Iron	12	U	ug/l	100	-				12	U	ug/l	100	635		ug/l	100
Lead	1	U	ug/l	3	-				1	U	ug/l	3	1	U	ug/l	3
Magnesium	13.5		ug/l	5000	-				31.5		ug/l	5000	26000		ug/l	5000
Manganese	1	U	ug/l	15	-				1	U	ug/l	15	54		ug/l	15
Mercury	.2	U	ug/l	.2	-				.2	U	ug/l	.2	.2	U	ug/l	.2
Nickel	2	U	ug/l	40	-				2	U	ug/l	40	2	U	ug/l	40
Potassium	14	U	ug/l	5000	-				14	U	ug/l	5000	1210	J	ug/l	5000
Selenium	4	U	ug/l	5	-				4	U	ug/l	5	4	U	ug/l	5
Silver	1	U	ug/l	10	-				1	U	ug/l	10	1	U	ug/l	10
Sodium	132		ug/l	5000	-				215		ug/l	5000	8240	J	ug/l	5000
Thallium	6	U	ug/l	10	-				6	U	ug/l	10	6	U	ug/l	10
Vanadium	1	U	ug/l	50	-				1	U	ug/l	50	1	U	ug/l	50
Zinc	5		ug/l	20	-				11.1		ug/l	20	14.7	U	ug/l	20
Cyanide	10	U	ug/l	10	10	U	ug/l	10	-				10	U	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- METALS AND CYANIDE

Lab Sample Number:	P3222			P3220			P3217			Q2485		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW24S			CF16MW25D			CF16MW26DD			CF16MW27I		
Collect Date:	13-JUL-94			13-JUL-94			13-JUL-94			08-AUG-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	867 J	ug/l	200	108 U	ug/l	200	113 U	ug/l	200	184 U	ug/l	200
Antimony	2 U	ug/l	60	3.5 J	ug/l	60	3.1 J	ug/l	60	2.2	ug/l	60
Arsenic	3 U	ug/l	10	7.9	ug/l	10	3 U	ug/l	10	4.7	ug/l	10
Barium	9.6	ug/l	200	22.3	ug/l	200	7	ug/l	200	6.5	ug/l	200
Beryllium	1 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5
Cadmium	1 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5
Calcium	1310	ug/l	5000	53200	ug/l	5000	9160	ug/l	5000	1050	ug/l	5000
Chromium	2 U	ug/l	10	2 U	ug/l	10	2 U	ug/l	10	2 U	ug/l	10
Cobalt	2 U	ug/l	50	2 U	ug/l	50	2 U	ug/l	50	2 U	ug/l	50
Copper	2 U	ug/l	25	3.1	ug/l	25	8	ug/l	25	2 U	ug/l	25
Iron	881	ug/l	100	308	ug/l	100	69.6	ug/l	100	2050 J	ug/l	100
Lead	1 U	ug/l	3	1 U	ug/l	3	1 U	ug/l	3	1 U	ug/l	3
Magnesium	797	ug/l	5000	28000	ug/l	5000	16000	ug/l	5000	410	ug/l	5000
Manganese	12.4	ug/l	15	56.1	ug/l	15	6.7	ug/l	15	9.4	ug/l	15
Mercury	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2
Nickel	2 U	ug/l	40	2 U	ug/l	40	2 U	ug/l	40	10.8 U	ug/l	40
Potassium	274	ug/l	5000	966 J	ug/l	5000	39900 J	ug/l	5000	133 J	ug/l	5000
Selenium	4 U	ug/l	5	4 U	ug/l	5	4 U	ug/l	5	4 U	ug/l	5
Silver	1 U	ug/l	10	1 U	ug/l	10	1 U	ug/l	10	1 U	ug/l	10
Sodium	5760 J	ug/l	5000	6590 J	ug/l	5000	30600 J	ug/l	5000	3620 J	ug/l	5000
Thallium	6 U	ug/l	10	6 J	ug/l	10	6 U	ug/l	10	11.7 U	ug/l	10
Vanadium	1.9	ug/l	50	1.2 J	ug/l	50	1 U	ug/l	50	1 U	ug/l	50
Zinc	28.3	ug/l	20	20.6 U	ug/l	20	80.1	ug/l	20	18.4 U	ug/l	20
Cyanide	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10	10 U	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- METALS AND CYANIDE

Lab Sample Number:	Q2485F			Q2491			Q2491F			Q2492		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW27IF			CF16MW28D			CF16MW28DF			CF16MW28DD		
Collect Date:	08-AUG-94			08-AUG-94			08-AUG-94			08-AUG-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	78.8	U ug/l	200	41	U ug/l	200	49.4	U ug/l	200	69.8	U ug/l	200
Antimony	9.8	ug/l	60	2	U ug/l	60	3.8	ug/l	60	2	U ug/l	60
Arsenic	3	U ug/l	10	3	U ug/l	10	3	U ug/l	10	3	U ug/l	10
Barium	6.3	ug/l	200	34.5	ug/l	200	32.2	ug/l	200	33.2	ug/l	200
Beryllium	1	U ug/l	5	1	U ug/l	5	1	U ug/l	5	1	U ug/l	5
Cadmium	1	U ug/l	5	1	U ug/l	5	1	U ug/l	5	1	U ug/l	5
Calcium	560	ug/l	5000	60000	ug/l	5000	58500	ug/l	5000	56900	ug/l	5000
Chromium	2	U ug/l	10	2	U ug/l	10	2	U ug/l	10	2	U ug/l	10
Cobalt	2	U ug/l	50	2	U ug/l	50	2	U ug/l	50	2	U ug/l	50
Copper	2	U ug/l	25	4	U ug/l	25	2	U ug/l	25	2	U ug/l	25
Iron	1720	J ug/l	100	579	J ug/l	100	266	J ug/l	100	557	J ug/l	100
Lead	1	U ug/l	3	1	U ug/l	3	1	U ug/l	3	1	U ug/l	3
Magnesium	396	ug/l	5000	27300	ug/l	5000	26800	ug/l	5000	26100	ug/l	5000
Manganese	9.8	ug/l	15	54.3	ug/l	15	53.2	ug/l	15	52.6	ug/l	15
Mercury	.2	U ug/l	.2	.2	U ug/l	.2	.2	U ug/l	.2	.2	U ug/l	.2
Nickel	10.9	U ug/l	40	7.9	U ug/l	40	6	U ug/l	40	6	U ug/l	40
Potassium	139	J ug/l	5000	949	J ug/l	5000	953	J ug/l	5000	914	J ug/l	5000
Selenium	4	U ug/l	5	4	U ug/l	5	4	U ug/l	5	4	U ug/l	5
Silver	1	U ug/l	10	1	U ug/l	10	1	U ug/l	10	1	U ug/l	10
Sodium	3670	J ug/l	5000	10200	J ug/l	5000	10200	J ug/l	5000	10000	J ug/l	5000
Thallium	6	U ug/l	10	6.9	U ug/l	10	6	U ug/l	10	6	U ug/l	10
Vanadium	1	U ug/l	50	1	U ug/l	50	1	U ug/l	50	1	U ug/l	50
Zinc	27.4	U ug/l	20	11.1	U ug/l	20	10.9	U ug/l	20	18	U ug/l	20
Cyanide	-			10	U ug/l	10	-			10	U ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- METALS AND CYANIDE

Lab Sample Number:	Q2492F				Q0289				Q0289C				Q0292			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW28DDF				CF16MW29S				CF16MW29SC				CF16MW30D			
Collect Date:	08-AUG-94				02-AUG-94				02-AUG-94				02-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	37.1	U	ug/l	200	610		ug/l	200	-				350		ug/l	200
Antimony	6.6		ug/l	60	2	U	ug/l	60	-				2	U	ug/l	60
Arsenic	3	U	ug/l	10	3	U	ug/l	10	-				10.7		ug/l	10
Barium	31		ug/l	200	4.7		ug/l	200	-				68.4		ug/l	200
Beryllium	1	U	ug/l	5	1	U	ug/l	5	-				1	U	ug/l	5
Cadmium	1	U	ug/l	5	1	U	ug/l	5	-				1	U	ug/l	5
Calcium	55300		ug/l	5000	557	U	ug/l	5000	-				26800	J	ug/l	5000
Chromium	2	U	ug/l	10	2.1		ug/l	10	-				2	U	ug/l	10
Cobalt	2	U	ug/l	50	2	U	ug/l	50	-				2	U	ug/l	50
Copper	2.2	U	ug/l	25	2	U	ug/l	25	-				2	U	ug/l	25
Iron	184	J	ug/l	100	1410		ug/l	100	-				1480		ug/l	100
Lead	1	U	ug/l	3	1	U	ug/l	3	-				1	U	ug/l	3
Magnesium	25500		ug/l	5000	286		ug/l	5000	-				13600		ug/l	5000
Manganese	49		ug/l	15	8.2		ug/l	15	-				49.3		ug/l	15
Mercury	.2	U	ug/l	.2	.2	U	ug/l	.2	-				.2	U	ug/l	.2
Nickel	6	U	ug/l	40	2	U	ug/l	40	-				2	U	ug/l	40
Potassium	908	J	ug/l	5000	128		ug/l	5000	-				939		ug/l	5000
Selenium	4	U	ug/l	5	4	U	ug/l	5	-				4	U	ug/l	5
Silver	1	U	ug/l	10	1	U	ug/l	10	-				1	U	ug/l	10
Sodium	9860	J	ug/l	5000	4900		ug/l	5000	-				7130		ug/l	5000
Thallium	8	U	ug/l	10	6	U	ug/l	10	-				6	U	ug/l	10
Vanadium	1	U	ug/l	50	1	U	ug/l	50	-				1.3		ug/l	50
Zinc	40.1	U	ug/l	20	7.2	U	ug/l	20	-				23.2	U	ug/l	20
Cyanide	-				10	UJ	ug/l	10	10	UJ	ug/l	10	10	UJ	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- METALS AND CYANIDE

Lab Sample Number:	Q0292C				Q0288				Q0288C				Q2493			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW30DC				CF16MW31DD				CF16MW31DDC				CF16MW32S			
Collect Date:	02-AUG-94				02-AUG-94				02-AUG-94				08-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	-				199	U	ug/l	200	-				292	U	ug/l	200
Antimony	-				2	U	ug/l	60	-				2	U	ug/l	60
Arsenic	-				3	U	ug/l	10	-				3	U	ug/l	10
Barium	-				41.8		ug/l	200	-				19.5		ug/l	200
Beryllium	-				1	U	ug/l	5	-				1	U	ug/l	5
Cadmium	-				1	U	ug/l	5	-				1	U	ug/l	5
Calcium	-				63200	J	ug/l	5000	-				1400		ug/l	5000
Chromium	-				9.8		ug/l	10	-				2	U	ug/l	10
Cobalt	-				2	U	ug/l	50	-				2	U	ug/l	50
Copper	-				8.2		ug/l	25	-				2.1	U	ug/l	25
Iron	-				361		ug/l	100	-				886	R	ug/l	100
Lead	-				1	U	ug/l	3	-				1	U	ug/l	3
Magnesium	-				26600		ug/l	5000	-				309		ug/l	5000
Manganese	-				53.8		ug/l	15	-				20.9	R	ug/l	15
Mercury	-				.2	U	ug/l	.2	-				1		ug/l	.2
Nickel	-				2	U	ug/l	40	-				6	U	ug/l	40
Potassium	-				1190		ug/l	5000	-				859	J	ug/l	5000
Selenium	-				4	U	ug/l	5	-				4	U	ug/l	5
Silver	-				1	U	ug/l	10	-				1	U	ug/l	10
Sodium	-				11600		ug/l	5000	-				7030	J	ug/l	5000
Thallium	-				6	U	ug/l	10	-				6	U	ug/l	10
Vanadium	-				1	U	ug/l	50	-				3.5	U	ug/l	50
Zinc	-				48.6	J	ug/l	20	-				25.5	U	ug/l	20
Cyanide	10	UJ	ug/l	10	10	UJ	ug/l	10	10	UJ	ug/l	10	10	U	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- METALS AND CYANIDE

Lab Sample Number:	Q2493F				Q2907				Q2907F				Q3527			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW32SF				CF16MW33D				CF16MW33DF				CF16MW33DR			
Collect Date:	08-AUG-94				09-AUG-94				09-AUG-94				10-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	143	U	ug/l	200	93.8	U	ug/l	200	34.6	U	ug/l	200	73.4		ug/l	200
Antimony	5.6		ug/l	60	2	U	ug/l	60	4.9		ug/l	60	2	U	ug/l	60
Arsenic	3	U	ug/l	10	4.3		ug/l	10	4.3		ug/l	10	3	U	ug/l	10
Barium	15.7		ug/l	200	32.4		ug/l	200	29.4		ug/l	200	1.1		ug/l	200
Beryllium	1	U	ug/l	5	1	U	ug/l	5	1	U	ug/l	5	1	U	ug/l	5
Cadmium	1	U	ug/l	5	1	U	ug/l	5	1	U	ug/l	5	1	U	ug/l	5
Calcium	1320		ug/l	5000	55400		ug/l	5000	50900		ug/l	5000	28.3		ug/l	5000
Chromium	13.6		ug/l	10	2	U	ug/l	10	2	U	ug/l	10	2	U	ug/l	10
Cobalt	2.4		ug/l	50	2	U	ug/l	50	2	U	ug/l	50	2	U	ug/l	50
Copper	2.1	U	ug/l	25	3.8	U	ug/l	25	2.3	U	ug/l	25	2	U	ug/l	25
Iron	17600	R	ug/l	100	435	J	ug/l	100	46.9	U	ug/l	100	19.3		ug/l	100
Lead	1	U	ug/l	3	1	U	ug/l	3	1	U	ug/l	3	1	U	ug/l	3
Magnesium	276		ug/l	5000	27200		ug/l	5000	25200		ug/l	5000	9.4		ug/l	5000
Manganese	135	R	ug/l	15	56.8		ug/l	15	49.6		ug/l	15	1.2		ug/l	15
Mercury	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2	.2	U	ug/l	.2
Nickel	6	U	ug/l	40	8.5	U	ug/l	40	6	U	ug/l	40	6	U	ug/l	40
Potassium	854	J	ug/l	5000	831	J	ug/l	5000	821	J	ug/l	5000	14	U	ug/l	5000
Selenium	4	U	ug/l	5	4	U	ug/l	5	4	U	ug/l	5	4	U	ug/l	5
Silver	1	U	ug/l	10	1	U	ug/l	10	1	U	ug/l	10	1	U	ug/l	10
Sodium	6430	J	ug/l	5000	8020	J	ug/l	5000	7380	J	ug/l	5000	116		ug/l	5000
Thallium	6	U	ug/l	10	6	U	ug/l	10	6	U	ug/l	10	6	U	ug/l	10
Vanadium	2.7		ug/l	50	1	U	ug/l	50	1	U	ug/l	50	1	U	ug/l	50
Zinc	19.8	U	ug/l	20	89.5		ug/l	20	34.6	U	ug/l	20	8.8		ug/l	20
Cyanide	-				10	U	ug/l	10	-				10	U	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- METALS AND CYANIDE

Lab Sample Number:	Q3527F			Q2906			Q2906F			Q0286		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16MW33DRF			CF16MW34DD			CF16MW34DDF			CF16MW35S		
Collect Date:	10-AUG-94			09-AUG-94			09-AUG-94			02-AUG-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	56.1	ug/l	200	137 U	ug/l	200	45.7 U	ug/l	200	304	ug/l	200
Antimony	4.8	ug/l	60	2 U	ug/l	60	8.1	ug/l	60	2 U	ug/l	60
Arsenic	3 U	ug/l	10	3 U	ug/l	10	3 U	ug/l	10	3.3	ug/l	10
Barium	1 U	ug/l	200	31.2	ug/l	200	28	ug/l	200	16	ug/l	200
Beryllium	1 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5
Cadmium	1 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5	1 U	ug/l	5
Calcium	44.3	ug/l	5000	61400	ug/l	5000	55800	ug/l	5000	2530 J	ug/l	5000
Chromium	6.3	ug/l	10	2 U	ug/l	10	2 U	ug/l	10	2 U	ug/l	10
Cobalt	2 U	ug/l	50	2 U	ug/l	50	2 U	ug/l	50	2 U	ug/l	50
Copper	2.1	ug/l	25	5.1 U	ug/l	25	2.3 U	ug/l	25	2 U	ug/l	25
Iron	12 U	ug/l	100	444 J	ug/l	100	47.2 U	ug/l	100	2460	ug/l	100
Lead	1 U	ug/l	3	1 U	ug/l	3	1 U	ug/l	3	1 U	ug/l	3
Magnesium	5.6	ug/l	5000	26800	ug/l	5000	25200	ug/l	5000	711	ug/l	5000
Manganese	1 U	ug/l	15	44	ug/l	15	36.9	ug/l	15	140	ug/l	15
Mercury	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2	.2 U	ug/l	.2
Nickel	9.4	ug/l	40	9.3 U	ug/l	40	8.5 U	ug/l	40	2 U	ug/l	40
Potassium	14 U	ug/l	5000	853 J	ug/l	5000	806 J	ug/l	5000	260	ug/l	5000
Selenium	4 U	ug/l	5	4 U	ug/l	5	4 U	ug/l	5	4 U	ug/l	5
Silver	1 U	ug/l	10	1 U	ug/l	10	1 U	ug/l	10	1 U	ug/l	10
Sodium	191	ug/l	5000	8050 J	ug/l	5000	7750 J	ug/l	5000	14600	ug/l	5000
Thallium	6 U	ug/l	10	6.7 U	ug/l	10	6.8 U	ug/l	10	6 U	ug/l	10
Vanadium	1 U	ug/l	50	1 U	ug/l	50	1 U	ug/l	50	1.6	ug/l	50
Zinc	17.4	ug/l	20	98.5	ug/l	20	33.4 U	ug/l	20	6.6 U	ug/l	20
Cyanide	-			10 U	ug/l	10	-			10 UJ	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- METALS AND CYANIDE

Lab Sample Number:	Q0286C				Q0046				Q0046C				Q0050			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW35SC				CF16MW36I				CF16MW36IC				CF16MW37D			
Collect Date:	02-AUG-94				01-AUG-94				01-AUG-94				01-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	-				154	U	ug/l	200	-				60.6	U	ug/l	200
Antimony	-				2	U	ug/l	60	-				2	U	ug/l	60
Arsenic	-				4.5		ug/l	10	-				3	U	ug/l	10
Barium	-				11.8		ug/l	200	-				35.1		ug/l	200
Beryllium	-				1	U	ug/l	5	-				1	U	ug/l	5
Cadmium	-				1	U	ug/l	5	-				1	U	ug/l	5
Calcium	-				479	J	ug/l	5000	-				54300	J	ug/l	5000
Chromium	-				2	U	ug/l	10	-				2	U	ug/l	10
Cobalt	-				2	U	ug/l	50	-				2	U	ug/l	50
Copper	-				2	U	ug/l	25	-				2	U	ug/l	25
Iron	-				2510		ug/l	100	-				299		ug/l	100
Lead	-				1	U	ug/l	3	-				1	U	ug/l	3
Magnesium	-				480		ug/l	5000	-				26200		ug/l	5000
Manganese	-				21.6		ug/l	15	-				45.5		ug/l	15
Mercury	-				.2	U	ug/l	.2	-				.2	U	ug/l	.2
Nickel	-				2	U	ug/l	40	-				2	U	ug/l	40
Potassium	-				173		ug/l	5000	-				939		ug/l	5000
Selenium	-				4	U	ug/l	5	-				4	U	ug/l	5
Silver	-				1	U	ug/l	10	-				1	U	ug/l	10
Sodium	-				5570		ug/l	5000	-				8620		ug/l	5000
Thallium	-				6	U	ug/l	10	-				6	U	ug/l	10
Vanadium	-				1	U	ug/l	50	-				1	U	ug/l	50
Zinc	-				11.6	U	ug/l	20	-				6.4	U	ug/l	20
Cyanide	10	UJ	ug/l	10	10	UJ	ug/l	10	10	UJ	ug/l	10	10	UJ	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- METALS AND CYANIDE

Lab Sample Number:	Q0050C				Q0044				Q0044C				Q0043			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW37DC				CF16MW38S				CF16MW38SC				CF16MW39I			
Collect Date:	01-AUG-94				31-JUL-94				31-JUL-94				31-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	-				443		ug/l	200	-				123	U	ug/l	200
Antimony	-				2	U	ug/l	60	-				2	U	ug/l	60
Arsenic	-				3	U	ug/l	10	-				5		ug/l	10
Barium	-				14.7		ug/l	200	-				16.8		ug/l	200
Beryllium	-				1	U	ug/l	5	-				1	U	ug/l	5
Cadmium	-				1	U	ug/l	5	-				1	U	ug/l	5
Calcium	-				7770	J	ug/l	5000	-				603	J	ug/l	5000
Chromium	-				2	U	ug/l	10	-				2	U	ug/l	10
Cobalt	-				2	U	ug/l	50	-				2	U	ug/l	50
Copper	-				2	U	ug/l	25	-				2	U	ug/l	25
Iron	-				363		ug/l	100	-				5180		ug/l	100
Lead	-				1	U	ug/l	3	-				1	U	ug/l	3
Magnesium	-				254		ug/l	5000	-				843		ug/l	5000
Manganese	-				5.5		ug/l	15	-				9.7		ug/l	15
Mercury	-				.2	U	ug/l	.2	-				.2	U	ug/l	.2
Nickel	-				2	U	ug/l	40	-				2	U	ug/l	40
Potassium	-				321		ug/l	5000	-				333		ug/l	5000
Selenium	-				4	U	ug/l	5	-				4	U	ug/l	5
Silver	-				1	U	ug/l	10	-				1	U	ug/l	10
Sodium	-				13000		ug/l	5000	-				5860		ug/l	5000
Thallium	-				6.3		ug/l	10	-				6	U	ug/l	10
Vanadium	-				5.6		ug/l	50	-				1	U	ug/l	50
Zinc	-				14.6	U	ug/l	20	-				67.2	J	ug/l	20
Cyanide	10	UJ	ug/l	10	10	UJ	ug/l	10	10	UJ	ug/l	10	10	UJ	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- METALS AND CYANIDE

Lab Sample Number:	Q0043C				Q0041				Q0041C				Q0042			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW39IC				CF16MW40D				CF16MW40DC				CF16MW40DD			
Collect Date:	31-JUL-94				31-JUL-94				31-JUL-94				31-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	-				251		ug/l	200	-				80.1	U	ug/l	200
Antimony	-				2	U	ug/l	60	-				2	U	ug/l	60
Arsenic	-				3.4		ug/l	10	-				3	U	ug/l	10
Barium	-				35.2		ug/l	200	-				34.3		ug/l	200
Beryllium	-				1	U	ug/l	5	-				1	U	ug/l	5
Cadmium	-				1	U	ug/l	5	-				1	U	ug/l	5
Calcium	-				55300	J	ug/l	5000	-				54100	J	ug/l	5000
Chromium	-				2	U	ug/l	10	-				2	U	ug/l	10
Cobalt	-				2	U	ug/l	50	-				2	U	ug/l	50
Copper	-				4.2		ug/l	25	-				2.7		ug/l	25
Iron	-				303		ug/l	100	-				239		ug/l	100
Lead	-				1	U	ug/l	3	-				1	U	ug/l	3
Magnesium	-				28100		ug/l	5000	-				27600		ug/l	5000
Manganese	-				49.9		ug/l	15	-				47.9		ug/l	15
Mercury	-				.2	U	ug/l	.2	-				.2	U	ug/l	.2
Nickel	-				2	U	ug/l	40	-				2		ug/l	40
Potassium	-				737		ug/l	5000	-				716		ug/l	5000
Selenium	-				4	U	ug/l	5	-				4	U	ug/l	5
Silver	-				1	U	ug/l	10	-				1	U	ug/l	10
Sodium	-				7020		ug/l	5000	-				6880		ug/l	5000
Thallium	-				6	U	ug/l	10	-				6	U	ug/l	10
Vanadium	-				1	U	ug/l	50	-				1	U	ug/l	50
Zinc	-				38.8	J	ug/l	20	-				22.5	U	ug/l	20
Cyanide	10	UJ	ug/l	10	10	UJ	ug/l	10	10	UJ	ug/l	10	10	UJ	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- METALS AND CYANIDE

Lab Sample Number:	Q0042C		
Site	CECIL7		
Locator	CF16MW40DDC		
Collect Date:	31-JUL-94		
VALUE	QUAL UNITS		DL
CLP METALS AND CYANIDE			
Aluminum	-		
Antimony	-		
Arsenic	-		
Barium	-		
Beryllium	-		
Cadmium	-		
Calcium	-		
Chromium	-		
Cobalt	-		
Copper	-		
Iron	-		
Lead	-		
Magnesium	-		
Manganese	-		
Mercury	-		
Nickel	-		
Potassium	-		
Selenium	-		
Silver	-		
Sodium	-		
Thallium	-		
Vanadium	-		
Zinc	-		
Cyanide	10 UJ	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- GENERAL CHEMISTRY

Lab Sample Number:	Q4191				Q3486				Q4193				Q3482			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW5S				CF16MW7S				CF16MW9D				CF16MW10S			
Collect Date:	11-AUG-94				10-AUG-94				11-AUG-94				10-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Alkalinity, Bicarbonate	32		mg/l	10	36		mg/l	10	33		mg/l	10	130		mg/l	10
Alkalinity, Carbonate	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10
Alkalinity, Total	32		mg/l	10	36		mg/l	10	33		mg/l	10	130		mg/l	10
Chloride	4		mg/l	2	10		mg/l	2	9		mg/l	2	18		mg/l	2
Hexavalent chromium	.04	UJ	mg/l	.04	.02	U	mg/l	.02	.02	UJ	mg/l	.02	.02	U	mg/l	.02
Hardness	48		mg/l	5	48		mg/l	5	24		mg/l	5	100		mg/l	5
Sulfate	11		mg/l	5	18		mg/l	5	5	U	mg/l	5	32		mg/l	5
Sulfide	1		mg/l	1	1	U	mg/l	1	1	U	mg/l	1	1		mg/l	1
Total Dissolved Solids	34		mg/l	10	150		mg/l	10	50		mg/l	10	390		mg/l	20
Total petroleum hydrocarbons	.5	U	mg/l	.5	.5	U	mg/l	.5	.5	U	mg/l	.5	.5	U	mg/l	.5
Total organic carbon	-		mg/l		-		mg/l		2		mg/l	1	15		mg/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- GENERAL CHEMISTRY

Lab Sample Number:	Q3485				Q3492				Q4195				A00F9			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW10SD				CF16MW11DD				CF16MW12I				CF16MW12IR			
Collect Date:	10-AUG-94				10-AUG-94				11-AUG-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Alkalinity, Bicarbonate	120		mg/l	10	260		mg/l	10	15		mg/l	10	10	U	mg/l	10
Alkalinity, Carbonate	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10
Alkalinity, Total	120		mg/l	10	260		mg/l	10	15		mg/l	10	10	U	mg/l	10
Chloride	24		mg/l	2	10		mg/l	2	8		mg/l	2	2	U	mg/l	2
Hexavalent chromium	.02	U	mg/l	.02	.02	U	mg/l	.02	.02	UJ	mg/l	.02	.02	U	mg/l	.02
Hardness	92		mg/l	5	250		mg/l	5	5	U	mg/l	5	5	U	mg/l	5
Sulfate	32		mg/l	5	5	U	mg/l	5	7		mg/l	5	5	U	mg/l	5
Sulfide	1		mg/l	1	1	U	mg/l	1	1	U	mg/l	1	1	U	mg/l	1
Total Dissolved Solids	330		mg/l	20	270		mg/l	10	46		mg/l	10	23		mg/l	10
Total petroleum hydrocarbons	.5	U	mg/l	.5	.5		mg/l	.5	.5	U	mg/l	.5	.5	U	mg/l	.5
Total organic carbon	14		mg/l	1	3		mg/l	1	-		mg/l		-		mg/l	

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- GENERAL CHEMISTRY

Lab Sample Number:	P4918				P4920				P4919				P9349			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW13S				CF16MW14D				CF16MW15S				CF16MW16D			
Collect Date:	17-JUL-94				17-JUL-94				17-JUL-94				29-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Alkalinity, Bicarbonate	10	U	mg/l	10	52		mg/l	10	88		mg/l	10	48		mg/l	10
Alkalinity, Carbonate	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10
Alkalinity, Total	10	U	mg/l	10	52		mg/l	10	88		mg/l	10	48		mg/l	10
Chloride	5	J	mg/l	2	8	J	mg/l	2	3	J	mg/l	2	12		mg/l	2
Hexavalent chromium	-		mg/l		-		mg/l		-		mg/l		.02	U	mg/l	.02
Hardness	25	U	mg/l	25	30	J	mg/l	5	76	J	mg/l	5	42		mg/l	5
Sulfate	15		mg/l	5	7		mg/l	5	10		mg/l	5	5	U	mg/l	5
Sulfide	2		mg/l	1	1		mg/l	1	1	U	mg/l	1	1	U	mg/l	1
Total Dissolved Solids	80		mg/l	10	92		mg/l	10	120		mg/l	10	99		mg/l	10
Total petroleum hydrocarbons	.5	U	mg/l	.5	.5	U	mg/l	.5	1.3		mg/l	.5	.5	U	mg/l	.5
Total organic carbon	-		mg/l		-		mg/l		-		mg/l		-		mg/l	

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- GENERAL CHEMISTRY

Lab Sample Number:	P4915				P3786				P9350				A00FA			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW17S				CF16MW18D				CF16MW19S				CF16MW20D			
Collect Date:	17-JUL-94				14-JUL-94				29-JUL-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Alkalinity, Bicarbonate	10	U	mg/l	10	200		mg/l	10	10	U	mg/l	10	48		mg/l	10
Alkalinity, Carbonate	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10
Alkalinity, Total	10	U	mg/l	10	200		mg/l	10	10	U	mg/l	10	48		mg/l	10
Chloride	6	J	mg/l	2	8	J	mg/l	2	4		mg/l	2	10		mg/l	2
Hexavalent chromium	-		mg/l		.02	U	mg/l	.02	.02	U	mg/l	.02	.02	U	mg/l	.02
Hardness	30	J	mg/l	5	180	J	mg/l	5	10		mg/l	5	80		mg/l	5
Sulfate	12		mg/l	5	5	U	mg/l	5	12		mg/l	5	5	U	mg/l	5
Sulfide	1		mg/l	1	1	U	mg/l	1	1		mg/l	1	1	U	mg/l	1
Total Dissolved Solids	52		mg/l	10	210		mg/l	10	69		mg/l	10	97		mg/l	10
Total petroleum hydrocarbons	.5	U	mg/l	.5	.5	U	mg/l	.5	.5	U	mg/l	.5	1.4		mg/l	.5
Total organic carbon	21		mg/l	1	1	U	mg/l	1	-		mg/l		-		mg/l	

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- GENERAL CHEMISTRY

Lab Sample Number:	P4921				P4922				P9351				P9352			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW21S				CF16MW21SDD				CF16MW22I				CF16MW22IR			
Collect Date:	18-JUL-94				18-JUL-94				29-JUL-94				29-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Alkalinity, Bicarbonate	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10
Alkalinity, Carbonate	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10
Alkalinity, Total	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10
Chloride	12	J	mg/l	2	12	J	mg/l	2	7		mg/l	2	2	U	mg/l	2
Hexavalent chromium	.1	U	mg/l	.1	.1	U	mg/l	.1	.02	U	mg/l	.02	.02	U	mg/l	.02
Hardness	25	U	mg/l	25	25	U	mg/l	25	5	U	mg/l	5	5	U	mg/l	5
Sulfate	66		mg/l	5	64		mg/l	5	5		mg/l	5	5	U	mg/l	5
Sulfide	2		mg/l	1	2		mg/l	1	1	U	mg/l	1	1		mg/l	1
Total Dissolved Solids	150		mg/l	10	120		mg/l	10	48		mg/l	10	12	*	mg/l	10
Total petroleum hydrocarbons	.5	U	mg/l	.5	.5	U	mg/l	.5	.5	U	mg/l	.5	.5	U	mg/l	.5
Total organic carbon	-		mg/l		-		mg/l		-		mg/l		-		mg/l	

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- GENERAL CHEMISTRY

Lab Sample Number:	P6110				P3203				P3195				P3187			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW23D				CF16MW24S				CF16MW25D				CF16MW26DD			
Collect Date:	20-JUL-94				13-JUL-94				13-JUL-94				13-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Alkalinity, Bicarbonate	240		mg/l	10	10	U	mg/l	10	260		mg/l	10	230		mg/l	10
Alkalinity, Carbonate	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10
Alkalinity, Total	240		mg/l	10	10	U	mg/l	10	260		mg/l	10	230		mg/l	10
Chloride	16	J	mg/l	2	34	J	mg/l	2	9	J	mg/l	2	10	J	mg/l	2
Hexavalent chromium	.02	U	mg/l	.02	.02	U	mg/l	.02	.02	U	mg/l	.02	.02	U	mg/l	.02
Hardness	250	J	mg/l	5	60	J	mg/l	12	260	J	mg/l	5	230	J	mg/l	5
Sulfate	5	U	mg/l	5	26		mg/l	5	5	U	mg/l	5	5	U	mg/l	5
Sulfide	1	U	mg/l	1	1	U	mg/l	1	1	U	mg/l	1	1	U	mg/l	1
Total Dissolved Solids	260		mg/l	10	86		mg/l	10	280		mg/l	10	260		mg/l	10
Total petroleum hydrocarbons	.5	U	mg/l	.5	.5	U	mg/l	.5	.5		mg/l	.5	.5	U	mg/l	.5
Total organic carbon	-		mg/l		-		mg/l		-		mg/l		-		mg/l	

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- GENERAL CHEMISTRY

Lab Sample Number:	Q2343				Q2346				Q2348				Q0250			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW27I				CF16MW28D				CF16MW28DD				CF16MW29S			
Collect Date:	08-AUG-94				08-AUG-94				08-AUG-94				02-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Alkalinity, Bicarbonate	16		mg/l	10	260		mg/l	10	250		mg/l	10	10	U	mg/l	10
Alkalinity, Carbonate	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10
Alkalinity, Total	16		mg/l	10	260		mg/l	10	250		mg/l	10	10	U	mg/l	10
Chloride	4	J	mg/l	2	13	J	mg/l	2	12	J	mg/l	2	85	J	mg/l	2
Hexavalent chromium	.02	U	mg/l	.02	.02	U	mg/l	.02	.02	U	mg/l	.02	1	UJ	mg/l	1
Hardness	6		mg/l	5	240		mg/l	5	240		mg/l	5	120	U	mg/l	120
Sulfate	9		mg/l	5	5	U	mg/l	5	5	U	mg/l	5	78		mg/l	5
Sulfide	1		mg/l	1	1		mg/l	1	1		mg/l	1	1	U	mg/l	1
Total Dissolved Solids	39		mg/l	10	290		mg/l	10	270		mg/l	10	180		mg/l	50
Total petroleum hydrocarbons	.5	U	mg/l	.5	.5	U	mg/l	.5	.5	U	mg/l	.5	.5	U	mg/l	.5
Total organic carbon	3		mg/l	1	-		mg/l		-		mg/l		3		mg/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- GENERAL CHEMISTRY

Lab Sample Number:	Q0253				Q0248				Q2349				Q2902			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW30D				CF16MW31DD				CF16MW32S				CF16MW33D			
Collect Date:	02-AUG-94				02-AUG-94				08-AUG-94				09-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Alkalinity, Bicarbonate	130		mg/l	10	250		mg/l	10	17		mg/l	10	250		mg/l	10
Alkalinity, Carbonate	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10
Alkalinity, Total	130		mg/l	10	250		mg/l	10	17		mg/l	10	250		mg/l	10
Chloride	10	J	mg/l	2	15	J	mg/l	2	6	J	mg/l	2	10		mg/l	2
Hexavalent chromium	.02	UJ	mg/l	.02	.02	UJ	mg/l	.02	.02	U	mg/l	.02	.02	U	mg/l	.02
Hardness	120		mg/l	5	260		mg/l	5	22		mg/l	5	230		mg/l	5
Sulfate	5	U	mg/l	5	11		mg/l	5	5		mg/l	5	5	U	mg/l	5
Sulfide	1		mg/l	1	1		mg/l	1	1		mg/l	1	1	U	mg/l	1
Total Dissolved Solids	140		mg/l	10	260		mg/l	10	50		mg/l	10	260		mg/l	10
Total petroleum hydrocarbons	.5	U	mg/l	.5	.5		mg/l	.5	.5	U	mg/l	.5	.5	U	mg/l	.5
Total organic carbon	1		mg/l	1	4		mg/l	1	-		mg/l		-		mg/l	

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NAS CECIL FIELD -- OPER E UNIT 7 -- SITE 16
GROUNDWATER -- GENERAL CHEMISTRY

Lab Sample Number:	Q3476				Q2901				Q0246				Q0089			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW33DR				CF16MW34DD				CF16MW35S				CF16MW36I			
Collect Date:	10-AUG-94				09-AUG-94				02-AUG-94				01-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Alkalinity, Bicarbonate	10	U	mg/l	10	250		mg/l	10	15		mg/l	10	10	U	mg/l	10
Alkalinity, Carbonate	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10
Alkalinity, Total	10	U	mg/l	10	250		mg/l	10	15		mg/l	10	10	U	mg/l	10
Chloride	2	U	mg/l	2	11		mg/l	2	30	J	mg/l	2	9		mg/l	2
Hexavalent chromium	.02	U	mg/l	.02	.02	U	mg/l	.02	.1	UJ	mg/l	.1	.02	U	mg/l	.02
Hardness	5	U	mg/l	5	250		mg/l	5	25	U	mg/l	25	5	U	mg/l	5
Sulfate	5	U	mg/l	5	21		mg/l	5	35		mg/l	5	5	U	mg/l	5
Sulfide	1	U	mg/l	1	1	U	mg/l	1	2		mg/l	1	1		mg/l	1
Total Dissolved Solids	10	U	mg/l	10	280		mg/l	10	180		mg/l	10	34		mg/l	10
Total petroleum hydrocarbons	.5	U	mg/l	.5	.5	U	mg/l	.5	.9		mg/l	.5	.5	U	mg/l	.5
Total organic carbon	-		mg/l		-		mg/l		-		mg/l		-		mg/l	

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- GENERAL CHEMISTRY

Lab Sample Number:	Q0100				Q0088				Q0085				Q0077			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16MW37D				CF16MW38S				CF16MW39I				CF16MW40D			
Collect Date:	01-AUG-94				31-JUL-94				31-JUL-94				31-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Alkalinity, Bicarbonate	250		mg/l	10	32		mg/l	10	10		mg/l	10	250		mg/l	10
Alkalinity, Carbonate	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10
Alkalinity, Total	250		mg/l	10	32		mg/l	10	10		mg/l	10	250		mg/l	10
Chloride	12		mg/l	2	13		mg/l	2	9		mg/l	2	9		mg/l	2
Hexavalent chromium	.02	U	mg/l	.02	-		mg/l		-		mg/l		-		mg/l	
Hardness	-		mg/l		50	U	mg/l	50	5	U	mg/l	5	230		mg/l	5
Sulfate	5	U	mg/l	5	17		mg/l	5	5	U	mg/l	5	5	U	mg/l	5
Sulfide	-		mg/l		1		mg/l	1	1		mg/l	1	2		mg/l	1
Total Dissolved Solids	260		mg/l	10	82		mg/l	10	31		mg/l	10	260		mg/l	10
Total petroleum hydrocarbons	-		mg/l		.5	U	mg/l	.5	.5	U	mg/l	.5	.5	U	mg/l	.5
Total organic carbon	-		mg/l		-		mg/l		2		mg/l	1	-		mg/l	

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
GROUNDWATER -- GENERAL CHEMISTRY

Lab Sample Number:	Q0082				P3208				P3210			
Site	CECIL7				CECIL7				CECIL7			
Locator	CF16MW40DD				CF16OF				CF16SC			
Collect Date:	31-JUL-94				13-JUL-94				13-JUL-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Alkalinity, Bicarbonate	260		mg/l	10	10	U	mg/l	10	110		mg/l	10
Alkalinity, Carbonate	10	U	mg/l	10	10	U	mg/l	10	10	U	mg/l	10
Alkalinity, Total	260		mg/l	10	10	U	mg/l	10	110		mg/l	10
Chloride	10		mg/l	2	2	UJ	mg/l	2	7	J	mg/l	2
Hexavalent chromium	-		mg/l		.02	U	mg/l	.02	.02	U	mg/l	.02
Hardness	220		mg/l	5	5	U	mg/l	5	120	J	mg/l	5
Sulfate	5	U	mg/l	5	5	U	mg/l	5	25		mg/l	5
Sulfide	1	U	mg/l	1	1	U	mg/l	1	1	U	mg/l	1
Total Dissolved Solids	250		mg/l	10	10	U	mg/l	10	170		mg/l	10
Total petroleum hydrocarbons	.5	U	mg/l	.5	.5	U	mg/l	.5	.5	U	mg/l	.5
Total organic carbon	-		mg/l		1	U	mg/l	1	1	U	mg/l	1

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NAS CECIL FIELD -- OPER. _E UNIT 7 -- SITE 16
SURFACE SOIL -- VOLATILES

Lab Sample Number:	Q4540				Q4541				Q4542				Q4543			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SS1				CF16SS2				CF16SS3				CF16SS4			
Collect Date:	12-AUG-94				12-AUG-94				12-AUG-94				12-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90+SOW																
Chloromethane	11	U	ug/kg	11	12	U	ug/kg	12	11	U	ug/kg	11	11	U	ug/kg	11
Bromomethane	11	U	ug/kg	11	12	U	ug/kg	12	11	U	ug/kg	11	11	U	ug/kg	11
Vinyl chloride	11	U	ug/kg	11	12	U	ug/kg	12	11	U	ug/kg	11	11	U	ug/kg	11
Chloroethane	11	U	ug/kg	11	12	U	ug/kg	12	11	U	ug/kg	11	11	U	ug/kg	11
Methylene chloride	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Acetone	12	U	ug/kg	12	12	U	ug/kg	12	11	U	ug/kg	11	19	U	ug/kg	19
Carbon disulfide	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethene	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethane	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethene (total)	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Chloroform	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethane	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
2-Butanone	11	U	ug/kg	11	12	U	ug/kg	12	11	U	ug/kg	11	11	U	ug/kg	11
1,1,1-Trichloroethane	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Carbon tetrachloride	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Bromodichloromethane	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloropropane	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
cis-1,3-Dichloropropene	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Trichloroethene	5	U	ug/kg	5	33		ug/kg	12	150		ug/kg	11	6	U	ug/kg	6
Dibromochloromethane	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2-Trichloroethane	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Benzene	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
trans-1,3-Dichloropropene	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Bromoform	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
4-Methyl-2-pentanone	11	U	ug/kg	11	12	U	ug/kg	12	11	U	ug/kg	11	11	U	ug/kg	11
2-Hexanone	11	U	ug/kg	11	12	U	ug/kg	12	11	U	ug/kg	11	11	U	ug/kg	11
Tetrachloroethene	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Toluene	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2,2-Tetrachloroethane	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Chlorobenzene	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Ethylbenzene	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Styrene	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6
Xylenes (total)	5	U	ug/kg	5	6	U	ug/kg	6	6	U	ug/kg	6	6	U	ug/kg	6

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- VOLATILES

Lab Sample Number:	Q4544			Q4545			Q4546			Q4547		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16SS5			CF16SS6			CF16SS7			CF16SS8		
Collect Date:	12-AUG-94			12-AUG-94			12-AUG-94			12-AUG-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP VOLATILES 90-SOW												
Chloromethane	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11
Bromomethane	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11
Vinyl chloride	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11
Chloroethane	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11
Methylene chloride	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Acetone	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11
Carbon disulfide	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
1,1-Dichloroethene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
1,1-Dichloroethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
1,2-Dichloroethene (total)	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	8	ug/kg	11
Chloroform	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
1,2-Dichloroethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
2-Butanone	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11
1,1,1-Trichloroethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Carbon tetrachloride	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Bromodichloromethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
1,2-Dichloropropane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
cis-1,3-Dichloropropene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Trichloroethene	6 U	ug/kg	6	3 J	ug/kg	11	6 U	ug/kg	6	70	ug/kg	11
Dibromochloromethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
1,1,2-Trichloroethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Benzene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
trans-1,3-Dichloropropene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Bromoform	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
4-Methyl-2-pentanone	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11
2-Hexanone	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11	11 U	ug/kg	11
Tetrachloroethene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Toluene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
1,1,2,2-Tetrachloroethane	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Chlorobenzene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Ethylbenzene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Styrene	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6
Xylenes (total)	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6	6 U	ug/kg	6

U = NOT DETECTED J = ESTIMATED VALUE
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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- VOLATILES

Lab Sample Number:	Q4548				Q4549				Q4550				Q4538			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SS8D				CF16SS9				CF16SS10				CF16SS1R			
Collect Date:	12-AUG-94				12-AUG-94				12-AUG-94				12-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW																
Chloromethane	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	2	U	ug/l	2
Bromomethane	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	2	U	ug/l	2
Vinyl chloride	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	2	U	ug/l	2
Chloroethane	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	2	U	ug/l	2
Methylene chloride	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
Acetone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	2	U	ug/l	2
Carbon disulfide	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
1,1-Dichloroethene	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
1,1-Dichloroethane	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
1,2-Dichloroethene (total)	5		ug/kg	11	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
Chloroform	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
1,2-Dichloroethane	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
2-Butanone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	2	U	ug/l	2
1,1,1-Trichloroethane	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
Carbon tetrachloride	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
Bromodichloromethane	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
1,2-Dichloropropane	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
cis-1,3-Dichloropropene	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
Trichloroethene	48		ug/kg	11	8		ug/kg	11	6		ug/kg	11	1	U	ug/l	1
Dibromochloromethane	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
1,1,2-Trichloroethane	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
Benzene	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
trans-1,3-Dichloropropene	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
Bromoform	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
4-Methyl-2-pentanone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	2	U	ug/l	2
2-Hexanone	11	U	ug/kg	11	11	U	ug/kg	11	11	U	ug/kg	11	2	R	ug/l	2
Tetrachloroethene	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
Toluene	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
1,1,2,2-Tetrachloroethane	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
Chlorobenzene	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
Ethylbenzene	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
Styrene	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1
Xylenes (total)	5	U	ug/kg	5	6	U	ug/kg	6	5	U	ug/kg	5	1	U	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SURFACE SOIL -- VOLATILES

Lab Sample Number:	Q4539				Q4541MS				Q4541MSD			
Site	CECIL7				CECIL7				CECIL7			
Locator	CF16SS1T				CF16SS2MS				CF16SS2MSD			
Collect Date:	12-AUG-94				12-AUG-94				12-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW												
Chloromethane	2	U	ug/l	2	12	U	ug/kg	12	12	U	ug/kg	12
Bromomethane	2	U	ug/l	2	12	U	ug/kg	12	12	U	ug/kg	12
Vinyl chloride	2	U	ug/l	2	12	U	ug/kg	12	12	U	ug/kg	12
Chloroethane	2	U	ug/l	2	12	U	ug/kg	12	12	U	ug/kg	12
Methylene chloride	1	U	ug/l	1	6	U	ug/kg	6	6	U	ug/kg	6
Acetone	2	U	ug/l	2	12	U	ug/kg	12	8	U	ug/kg	8
Carbon disulfide	1	U	ug/l	1	6	U	ug/kg	6	6	U	ug/kg	6
1,1-Dichloroethene	1	U	ug/l	1	59		ug/kg	12	56		ug/kg	12
1,1-Dichloroethane	1	U	ug/l	1	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethene (total)	1	U	ug/l	1	6	U	ug/kg	6	6	U	ug/kg	6
Chloroform	1	U	ug/l	1	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloroethane	1	U	ug/l	1	6	U	ug/kg	6	6	U	ug/kg	6
2-Butanone	2	U	ug/l	2	12	U	ug/kg	12	12	U	ug/kg	12
1,1,1-Trichloroethane	1	U	ug/l	1	6	U	ug/kg	6	6	U	ug/kg	6
Carbon tetrachloride	1	U	ug/l	1	6	U	ug/kg	6	6	U	ug/kg	6
Bromodichloromethane	1	U	ug/l	1	6	U	ug/kg	6	6	U	ug/kg	6
1,2-Dichloropropane	1	U	ug/l	1	6	U	ug/kg	6	6	U	ug/kg	6
cis-1,3-Dichloropropene	1	U	ug/l	1	6	U	ug/kg	6	6	U	ug/kg	6
Trichloroethene	1	U	ug/l	1	94		ug/kg	12	100		ug/kg	12
Dibromochloromethane	1	U	ug/l	1	6	U	ug/kg	6	6	U	ug/kg	6
1,1,2-Trichloroethane	1	U	ug/l	1	6	U	ug/kg	6	6	U	ug/kg	6
Benzene	1	U	ug/l	1	60		ug/kg	12	60		ug/kg	12
trans-1,3-Dichloropropene	1	U	ug/l	1	6	U	ug/kg	6	6	U	ug/kg	6
Bromoform	1	U	ug/l	1	6	U	ug/kg	6	6	U	ug/kg	6
4-Methyl-2-pentanone	2	U	ug/l	2	12	U	ug/kg	12	12	U	ug/kg	12
2-Hexanone	2	R	ug/l	2	12	U	ug/kg	12	12	U	ug/kg	12
Tetrachloroethene	1	U	ug/l	1	6	U	ug/kg	6	6	U	ug/kg	6
Toluene	1	U	ug/l	1	61		ug/kg	12	65		ug/kg	12
1,1,2,2-Tetrachloroethane	1	U	ug/l	1	6	U	ug/kg	6	6	U	ug/kg	6
Chlorobenzene	1	U	ug/l	1	54		ug/kg	12	54		ug/kg	12
Ethylbenzene	1	U	ug/l	1	6	U	ug/kg	6	6	U	ug/kg	6
Styrene	1	U	ug/l	1	6	U	ug/kg	6	6	U	ug/kg	6
Xylenes (total)	1	U	ug/l	1	6	U	ug/kg	6	6	U	ug/kg	6

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A00KE				A00KEMS				A00KEMSD				A00KG			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB11S2				CF16SB11S2MS				CF16SB11S2MSD				CF16SB11S6			
Collect Date:	16-AUG-94				16-AUG-94				16-AUG-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW																
Phenol	20	J	ug/kg	380	1300		ug/kg	380	1600		ug/kg	380	33	J	ug/kg	410
bis(2-Chloroethyl) ether	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
2-Chlorophenol	380	U	ug/kg	380	1300		ug/kg	380	1700		ug/kg	380	410	U	ug/kg	410
1,3-Dichlorobenzene	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
1,4-Dichlorobenzene	380	U	ug/kg	380	820		ug/kg	380	1000		ug/kg	380	410	U	ug/kg	410
1,2-Dichlorobenzene	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
2-Methylphenol	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
2,2-oxybis(1-Chloropropane)	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
4-Methylphenol	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
N-Nitroso-di-n-propylamine	380	U	ug/kg	380	840		ug/kg	380	1100		ug/kg	380	410	U	ug/kg	410
Hexachloroethane	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
Nitrobenzene	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
Isophorone	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
2-Nitrophenol	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
2,4-Dimethylphenol	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
bis(2-Chloroethoxy) methane	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
2,4-Dichlorophenol	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
1,2,4-Trichlorobenzene	380	U	ug/kg	380	920		ug/kg	380	1200		ug/kg	380	410	U	ug/kg	410
Naphthalene	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
4-Chloroaniline	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
Hexachlorobutadiene	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
4-Chloro-3-methylphenol	380	U	ug/kg	380	2100		ug/kg	380	2600		ug/kg	380	410	U	ug/kg	410
2-Methylnaphthalene	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
Hexachlorocyclopentadiene	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
2,4,6-Trichlorophenol	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
2,4,5-Trichlorophenol	930	U	ug/kg	930	930	U	ug/kg	930	930	U	ug/kg	930	990	U	ug/kg	990
2-Chloronaphthalene	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
2-Nitroaniline	930	U	ug/kg	930	930	U	ug/kg	930	930	U	ug/kg	930	990	U	ug/kg	990
Dimethylphthalate	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
Acenaphthylene	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
2,6-Dinitrotoluene	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
3-Nitroaniline	930	U	ug/kg	930	930	U	ug/kg	930	930	U	ug/kg	930	990	U	ug/kg	990
Acenaphthene	380	U	ug/kg	380	1300		ug/kg	380	1700		ug/kg	380	410	U	ug/kg	410
2,4-Dinitrophenol	930	U	ug/kg	930	930	U	ug/kg	930	930	U	ug/kg	930	990	U	ug/kg	990
4-Nitrophenol	930	U	ug/kg	930	1300		ug/kg	930	1800		ug/kg	930	990	U	ug/kg	990
Dibenzofuran	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
2,4-Dinitrotoluene	380	U	ug/kg	380	1100		ug/kg	380	1400		ug/kg	380	410	U	ug/kg	410
Diethylphthalate	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
4-Chlorophenyl-phenylether	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
Fluorene	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A00KE				A00KEMS				A00KEMSD				A00KG			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB11S2				CF16SB11S2MS				CF16SB11S2MSD				CF16SB11S6			
Collect Date:	16-AUG-94				16-AUG-94				16-AUG-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	930	U	ug/kg	930	930	U	ug/kg	930	930	U	ug/kg	930	990	U	ug/kg	990
4,6-Dinitro-2-methylphenol	930	U	ug/kg	930	930	U	ug/kg	930	930	U	ug/kg	930	990	U	ug/kg	990
N-Nitrosodiphenylamine (1)	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
4-Bromophenyl-phenylether	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
Hexachlorobenzene	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
Pentachlorophenol	930	U	ug/kg	930	2500		ug/kg	930	3200		ug/kg	930	990	U	ug/kg	990
Phenanthrene	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
Anthracene	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
Carbazole	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
Di-n-butylphthalate	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
Fluoranthene	380	U	ug/kg	380	380	U	ug/kg	380	21	J	ug/kg	380	410	U	ug/kg	410
Pyrene	380	U	ug/kg	380	1100		ug/kg	380	1000		ug/kg	380	410	U	ug/kg	410
Butylbenzylphthalate	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
3,3-Dichlorobenzidine	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
Benzo (a) anthracene	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
Chrysene	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
bis(2-Ethylhexyl) phthalate	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
Di-n-octylphthalate	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
Benzo (b) fluoranthene	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
Benzo (k) fluoranthene	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
Benzo (a) pyrene	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
Indeno (1,2,3-cd) pyrene	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
Dibenz (a,h) anthracene	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410
Benzo (g,h,i) perylene	380	U	ug/kg	380	380	U	ug/kg	380	380	U	ug/kg	380	410	U	ug/kg	410

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R SULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A00KM				A008D				A008F			
Site	CECIL7				CECIL7				CECIL7			
Locator	CF16SB11S6R				CF16SB12S2				CF16SB12S6			
Collect Date:	16-AUG-94				13-AUG-94				13-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
bis(2-Chloroethyl) ether	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
2-Chlorophenol	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
1,3-Dichlorobenzene	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
1,4-Dichlorobenzene	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
1,2-Dichlorobenzene	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
2-Methylphenol	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
2,2-oxybis(1-Chloropropane)	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
4-Methylphenol	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
N-Nitroso-di-n-propylamine	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
Hexachloroethane	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
Nitrobenzene	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
Isophorone	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
2-Nitrophenol	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
2,4-Dimethylphenol	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
bis(2-Chloroethoxy) methane	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
2,4-Dichlorophenol	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
1,2,4-Trichlorobenzene	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
Naphthalene	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
4-Chloroaniline	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
Hexachlorobutadiene	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
4-Chloro-3-methylphenol	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
2-Methylnaphthalene	10	U	ug/l	10	410	U	ug/kg	410	21	J	ug/kg	390
Hexachlorocyclopentadiene	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
2,4,6-Trichlorophenol	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
2,4,5-Trichlorophenol	25	U	ug/l	25	990	U	ug/kg	990	940	U	ug/kg	940
2-Chloronaphthalene	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
2-Nitroaniline	25	U	ug/l	25	990	U	ug/kg	990	940	U	ug/kg	940
Dimethylphthalate	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
Acenaphthylene	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
2,6-Dinitrotoluene	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
3-Nitroaniline	25	U	ug/l	25	990	U	ug/kg	990	940	U	ug/kg	940
Acenaphthene	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
2,4-Dinitrophenol	25	U	ug/l	25	990	U	ug/kg	990	940	U	ug/kg	940
4-Nitrophenol	25	U	ug/l	25	990	U	ug/kg	990	940	U	ug/kg	940
Dibenzofuran	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
2,4-Dinitrotoluene	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
Diethylphthalate	10	U	ug/l	10	410	U	ug/kg	410	23	J	ug/kg	390
4-Chlorophenyl-phenylether	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
Fluorene	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- SEMIVOLATILES

Lab Sample Number:	A00KM				A008D				A008F			
Site	CECIL7				CECIL7				CECIL7			
Locator	CF16SB11S6R				CF16SB12S2				CF16SB12S6			
Collect Date:	16-AUG-94				13-AUG-94				13-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
4-Nitroaniline	25	U	ug/l	25	990	U	ug/kg	990	940	U	ug/kg	940
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	990	U	ug/kg	990	940	U	ug/kg	940
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
4-Bromophenyl-phenylether	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
Hexachlorobenzene	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
Pentachlorophenol	25	U	ug/l	25	990	U	ug/kg	990	940	U	ug/kg	940
Phenanthrene	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
Anthracene	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
Carbazole	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
Di-n-butylphthalate	.7	J	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
Fluoranthene	10	U	ug/l	10	410	U	ug/kg	410	28	J	ug/kg	390
Pyrene	10	U	ug/l	10	410	U	ug/kg	410	21	J	ug/kg	390
Butylbenzylphthalate	10	U	ug/l	10	410	U	ug/kg	410	750		ug/kg	390
3,3-Dichlorobenzidine	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
Benzo (a) anthracene	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
Chrysene	10	U	ug/l	10	410	U	ug/kg	410	46	J	ug/kg	390
bis(2-Ethylhexyl) phthalate	3	J	ug/l	10	29	J	ug/kg	410	57	J	ug/kg	390
Di-n-octylphthalate	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
Benzo (b) fluoranthene	10	U	ug/l	10	32	J	ug/kg	410	49	J	ug/kg	390
Benzo (k) fluoranthene	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
Benzo (a) pyrene	10	U	ug/l	10	410	U	ug/kg	410	21	J	ug/kg	390
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
Dibenz (a,h) anthracene	10	U	ug/l	10	410	U	ug/kg	410	390	U	ug/kg	390
Benzo (g,h,i) perylene	10	U	ug/l	10	21	J	ug/kg	410	390	U	ug/kg	390

U = NOT DETECTED J = ESTIMATED VALUE
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R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	A008K			A008KMS			A008KMSD			A008L		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16SB1S0			CF16SB1S0MS			CF16SB1S0MSD			CF16SB1S6		
Collect Date:	14-AUG-94			14-AUG-94			14-AUG-94			14-AUG-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
CLP PESTICIDES/PCBS 90-SOW												
alpha-BHC	1.8	U ug/kg	1.8	1.8	U ug/kg	1.8	1.8	U ug/kg	1.8	2.1	U ug/kg	2.1
beta-BHC	1.8	U ug/kg	1.8	1.8	U ug/kg	1.8	1.8	U ug/kg	1.8	2.1	U ug/kg	2.1
delta-BHC	1.8	U ug/kg	1.8	1.8	U ug/kg	1.8	1.8	U ug/kg	1.8	2.1	U ug/kg	2.1
gamma-BHC (Lindane)	1.8	U ug/kg	1.8	15	ug/kg	2	33	ug/kg	2	2.1	U ug/kg	2.1
Heptachlor	1.8	U ug/kg	1.8	14	ug/kg	2	28	ug/kg	2	2.1	U ug/kg	2.1
Aldrin	1.8	U ug/kg	1.8	15	ug/kg	2	29	ug/kg	2	2.1	U ug/kg	2.1
Heptachlor epoxide	1.8	U ug/kg	1.8	1.8	U ug/kg	1.8	1.8	U ug/kg	1.8	2.1	U ug/kg	2.1
Endosulfan I	1.8	U ug/kg	1.8	1.8	U ug/kg	1.8	1.8	U ug/kg	1.8	2.1	U ug/kg	2.1
Dieldrin	3.6	U ug/kg	3.6	30	ug/kg	4	60	ug/kg	4	4	U ug/kg	4
4,4-DDE	3.6	U ug/kg	3.6	3.6	U ug/kg	3.6	3.6	U ug/kg	3.6	4	U ug/kg	4
Endrin	3.6	U ug/kg	3.6	29	ug/kg	4	59	ug/kg	4	4	U ug/kg	4
Endosulfan II	3.6	U ug/kg	3.6	3.6	U ug/kg	3.6	3.6	U ug/kg	3.6	4	U ug/kg	4
4,4-DDD	3.6	U ug/kg	3.6	3.6	U ug/kg	3.6	3.6	U ug/kg	3.6	4	U ug/kg	4
Endosulfan sulfate	3.6	U ug/kg	3.6	3.6	U ug/kg	3.6	3.6	U ug/kg	3.6	4	U ug/kg	4
4,4-DDT	3.6	U ug/kg	3.6	30	ug/kg	4	60	ug/kg	4	4	U ug/kg	4
Methoxychlor	18	U ug/kg	18	18	U ug/kg	18	18	U ug/kg	18	21	U ug/kg	21
Endrin ketone	3.6	U ug/kg	3.6	3.6	U ug/kg	3.6	3.6	U ug/kg	3.6	4	U ug/kg	4
Endrin aldehyde	3.6	U ug/kg	3.6	3.6	U ug/kg	3.6	3.6	U ug/kg	3.6	4	U ug/kg	4
alpha-Chlordane	1.8	U ug/kg	1.8	1.8	U ug/kg	1.8	1.8	U ug/kg	1.8	2.1	U ug/kg	2.1
gamma-Chlordane	1.8	U ug/kg	1.8	.09	U ug/kg	2	1.8	U ug/kg	1.8	2.1	U ug/kg	2.1
Toxaphene	180	U ug/kg	180	180	U ug/kg	180	180	U ug/kg	180	210	U ug/kg	210
Aroclor-1016	36	U ug/kg	36	36	U ug/kg	36	36	U ug/kg	36	40	U ug/kg	40
Aroclor-1221	73	U ug/kg	73	73	U ug/kg	73	73	U ug/kg	73	82	U ug/kg	82
Aroclor-1232	36	U ug/kg	36	36	U ug/kg	36	36	U ug/kg	36	40	U ug/kg	40
Aroclor-1242	36	U ug/kg	36	36	U ug/kg	36	36	U ug/kg	36	40	U ug/kg	40
Aroclor-1248	36	U ug/kg	36	36	U ug/kg	36	36	U ug/kg	36	40	U ug/kg	40
Aroclor-1254	36	U ug/kg	36	36	U ug/kg	36	36	U ug/kg	36	40	U ug/kg	40
Aroclor-1260	36	U ug/kg	36	36	U ug/kg	36	36	U ug/kg	36	40	U ug/kg	40

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	A008N				A008O				A008P				A008S			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB2S2				CF16SB2S4				CF16SB3S0				CF16SB3S6			
Collect Date:	15-AUG-94				15-AUG-94				15-AUG-94				15-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	1.9	U	ug/kg	1.9	2	U	ug/kg	2	1.8	U	ug/kg	1.8	2.1	U	ug/kg	2.1
beta-BHC	1.9	U	ug/kg	1.9	2	U	ug/kg	2	1.8	U	ug/kg	1.8	2.1	U	ug/kg	2.1
delta-BHC	1.9	U	ug/kg	1.9	2	U	ug/kg	2	1.8	U	ug/kg	1.8	2.1	U	ug/kg	2.1
gamma-BHC (Lindane)	1.9	U	ug/kg	1.9	2	U	ug/kg	2	1.8	U	ug/kg	1.8	2.1	U	ug/kg	2.1
Heptachlor	1.9	U	ug/kg	1.9	2	U	ug/kg	2	1.8	U	ug/kg	1.8	2.1	U	ug/kg	2.1
Aldrin	1.9	U	ug/kg	1.9	2	U	ug/kg	2	1.8	U	ug/kg	1.8	2.1	U	ug/kg	2.1
Heptachlor epoxide	1.9	U	ug/kg	1.9	2	U	ug/kg	2	1.8	U	ug/kg	1.8	2.1	U	ug/kg	2.1
Endosulfan I	1.9	U	ug/kg	1.9	2	U	ug/kg	2	1.8	U	ug/kg	1.8	2.1	U	ug/kg	2.1
Dieldrin	3.8	U	ug/kg	3.8	3.9	U	ug/kg	3.9	3.6	U	ug/kg	3.6	4	U	ug/kg	4
4,4-DDE	3.8	U	ug/kg	3.8	3.9	U	ug/kg	3.9	.27	J	ug/kg	4	4	U	ug/kg	4
Endrin	3.8	U	ug/kg	3.8	3.9	U	ug/kg	3.9	3.6	U	ug/kg	3.6	4	U	ug/kg	4
Endosulfan II	3.8	U	ug/kg	3.8	3.9	U	ug/kg	3.9	3.6	U	ug/kg	3.6	4	U	ug/kg	4
4,4-DDD	3.8	U	ug/kg	3.8	3.9	U	ug/kg	3.9	3.6	U	ug/kg	3.6	4	U	ug/kg	4
Endosulfan sulfate	3.8	U	ug/kg	3.8	3.9	U	ug/kg	3.9	3.6	U	ug/kg	3.6	4	U	ug/kg	4
4,4-DDT	3.8	U	ug/kg	3.8	3.9	U	ug/kg	3.9	3.6	U	ug/kg	3.6	4	U	ug/kg	4
Methoxychlor	19	U	ug/kg	19	20	U	ug/kg	20	18	U	ug/kg	18	21	U	ug/kg	21
Endrin ketone	3.8	U	ug/kg	3.8	3.9	U	ug/kg	3.9	3.6	U	ug/kg	3.6	4	U	ug/kg	4
Endrin aldehyde	3.8	U	ug/kg	3.8	3.9	U	ug/kg	3.9	3.6	U	ug/kg	3.6	4	U	ug/kg	4
alpha-Chlordane	1.9	U	ug/kg	1.9	2	U	ug/kg	2	1.8	U	ug/kg	1.8	2.1	U	ug/kg	2.1
gamma-Chlordane	1.9	U	ug/kg	1.9	2	U	ug/kg	2	1.8	U	ug/kg	1.8	2.1	U	ug/kg	2.1
Toxaphene	190	U	ug/kg	190	200	U	ug/kg	200	180	U	ug/kg	180	210	U	ug/kg	210
Aroclor-1016	38	U	ug/kg	38	39	U	ug/kg	39	36	U	ug/kg	36	40	U	ug/kg	40
Aroclor-1221	77	U	ug/kg	77	79	U	ug/kg	79	73	U	ug/kg	73	81	U	ug/kg	81
Aroclor-1232	38	U	ug/kg	38	39	U	ug/kg	39	36	U	ug/kg	36	40	U	ug/kg	40
Aroclor-1242	38	U	ug/kg	38	39	U	ug/kg	39	36	U	ug/kg	36	40	U	ug/kg	40
Aroclor-1248	38	U	ug/kg	38	39	U	ug/kg	39	36	U	ug/kg	36	40	U	ug/kg	40
Aroclor-1254	38	U	ug/kg	38	39	U	ug/kg	39	36	U	ug/kg	36	40	U	ug/kg	40
Aroclor-1260	38	U	ug/kg	38	39	U	ug/kg	39	36	U	ug/kg	36	40	U	ug/kg	40

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UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R ˜SULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	A008T			A008TMS			A008TMSD			A008U		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16SB4S2			CF16SB4S2MS			CF16SB4S2MSD			CF16SB4S6		
Collect Date:	15-AUG-94			15-AUG-94			15-AUG-94			15-AUG-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW												
alpha-BHC	1.8 U	ug/kg	1.8	1.8 U	ug/kg	1.8	1.8 U	ug/kg	1.8	2 U	ug/kg	2
beta-BHC	1.8 U	ug/kg	1.8	1.8 U	ug/kg	1.8	1.8 U	ug/kg	1.8	2 U	ug/kg	2
delta-BHC	1.8 U	ug/kg	1.8	1.8 U	ug/kg	1.8	1.8 U	ug/kg	1.8	2 U	ug/kg	2
gamma-BHC (Lindane)	1.8 U	ug/kg	1.8	13	ug/kg	2	16	ug/kg	2	2 U	ug/kg	2
Heptachlor	1.8 U	ug/kg	1.8	14	ug/kg	2	17	ug/kg	2	2 U	ug/kg	2
Aldrin	1.8 U	ug/kg	1.8	14	ug/kg	2	17	ug/kg	2	2 U	ug/kg	2
Heptachlor epoxide	1.8 U	ug/kg	1.8	1.8 U	ug/kg	1.8	1.8 U	ug/kg	1.8	2 U	ug/kg	2
Endosulfan I	1.8 U	ug/kg	1.8	1.8 U	ug/kg	1.8	1.8 U	ug/kg	1.8	2 U	ug/kg	2
Dieldrin	3.6 U	ug/kg	3.6	28	ug/kg	4	32	ug/kg	4	4 U	ug/kg	4
4,4-DDE	3.6 U	ug/kg	3.6	3.6 U	ug/kg	3.6	3.6 U	ug/kg	3.6	4 U	ug/kg	4
Endrin	3.6 U	ug/kg	3.6	29	ug/kg	4	32	ug/kg	4	4 U	ug/kg	4
Endosulfan II	3.6 U	ug/kg	3.6	3.6 U	ug/kg	3.6	3.6 U	ug/kg	3.6	4 U	ug/kg	4
4,4-DDD	3.6 U	ug/kg	3.6	3.6 U	ug/kg	3.6	3.6 U	ug/kg	3.6	4 U	ug/kg	4
Endosulfan sulfate	3.6 U	ug/kg	3.6	3.6 U	ug/kg	3.6	3.6 U	ug/kg	3.6	4 U	ug/kg	4
4,4-DDT	3.6 U	ug/kg	3.6	26	ug/kg	4	31	ug/kg	4	.31 J	ug/kg	4
Methoxychlor	18 U	ug/kg	18	18 U	ug/kg	18	18 U	ug/kg	18	20 U	ug/kg	20
Endrin ketone	3.6 U	ug/kg	3.6	3.6 U	ug/kg	3.6	3.6 U	ug/kg	3.6	4 U	ug/kg	4
Endrin aldehyde	3.6 U	ug/kg	3.6	3.6 U	ug/kg	3.6	3.6 U	ug/kg	3.6	4 U	ug/kg	4
alpha-Chlordane	1.8 U	ug/kg	1.8	1.8 U	ug/kg	1.8	1.8 U	ug/kg	1.8	2 U	ug/kg	2
gamma-Chlordane	1.8 U	ug/kg	1.8	1.8 U	ug/kg	1.8	1.8 U	ug/kg	1.8	2 U	ug/kg	2
Toxaphene	180 U	ug/kg	180	180 U	ug/kg	180	180 U	ug/kg	180	200 U	ug/kg	200
Aroclor-1016	36 U	ug/kg	36	36 U	ug/kg	36	36 U	ug/kg	36	40 U	ug/kg	40
Aroclor-1221	73 U	ug/kg	73	73 U	ug/kg	73	73 U	ug/kg	73	81 U	ug/kg	81
Aroclor-1232	36 U	ug/kg	36	36 U	ug/kg	36	36 U	ug/kg	36	40 U	ug/kg	40
Aroclor-1242	36 U	ug/kg	36	36 U	ug/kg	36	36 U	ug/kg	36	40 U	ug/kg	40
Aroclor-1248	36 U	ug/kg	36	36 U	ug/kg	36	36 U	ug/kg	36	40 U	ug/kg	40
Aroclor-1254	36 U	ug/kg	36	36 U	ug/kg	36	36 U	ug/kg	36	40 U	ug/kg	40
Aroclor-1260	36 U	ug/kg	36	36 U	ug/kg	36	36 U	ug/kg	36	40 U	ug/kg	40

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	A008V				A008W				A008X				A008Y			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB5S2				CF16SB5S2D				CF16SB5S6				CF16SB6S2			
Collect Date:	15-AUG-94				15-AUG-94				15-AUG-94				15-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	2	U	ug/kg	2	2	U	ug/kg	2
beta-BHC	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	2	U	ug/kg	2	2	U	ug/kg	2
delta-BHC	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	2	U	ug/kg	2	2	U	ug/kg	2
gamma-BHC (Lindane)	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	2	U	ug/kg	2	2	U	ug/kg	2
Heptachlor	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	2	U	ug/kg	2	2	U	ug/kg	2
Aldrin	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	2	U	ug/kg	2	2	U	ug/kg	2
Heptachlor epoxide	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	2	U	ug/kg	2	1.5	J	ug/kg	2
Endosulfan I	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	2	U	ug/kg	2	2	U	ug/kg	2
Dieldrin	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.9	U	ug/kg	3.9	3.8	U	ug/kg	3.8
4,4-DDE	4		ug/kg	4	4.4		ug/kg	4	.68	J	ug/kg	4	3.8	U	ug/kg	3.8
Endrin	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.9	U	ug/kg	3.9	3.8	U	ug/kg	3.8
Endosulfan II	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.9	U	ug/kg	3.9	3.8	U	ug/kg	3.8
4,4-DDD	.7	U	ug/kg	.7	.5	U	ug/kg	.5	3.9	U	ug/kg	3.9	3.1	J	ug/kg	4
Endosulfan sulfate	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.9	U	ug/kg	3.9	3.8	U	ug/kg	3.8
4,4-DDT	.8	U	ug/kg	.8	3.7	U	ug/kg	3.7	3.9	U	ug/kg	3.9	3.8	U	ug/kg	3.8
Methoxychlor	19	U	ug/kg	19	19	U	ug/kg	19	20	U	ug/kg	20	20	U	ug/kg	20
Endrin ketone	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.9	U	ug/kg	3.9	3.8	U	ug/kg	3.8
Endrin aldehyde	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.9	U	ug/kg	3.9	3.8	U	ug/kg	3.8
alpha-Chlordane	1.3	J	ug/kg	2	1.2	J	ug/kg	2	2	U	ug/kg	2	1.7	J	ug/kg	2
gamma-Chlordane	1.4	J	ug/kg	2	1.3	J	ug/kg	2	2	U	ug/kg	2	3.5		ug/kg	2
Toxaphene	190	U	ug/kg	190	190	U	ug/kg	190	200	U	ug/kg	200	200	U	ug/kg	200
Aroclor-1016	37	U	ug/kg	37	37	U	ug/kg	37	39	U	ug/kg	39	38	U	ug/kg	38
Aroclor-1221	74	U	ug/kg	74	75	U	ug/kg	75	80	U	ug/kg	80	77	U	ug/kg	77
Aroclor-1232	37	U	ug/kg	37	37	U	ug/kg	37	39	U	ug/kg	39	38	U	ug/kg	38
Aroclor-1242	37	U	ug/kg	37	37	U	ug/kg	37	39	U	ug/kg	39	38	U	ug/kg	38
Aroclor-1248	37	U	ug/kg	37	37	U	ug/kg	37	39	U	ug/kg	39	38	U	ug/kg	38
Aroclor-1254	37	U	ug/kg	37	37	U	ug/kg	37	39	U	ug/kg	39	38	U	ug/kg	38
Aroclor-1260	37	U	ug/kg	37	37	U	ug/kg	37	39	U	ug/kg	39	38	U	ug/kg	38

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R SULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	A0090				A0091				A00IF				A00IH			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB6S4				CF16SB6S4R				CF16SB7S2				CF16SB7S2D			
Collect Date:	15-AUG-94				15-AUG-94				16-AUG-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	2	UJ	ug/kg	2	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9
beta-BHC	2	UJ	ug/kg	2	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9
delta-BHC	2	UJ	ug/kg	2	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9
gamma-BHC (Lindane)	2	UJ	ug/kg	2	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9
Heptachlor	2	UJ	ug/kg	2	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9
Aldrin	2	UJ	ug/kg	2	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9
Heptachlor epoxide	2	UJ	ug/kg	2	.05	U	ug/l	.05	.36	R	ug/kg	2	.5	U	ug/kg	.5
Endosulfan I	2	UJ	ug/kg	2	.05	U	ug/l	.05	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9
Dieldrin	3.9	UJ	ug/kg	3.9	.1	U	ug/l	.1	3.7	U	ug/kg	3.7	3.8	U	ug/kg	3.8
4,4-DDE	3.9	UJ	ug/kg	3.9	.1	U	ug/l	.1	1.2	J	ug/kg	4	1.3	J	ug/kg	4
Endrin	3.9	UJ	ug/kg	3.9	.1	U	ug/l	.1	3.7	U	ug/kg	3.7	.3	U	ug/kg	.3
Endosulfan II	3.9	UJ	ug/kg	3.9	.01	R	ug/l	.2	3.7	U	ug/kg	3.7	3.8	U	ug/kg	3.8
4,4-DDD	3.9	UJ	ug/kg	3.9	.1	U	ug/l	.1	2	U	ug/kg	2	2	U	ug/kg	2
Endosulfan sulfate	3.9	UJ	ug/kg	3.9	.1	U	ug/l	.1	3.7	U	ug/kg	3.7	3.8	U	ug/kg	3.8
4,4-DDT	3.9	UJ	ug/kg	3.9	.1	U	ug/l	.1	3.7	U	ug/kg	3.7	3.8	U	ug/kg	3.8
Methoxychlor	20	UJ	ug/kg	20	.5	U	ug/l	.5	19	U	ug/kg	19	19	U	ug/kg	19
Endrin ketone	3.9	UJ	ug/kg	3.9	.1	U	ug/l	.1	3.7	U	ug/kg	3.7	3.8	U	ug/kg	3.8
Endrin aldehyde	3.9	UJ	ug/kg	3.9	.1	U	ug/l	.1	3.7	U	ug/kg	3.7	3.8	U	ug/kg	3.8
alpha-Chlordane	2	UJ	ug/kg	2	.05	U	ug/l	.05	8.2		ug/kg	2	9.3		ug/kg	2
gamma-Chlordane	2	UJ	ug/kg	2	.05	U	ug/l	.05	8.7		ug/kg	2	10		ug/kg	2
Toxaphene	200	UJ	ug/kg	200	5	U	ug/l	5	190	U	ug/kg	190	190	U	ug/kg	190
Aroclor-1016	39	UJ	ug/kg	39	1	U	ug/l	1	37	U	ug/kg	37	38	U	ug/kg	38
Aroclor-1221	79	UJ	ug/kg	79	2	U	ug/l	2	76	U	ug/kg	76	76	U	ug/kg	76
Aroclor-1232	39	UJ	ug/kg	39	1	U	ug/l	1	37	U	ug/kg	37	38	U	ug/kg	38
Aroclor-1242	39	UJ	ug/kg	39	1	U	ug/l	1	37	U	ug/kg	37	38	U	ug/kg	38
Aroclor-1248	39	UJ	ug/kg	39	1	U	ug/l	1	37	U	ug/kg	37	38	U	ug/kg	38
Aroclor-1254	39	UJ	ug/kg	39	1	U	ug/l	1	14	J	ug/kg	37	16	J	ug/kg	38
Aroclor-1260	39	UJ	ug/kg	39	1	U	ug/l	1	37	U	ug/kg	37	38	U	ug/kg	38

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	A00II				A00IJ				A00IK				A00IO			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB7S4				CF16SB8S2				CF16SB8S4				CF16SB9S4			
Collect Date:	16-AUG-94				16-AUG-94				16-AUG-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	2	U	ug/kg	2	2	U	ug/kg	2
beta-BHC	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	2	U	ug/kg	2	2	U	ug/kg	2
delta-BHC	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	2	U	ug/kg	2	2	U	ug/kg	2
gamma-BHC (Lindane)	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	2	U	ug/kg	2	2	U	ug/kg	2
Heptachlor	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	2	U	ug/kg	2	2	U	ug/kg	2
Aldrin	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	2	U	ug/kg	2	2	U	ug/kg	2
Heptachlor epoxide	1.9	U	ug/kg	1.9	.73	R	ug/kg	2	2	U	ug/kg	2	2	U	ug/kg	2
Endosulfan I	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	2	U	ug/kg	2	2	U	ug/kg	2
Dieldrin	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.9	U	ug/kg	3.9	3.9	U	ug/kg	3.9
4,4-DDE	.95	J	ug/kg	4	.83	J	ug/kg	4	3.9	U	ug/kg	3.9	3.9	U	ug/kg	3.9
Endrin	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.9	U	ug/kg	3.9	3.9	U	ug/kg	3.9
Endosulfan II	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.9	U	ug/kg	3.9	3.9	U	ug/kg	3.9
4,4-DDD	.99	J	ug/kg	4	3.7	U	ug/kg	3.7	3.9	U	ug/kg	3.9	3.9	U	ug/kg	3.9
Endosulfan sulfate	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.9	U	ug/kg	3.9	3.9	U	ug/kg	3.9
4,4-DDT	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.9	U	ug/kg	3.9	3.9	U	ug/kg	3.9
Methoxychlor	19	U	ug/kg	19	19	U	ug/kg	19	20	U	ug/kg	20	20	U	ug/kg	20
Endrin ketone	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.9	U	ug/kg	3.9	3.9	U	ug/kg	3.9
Endrin aldehyde	3.7	U	ug/kg	3.7	3.7	U	ug/kg	3.7	3.9	U	ug/kg	3.9	3.9	U	ug/kg	3.9
alpha-Chlordane	3.4		ug/kg	2	19		ug/kg	2	2	U	ug/kg	2	2	U	ug/kg	2
gamma-Chlordane	3.2		ug/kg	2	22		ug/kg	2	2	U	ug/kg	2	2	U	ug/kg	2
Toxaphene	190	U	ug/kg	190	190	U	ug/kg	190	200	U	ug/kg	200	200	U	ug/kg	200
Aroclor-1016	37	U	ug/kg	37	37	U	ug/kg	37	39	U	ug/kg	39	39	U	ug/kg	39
Aroclor-1221	76	U	ug/kg	76	74	U	ug/kg	74	79	U	ug/kg	79	80	U	ug/kg	80
Aroclor-1232	37	U	ug/kg	37	37	U	ug/kg	37	39	U	ug/kg	39	39	U	ug/kg	39
Aroclor-1242	37	U	ug/kg	37	37	U	ug/kg	37	39	U	ug/kg	39	39	U	ug/kg	39
Aroclor-1248	37	U	ug/kg	37	30	J	ug/kg	33	39	U	ug/kg	39	39	U	ug/kg	39
Aroclor-1254	37	U	ug/kg	37	37	U	ug/kg	37	39	U	ug/kg	39	39	U	ug/kg	39
Aroclor-1260	5.2	J	ug/kg	37	49		ug/kg	37	39	U	ug/kg	39	39	U	ug/kg	39

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	A001M			A00IT			A00J0			A00J6		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16SB9S6			CF16SB10S2			CF16SB10S2D			CF16SB10S4		
Collect Date:	16-AUG-94			16-AUG-94			16-AUG-94			16-AUG-94		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW												
alpha-BHC	2 UJ	ug/kg	2	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	2 U	ug/kg	2
beta-BHC	2 UJ	ug/kg	2	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	2 U	ug/kg	2
delta-BHC	2 UJ	ug/kg	2	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	2 U	ug/kg	2
gamma-BHC (Lindane)	2 UJ	ug/kg	2	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	2 U	ug/kg	2
Heptachlor	2 UJ	ug/kg	2	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	2 U	ug/kg	2
Aldrin	2 UJ	ug/kg	2	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	2 U	ug/kg	2
Heptachlor epoxide	2 UJ	ug/kg	2	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	2 U	ug/kg	2
Endosulfan I	2 UJ	ug/kg	2	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	2 U	ug/kg	2
Dieldrin	4 UJ	ug/kg	4	3.7 U	ug/kg	3.7	3.8 U	ug/kg	3.8	3.9 U	ug/kg	3.9
4,4-DDE	4 UJ	ug/kg	4	3.7 U	ug/kg	3.7	3.8 U	ug/kg	3.8	3.9 U	ug/kg	3.9
Endrin	4 UJ	ug/kg	4	3.7 U	ug/kg	3.7	3.8 U	ug/kg	3.8	3.9 U	ug/kg	3.9
Endosulfan II	4 UJ	ug/kg	4	3.7 U	ug/kg	3.7	3.8 U	ug/kg	3.8	3.9 U	ug/kg	3.9
4,4-DDD	4 UJ	ug/kg	4	3.7 U	ug/kg	3.7	3.8 U	ug/kg	3.8	3.9 U	ug/kg	3.9
Endosulfan sulfate	4 UJ	ug/kg	4	3.7 U	ug/kg	3.7	3.8 U	ug/kg	3.8	3.9 U	ug/kg	3.9
4,4-DDT	4 UJ	ug/kg	4	3.7 U	ug/kg	3.7	3.8 U	ug/kg	3.8	3.9 U	ug/kg	3.9
Methoxychlor	20 UJ	ug/kg	20	19 U	ug/kg	19	19 U	ug/kg	19	20 U	ug/kg	20
Endrin ketone	4 UJ	ug/kg	4	3.7 U	ug/kg	3.7	3.8 U	ug/kg	3.8	3.9 U	ug/kg	3.9
Endrin aldehyde	4 UJ	ug/kg	4	3.7 U	ug/kg	3.7	3.8 U	ug/kg	3.8	3.9 U	ug/kg	3.9
alpha-Chlordane	2 UJ	ug/kg	2	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	2 U	ug/kg	2
gamma-Chlordane	2 UJ	ug/kg	2	1.9 U	ug/kg	1.9	1.9 U	ug/kg	1.9	2 U	ug/kg	2
Toxaphene	200 UJ	ug/kg	200	190 U	ug/kg	190	190 U	ug/kg	190	200 U	ug/kg	200
Aroclor-1016	40 UJ	ug/kg	40	37 U	ug/kg	37	38 U	ug/kg	38	39 U	ug/kg	39
Aroclor-1221	81 UJ	ug/kg	81	76 U	ug/kg	76	76 U	ug/kg	76	79 U	ug/kg	79
Aroclor-1232	40 UJ	ug/kg	40	37 U	ug/kg	37	38 U	ug/kg	38	39 U	ug/kg	39
Aroclor-1242	40 UJ	ug/kg	40	37 U	ug/kg	37	38 U	ug/kg	38	39 U	ug/kg	39
Aroclor-1248	40 UJ	ug/kg	40	37 U	ug/kg	37	13 J	ug/kg	38	39 U	ug/kg	39
Aroclor-1254	40 UJ	ug/kg	40	37 U	ug/kg	37	38 U	ug/kg	38	39 U	ug/kg	39
Aroclor-1260	40 UJ	ug/kg	40	8.6 J	ug/kg	37	8.6 J	ug/kg	38	3.1 J	ug/kg	39

U = NOT DETECTED J = ESTIMATED VALUE
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R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	A00KE				A00KEMS				A00KEMSD				A00KM			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB11S2				CF16SB11S2MS				CF16SB11S2MSD				CF16SB11S6R			
Collect Date:	16-AUG-94				16-AUG-94				16-AUG-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	.05	UJ	ug/l	.05
beta-BHC	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	.05	UJ	ug/l	.05
delta-BHC	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	.05	UJ	ug/l	.05
gamma-BHC (Lindane)	1.9	U	ug/kg	1.9	14		ug/kg	2	11		ug/kg	2	.05	UJ	ug/l	.05
Heptachlor	1.9	U	ug/kg	1.9	18		ug/kg	2	16		ug/kg	2	.05	UJ	ug/l	.05
Aldrin	1.9	U	ug/kg	1.9	13		ug/kg	2	10		ug/kg	2	.05	UJ	ug/l	.05
Heptachlor epoxide	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	.5	U	ug/kg	.5	.05	UJ	ug/l	.05
Endosulfan I	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	.05	UJ	ug/l	.05
Dieldrin	3.9	U	ug/kg	3.9	27		ug/kg	4	20		ug/kg	4	.1	UJ	ug/l	.1
4,4-DDE	.88	J	ug/kg	4	.4	U	ug/kg	.4	.4	U	ug/kg	.4	.1	UJ	ug/l	.1
Endrin	3.9	U	ug/kg	3.9	33		ug/kg	4	27		ug/kg	4	.1	UJ	ug/l	.1
Endosulfan II	3.9	U	ug/kg	3.9	3.9	U	ug/kg	3.9	3.9	U	ug/kg	3.9	.1	UJ	ug/l	.1
4,4-DDD	3.9	U	ug/kg	3.9	3.9	U	ug/kg	3.9	3.9	U	ug/kg	3.9	.1	UJ	ug/l	.1
Endosulfan sulfate	3.9	U	ug/kg	3.9	3.9	U	ug/kg	3.9	3.9	U	ug/kg	3.9	.1	UJ	ug/l	.1
4,4-DDT	3.9	U	ug/kg	3.9	28		ug/kg	4	23		ug/kg	4	.1	UJ	ug/l	.1
Methoxychlor	19	U	ug/kg	19	19	U	ug/kg	19	19	U	ug/kg	19	.5	UJ	ug/l	.5
Endrin ketone	3.9	U	ug/kg	3.9	3.9	U	ug/kg	3.9	3.9	U	ug/kg	3.9	.1	UJ	ug/l	.1
Endrin aldehyde	3.9	U	ug/kg	3.9	3.9	U	ug/kg	3.9	3.9	U	ug/kg	3.9	.1	UJ	ug/l	.1
alpha-Chlordane	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	.05	UJ	ug/l	.05
gamma-Chlordane	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	1.9	U	ug/kg	1.9	.05	UJ	ug/l	.05
Toxaphene	190	U	ug/kg	190	190	U	ug/kg	190	190	U	ug/kg	190	5	UJ	ug/l	5
Aroclor-1016	39	U	ug/kg	39	39	U	ug/kg	39	39	U	ug/kg	39	1	UJ	ug/l	1
Aroclor-1221	78	U	ug/kg	78	78	U	ug/kg	78	78	U	ug/kg	78	2	UJ	ug/l	2
Aroclor-1232	39	U	ug/kg	39	39	U	ug/kg	39	39	U	ug/kg	39	1	UJ	ug/l	1
Aroclor-1242	39	U	ug/kg	39	39	U	ug/kg	39	39	U	ug/kg	39	1	UJ	ug/l	1
Aroclor-1248	39	U	ug/kg	39	39	U	ug/kg	39	39	U	ug/kg	39	1	UJ	ug/l	1
Aroclor-1254	39	U	ug/kg	39	39	U	ug/kg	39	39	U	ug/kg	39	1	UJ	ug/l	1
Aroclor-1260	39	U	ug/kg	39	39	U	ug/kg	39	39	U	ug/kg	39	1	UJ	ug/l	1

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- PESTICIDES AND PCBs

Lab Sample Number:	A008D				A008F			
Site	CECIL7				CECIL7			
Locator	CF16SB12S2				CF16SB12S6			
Collect Date:	13-AUG-94				13-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW								
alpha-BHC	2.1	U	ug/kg	2.1	2	U	ug/kg	2
beta-BHC	2.1	U	ug/kg	2.1	2	U	ug/kg	2
delta-BHC	2.1	U	ug/kg	2.1	2	U	ug/kg	2
gamma-BHC (Lindane)	2.1	U	ug/kg	2.1	2	U	ug/kg	2
Heptachlor	2.1	U	ug/kg	2.1	2	U	ug/kg	2
Aldrin	2.1	U	ug/kg	2.1	2	U	ug/kg	2
Heptachlor epoxide	2.1	U	ug/kg	2.1	2	U	ug/kg	2
Endosulfan I	2.1	U	ug/kg	2.1	2	U	ug/kg	2
Dieldrin	4.1	U	ug/kg	4.1	3.9	U	ug/kg	3.9
4,4-DDE	4.1	U	ug/kg	4.1	.3	U	ug/kg	4
Endrin	4.1	U	ug/kg	4.1	3.9	U	ug/kg	3.9
Endosulfan II	4.1	U	ug/kg	4.1	3.9	U	ug/kg	3.9
4,4-DDD	4.1	U	ug/kg	4.1	3.9	U	ug/kg	3.9
Endosulfan sulfate	4.1	U	ug/kg	4.1	3.9	U	ug/kg	3.9
4,4-DDT	4.1	U	ug/kg	4.1	3.9	U	ug/kg	3.9
Methoxychlor	21	U	ug/kg	21	20	U	ug/kg	20
Endrin ketone	4.1	U	ug/kg	4.1	3.9	U	ug/kg	3.9
Endrin aldehyde	4.1	U	ug/kg	4.1	3.9	U	ug/kg	3.9
alpha-Chlordane	2.1	U	ug/kg	2.1	2	U	ug/kg	2
gamma-Chlordane	1	J	ug/kg	2	1.2	J	ug/kg	2
Toxaphene	210	U	ug/kg	210	200	U	ug/kg	200
Aroclor-1016	41	U	ug/kg	41	39	U	ug/kg	39
Aroclor-1221	83	U	ug/kg	83	79	U	ug/kg	79
Aroclor-1232	41	U	ug/kg	41	39	U	ug/kg	39
Aroclor-1242	41	U	ug/kg	41	39	U	ug/kg	39
Aroclor-1248	41	U	ug/kg	41	39	U	ug/kg	39
Aroclor-1254	49		ug/kg	41	66		ug/kg	39
Aroclor-1260	41	U	ug/kg	41	39	U	ug/kg	39

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	A008K				A008L				A008N				A008O			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB1S0				CF16SB1S6				CF16SB2S2				CF16SB2S4			
Collect Date:	14-AUG-94				14-AUG-94				15-AUG-94				15-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	1230		mg/kg	40	7320		mg/kg	40	882		mg/kg	140	8550		mg/kg	40
Antimony	.43	U	mg/kg	12	.5	U	mg/kg	12	.47	U	mg/kg	12	.47	U	mg/kg	12
Arsenic	.86	U	mg/kg	2	.81	U	mg/kg	2	.75	U	mg/kg	2	1.2	U	mg/kg	2
Barium	1.6		mg/kg	40	6.2		mg/kg	40	1.8		mg/kg	40	9.3		mg/kg	40
Beryllium	.22	U	mg/kg	1	.25	U	mg/kg	1	.23	U	mg/kg	1	.24	U	mg/kg	1
Cadmium	.22	U	mg/kg	1	.25	U	mg/kg	1	.23	U	mg/kg	1	.24	U	mg/kg	1
Calcium	3820		mg/kg	1000	617		mg/kg	1000	426		mg/kg	1000	358		mg/kg	1000
Chromium	1.8		mg/kg	2	9.9		mg/kg	2	1.6		mg/kg	2	14.2		mg/kg	2
Cobalt	.43	U	mg/kg	10	1		mg/kg	10	.47	U	mg/kg	10	.75		mg/kg	10
Copper	.58		mg/kg	5	.95	J	mg/kg	5	.63		mg/kg	5	.59		mg/kg	5
Iron	191		mg/kg	20	549		mg/kg	20	242		mg/kg	20	2230		mg/kg	20
Lead	2.7	J	mg/kg	.6	5.8	J	mg/kg	.6	1.7	J	mg/kg	.6	7.6	J	mg/kg	.6
Magnesium	65.2		mg/kg	1000	74.7		mg/kg	1000	39.7		mg/kg	1000	141		mg/kg	1000
Manganese	2.8		mg/kg	3	4.6		mg/kg	3	4.6		mg/kg	3	3.5		mg/kg	3
Mercury	.11	U	mg/kg	.1	.12	U	mg/kg	.1	.12	U	mg/kg	.1	.12	U	mg/kg	.1
Nickel	.48		mg/kg	8	2.3		mg/kg	8	.69	J	mg/kg	8	2.6		mg/kg	8
Potassium	14.9	UJ	mg/kg	1000	61.8	J	mg/kg	1000	18.8	UJ	mg/kg	1000	80.1	J	mg/kg	1000
Selenium	.87	U	mg/kg	1	.99	U	mg/kg	1	.94	U	mg/kg	1	.95	U	mg/kg	1
Silver	.22	U	mg/kg	2	.25	U	mg/kg	2	.23	U	mg/kg	2	.24	U	mg/kg	2
Sodium	142		mg/kg	1000	176		mg/kg	1000	115	U	mg/kg	1000	179		mg/kg	1000
Thallium	1.3	U	mg/kg	2	1.5	U	mg/kg	2	1.4	U	mg/kg	2	1.4	U	mg/kg	2
Vanadium	1.3		mg/kg	10	7.2		mg/kg	10	1.3		mg/kg	10	9.3		mg/kg	10
Zinc	4.6	U	mg/kg	4	4.4	U	mg/kg	4	3.9	U	mg/kg	4	3.5	U	mg/kg	4
Cyanide	-				.59	U	mg/kg	.5	.56	U	mg/kg	.5	.55	U	mg/kg	.5

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	A008P				A008S				A008T				A008U			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB3S0				CF16SB3S6				CF16SB4S2				CF16SB4S6			
Collect Date:	15-AUG-94				15-AUG-94				15-AUG-94				15-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	2520		mg/kg	40	9790		mg/kg	40	1660		mg/kg	40	15300		mg/kg	40
Antimony	.44	U	mg/kg	12	.72	U	mg/kg	12	.44	U	mg/kg	12	.64	U	mg/kg	12
Arsenic	.81	U	mg/kg	2	.73	U	mg/kg	2	.66	U	mg/kg	2	.81		mg/kg	2
Barium	3.6		mg/kg	40	9.7		mg/kg	40	2.1	U	mg/kg	40	13.9		mg/kg	40
Beryllium	.22	U	mg/kg	1	.24	U	mg/kg	1	.22	U	mg/kg	1	.24	U	mg/kg	1
Cadmium	.22	U	mg/kg	1	.24	U	mg/kg	1	.22	U	mg/kg	1	.24	U	mg/kg	1
Calcium	8550		mg/kg	1000	211	U	mg/kg	1000	464		mg/kg	1000	110	U	mg/kg	1000
Chromium	3.8		mg/kg	2	12.5		mg/kg	2	1.7	J	mg/kg	2	14.5		mg/kg	2
Cobalt	.49		mg/kg	10	1.3		mg/kg	10	.44	U	mg/kg	10	1		mg/kg	10
Copper	.44	U	mg/kg	5	.49	UJ	mg/kg	5	.44	UJ	mg/kg	5	.99	J	mg/kg	5
Iron	605		mg/kg	20	1090		mg/kg	20	318		mg/kg	20	2710		mg/kg	20
Lead	7.6	J	mg/kg	.6	6.8	J	mg/kg	.6	1.6	J	mg/kg	.6	7.9	J	mg/kg	.6
Magnesium	124		mg/kg	1000	181		mg/kg	1000	39.7	U	mg/kg	1000	339		mg/kg	1000
Manganese	5.3		mg/kg	3	4.5		mg/kg	3	3.2		mg/kg	3	5		mg/kg	3
Mercury	.1	U	mg/kg	.1	.12	J	mg/kg	.1	.11	U	mg/kg	.1	.11	U	mg/kg	.1
Nickel	1.1		mg/kg	8	3.2	J	mg/kg	8	.44	UJ	mg/kg	8	5	J	mg/kg	8
Potassium	38.6	J	mg/kg	1000	105	J	mg/kg	1000	14.1	UJ	mg/kg	1000	202	J	mg/kg	1000
Selenium	.87	U	mg/kg	1	.97	UJ	mg/kg	1	.88	UJ	mg/kg	1	.97	UJ	mg/kg	1
Silver	.22	U	mg/kg	2	.24	U	mg/kg	2	.22	U	mg/kg	2	.24	U	mg/kg	2
Sodium	162		mg/kg	1000	176	U	mg/kg	1000	167	U	mg/kg	1000	315	U	mg/kg	1000
Thallium	1.3	U	mg/kg	2	1.5	UJ	mg/kg	2	1.3	UJ	mg/kg	2	2.6	J	mg/kg	2
Vanadium	3.2		mg/kg	10	7.6		mg/kg	10	1.6		mg/kg	10	10.6		mg/kg	10
Zinc	4.4	U	mg/kg	4	3.3	U	mg/kg	4	2.1	U	mg/kg	4	3.9	U	mg/kg	4
Cyanide	.53	U	mg/kg	.5	2	J	mg/kg	.5	.52	U	mg/kg	.5	.54	U	mg/kg	.5

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	A008V			A008W			A008X			A008Y		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16SB5S2			CF16SB5S2D			CF16SB5S6			CF16SB6S2		
Collect Date:	15-AUG-94			15-AUG-94			15-AUG-94			15-AUG-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	921	mg/kg	40	911	mg/kg	40	8310	mg/kg	40	1080	mg/kg	40
Antimony	.45 U	mg/kg	12	.45 U	mg/kg	12	.47 U	mg/kg	12	.46 U	mg/kg	12
Arsenic	.67 U	mg/kg	2	.67 U	mg/kg	2	1.1	mg/kg	2	.7 U	mg/kg	2
Barium	4.2	mg/kg	40	4.1	mg/kg	40	8.7	mg/kg	40	1.7 U	mg/kg	40
Beryllium	.22 U	mg/kg	1	.22 U	mg/kg	1	.24 U	mg/kg	1	.23 U	mg/kg	1
Cadmium	.22 U	mg/kg	1	.22 U	mg/kg	1	.24 U	mg/kg	1	.23 U	mg/kg	1
Calcium	468	mg/kg	1000	501	mg/kg	1000	233 U	mg/kg	1000	304	mg/kg	1000
Chromium	1.1 J	mg/kg	2	1.7 J	mg/kg	2	8.7	mg/kg	2	3.6 J	mg/kg	2
Cobalt	.45 U	mg/kg	10	.45 U	mg/kg	10	.7 J	mg/kg	10	.46 U	mg/kg	10
Copper	.51 J	mg/kg	5	.54 J	mg/kg	5	.47 UJ	mg/kg	5	.46 UJ	mg/kg	5
Iron	285 J	mg/kg	20	563 J	mg/kg	20	1290	mg/kg	20	215	mg/kg	20
Lead	2.5 J	mg/kg	.6	2.3 J	mg/kg	.6	6.1 J	mg/kg	.6	1.7 J	mg/kg	.6
Magnesium	40.6 U	mg/kg	1000	40.7 U	mg/kg	1000	174	mg/kg	1000	28.7 U	mg/kg	1000
Manganese	5.6	mg/kg	3	7.7	mg/kg	3	5	mg/kg	3	2.8	mg/kg	3
Mercury	.1 U	mg/kg	.1	.11 U	mg/kg	.1	.11 U	mg/kg	.1	.11 U	mg/kg	.1
Nickel	.45 UJ	mg/kg	8	.45 UJ	mg/kg	8	2.6 J	mg/kg	8	1.4 J	mg/kg	8
Potassium	11.1 UJ	mg/kg	1000	10.2 UJ	mg/kg	1000	101 J	mg/kg	1000	12.1 UJ	mg/kg	1000
Selenium	.89 UJ	mg/kg	1	.9 UJ	mg/kg	1	.95 UJ	mg/kg	1	.93 UJ	mg/kg	1
Silver	.22 U	mg/kg	2	.22 U	mg/kg	2	.24 U	mg/kg	2	.23 U	mg/kg	2
Sodium	146 U	mg/kg	1000	127 U	mg/kg	1000	334 U	mg/kg	1000	132 U	mg/kg	1000
Thallium	1.3 UJ	mg/kg	2	1.3 UJ	mg/kg	2	1.4 UJ	mg/kg	2	1.4 UJ	mg/kg	2
Vanadium	1.1 J	mg/kg	10	1.1 J	mg/kg	10	6.4	mg/kg	10	1.1 J	mg/kg	10
Zinc	4.1 U	mg/kg	4	3.7 U	mg/kg	4	2.5 U	mg/kg	4	2.3 U	mg/kg	4
Cyanide	.57 U	mg/kg	.5	.58 U	mg/kg	.5	.58 U	mg/kg	.5	.55 U	mg/kg	.5

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R [illegible]ULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	A0090				A0091				A0091F				A001F			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB6S4				CF16SB6S4R				CF16SB6S4RF				CF16SB7S2			
Collect Date:	15-AUG-94				15-AUG-94				15-AUG-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	8080		mg/kg	40	34.3		ug/l	200	27.6		ug/l	200	2480		mg/kg	40
Antimony	.47	U	mg/kg	12	5.2	J	ug/l	60	6.9		ug/l	60	.44	U	mg/kg	12
Arsenic	.7	U	mg/kg	2	3	U	ug/l	10	3	U	ug/l	10	.66	U	mg/kg	2
Barium	12.9		mg/kg	40	2		ug/l	200	1.3		ug/l	200	3.9		mg/kg	40
Beryllium	.23	U	mg/kg	1	1	U	ug/l	5	1	U	ug/l	5	.22	U	mg/kg	1
Cadmium	.23	U	mg/kg	1	1	U	ug/l	5	1	U	ug/l	5	.22	U	mg/kg	1
Calcium	374		mg/kg	1000	33.5		ug/l	5000	65.7		ug/l	5000	2940		mg/kg	1000
Chromium	8.1	J	mg/kg	2	2	U	ug/l	10	2	U	ug/l	10	5	J	mg/kg	2
Cobalt	.72	J	mg/kg	10	2	U	ug/l	50	2	U	ug/l	50	.44	U	mg/kg	10
Copper	.54	J	mg/kg	5	2	U	ug/l	25	2	U	ug/l	25	.78	J	mg/kg	5
Iron	1230		mg/kg	20	12	U	ug/l	100	12	U	ug/l	100	560		mg/kg	20
Lead	4.7	J	mg/kg	.6	1	U	ug/l	3	1	U	ug/l	3	8.3	J	mg/kg	.6
Magnesium	172		mg/kg	1000	17.2	J	ug/l	5000	6.7		ug/l	5000	82.4	U	mg/kg	1000
Manganese	4.4		mg/kg	3	1	U	ug/l	15	1	U	ug/l	15	6.2		mg/kg	3
Mercury	.11	U	mg/kg	.1	.2	U	ug/l	.2	.2	U	ug/l	.2	.12	J	mg/kg	.1
Nickel	2.2	J	mg/kg	8	2	U	ug/l	40	2	U	ug/l	40	1.1	J	mg/kg	8
Potassium	83.8	J	mg/kg	1000	22.9	J	ug/l	5000	21.4	J	ug/l	5000	38.4	J	mg/kg	1000
Selenium	.94	UJ	mg/kg	1	4	U	ug/l	5	4	U	ug/l	5	.88	UJ	mg/kg	1
Silver	.23	U	mg/kg	2	1	U	ug/l	10	1	U	ug/l	10	.22	U	mg/kg	2
Sodium	332	U	mg/kg	1000	93.9	J	ug/l	5000	129	J	ug/l	5000	133	U	mg/kg	1000
Thallium	1.4	UJ	mg/kg	2	8.8		ug/l	10	7.4		ug/l	10	1.3	UJ	mg/kg	2
Vanadium	7.7		mg/kg	10	1	U	ug/l	50	1	U	ug/l	50	3.1		mg/kg	10
Zinc	2.3	U	mg/kg	4	1.1		ug/l	20	12.9		ug/l	20	5.3	U	mg/kg	4
Cyanide	.57	U	mg/kg	.5	-				-				.61	U	mg/kg	.5

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	A00IH				A00II				A00IJ				A00IK			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB7S2D				CF16SB7S4				CF16SB8S2				CF16SB8S4			
Collect Date:	16-AUG-94				16-AUG-94				16-AUG-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	2240		mg/kg	40	4170		mg/kg	40	2190		mg/kg	40	7650		mg/kg	40
Antimony	.47	U	mg/kg	12	.45	U	mg/kg	12	.45	U	mg/kg	12	.5	U	mg/kg	12
Arsenic	.82	J	mg/kg	2	.68	U	mg/kg	2	.67	U	mg/kg	2	.71	U	mg/kg	2
Barium	3.9		mg/kg	40	5.5		mg/kg	40	4.9		mg/kg	40	9		mg/kg	40
Beryllium	.22	U	mg/kg	1	.23	U	mg/kg	1	.22	U	mg/kg	1	.24	U	mg/kg	1
Cadmium	.22	U	mg/kg	1	.23	U	mg/kg	1	.93		mg/kg	1	.24	U	mg/kg	1
Calcium	3160		mg/kg	1000	1620		mg/kg	1000	1430		mg/kg	1000	262	U	mg/kg	1000
Chromium	4.5	J	mg/kg	2	7.8	J	mg/kg	2	19.5		mg/kg	2	8.6	J	mg/kg	2
Cobalt	.45	U	mg/kg	10	.45	U	mg/kg	10	.45	U	mg/kg	10	.68		mg/kg	10
Copper	.9	J	mg/kg	5	1	J	mg/kg	5	2.1	J	mg/kg	5	.47	UJ	mg/kg	5
Iron	401		mg/kg	20	815		mg/kg	20	471		mg/kg	20	1170		mg/kg	20
Lead	8.5	J	mg/kg	.6	9.2	J	mg/kg	.6	55		mg/kg	.6	5.1	J	mg/kg	.6
Magnesium	65.4	U	mg/kg	1000	88.6	U	mg/kg	1000	65.1	U	mg/kg	1000	175		mg/kg	1000
Manganese	7		mg/kg	3	5.8		mg/kg	3	4.4		mg/kg	3	5.9		mg/kg	3
Mercury	.14	J	mg/kg	.1	.13	J	mg/kg	.1	.12	J	mg/kg	.1	.12	U	mg/kg	.1
Nickel	.69	J	mg/kg	8	1.4	J	mg/kg	8	1.1	J	mg/kg	8	2.5	J	mg/kg	8
Potassium	33.7	J	mg/kg	1000	44.6	J	mg/kg	1000	25.8	UJ	mg/kg	1000	85.8	J	mg/kg	1000
Selenium	.9	UJ	mg/kg	1	.9	UJ	mg/kg	1	.9	UJ	mg/kg	1	.95	UJ	mg/kg	1
Silver	.22	U	mg/kg	2	.23	U	mg/kg	2	.22	U	mg/kg	2	.24	U	mg/kg	2
Sodium	149	U	mg/kg	1000	160	U	mg/kg	1000	124	U	mg/kg	1000	169	U	mg/kg	1000
Thallium	1.3	UJ	mg/kg	2	1.4	UJ	mg/kg	2	1.3	UJ	mg/kg	2	1.4	UJ	mg/kg	2
Vanadium	2.1		mg/kg	10	4.1		mg/kg	10	2		mg/kg	10	7.3		mg/kg	10
Zinc	5.7	U	mg/kg	4	6.7	U	mg/kg	4	25.8		mg/kg	4	4.4	U	mg/kg	4
Cyanide	.54	U	mg/kg	.5	.56	U	mg/kg	.5	.53	U	mg/kg	.5	.57	U	mg/kg	.5

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	A0010				A00IM				A00IT				A00J0			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB9S4				CF16SB9S6				CF16SB10S2				CF16SB10S2D			
Collect Date:	16-AUG-94				16-AUG-94				16-AUG-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	14700		mg/kg	40	13700		mg/kg	40	1670	J	mg/kg	40	4490	J	mg/kg	40
Antimony	.48	U	mg/kg	12	.48	U	mg/kg	12	.46	U	mg/kg	12	.46	U	mg/kg	12
Arsenic	1.9	J	mg/kg	2	.72	U	mg/kg	2	.69	U	mg/kg	2	.68	U	mg/kg	2
Barium	12.6		mg/kg	40	15.6		mg/kg	40	2.9		mg/kg	40	6.3		mg/kg	40
Beryllium	.24	U	mg/kg	1	.24	U	mg/kg	1	.23	U	mg/kg	1	.23	U	mg/kg	1
Cadmium	.24	U	mg/kg	1	.24	U	mg/kg	1	.23	U	mg/kg	1	.23	U	mg/kg	1
Calcium	216	U	mg/kg	1000	128	U	mg/kg	1000	372		mg/kg	1000	398		mg/kg	1000
Chromium	15.3		mg/kg	2	15.9		mg/kg	2	2.3	J	mg/kg	2	4.3	J	mg/kg	2
Cobalt	.96		mg/kg	10	1.5		mg/kg	10	.46	U	mg/kg	10	.7		mg/kg	10
Copper	.74	J	mg/kg	5	.79	J	mg/kg	5	.46	UJ	mg/kg	5	.46	UJ	mg/kg	5
Iron	4420		mg/kg	20	1810		mg/kg	20	309	J	mg/kg	20	625	J	mg/kg	20
Lead	8.9	J	mg/kg	.6	9.4	J	mg/kg	.6	2.4	J	mg/kg	.6	3.2	J	mg/kg	.6
Magnesium	327		mg/kg	1000	297		mg/kg	1000	51	U	mg/kg	1000	126		mg/kg	1000
Manganese	4.2		mg/kg	3	4.7		mg/kg	3	3.4		mg/kg	3	4.2		mg/kg	3
Mercury	.13	U	mg/kg	.1	.13	U	mg/kg	.1	.12	U	mg/kg	.1	.11	U	mg/kg	.1
Nickel	3.8	J	mg/kg	8	3.8	J	mg/kg	8	.46	UJ	mg/kg	8	1.3	J	mg/kg	8
Potassium	189	J	mg/kg	1000	165	J	mg/kg	1000	22	UJ	mg/kg	1000	53.8	J	mg/kg	1000
Selenium	.96	UJ	mg/kg	1	.96	UJ	mg/kg	1	.92	UJ	mg/kg	1	.91	UJ	mg/kg	1
Silver	.24	U	mg/kg	2	.24	U	mg/kg	2	.23	U	mg/kg	2	.23	U	mg/kg	2
Sodium	202	U	mg/kg	1000	216	U	mg/kg	1000	131	U	mg/kg	1000	174	U	mg/kg	1000
Thallium	1.4	UJ	mg/kg	2	1.4	UJ	mg/kg	2	1.4	UJ	mg/kg	2	1.4	UJ	mg/kg	2
Vanadium	17		mg/kg	10	10.3		mg/kg	10	1.6		mg/kg	10	3.7		mg/kg	10
Zinc	3.5	U	mg/kg	4	3.3	U	mg/kg	4	2.2	U	mg/kg	4	2.2	U	mg/kg	4
Cyanide	.6	U	mg/kg	.5	.58	U	mg/kg	.5	.53	U	mg/kg	.5	.52	U	mg/kg	.5

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	A00J6				A00KE				A00KG				A00KM			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB10S4				CF16SB11S2				CF16SB11S6				CF16SB11S6R			
Collect Date:	16-AUG-94				16-AUG-94				16-AUG-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE																
Aluminum	14900		mg/kg	40	3180		mg/kg	40	11900		mg/kg	40	42.9		ug/l	200
Antimony	.47	U	mg/kg	12	.65	UJ	mg/kg	12	1	UJ	mg/kg	12	3.6		ug/l	60
Arsenic	.71	U	mg/kg	2	.75		mg/kg	2	.74	U	mg/kg	2	3	U	ug/l	10
Barium	12.1		mg/kg	40	4.3		mg/kg	40	4.9		mg/kg	40	1.4		ug/l	200
Beryllium	.24	U	mg/kg	1	.23	U	mg/kg	1	.25	U	mg/kg	1	1	U	ug/l	5
Cadmium	.24	U	mg/kg	1	.23	U	mg/kg	1	.25	U	mg/kg	1	1	U	ug/l	5
Calcium	324		mg/kg	1000	608		mg/kg	1000	597		mg/kg	1000	118		ug/l	5000
Chromium	15.8		mg/kg	2	5	J	mg/kg	2	12.1	J	mg/kg	2	2	U	ug/l	10
Cobalt	.92		mg/kg	10	.84		mg/kg	10	.96		mg/kg	10	2	U	ug/l	50
Copper	.47	UJ	mg/kg	5	.69		mg/kg	5	.79		mg/kg	5	2	U	ug/l	25
Iron	1830		mg/kg	20	354		mg/kg	20	777		mg/kg	20	36.4		ug/l	100
Lead	10.3	J	mg/kg	.6	4		mg/kg	.6	7.7		mg/kg	.6	1	U	ug/l	3
Magnesium	267		mg/kg	1000	64.5		mg/kg	1000	222		mg/kg	1000	25.1		ug/l	5000
Manganese	4.8		mg/kg	3	4.3		mg/kg	3	4.1		mg/kg	3	1	U	ug/l	15
Mercury	.12	U	mg/kg	.1	.11	U	mg/kg	.1	.13	U	mg/kg	.1	.2	U	ug/l	.2
Nickel	3.5	J	mg/kg	8	1.1		mg/kg	8	2.6		mg/kg	8	2	U	ug/l	40
Potassium	172	J	mg/kg	1000	33.6	J	mg/kg	1000	94.6		mg/kg	1000	14.5		ug/l	5000
Selenium	.95	UJ	mg/kg	1	.92	U	mg/kg	1	.98	U	mg/kg	1	4	U	ug/l	5
Silver	.24	U	mg/kg	2	.23	U	mg/kg	2	.25	U	mg/kg	2	1	U	ug/l	10
Sodium	198	U	mg/kg	1000	142	J	mg/kg	1000	170	J	mg/kg	1000	139		ug/l	5000
Thallium	1.4	UJ	mg/kg	2	1.4	U	mg/kg	2	2.1		mg/kg	2	6	U	ug/l	10
Vanadium	16.7		mg/kg	10	3.3		mg/kg	10	7.8		mg/kg	10	1	U	ug/l	50
Zinc	2.7	U	mg/kg	4	2.4	U	mg/kg	4	2.4	U	mg/kg	4	6.1		ug/l	20
Cyanide	.61	U	mg/kg	.5	.57	U	mg/kg	.5	.66	U	mg/kg	.5	10	U	ug/l	10

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- METALS AND CYANIDE

Lab Sample Number:	A00KMF				A008D				A008F			
Site	CECIL7				CECIL7				CECIL7			
Locator	CF16SB11S6RF				CF16SB12S2				CF16SB12S6			
Collect Date:	16-AUG-94				13-AUG-94				13-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE												
Aluminum	31.1	U	ug/l	200	2520		mg/kg	40	1580		mg/kg	40
Antimony	6.4	J	ug/l	60	.5	U	mg/kg	12	.47	U	mg/kg	12
Arsenic	3	U	ug/l	10	.75	U	mg/kg	2	.7	U	mg/kg	2
Barium	1	U	ug/l	200	3.7		mg/kg	40	3.2		mg/kg	40
Beryllium	1	U	ug/l	5	.25	U	mg/kg	1	.23	U	mg/kg	1
Cadmium	1	U	ug/l	5	.25	U	mg/kg	1	.23	U	mg/kg	1
Calcium	585		ug/l	5000	9810		mg/kg	1000	45500		mg/kg	1000
Chromium	2	U	ug/l	10	3.4		mg/kg	2	4.8		mg/kg	2
Cobalt	2	U	ug/l	50	.5	U	mg/kg	10	.47	U	mg/kg	10
Copper	2	U	ug/l	25	.82		mg/kg	5	.81		mg/kg	5
Iron	28.9		ug/l	100	647		mg/kg	20	431		mg/kg	20
Lead	1	U	ug/l	3	2.9	J	mg/kg	.6	2.2	J	mg/kg	.6
Magnesium	27.3	U	ug/l	5000	134		mg/kg	1000	300		mg/kg	1000
Manganese	1.1		ug/l	15	6.1		mg/kg	3	8		mg/kg	3
Mercury	.2	U	ug/l	.2	.13	U	mg/kg	.1	.12	U	mg/kg	.1
Nickel	2	U	ug/l	40	1.4		mg/kg	8	1.3		mg/kg	8
Potassium	28.9	J	ug/l	5000	46.7	J	mg/kg	1000	42.5	J	mg/kg	1000
Selenium	4	U	ug/l	5	1	U	mg/kg	1	.94	U	mg/kg	1
Silver	1	U	ug/l	10	.25	U	mg/kg	2	.23	U	mg/kg	2
Sodium	166	U	ug/l	5000	161		mg/kg	1000	781		mg/kg	1000
Thallium	6	U	ug/l	10	1.5	U	mg/kg	2	1.4	U	mg/kg	2
Vanadium	1	U	ug/l	50	2.9		mg/kg	10	2.7		mg/kg	10
Zinc	19.9	U	ug/l	20	3.4	U	mg/kg	4	9.4		mg/kg	4
Cyanide	-				1.7	J	mg/kg	.5	.53	U	mg/kg	.5

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- TOTAL SOLIDS, TPH & TOC

Lab Sample Number:	A0071				A0072				A0073				A0075			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB1S0				CF16SB1S6				CF16SB2S2				CF16SB2S4			
Collect Date:	14-AUG-94				14-AUG-94				15-AUG-94				15-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Solids, Total (TS)	91.4		%	.5	82.2		%	.5	87.6		%	.5	83.6		%	.5
Total petroleum hydrocarbons	11	U	mg/kg	11	12	U	mg/kg	12	11	U	mg/kg	11	12	U	mg/kg	12
Total organic carbon	-				-				-				-			

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- TOTAL SOLIDS, TPH & TOC

Lab Sample Number:	A0079			A007B			A007E			A007F		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16SB3S0			CF16SB3S6			CF16SB4S2			CF16SB4S6		
Collect Date:	15-AUG-94			15-AUG-94			15-AUG-94			15-AUG-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
Solids, Total (TS)	91.6	%	.5	81.2	%	.5	91.8	%	.5	83.4	%	.5
Total petroleum hydrocarbons	32	mg/kg	11	12 U	mg/kg	12	11 U	mg/kg	11	12 U	mg/kg	12
Total organic carbon	-			-			-			-		

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- TOTAL SOLIDS, TPH & TOC

Lab Sample Number:	A007G				A007H				A007K				A007L			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB5S2				CF16SB5S2D				CF16SB5S6				CF16SB6S2			
Collect Date:	15-AUG-94				15-AUG-94				15-AUG-94				15-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Solids, Total (TS)	90		%	.5	90.5		%	.5	85.7		%	.5	87.7		%	.5
Total petroleum hydrocarbons	11	U	mg/kg	11	11	U	mg/kg	11	12	U	mg/kg	12	11	U	mg/kg	11
Total organic carbon	-				-				-				-			

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- TOTAL SOLIDS, TPH & TOC

Lab Sample Number:	A007M			A007P			A00FD			A00FQ		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16SB6S4			CF16SB6S4R			CF16SB7S2			CF16SB7S2D		
Collect Date:	15-AUG-94			15-AUG-94			16-AUG-94			16-AUG-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
Solids, Total (TS)	84.3	%	.5	-			88.8	%	.5	89	%	.5
Total petroleum hydrocarbons	12 U	mg/kg	12	.5 U	mg/l	.5	17	mg/kg	11	11 U	mg/kg	11
Total organic carbon	-			-			-			-		

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- TOTAL SOLIDS, TPH & TOC

Lab Sample Number:	A00FR				A00FT				A00FV				A00FY			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB7S4				CF16SB8S2				CF16SB8S4				CF16SB9S4			
Collect Date:	16-AUG-94				16-AUG-94				16-AUG-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Solids, Total (TS)	88.4		%	.5	89.8		%	.5	85.1		%	.5	84.2		%	.5
Total petroleum hydrocarbons	11	U	mg/kg	11	11	U	mg/kg	11	12	U	mg/kg	12	12	U	mg/kg	12
Total organic carbon	-				-				-				-			

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NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- TOTAL SOLIDS, TPH & TOC

Lab Sample Number:	A00FX				A00FZ				A00G1				A00G2			
Site	CECIL7				CECIL7				CECIL7				CECIL7			
Locator	CF16SB9S6				CF16SB10S2				CF16SB10S2D				CF16SB10S4			
Collect Date:	16-AUG-94				16-AUG-94				16-AUG-94				16-AUG-94			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Solids, Total (TS)	83.4		%	.5	88.6		%	.5	88		%	.5	83		%	.5
Total petroleum hydrocarbons	12	U	mg/kg	12	11	U	mg/kg	11	11	U	mg/kg	11	12	U	mg/kg	12
Total organic carbon	-				-				-				-			

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- TOTAL SOLIDS, TPH & TOC

Lab Sample Number:	A00K5			A00K7			A00K8			A006Z		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16SB11S2			CF16SB11S6			CF16SB11S6R			CF16SB12S2		
Collect Date:	16-AUG-94			16-AUG-94			16-AUG-94			13-AUG-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
Solids, Total (TS)	86.8	%	.5	78.1	%	.5	-			94.1	%	.5
Total petroleum hydrocarbons	68	mg/kg	12	21	mg/kg	13	.5 U	mg/l	.5	100	mg/kg	11
Total organic carbon	-			-			-			-		

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- TOTAL SOLIDS, TPH & TOC

Lab Sample Number:	A0070			02101			02102			02103		
Site	CECIL7			CECIL7			CECIL7			CECIL7		
Locator	CF16SB12S6			CF16MS188			CF16MS3525			CF16MS4535		
Collect Date:	13-AUG-94			13-JUN-94			13-JUN-94			14-JUN-94		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
Solids, Total (TS)	92.9	%	.5	80.1	%	.5	81.8	%	.5	80.3	%	.5
Total petroleum hydrocarbons	450	mg/kg	27	-			-			-		
Total organic carbon	-			5200	mg/kg	100	330	mg/kg	100	790	mg/kg	100

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- OPERABLE UNIT 7 -- SITE 16
SUBSURFACE SOIL -- TOTAL SOLIDS, TPH & TOC

Lab Sample Number:	02105		
Site	CECIL7		
Locator	CF16MS8878		
Collect Date:	14-JUN-94		
	VALUE QUAL	UNITS	DL
Solids, Total (TS)	78.6	%	.5
Total petroleum hydrocarbons	+		
Total organic carbon	940	mg/kg	100

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD
SURFACE WATER / SEDIMENT

Lab Sample Number:	90050008			70383-8			90050007			70383-7		
Site	CECIL			CECIL			CECIL			CECIL		
Locator	STCSD1			STCSD1			STCSD3			STCSD3		
Collect Date:	22-JUN-93			22-JUN-93			22-JUN-93			22-JUN-93		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP VOLATILES 90-SOW												
Chloromethane	-			15 U	ug/kg	15	-			19 U	ug/kg	19
Bromomethane	-			15 U	ug/kg	15	-			19 U	ug/kg	19
Vinyl chloride	-			15 U	ug/kg	15	-			19 U	ug/kg	19
Chloroethane	-			15 U	ug/kg	15	-			19 U	ug/kg	19
Methylene chloride	-			15 U	ug/kg	15	-			19 U	ug/kg	19
Acetone	-			11 J	ug/kg	15	-			8 J	ug/kg	19
Carbon disulfide	-			15 U	ug/kg	15	-			19 U	ug/kg	19
1,1-Dichloroethene	-			15 U	ug/kg	15	-			19 U	ug/kg	19
1,1-Dichloroethane	-			15 U	ug/kg	15	-			19 U	ug/kg	19
1,2-Dichloroethene (total)	-			15 U	ug/kg	15	-			19 U	ug/kg	19
Chloroform	-			15 U	ug/kg	15	-			19 U	ug/kg	19
1,2-Dichloroethane	-			15 U	ug/kg	15	-			19 U	ug/kg	19
2-Butanone	-			5 J	ug/kg	15	-			3 J	ug/kg	19
1,1,1-Trichloroethane	-			15 U	ug/kg	15	-			19 U	ug/kg	19
Carbon tetrachloride	-			15 U	ug/kg	15	-			19 U	ug/kg	19
Bromodichloromethane	-			15 U	ug/kg	15	-			19 U	ug/kg	19
1,2-Dichloropropane	-			15 U	ug/kg	15	-			19 U	ug/kg	19
cis-1,3-Dichloropropene	-			15 U	ug/kg	15	-			19 U	ug/kg	19
Trichloroethene	-			15 U	ug/kg	15	-			19 U	ug/kg	19
Dibromochloromethane	-			15 U	ug/kg	15	-			19 U	ug/kg	19
1,1,2-Trichloroethane	-			15 U	ug/kg	15	-			19 U	ug/kg	19
Benzene	-			15 U	ug/kg	15	-			19 U	ug/kg	19
trans-1,3-Dichloropropene	-			15 U	ug/kg	15	-			19 U	ug/kg	19
Bromoform	-			15 U	ug/kg	15	-			19 U	ug/kg	19
4-Methyl-2-pentanone	-			15 U	ug/kg	15	-			19 U	ug/kg	19
2-Hexanone	-			15 U	ug/kg	15	-			19 U	ug/kg	19
Tetrachloroethene	-			15 U	ug/kg	15	-			19 U	ug/kg	19
Toluene	-			4 J	ug/kg	15	-			6 J	ug/kg	19
1,1,2,2-Tetrachloroethane	-			15 U	ug/kg	15	-			19 U	ug/kg	19
Chlorobenzene	-			15 U	ug/kg	15	-			19 U	ug/kg	19
Ethylbenzene	-			15 U	ug/kg	15	-			19 U	ug/kg	19
Styrene	-			15 U	ug/kg	15	-			19 U	ug/kg	19
Xylenes (total)	-			15 U	ug/kg	15	-			19 U	ug/kg	19
CLP SEMIVOLATILES 90-SOW												
Phenol	24000 UJ	ug/kg	24000	-			16000 UJ	ug/kg	16000	-		
bis(2-Chloroethyl) ether	24000 UJ	ug/kg	24000	-			16000 UJ	ug/kg	16000	-		
2-Chlorophenol	24000 UJ	ug/kg	24000	-			16000 UJ	ug/kg	16000	-		
1,3-Dichlorobenzene	24000 UJ	ug/kg	24000	-			16000 UJ	ug/kg	16000	-		
1,4-Dichlorobenzene	24000 UJ	ug/kg	24000	-			16000 UJ	ug/kg	16000	-		
1,2-Dichlorobenzene	24000 UJ	ug/kg	24000	-			16000 UJ	ug/kg	16000	-		
2-Methylphenol	24000 UJ	ug/kg	24000	-			16000 UJ	ug/kg	16000	-		
2,2-oxybis(1-Chloropropane)	24000 UJ	ug/kg	24000	-			16000 UJ	ug/kg	16000	-		
4-Methylphenol	24000 UJ	ug/kg	24000	-			16000 UJ	ug/kg	16000	-		
N-Nitroso-di-n-propylamine	24000 UJ	ug/kg	24000	-			16000 UJ	ug/kg	16000	-		
Hexachloroethane	24000 UJ	ug/kg	24000	-			16000 UJ	ug/kg	16000	-		
Nitrobenzene	24000 UJ	ug/kg	24000	-			16000 UJ	ug/kg	16000	-		
Isophorone	24000 UJ	ug/kg	24000	-			16000 UJ	ug/kg	16000	-		
2-Nitrophenol	24000 UJ	ug/kg	24000	-			16000 UJ	ug/kg	16000	-		
2,4-Dimethylphenol	24000 UJ	ug/kg	24000	-			16000 UJ	ug/kg	16000	-		

NAS CECIL FIELD
SURFACE WATER / SEDIMENT

Lab Sample Number:	90050008				70383-8			90050007				70383-7		
Site	CECIL				CECIL			CECIL				CECIL		
Locator	STCSD1				STCSD1			STCSD3				STCSD3		
Collect Date:	22-JUN-93				22-JUN-93			22-JUN-93				22-JUN-93		
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
bis(2-Chloroethoxy) methane	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
2,4-Dichlorophenol	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
1,2,4-Trichlorobenzene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
Naphthalene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
4-Chloroaniline	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
Hexachlorobutadiene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
4-Chloro-3-methylphenol	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
2-Methylnaphthalene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
Hexachlorocyclopentadiene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
2,4,6-Trichlorophenol	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
2,4,5-Trichlorophenol	58000	UJ	ug/kg	58000	-				38000	UJ	ug/kg	38000	-			
2-Chloronaphthalene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
2-Nitroaniline	58000	UJ	ug/kg	58000	-				38000	UJ	ug/kg	38000	-			
Dimethylphthalate	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
Acenaphthylene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
2,6-Dinitrotoluene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
3-Nitroaniline	58000	UJ	ug/kg	58000	-				38000	UJ	ug/kg	38000	-			
Acenaphthene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
2,4-Dinitrophenol	58000	UJ	ug/kg	58000	-				38000	UJ	ug/kg	38000	-			
4-Nitrophenol	58000	UJ	ug/kg	58000	-				38000	UJ	ug/kg	38000	-			
Dibenzofuran	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
2,4-Dinitrotoluene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
Diethylphthalate	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
4-Chlorophenyl-phenylether	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
Fluorene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
4-Nitroaniline	58000	UJ	ug/kg	58000	-				38000	UJ	ug/kg	38000	-			
4,6-Dinitro-2-methylphenol	58000	UJ	ug/kg	58000	-				38000	UJ	ug/kg	38000	-			
N-Nitrosodiphenylamine (1)	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
4-Bromophenyl-phenylether	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
Hexachlorobenzene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
Pentachlorophenol	58000	UJ	ug/kg	58000	-				38000	UJ	ug/kg	38000	-			
Phenanthrene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
Anthracene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
Carbazole	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
Di-n-butylphthalate	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
Fluoranthene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
Pyrene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
Butylbenzylphthalate	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
3,3-Dichlorobenzidine	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
Benzo (a) anthracene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
Chrysene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
bis(2-Ethylhexyl) phthalate	12000	J	ug/kg	24000	-				8200	J	ug/kg	16000	-			
Di-n-octylphthalate	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
Benzo (b) fluoranthene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
Benzo (k) fluoranthene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
Benzo (a) pyrene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
Indeno (1,2,3-cd) pyrene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
Dibenz (a,h) anthracene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
Benzo (g,h,i) perylene	24000	UJ	ug/kg	24000	-				16000	UJ	ug/kg	16000	-			
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	26	U	ug/kg	26	-				30	U	ug/kg	30	-			

NAS CECIL FIELD
SURFACE WATER / SEDIMENT

Lab Sample Number:	90050008				70383-8				90050007				70383-7			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	STCSD1				STCSD1				STCSD3				STCSD3			
Collect Date:	22-JUN-93				22-JUN-93				22-JUN-93				22-JUN-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
beta-BHC	26	U	ug/kg	26	-				30	U	ug/kg	30	-			
delta-BHC	26	U	ug/kg	26	-				30	U	ug/kg	30	-			
gamma-BHC (Lindane)	26	U	ug/kg	26	-				30	U	ug/kg	30	-			
Heptachlor	26	U	ug/kg	26	-				30	U	ug/kg	30	-			
Aldrin	26	U	ug/kg	26	-				30	U	ug/kg	30	-			
Heptachlor epoxide	26	U	ug/kg	26	-				30	U	ug/kg	30	-			
Endosulfan I	26	U	ug/kg	26	-				30	U	ug/kg	30	-			
Dieldrin	50	U	ug/kg	50	-				59	U	ug/kg	59	-			
4,4-DDE	50	U	ug/kg	50	-				59	U	ug/kg	59	-			
Endrin	50	U	ug/kg	50	-				59	U	ug/kg	59	-			
Endosulfan II	50	U	ug/kg	50	-				59	U	ug/kg	59	-			
4,4-DDD	50	U	ug/kg	50	-				59	U	ug/kg	59	-			
Endosulfan sulfate	50	U	ug/kg	50	-				59	U	ug/kg	59	-			
4,4-DDT	50	U	ug/kg	50	-				59	U	ug/kg	59	-			
Methoxychlor	260	U	ug/kg	260	-				300	U	ug/kg	300	-			
Endrin ketone	50	U	ug/kg	50	-				59	U	ug/kg	59	-			
Endrin aldehyde	50	U	ug/kg	50	-				59	U	ug/kg	59	-			
alpha-Chlordane	26	U	ug/kg	26	-				30	U	ug/kg	30	-			
gamma-Chlordane	26	U	ug/kg	26	-				30	U	ug/kg	30	-			
Toxaphene	2600	U	ug/kg	2600	-				3000	U	ug/kg	3000	-			
Aroclor-1016	500	U	ug/kg	500	-				590	U	ug/kg	590	-			
Aroclor-1221	2600	U	ug/kg	2600	-				1200	U	ug/kg	1200	-			
Aroclor-1232	500	U	ug/kg	500	-				590	U	ug/kg	590	-			
Aroclor-1242	500	U	ug/kg	500	-				590	U	ug/kg	590	-			
Aroclor-1248	500	U	ug/kg	500	-				590	U	ug/kg	590	-			
Aroclor-1254	500	U	ug/kg	500	-				590	U	ug/kg	590	-			
Aroclor-1260	500	U	ug/kg	500	-				590	U	ug/kg	590	-			
CLP METALS AND CYANIDE																
Aluminum	1820		mg/kg	40	-				3890		mg/kg	40	-			
Antimony	6	U	mg/kg	12	-				8.7	U	mg/kg	12	-			
Arsenic	.57	U	mg/kg	2	-				.96	U	mg/kg	2	-			
Barium	3	J	mg/kg	40	-				11.1	J	mg/kg	40	-			
Beryllium	.08	U	mg/kg	1	-				.12	U	mg/kg	1	-			
Cadmium	4.6		mg/kg	1	-				3.6	U	mg/kg	1	-			
Calcium	128	U	mg/kg	1000	-				436	J	mg/kg	1000	-			
Chromium	11.4		mg/kg	2	-				11.9		mg/kg	2	-			
Cobalt	1.4	U	mg/kg	10	-				2.1	U	mg/kg	10	-			
Copper	11.5		mg/kg	5	-				13.5		mg/kg	5	-			
Iron	482	J	mg/kg	20	-				1500	J	mg/kg	20	-			
Lead	29.9		mg/kg	1	-				30.6		mg/kg	1	-			
Magnesium	60.1	J	mg/kg	1000	-				138	J	mg/kg	1000	-			
Manganese	1.4	U	mg/kg	3	-				4.9	J	mg/kg	3	-			
Mercury	.06	J	mg/kg	.1	-				.12	J	mg/kg	.1	-			
Nickel	2.7	U	mg/kg	8	-				4.6	J	mg/kg	8	-			
Potassium	116	U	mg/kg	1000	-				169	U	mg/kg	1000	-			
Selenium	.48	U	mg/kg	1	-				.7	U	mg/kg	1	-			
Silver	.72	U	mg/kg	2	-				1	U	mg/kg	2	-			
Sodium	19.2	U	mg/kg	1000	-				28.1	U	mg/kg	1000	-			
Thallium	.39	U	mg/kg	2	-				.58	U	mg/kg	2	-			
Vanadium	2.1	U	mg/kg	10	-				6.8	J	mg/kg	10	-			
Zinc	76.8		mg/kg	4	-				109		mg/kg	4	-			

NAS CECIL FIELD
SURFACE WATER / SEDIMENT

Lab Sample Number:	90050008				70383-8				90050007				70383-7			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	STCSD1				STCSD1				STCSD3				STCSD3			
Collect Date:	22-JUN-93				22-JUN-93				22-JUN-93				22-JUN-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Cyanide	.45	U	mg/kg	1	-				.66	U	mg/kg	1	-			

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD
SURFACE WATER / SEDIMENT

Lab Sample Number:	90050006			70383-6			90050003			70383-3		
Site	CECIL			CECIL			CECIL			CECIL		
Locator	STCSD4			STCSD4			STCSW1			STCSW1		
Collect Date:	22-JUN-93			22-JUN-93			22-JUN-93			22-JUN-93		
	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL	VALUE	QUAL UNITS	DL
CLP VOLATILES 90-SOW												
Chloromethane	-			13 U	ug/kg	13	-			10 U	ug/l	10
Bromomethane	-			13 U	ug/kg	13	-			10 U	ug/l	10
Vinyl chloride	-			13 U	ug/kg	13	-			10 U	ug/l	10
Chloroethane	-			13 U	ug/kg	13	-			10 U	ug/l	10
Methylene chloride	-			13 U	ug/kg	13	-			10 U	ug/l	10
Acetone	-			3 J	ug/kg	13	-			10 U	ug/l	10
Carbon disulfide	-			13 U	ug/kg	13	-			10 U	ug/l	10
1,1-Dichloroethene	-			13 U	ug/kg	13	-			10 U	ug/l	10
1,1-Dichloroethane	-			13 U	ug/kg	13	-			10 U	ug/l	10
1,2-Dichloroethene (total)	-			13 U	ug/kg	13	-			10 U	ug/l	10
Chloroform	-			13 U	ug/kg	13	-			10 U	ug/l	10
1,2-Dichloroethane	-			13 U	ug/kg	13	-			10 U	ug/l	10
2-Butanone	-			13 U	ug/kg	13	-			10 U	ug/l	10
1,1,1-Trichloroethane	-			13 U	ug/kg	13	-			10 U	ug/l	10
Carbon tetrachloride	-			13 U	ug/kg	13	-			10 U	ug/l	10
Bromodichloromethane	-			13 U	ug/kg	13	-			10 U	ug/l	10
1,2-Dichloropropane	-			13 U	ug/kg	13	-			10 U	ug/l	10
cis-1,3-Dichloropropene	-			13 U	ug/kg	13	-			10 U	ug/l	10
Trichloroethene	-			13 U	ug/kg	13	-			10 U	ug/l	10
Dibromochloromethane	-			13 U	ug/kg	13	-			10 U	ug/l	10
1,1,2-Trichloroethane	-			13 U	ug/kg	13	-			10 U	ug/l	10
Benzene	-			13 U	ug/kg	13	-			10 U	ug/l	10
trans-1,3-Dichloropropene	-			13 U	ug/kg	13	-			10 U	ug/l	10
Bromoform	-			13 U	ug/kg	13	-			10 U	ug/l	10
4-Methyl-2-pentanone	-			13 U	ug/kg	13	-			10 U	ug/l	10
2-Hexanone	-			13 U	ug/kg	13	-			10 U	ug/l	10
Tetrachloroethene	-			13 U	ug/kg	13	-			10 U	ug/l	10
Toluene	-			13 U	ug/kg	13	-			2 J	ug/l	10
1,1,2,2-Tetrachloroethane	-			13 U	ug/kg	13	-			10 U	ug/l	10
Chlorobenzene	-			13 U	ug/kg	13	-			10 U	ug/l	10
Ethylbenzene	-			13 U	ug/kg	13	-			10 U	ug/l	10
Styrene	-			13 U	ug/kg	13	-			10 U	ug/l	10
Xylenes (total)	-			13 U	ug/kg	13	-			10 U	ug/l	10
CLP SEMIVOLATILES 90-SOW												
Phenol	6500 U	ug/kg	6500	-			10 U	ug/l	10	-		
bis(2-Chloroethyl) ether	6500 U	ug/kg	6500	-			10 U	ug/l	10	-		
2-Chlorophenol	6500 U	ug/kg	6500	-			10 U	ug/l	10	-		
1,3-Dichlorobenzene	6500 U	ug/kg	6500	-			10 U	ug/l	10	-		
1,4-Dichlorobenzene	6500 U	ug/kg	6500	-			10 U	ug/l	10	-		

NAS CECIL FIELD
SURFACE WATER / SEDIMENT

Lab Sample Number:	90050006				70383-6				90050003				70383-3			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	STCSD4				STCSD4				STCSW1				STCSW1			
Collect Date:	22-JUN-93				22-JUN-93				22-JUN-93				22-JUN-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
1,2-Dichlorobenzene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
2-Methylphenol	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
2,2-oxybis(1-Chloropropane)	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
4-Methylphenol	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
N-Nitroso-di-n-propylamine	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Hexachloroethane	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Nitrobenzene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Isophorone	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
2-Nitrophenol	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
2,4-Dimethylphenol	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
bis(2-Chloroethoxy) methane	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
2,4-Dichlorophenol	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
1,2,4-Trichlorobenzene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Naphthalene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
4-Chloroaniline	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Hexachlorobutadiene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
4-Chloro-3-methylphenol	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
2-Methylnaphthalene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Hexachlorocyclopentadiene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
2,4,6-Trichlorophenol	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
2,4,5-Trichlorophenol	16000	U	ug/kg	16000	-				25	U	ug/l	25	-			
2-Chloronaphthalene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
2-Nitroaniline	16000	U	ug/kg	16000	-				25	U	ug/l	25	-			
Dimethylphthalate	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Acenaphthylene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
2,6-Dinitrotoluene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
3-Nitroaniline	16000	U	ug/kg	16000	-				25	U	ug/l	25	-			
Acenaphthene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
2,4-Dinitrophenol	16000	U	ug/kg	16000	-				25	U	ug/l	25	-			
4-Nitrophenol	16000	U	ug/kg	16000	-				25	U	ug/l	25	-			
Dibenzofuran	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
2,4-Dinitrotoluene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Diethylphthalate	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
4-Chlorophenyl-phenylether	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Fluorene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
4-Nitroaniline	16000	U	ug/kg	16000	-				25	U	ug/l	25	-			
4,6-Dinitro-2-methylphenol	16000	U	ug/kg	16000	-				25	U	ug/l	25	-			
N-Nitrosodiphenylamine (1)	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
4-Bromophenyl-phenylether	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Hexachlorobenzene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Pentachlorophenol	16000	U	ug/kg	16000	-				25	U	ug/l	25	-			
Phenanthrene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Anthracene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Carbazole	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Di-n-butylphthalate	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Fluoranthene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Pyrene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Butylbenzylphthalate	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
3,3-Dichlorobenzidine	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Benzo (a) anthracene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Chrysene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
bis(2-Ethylhexyl) phthalate	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			

NAS CECIL FIELD
SURFACE WATER / SEDIMENT

Lab Sample Number:	90050006				70383-6				90050003				70383-3			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	STCSD4				STCSD4				STCSW1				STCSW1			
Collect Date:	22-JUN-93				22-JUN-93				22-JUN-93				22-JUN-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Di-n-octylphthalate	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Benzo (b) fluoranthene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Benzo (k) fluoranthene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Benzo (a) pyrene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Indeno (1,2,3-cd) pyrene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Dibenz (a,h) anthracene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
Benzo (g,h,i) perylene	6500	U	ug/kg	6500	-				10	U	ug/l	10	-			
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	11	U	ug/kg	11	-				.05	U	ug/l	.05	-			
beta-BHC	11	U	ug/kg	11	-				.05	U	ug/l	.05	-			
delta-BHC	11	U	ug/kg	11	-				.05	U	ug/l	.05	-			
gamma-BHC (Lindane)	11	U	ug/kg	11	-				.05	U	ug/l	.05	-			
Heptachlor	11	U	ug/kg	11	-				.05	U	ug/l	.05	-			
Aldrin	11	U	ug/kg	11	-				.05	U	ug/l	.05	-			
Heptachlor epoxide	11	U	ug/kg	11	-				.05	U	ug/l	.05	-			
Endosulfan I	11	U	ug/kg	11	-				.05	U	ug/l	.05	-			
Dieldrin	22	U	ug/kg	22	-				.1	U	ug/l	.1	-			
4,4-DDE	22	U	ug/kg	22	-				.1	U	ug/l	.1	-			
Endrin	22	U	ug/kg	22	-				.1	U	ug/l	.1	-			
Endosulfan II	22	U	ug/kg	22	-				.1	U	ug/l	.1	-			
4,4-DDD	22	U	ug/kg	22	-				.1	U	ug/l	.1	-			
Endosulfan sulfate	22	U	ug/kg	22	-				.1	U	ug/l	.1	-			
4,4-DDT	22	U	ug/kg	22	-				.1	U	ug/l	.1	-			
Methoxychlor	110	U	ug/kg	110	-				.5	U	ug/l	.5	-			
Endrin ketone	22	U	ug/kg	22	-				.1	U	ug/l	.1	-			
Endrin aldehyde	22	U	ug/kg	22	-				.1	U	ug/l	.1	-			
alpha-Chlordane	11	U	ug/kg	11	-				.05	U	ug/l	.05	-			
gamma-Chlordane	11	U	ug/kg	11	-				.05	U	ug/l	.05	-			
Toxaphene	1100	U	ug/kg	1100	-				5	U	ug/l	5	-			
Aroclor-1016	220	U	ug/kg	220	-				1	U	ug/l	1	-			
Aroclor-1221	880	U	ug/kg	880	-				10	U	ug/l	10	-			
Aroclor-1232	220	U	ug/kg	220	-				1	U	ug/l	1	-			
Aroclor-1242	220	U	ug/kg	220	-				1	U	ug/l	1	-			
Aroclor-1248	220	U	ug/kg	220	-				1	U	ug/l	1	-			
Aroclor-1254	220	U	ug/kg	220	-				1	U	ug/l	1	-			
Aroclor-1260	220	U	ug/kg	220	-				1	U	ug/l	1	-			
CLP METALS AND CYANIDE																
Aluminum	2810		mg/kg	40	-				490		ug/l	200	-			
Antimony	5.9	U	mg/kg	12	-				20.2	U	ug/l	60	-			
Arsenic	.48	U	mg/kg	2	-				2.4	UJ	ug/l	10	-			
Barium	4.9	J	mg/kg	40	-				18.6	J	ug/l	200	-			
Beryllium	.08	U	mg/kg	1	-				.49	J	ug/l	5	-			
Cadmium	1.1	U	mg/kg	1	-				37.3		ug/l	5	-			
Calcium	142	J	mg/kg	1000	-				6510		ug/l	5000	-			
Chromium	3.7	U	mg/kg	2	-				2.5	U	ug/l	10	-			
Cobalt	1.4	U	mg/kg	10	-				4.8	U	ug/l	50	-			
Copper	2.8	J	mg/kg	5	-				11.9	J	ug/l	25	-			
Iron	463	J	mg/kg	20	-				1470		ug/l	100	-			
Lead	4.7		mg/kg	1	-				14.1		ug/l	5	-			
Magnesium	48.2	U	mg/kg	1000	-				1190	J	ug/l	5000	-			

NAS CECIL FIELD
SURFACE WATER / SEDIMENT

Lab Sample Number:	90050006				70383-6				90050003				70383-3			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	STCSD4				STCSD4				STCSW1				STCSW1			
Collect Date:	22-JUN-93				22-JUN-93				22-JUN-93				22-JUN-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Manganese	1.4	U	mg/kg	3	-				8	U	ug/l	15	-			
Mercury	.02	UJ	mg/kg	.1	-				.08	U	ug/l	.2	-			
Nickel	2.7	U	mg/kg	8	-				9.2	U	ug/l	40	-			
Potassium	114	U	mg/kg	1000	-				393	UJ	ug/l	5000	-			
Selenium	.47	U	mg/kg	1	-				1.6	U	ug/l	5	-			
Silver	.71	U	mg/kg	2	-				.14	U	ug/l	10	-			
Sodium	21.2	J	mg/kg	1000	-				3120	J	ug/l	5000	-			
Thallium	.39	U	mg/kg	2	-				1.3	U	ug/l	10	-			
Vanadium	4.1	J	mg/kg	10	-				2.2	U	ug/l	50	-			
Zinc	19.5		mg/kg	4	-				68.4		ug/l	20	-			
Cyanide	.44	U	mg/kg	1	-				3	U	ug/l	10	-			

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD
SURFACE WATER / SEDIMENT

Lab Sample Number:	90050002			70383-2			90050001			70383-1		
Site	CECIL			CECIL			CECIL			CECIL		
Locator	STCSW3			STCSW3			STCSW4			STCSW4		
Collect Date:	22-JUN-93			22-JUN-93			22-JUN-93			22-JUN-93		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
CLP VOLATILES 90-SOW												
Chloromethane	-			10 U	ug/l	10	-			10 U	ug/l	10
Bromomethane	-			10 U	ug/l	10	-			10 U	ug/l	10
Vinyl chloride	-			10 U	ug/l	10	-			10 U	ug/l	10
Chloroethane	-			10 U	ug/l	10	-			10 U	ug/l	10
Methylene chloride	-			10 U	ug/l	10	-			10 U	ug/l	10
Acetone	-			10 U	ug/l	10	-			10 U	ug/l	10
Carbon disulfide	-			10 U	ug/l	10	-			10 U	ug/l	10
1,1-Dichloroethene	-			10 U	ug/l	10	-			10 U	ug/l	10
1,1-Dichloroethane	-			10 U	ug/l	10	-			10 U	ug/l	10
1,2-Dichloroethene (total)	-			9 J	ug/l	10	-			4 J	ug/l	10
Chloroform	-			10 U	ug/l	10	-			10 U	ug/l	10
1,2-Dichloroethane	-			10 U	ug/l	10	-			10 U	ug/l	10
2-Butanone	-			10 U	ug/l	10	-			10 U	ug/l	10
1,1,1-Trichloroethane	-			10 U	ug/l	10	-			10 U	ug/l	10
Carbon tetrachloride	-			10 U	ug/l	10	-			10 U	ug/l	10
Bromodichloromethane	-			10 U	ug/l	10	-			10 U	ug/l	10
1,2-Dichloropropane	-			10 U	ug/l	10	-			10 U	ug/l	10
cis-1,3-Dichloropropene	-			10 U	ug/l	10	-			10 U	ug/l	10
Trichloroethene	-			20	ug/l	10	-			8 J	ug/l	10
Dibromochloromethane	-			10 U	ug/l	10	-			10 U	ug/l	10
1,1,2-Trichloroethane	-			10 U	ug/l	10	-			10 U	ug/l	10
Benzene	-			10 U	ug/l	10	-			10 U	ug/l	10
trans-1,3-Dichloropropene	-			10 U	ug/l	10	-			10 U	ug/l	10
Bromoform	-			10 U	ug/l	10	-			10 U	ug/l	10
4-Methyl-2-pentanone	-			10 U	ug/l	10	-			10 U	ug/l	10
2-Hexanone	-			10 U	ug/l	10	-			10 U	ug/l	10
Tetrachloroethene	-			10 U	ug/l	10	-			10 U	ug/l	10
Toluene	-			10 U	ug/l	10	-			10 U	ug/l	10
1,1,2,2-Tetrachloroethane	-			10 U	ug/l	10	-			10 U	ug/l	10
Chlorobenzene	-			10 U	ug/l	10	-			10 U	ug/l	10
Ethylbenzene	-			10 U	ug/l	10	-			10 U	ug/l	10
Styrene	-			10 U	ug/l	10	-			10 U	ug/l	10
Xylenes (total)	-			10 U	ug/l	10	-			10 U	ug/l	10
CLP SEMIVOLATILES 90-SOW												
Phenol	10 U	ug/l	10	-			10 U	ug/l	10	-		
bis(2-Chloroethyl) ether	10 U	ug/l	10	-			10 U	ug/l	10	-		
2-Chlorophenol	10 U	ug/l	10	-			10 U	ug/l	10	-		
1,3-Dichlorobenzene	10 U	ug/l	10	-			10 U	ug/l	10	-		
1,4-Dichlorobenzene	10 U	ug/l	10	-			10 U	ug/l	10	-		

NAS CECIL FIELD
SURFACE WATER / SEDIMENT

Lab Sample Number:	90050002				70383-2				90050001				70383-1			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	STCSW3				STCSW3				STCSW4				STCSW4			
Collect Date:	22-JUN-93				22-JUN-93				22-JUN-93				22-JUN-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
1,2-Dichlorobenzene	10	U	ug/l	10	-				10	U	ug/l	10	-			
2-Methylphenol	10	U	ug/l	10	-				10	U	ug/l	10	-			
2,2-oxybis(1-Chloropropane)	10	U	ug/l	10	-				10	U	ug/l	10	-			
4-Methylphenol	10	U	ug/l	10	-				10	U	ug/l	10	-			
N-Nitroso-di-n-propylamine	10	U	ug/l	10	-				10	U	ug/l	10	-			
Hexachloroethane	10	U	ug/l	10	-				10	U	ug/l	10	-			
Nitrobenzene	10	U	ug/l	10	-				10	U	ug/l	10	-			
Isophorone	10	U	ug/l	10	-				10	U	ug/l	10	-			
2-Nitrophenol	10	U	ug/l	10	-				10	U	ug/l	10	-			
2,4-Dimethylphenol	10	U	ug/l	10	-				10	U	ug/l	10	-			
bis(2-Chloroethoxy) methane	10	U	ug/l	10	-				10	U	ug/l	10	-			
2,4-Dichlorophenol	10	U	ug/l	10	-				10	U	ug/l	10	-			
1,2,4-Trichlorobenzene	10	U	ug/l	10	-				10	U	ug/l	10	-			
Naphthalene	10	U	ug/l	10	-				10	U	ug/l	10	-			
4-Chloroaniline	10	U	ug/l	10	-				10	U	ug/l	10	-			
Hexachlorobutadiene	10	U	ug/l	10	-				10	U	ug/l	10	-			
4-Chloro-3-methylphenol	10	U	ug/l	10	-				10	U	ug/l	10	-			
2-Methylnaphthalene	10	U	ug/l	10	-				10	U	ug/l	10	-			
Hexachlorocyclopentadiene	10	U	ug/l	10	-				10	U	ug/l	10	-			
2,4,6-Trichlorophenol	10	U	ug/l	10	-				10	U	ug/l	10	-			
2,4,5-Trichlorophenol	25	U	ug/l	25	-				25	U	ug/l	25	-			
2-Chloronaphthalene	10	U	ug/l	10	-				10	U	ug/l	10	-			
2-Nitroaniline	25	U	ug/l	25	-				25	U	ug/l	25	-			
Dimethylphthalate	10	U	ug/l	10	-				10	U	ug/l	10	-			
Acenaphthylene	10	U	ug/l	10	-				10	U	ug/l	10	-			
2,6-Dinitrotoluene	10	U	ug/l	10	-				10	U	ug/l	10	-			
3-Nitroaniline	25	U	ug/l	25	-				25	U	ug/l	25	-			
Acenaphthene	10	U	ug/l	10	-				10	U	ug/l	10	-			
2,4-Dinitrophenol	25	U	ug/l	25	-				25	U	ug/l	25	-			
4-Nitrophenol	25	U	ug/l	25	-				25	U	ug/l	25	-			
Dibenzofuran	10	U	ug/l	10	-				10	U	ug/l	10	-			
2,4-Dinitrotoluene	10	U	ug/l	10	-				10	U	ug/l	10	-			
Diethylphthalate	10	U	ug/l	10	-				10	U	ug/l	10	-			
4-Chlorophenyl-phenylether	10	U	ug/l	10	-				10	U	ug/l	10	-			
Fluorene	10	U	ug/l	10	-				10	U	ug/l	10	-			
4-Nitroaniline	25	U	ug/l	25	-				25	U	ug/l	25	-			
4,6-Dinitro-2-methylphenol	25	U	ug/l	25	-				25	U	ug/l	25	-			
N-Nitrosodiphenylamine (1)	10	U	ug/l	10	-				10	U	ug/l	10	-			
4-Bromophenyl-phenylether	10	U	ug/l	10	-				10	U	ug/l	10	-			
Hexachlorobenzene	10	U	ug/l	10	-				10	U	ug/l	10	-			
Pentachlorophenol	25	U	ug/l	25	-				25	U	ug/l	25	-			
Phenanthrene	10	U	ug/l	10	-				10	U	ug/l	10	-			
Anthracene	10	U	ug/l	10	-				10	U	ug/l	10	-			
Carbazole	10	U	ug/l	10	-				10	U	ug/l	10	-			
Di-n-butylphthalate	10	U	ug/l	10	-				10	U	ug/l	10	-			
Fluoranthene	10	U	ug/l	10	-				10	U	ug/l	10	-			
Pyrene	10	U	ug/l	10	-				10	U	ug/l	10	-			
Butylbenzylphthalate	10	U	ug/l	10	-				10	U	ug/l	10	-			
3,3-Dichlorobenzidine	10	U	ug/l	10	-				10	U	ug/l	10	-			
Benzo (a) anthracene	10	U	ug/l	10	-				10	U	ug/l	10	-			
Chrysene	10	U	ug/l	10	-				10	U	ug/l	10	-			
bis(2-Ethylhexyl) phthalate	10	U	ug/l	10	-				10	U	ug/l	10	-			

NAS CECIL FIELD
SURFACE WATER / SEDIMENT

Lab Sample Number:	90050002				70383-2				90050001				70383-1			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	STCSW3				STCSW3				STCSW4				STCSW4			
Collect Date:	22-JUN-93				22-JUN-93				22-JUN-93				22-JUN-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Di-n-octylphthalate	10	U	ug/l	10	-				10	U	ug/l	10	-			
Benzo (b) fluoranthene	10	U	ug/l	10	-				10	U	ug/l	10	-			
Benzo (k) fluoranthene	10	U	ug/l	10	-				10	U	ug/l	10	-			
Benzo (a) pyrene	10	U	ug/l	10	-				10	U	ug/l	10	-			
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10	-				10	U	ug/l	10	-			
Dibenz (a,h) anthracene	10	U	ug/l	10	-				10	U	ug/l	10	-			
Benzo (g,h,i) perylene	10	U	ug/l	10	-				10	U	ug/l	10	-			
CLP PESTICIDES/PCBS 90-SOW																
alpha-BHC	.05	U	ug/l	.05	-				.05	U	ug/l	.05	-			
beta-BHC	.05	U	ug/l	.05	-				.05	U	ug/l	.05	-			
delta-BHC	.05	U	ug/l	.05	-				.05	U	ug/l	.05	-			
gamma-BHC (Lindane)	.05	U	ug/l	.05	-				.05	U	ug/l	.05	-			
Heptachlor	.05	U	ug/l	.05	-				.05	U	ug/l	.05	-			
Aldrin	.05	U	ug/l	.05	-				.05	U	ug/l	.05	-			
Heptachlor epoxide	.05	U	ug/l	.05	-				.05	U	ug/l	.05	-			
Endosulfan I	.05	U	ug/l	.05	-				.05	U	ug/l	.05	-			
Dieldrin	.1	U	ug/l	.1	-				.1	U	ug/l	.1	-			
4,4-DDE	.1	U	ug/l	.1	-				.1	U	ug/l	.1	-			
Endrin	.1	U	ug/l	.1	-				.1	U	ug/l	.1	-			
Endosulfan II	.1	U	ug/l	.1	-				.1	U	ug/l	.1	-			
4,4-DDD	.1	U	ug/l	.1	-				.1	U	ug/l	.1	-			
Endosulfan sulfate	.1	U	ug/l	.1	-				.1	U	ug/l	.1	-			
4,4-DDT	.1	U	ug/l	.1	-				.1	U	ug/l	.1	-			
Methoxychlor	.5	U	ug/l	.5	-				.5	U	ug/l	.5	-			
Endrin ketone	.1	U	ug/l	.1	-				.1	U	ug/l	.1	-			
Endrin aldehyde	.1	U	ug/l	.1	-				.1	U	ug/l	.1	-			
alpha-Chlordane	.05	U	ug/l	.05	-				.05	U	ug/l	.05	-			
gamma-Chlordane	.05	U	ug/l	.05	-				.05	U	ug/l	.05	-			
Toxaphene	5	U	ug/l	5	-				5	U	ug/l	5	-			
Aroclor-1016	1	U	ug/l	1	-				1	U	ug/l	1	-			
Aroclor-1221	2	U	ug/l	2	-				10	U	ug/l	10	-			
Aroclor-1232	1	U	ug/l	1	-				1	U	ug/l	1	-			
Aroclor-1242	1	U	ug/l	1	-				1	U	ug/l	1	-			
Aroclor-1248	1	U	ug/l	1	-				1	U	ug/l	1	-			
Aroclor-1254	1	U	ug/l	1	-				1	U	ug/l	1	-			
Aroclor-1260	1	U	ug/l	1	-				1	U	ug/l	1	-			
CLP METALS AND CYANIDE																
Aluminum	292		ug/l	200	-				369		ug/l	200	-			
Antimony	20.2	U	ug/l	60	-				20.2	U	ug/l	60	-			
Arsenic	1.7	UJ	ug/l	10	-				1.7	UJ	ug/l	10	-			
Barium	18.5	J	ug/l	200	-				17.6	J	ug/l	200	-			
Beryllium	.23	U	ug/l	5	-				.23	U	ug/l	5	-			
Cadmium	.17	U	ug/l	5	-				.32	J	ug/l	5	-			
Calcium	10800		ug/l	5000	-				10100		ug/l	5000	-			
Chromium	2.5	U	ug/l	10	-				2.5	U	ug/l	10	-			
Cobalt	4.8	U	ug/l	50	-				4.8	U	ug/l	50	-			
Copper	2.4	J	ug/l	25	-				5	J	ug/l	25	-			
Iron	847		ug/l	100	-				1020		ug/l	100	-			
Lead	1.9	U	ug/l	5	-				2.9	U	ug/l	5	-			
Magnesium	3290	J	ug/l	5000	-				3080	J	ug/l	5000	-			

NAS CECIL FIELD
SURFACE WATER / SEDIMENT

Lab Sample Number:	90050002				70383-2				90050001				70383-1			
Site	CECIL				CECIL				CECIL				CECIL			
Locator	STCSW3				STCSW3				STCSW4				STCSW4			
Collect Date:	22-JUN-93				22-JUN-93				22-JUN-93				22-JUN-93			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Manganese	8	U	ug/l	15	-				9.6	J	ug/l	15	-			
Mercury	.08	U	ug/l	.2	-				.08	U	ug/l	.2	-			
Nickel	9.2	U	ug/l	40	-				9.2	U	ug/l	40	-			
Potassium	393	UJ	ug/l	5000	-				393	UJ	ug/l	5000	-			
Selenium	1.6	U	ug/l	5	-				1.6	U	ug/l	5	-			
Silver	.14	UJ	ug/l	10	-				.14	UJ	ug/l	10	-			
Sodium	5200		ug/l	5000	-				4800	J	ug/l	5000	-			
Thallium	1.3	U	ug/l	10	-				1.3	U	ug/l	10	-			
Vanadium	2.6	U	ug/l	50	-				2.4	U	ug/l	50	-			
Zinc	25.7		ug/l	20	-				25.4		ug/l	20	-			
Cyanide	3	U	ug/l	10	-				3	U	ug/l	10	-			

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE

APPENDIX N

APPENDIX N

PARCC SUMMARY REPORT

PRECISION, ACCURACY, REPRESENTATIVENESS, COMPARABILITY, COMPLETENESS SUMMARY REPORT
OPERABLE UNIT 7
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

FINAL VERSION

NOVEMBER 1994

Table of Contents

1.0 Introduction

2.0 Volatile Organic Compounds

2.1 Precision
2.2 Accuracy
2.3 Representativeness
2.4 Comparability
2.5 Completeness

3.0 Semivolatile Organic Compounds

3.1 Precision
3.2 Accuracy
3.3 Representativeness
3.4 Comparability
3.5 Completeness

4.0 Pesticide and Polychlorinated Biphenyl Organic Compounds

4.1 Precision
4.2 Accuracy
4.3 Representativeness
4.4 Comparability
4.5 Completeness

5.0 Metals and Cyanide

5.1 Precision
5.2 Accuracy
5.3 Representativeness
5.4 Comparability
5.5 Completeness

6.0 Variances in Analytical Performance

7.0 Summary of PARCC Criteria

Appendix A Data QC Tables

Table 1 - Laboratory Analysis Correlation Table
Table 2 - MS/MSD Results
Table 3 - Duplicate Precision
Table 4 - Calibration Summary
Table 5 - Blank Summary
Table 6 - Rejected Data
Table 7 - Pesticides/Polychlorinated Biphenyl Column Response
Table 8 - Metals and Cyanide Samples with Concentrations Greater than 4 Times the Spike Added

Glossary

PARCC	Precision, Accuracy, Representativeness, Comparability, Completeness
NAS	Naval Air Station
OU	Operable Unit
RI	Remedial Investigation
QA/QC	Quality Assurance / Quality Control
USEPA	United States Environmental Protection Agency
DQO	Data Quality Objectives
SDG	Sample Delivery Group
LCS/LCSD	Laboratory Control Sample / Laboratory Control Sample Duplicate
MS/MSD	Matrix Spike / Matrix Spike Duplicate
IDL	Instrument Detection Limit
CRQL	Contract Required Quantitation Limit
CRDL	Contract Required Detection Limit
RPD	Relative Percent Difference
ASTM	American Society for Testing and Materials
VOC	Volatile Organic Compound
SVOC	Semivolatile Organic Compound
PCB	Polychlorinated Biphenyl
ug/kg	Micrograms per Kilogram
mg/kg	Milligrams per Kilogram
%R	Percent Recovery
RRF	Relative Response Factor
%RSD	Percent Relative Standard Deviation
%D	Percent Difference
ug/l	Micrograms per Liter

PRECISION, ACCURACY, REPRESENTATIVENESS, COMPARABILITY,
COMPLETENESS SUMMARY REPORT
OPERABLE UNIT SEVEN
NAVAL AIR STATION, CECIL FIELD
JACKSONVILLE, FLORIDA

1.0 INTRODUCTION

A Remedial Investigation (RI) was conducted at Operable Unit (OU) 7 on the Naval Air Station, Cecil Field. This part of the RI included the collection and analyses of 129 environmental and quality control (QC) samples. Environmental samples were analyzed for volatile organic compounds (VOC), semivolatile organic compounds (SVOC), pesticide and polychlorinated biphenyls (P/PCB), metals and cyanide. These samples were analyzed in accordance with EPA's contract laboratory program 1990 statement of work. The analytical data were evaluated for quality assurance and quality control (QA/QC) based on the following U.S. Environmental Protection Agency (USEPA) guidance documents: *National Functional Guidelines for Organic Data Review,* June 1991 and the *Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses,* July 1988 (functional guidelines).

Quanterra Environmental Services of Canton, Ohio performed 16,331 water, soil, sediment, and quality control chemical analyses. The samples were grouped into sample delivery groups (SDGs) of up to 20 field samples received by the laboratory over a period of up to 14 calendar days. The environmental samples are associated with QA/QC samples designed to document the data quality of the entire SDG or a sub-group of samples within an SDG. Table 1 is a cross reference table listing each OU-7 sample, its associated SDG, and the laboratory that performed the analysis.

This report summarizes the QA/QC evaluation of the data according to precision, accuracy, representativeness, completeness, and comparability (PARCC) relative to the project data quality objectives (DQOs). This report provides a quantitative and qualitative assessment of the data and identifies potential sources of error, uncertainty, and bias that may affect the overall usability.

The PARCC summary report evaluates and summarizes the results of QA/QC data validation for the entire sampling program. Each analytical fraction has a separate section for each of the PARCC criteria. These sections interpret specific QC deviations and their effects on both individual data points and the analyses as a whole. Variances from standard analytical methods are given in Section 6. Section 7 presents a summary of the PARCC criteria by comparing quantitative parameters with acceptability criteria defined in the project DQO's. Qualitative PARCC criteria are also summarized in this section. Section 8 displays data QC

tables summarizing the samples analyzed, all data outside functional guidelines QC criteria, rejected data, pesticide instumental performance information, and concentrations of metals analytes above four times matrix spiking levels.

Precision and Accuracy of Environmental Data

Environmental data quality depends on sample collection procedures, analytical methods and instrumentation, documentation and sample matrix properties. Both sampling procedures and laboratory analysis contain potential sources of uncertainty, error, or bias that affect the overall quality of a measurement. Sample errors may result from incomplete equipment decontamination, inappropriate sampling techniques, homogenization or non-homogenization of samples, improper filtering, and improper preservation. The accuracy of analytical results is dependent on selecting appropriate analytical methods, maintaining equipment properly, and selecting effective laboratory software. The sample matrix also is an important factor in the ability to obtain precise and accurate results.

Environmental and laboratory QA/QC samples assess the effects of sampling procedures and evaluate laboratory derived contaminations, laboratory performance, and matrix effects. QA/QC samples include: trip blanks, equipment rinsate blanks, method blanks, laboratory control samples (LCSs), surrogate spikes, matrix spike/matrix spike duplicates (MS/MSDs), laboratory duplicates, and field duplicates.

Before conducting the PARCC evaluation, the analytical data were validated according to the functional guidelines for organic and inorganic data review (USEPA, 1991; 1988, respectively). Samples not meeting functional guideline acceptance criteria were qualified with a flag, an abbreviation indicating a problem with the data. The following are flags used in data validation.

J <u>Estimated</u> The associated numerical value is an estimated quantity. The analyte was detected but the reported value may not be accurate or precise. The "J" qualification indicates the data fell outside QC limits, but the exceedance was not sufficient to cause rejection of the data. The "J" qualifier is also applied to sample results that are above the method instrument limit (IDL), but are less than the contract required quantitation limit (CRQL) for organic compounds or contract required detection limit (CRDL) for inorganic compounds. It also designates imprecision in low-level inorganic results.

R <u>Rejected</u> The data is unusable (the compound or analyte may or may not be present). Use of the "R" qualifier indicates a significant variance from functional guideline acceptance criteria. Either resampling or reanalysis is necessary to determine the presence or absence of the rejected analyte.

U <u>Undetected</u> Analyses were performed for the compound or analyte, but it was not detected. The associated numerical value is the CRQL for organic compound analyses and the CRDL for inorganic analyses. The "U" designation is also applied to suspected

blank contaminations. The "U" flag is used to qualify any result detected in an environmental sample at a concentration less than 10 times the value of the concentration in any associated blank for common laboratory contaminants and less than 5 times the concentration in any associated blank for all other analytes.

UJ Estimated/Undetected Analyses were performed for the compound or analyte, but it was not detected and the sample quantitation or detection limit is an estimated quantity due to poor accuracy or precision. This qualification is also used to flag possible false negative results in the case where low bias in the analytical system is indicated by low surrogate, internal standard, or other spike recovery.

Once the data are reviewed and qualified according to the functional guidelines, the data set is then evaluated using PARCC criteria. PARCC criteria provide an evaluation of overall data useability. The following is a discussion of PARCC criteria as related to the project DQOs.

Precision is a measure of the agreement or reproducibility of analytical results under a given set of conditions. It is a quantity that cannot be measured directly, but is calculated from percent recovery data. Precision is expressed as the relative percent difference (RPD):

$$RPD = ((D1-D2)/(1/2\ (D1+D2))) \times 100$$

Where D1 and D2 are the reported concentrations for sample and duplicate analyses. Precision is primarily assessed by calculating an RPD from the percent recoveries of the spiked compounds for each sample in the MS/MSD pair. In the absence of an MS/MSD pair, two LCSs are spiked and analyzed in each analytical SDG as an alternative means of assessing precision. An additional measure of sampling precision was obtained by collecting and analyzing field duplicate samples, which were compared using RPD calculations and other precision evaluation criteria.

MS and MSD samples, consisting of split organic samples usually collected in separate containers during the field sampling event, are spiked by the laboratory with target analytes prior to preparation and analysis. These samples measure the overall efficiency of the analytical method in recovering target analytes from an environmental matrix. An LCS is similar to an MS/MSD sample in that the LCS is spiked with the same target analytes prior to preparation and analysis. However, the LCS is prepared using a controlled interference-free matrix instead of a field sample aliquot. Laboratory reagent water is used to prepare aqueous LCS. Non-aqueous LCSs are prepared using media approved by the American Society for Testing and Materials (ASTM) for their homogeneity. The LCS measures laboratory efficiency in recovering target analytes from either a solid or aqueous matrix in the absence of matrix interferences.

In inorganics analysis, one matrix spike sample is analyzed accompanied by an unspiked laboratory duplicate. The data reviewer compares the reported results of the original analysis

and the laboratory duplicate, then calculates RPDs, which are used to assess laboratory precision.

Laboratory and field sampling precision are further evaluated by calculating RPDs for field sample duplicate pairs. The sampler collects two field samples at the same location and under identically controlled conditions. The laboratory then analyzes the samples under identical conditions. With the exception of volatile organic compound (VOC) samples, field duplicate sample pairs are homogenized in the field before being placed in separate sample containers. VOC field duplicate sample pairs are discrete samples collected at the same time.

Possible causes of poor precision include sample heterogeneity, improper sample collection or handling, inconsistent sample preparation, and improper instrument use. Field duplicate RPDs are evaluated only when a compound is detected above the CRQL or CRDL, resulting in fewer RPD data pairs available for evaluation as compared to spike samples such as LCS or MS/MSD. The information obtained from field duplicate samples is of substantial value because the samples may not be affected by problems in the analytical system associated with the spiking of a sample matrix (particularly solid matrices).

An RPD outside the numerical QC limit in either MS/MSD samples or LCS duplicates indicates imprecision. Imprecision is the variance in the consistency with which the laboratory arrives at a particular reported result. Thus, the actual analyte concentration may be higher or lower than the reported result.

Accuracy is a measure of the agreement of an experimental determination and the true value of the parameter being measured. It is used to identify bias in a given measurement system. Recoveries outside acceptable QC limits may be caused by factors such as instrumentation, analyst error, or matrix interference. Accuracy is assessed through the analysis of MS, MSD, LCS, and samples containing surrogate spikes. Surrogate spikes are either isotopically labeled compounds or compounds that are not typically detected in the samples. Surrogate spikes are added to every blank, environmental sample, MS/MSD, and standard, for volatile organics (VOC), semivolatile organics (SVOC), pesticide, and polychlorinated biphenyl (PCB) analyses. Accuracy of inorganic analyses is determined using the percent recoveries of MS and LCS analyses alone.

Percent recovery (%R) is calculated using the following equation:

$$\%R = ((A-B)/C) \times 100$$

where A = measured concentration in the spiked sample,
B = measured concentration of the spike compound in the unspiked sample, and
C = concentration of the spike.

The percent recovery of each analyte spiked in MS/MSD samples, LCS samples, and surrogate compounds added to environmental samples is compared with the acceptance

criteria specified by the functional guidelines (USEPA, 1991; 1988, respectively). Spike recoveries outside the acceptable QC accuracy limits provide an indication of bias, where the reported data may overestimate or underestimate the actual concentration of compounds detected or quantitation limits reported for environmental samples.

Representativeness is a qualitative parameter that expresses the degree to which the sample data are characteristic of a population. It is evaluated by reviewing the QC results of blank samples. Positive detections of compounds in the blank samples identify compounds that may have been introduced into the samples during sample collection, transport, preparation, or analysis.

The QA/QC blanks collected and analyzed for organic analysis are: method blanks, equipment rinsate blanks, and trip blanks. A method blank is a laboratory grade water or solid matrix that contains the method reagents and has undergone the same preparation and analysis as the environmental samples. The method blank provides a measure of the combined contamina-tion derived from the laboratory source water, glassware, instruments, reagents, and sample preparation steps. Method blanks are prepared for each sample of a similar matrix extracted by a similar method at a similar concentration level.

Equipment rinsate blanks consist of analyte-free water poured over or through the sample collection equipment. The water is collected in a sample container for laboratory analysis. These blanks are collected after the sampling equipment is decontaminated, and measure efficiency of the decontamination procedure. Equipment rinsate blanks were collected and analyzed for all target analytes.

Trip blanks are blanks used to identify possible volatile organics contamination introduced into the sample during transport. A trip blank is a sample bottle filled in the laboratory with reagent-grade water and preserved to a pH less than 2 with hydrochloric acid. It is transported to the site, stored with the sample containers, and returned unopened to the laboratory for analysis. Trip blanks were included in each cooler containing VOC samples.

In inorganics analysis, equipment or rinsate blanks, preparation blanks, and initial and continuing calibration blanks measure analyte artifacts and baseline shift. A preparation blank is a laboratory grade water or solid matrix that contains all the reagents and is carried through the sample preparation process. A preparation blank is prepared and analyzed with each inorganic SDG preparation assess contamination from laboratory reagents, glassware, source water, and preparation procedures.

Initial and continuing calibration blanks consist of acidified laboratory grade water that is injected at the beginning and at a regular frequency during each 12 - hour sample analysis run. These blanks estimate residual contaminants from the previous sample or standards analysis and measure baseline shifts that commonly occur in emission and absorption spectroscopies.

Contaminants found in both the environmental sample and a blank sample are assumed to be laboratory artifacts if the concentaration in the environmental samle is less than 5 times the blank value for regular target analytes or 10 times the blank value common laboratory contaminants.

Comparability is a qualitative expression of the confidence with which one data set may be compared to another. It provides an assessment of the equivalence of the analytical results to data obtained from other analyses. It is important that data sets be comparable if they are used in conjunction with other data sets. The factors affecting comparability include the following: sample collection and handling techniques, matrix type, and analytical method. If these aspects of sampling and analysis are carried out according to standard analytical procedures, the data are considered comparable. Comparability is also dependent upon other PARCC criteria, because only when precision, accuracy, and representativeness are known can data sets be compared with confidence.

Completeness is defined as the percentage of acceptable measurements compared to the total number of measurements made. Completeness is evaluated to determine if an acceptable amount of useable data were obtained so that a valid scientific site assessment can be completed. Completeness equals the total number of analytes for each fraction minus the total number of rejected analytes divided by the total number of analytes multiplied by 100. As specified in the project DQOs, the goal for completeness for target analytes in each analytical fraction is 96 percent.

Percent completeness is calculated using the following equation:

$$\%C = ((T - R)/T) \times 100$$

where
% C = percent completeness,
T = total number of analytes, and
R = total number of rejected analytes.

The following sections present a review of QC data for each analytical method.

2.0 VOLATILE ORGANIC COMPOUNDS

A total of 113 samples were analyzed for VOCs. The samples were divided into 6 separate SDGs. This chapter discusses the QA/QC supporting documentation as defined by the PARCC criteria and evaluated based on the DQOs.

2.1 Precision

MS/MSD and field duplicate samples were used to assess precision. MS/MSD samples were analyzed in all SDGs. Only soil MS/MSDs were analyzed in SDGs WA031, WA032 and WA033 as the SDGs consisted of soil samples only. Only water MS/MSDs were analyzed in SDGs WA026, WA028 and WA030 as the SDGs consisted of water samples only.

SDGs WA026, WA028, WA030, WA031, and WA032 contained field sample duplicate pairs, which provided an additional measure of precision. WA033 did not contain field sample duplicate pairs. SDGs with duplicate sample pairs were evaluated for precision with the understanding that these results may not be representative of concentrations found in the other samples within the SDG.

2.1.1 MS/MSD Samples

The functional guidelines establishes RPD QC limits for MS/MSD samples as follows:

Compound	Soil RPD	Water RPD
1,1-Dichloroethene	22	14
Trichloroethene	24	14
Benzene	21	11
Toluene	21	13
Chlorobenzene	21	13

There were no VOC RPD exceedances noted in the 6 SDGs. These results represent good precision attained for both water and soil matrices.

2.1.2 Duplicate Samples

Duplicate sample pairs were analyzed with SDGs WA031 and WA032 for soil only. SDGs WA026, WA028 and WA030 were analyzed for water duplicates only. SDG WA033 contained no field duplicate samples. The duplicate sample results are presented in Table 2-2. Precision calculations were performed on analytes that exceeded CRQL in both the sample and duplicate. The following compounds were detected in the field duplicates outside functional guideline limits:

SDG No.	Duplicate Nos.	Compound	RPD (ug/kg)
WA030	CF16MW10S / CF16MW10SD	1,1,1-trichloroethene	87
		1,2-dichloroethene (total)	41

The RPDs for the one field duplicate pair did not meet the 30 percent RPD limit for water samples for results above the CRQL. Positive results in SDG WA030 are considered moderately imprecise. These were the only exceedances in the 5 SDGs containing field duplicates. There were few positive results detected in the field duplicate pairs.

2.1.3 Conclusion

The MS/MSD analytical results, which were 100 percent compliant with functional guideline QC criteria, indicate an acceptable level of sample collection and analytical precision was attained. The information provided by the field duplicate samples is limited because few calculable RPDs were available. If a precision problem exists with negative results, it is confined to the concentration range at or below the IDL, and is generally below the concentration range of concern to the data user. It is essential for negative results to be carefully evaluated for low biases. Low biases can result in an analyte being present in the sample and not being detected (false negatives).

2.2 Accuracy

The percent recovery results of MS/MSDs and surrogate spikes are used to assess accuracy. MS/MSD recovery results are presented in Table 2. As previously stated, only soil MS/MSDs were analyzed in SDGs WA031 and WA032. Only water MS/MSDs were analyzed in SDGs WA026, WA028 and WA030. Assessment of accuracy was made by calculating the percent recoveries of the five spiking compounds: 1,1-dichloroethene, trichloroethene, benzene, toluene, and chlorobenzene.

2.2.1 MS/MSD Samples

All %R values for the MS/MSD samples met functional guidelines recovery criteria in the 6 SDGs. The results indicate that a high degree of accuracy was attained.

2.2.2 Surrogate Spikes

Three surrogate compounds were added by the laboratory to each environmental QA/QC sample submitted for VOC analysis. The VOC surrogate spike compounds were bromofluorobenzene, 1,2-dichloroethane-d4, and toluene-d8. Bromofluorobenzene is not a target compound and 1,2-dichloroethane-d4 and toluene-d8 are isotopically labeled target compounds. The use of these compounds as surrogates enables the laboratory to separate the surrogates from compounds of interest and to accurately calculate recoveries. Surrogate spike

recoveries for VOC analyses were compared to the QC criteria in the USEPA functional guidelines, as follows:

Surrogate	Solid Matrix (percent)	Aqueous Matrix (percent)
Toluene-d8	84-138	88-110
Bromofluorobenzene	59-113	86-115
1,2-Dichloroethane-d4	70-121	76-114

Of the 378 surrogate percent recoveries evaluated, only two were outside the QC limits. These results do not suggest an analytical trend detrimental to accuracy.

2.2.3 Initial and Continuing Calibration

Initial and continuing calibration results provide another means of evaluating accuracy within a particular SDG. Relative response factor (RRF), percent relative standard deviation (%RSD), and percent difference (%D) are the three major parameters used to measure the effectiveness of instrument calibration. RRF is a measure of the relative spectral response of an analyte compared to its internal standard. %RSD is an expression of the linearity of instrument response. %D is a comparison of a continuing calibration instrumental response with its initial response. The most critical of the three calibration parameters, RRF, has the potential to affect data accuracy across an SDG when it is outside acceptable QC limits. %RSD and %D exceedances suggest more routine instrumental anomalies, which typically affect only samples with positive results for the compounds with exceeded %RSDs or %Ds and were run within the particular analytical window in which the exceedances occurred.

There were RRF exceedances for 2-hexanone in SDGs WA026 and WA031. Five 2-hexanone RRFs were below the 0.050 QC limit in these 2 SDGs. There were also exceedances for 4-methyl-2-pentanone in SDG WA026. Two RRFs were below the 0.050 QC limit in this SDG. 2-Hexanone and 4-metyhyl-2-pentanone in these SDG's are biased low. All negative results for these compounds in the affected calibration runs were rejected by the validator. Positive results were flagged as estimated. Negative results for these compounds in the affected samples may be false negatives. Positive results are likely much higher than reported. These results do not represent a systematic analytical problem because six of seven low RRFs were found in SDG WA026. The particular results in SDG WA026 do indicate a problem with instrument sensitivity to these two compounds under the conditions in which the SDG was analyzed.

There were %RSDs or %Ds outside functional guidelines criteria in all 6 SDGs. The %RSD and %D QC limit exceedances and the samples and target analytes affected by these exceedances are given in Table 2. The %RSD and %D exceedances may create a bias in the data relative to the other calibration information generated, but it is not evident that an absolute quantifiable bias exists in the data. The data user should, for this reason, regard the qualified

results as imprecise rather than inaccurate. The %RSDs and %Ds that exceeded the QC criteria do not suggest any systematic analytical problems with either accuracy or precision.

2.2.4 Conclusion

The QA/QC data suggest a high level of accuracy was attained in the analyses, except for some analyses of the compounds 2-hexanone and 4-methyl-2-pentanone. The MS/MSD and surrogate recovery data suggest that matrix interferences had a minimal effect on accuracy. Interferences were not observed. The low RRFs for 2-hexanone and 4-methyl-2-pentanone indicate in a significant low bias for these compounds in the 2 SDGs with low RRF's.

2.3 Representativeness

Method blanks, equipment or rinsate blanks and trip blanks were collected and analyzed for VOCs to evaluate representativeness. The results of the QA/QC blank analyses are presented in Table 5. Methylene chloride and acetone were detected in the various QA/QC blanks. The highest detected concentration for an individual target analyte in any of the three types of QA/QC blanks was used for data qualification.

If contaminants were detected in a blank, corrective actions were made for the chemical analytical data during data validation. The corrective action consisted of amending the laboratory reported results for organic analytes based on the following criteria. The validation qualifier codes used in the blank summary tables are described below.

> CRQL Validation Qualifier If a sample result for the blank contaminant was less than the CRQL and less than 5 times the blank value for regular target compounds or 10 times the blank value for common laboratory contaminants (the blank action level), the sample result was rejected and amended as non-detected at the CRQL for the target compound.
>
> U Validation Qualifier If a sample result for the blank contaminant was greater than the sample CRQL and less than the blank action level, the sample result for the blank contaminant was amended as a negative at the concentration reported in the sample results.
>
> No Action (NA) If a sample result for the blank contaminant was greater than the blank action level, the result was not amended.

The following presents a description of VOCs detected in method blanks, equipment rinsate blanks, and trip blanks. Corrective actions made for target analytes detected in the environmental samples are described by SDG in Table 5.

2.3.1 Method Blanks

Method blank samples were analyzed with each SDG that was analyzed for VOCs to identify target compounds that may have been introduced through the sample preparation and analytical instrumentation. Acetone was detected in the method blanks for SDG WA031 at a concentration range between 2 ug/L and 9 ug/L.

2.3.2 Equipment Rinsate Blanks

Equipment or rinsate blank samples are used to evaluate target analytes that may have been introduced by the sampling equipment or laboratory handling of the samples. Acetone was detected in the equipment rinsate blank for SDG WA028 at a concentration of 28 ug/L. Methylene chloride was detected in the equipment rinsate blank for SDG WA028 at a concentration of 2 ug/L.

2.3.3 Trip Blanks

Trip blanks were placed in each cooler containing field VOC water or soil samples. Trip blanks are QA/QC samples used to identify possible sampling artifacts originating from storage, shipping, or site conditions. Acetone was detected in the trip blanks for SDGs WA030 and WA032 at a concentration range between 11 ug/L and 13 ug/L.

2.3.4 Conclusion

The target analytes detected in the QA/QC blanks routinely occur at comparable concentrations in laboratory analysis. The analytical results are considered to be representative. The application of the blank qualification rule does have implications on the completeness of the analytical data, however, which is discussed below.

2.4 Comparability

The laboratory used standard analytical methods for all of the analyses. In all cases, the method detection limits attained were below the contract required quantitation limits. The comparability of the data is regarded as acceptable. Some samples were qualified due to low-level blank contamination (as discussed in Section 2.3), which raised the effective detection limits for the suspected blank contaminants in those samples.

2.5 Completeness

The completeness level attained for project volatile organic field samples was 99.0 percent. This percentage was calculated as the total number of accepted data points divided by the total number of samples collected multiplied by 100. There were 38 data points rejected due to QC limit exceedances. These rejections are given in Table 6. Other data were qualified as "estimated" for various reasons. The remaining data were found to be acceptable.

Another type of data qualification affecting data completeness is the application of functional guidelines blank validation rules. When samples are qualified due to contamination in an associated blank, a "5 times" or "10 times" action limit is set such that sample results below the action limit are flagged as "undetected" for the particular compound in question. This flagging procedure effectively rejects the concentration range between zero and the initial reported result, which becomes the new detection limit. It is possible that the levels of blank contamination detected could eliminate data in a necessary concentration range in some instances. In these cases, more data are needed to verify the existence of the compound in question at the site below the revised detection limit.

3.0 SEMIVOLATILE ORGANIC COMPOUNDS

A total of 98 water and soil samples were analyzed for SVOCs. The samples were divided into 6 separate SDGs. This chapter discusses the QC supporting documentation as defined by the PARCC criteria and evaluated based on the DQOs.

3.1 Precision

MS/MSD and field duplicate samples were used to assess precision. MS/MSD samples were analyzed in all SDGs. Only soil MS/MSDs were analyzed in SDGs WA031, WA032 and WA033 as the SDGs consisted of soil samples only. Only water MS/MSDs were analyzed in SDGs WA026, WA028 and WA030 as the SDGs consisted of water samples only.

Assessment of precision was made by calculating the RPDs of 11 spiking compounds: phenol, 2-chlorophenol, 1,4-dichlorobenzene, n-nitroso-di-n-propylamine, 1,2,4-trichlorobenzene, 4-chloro-3-methylphenol, acenaphthene, 4-nitrophenol, 2,4-dinitrotoluene, pentachlorophenol, and pyrene.

SDGs that contained duplicate sample pairs were evaluated for precision with the understanding that results of the duplicate sample pairs may not be representative of concentrations found in the other samples within the SDG.

3.1.1 MS/MSD Samples

The functional guidelines establish RPD QC criteria for MS/MSD samples as follows:

Compound	Soil RPD	Water RPD
Phenol	35	42
2-Chlorophenol	50	40
1,4-Dichlorobenzene	27	28
n-Nitroso-di-n-propylamine	38	38
1,2,4-Trichlorobenzene	23	28
4-Chloro-3-methylphenol	33	42
Acenaphthene	19	31
4-Nitrophenol	50	50
2,4-Dinitrotoluene	47	38
Pentachlorophenol	47	50
Pyrene	36	31

MS/MSD analytical results for all SDGs and analyses are presented in Table 2. There were no RPD exceedances noted in the six SDGs. This indicates that no matrix-related precision problems exist in the analysis of the compounds in the 6 SDGs.

3.1.2 Duplicate Sample Pairs

Duplicate sample pairs were analyzed with SDGs WA031 and WA032 for soil matrices and SDGs WA026, WA028 and WA030 for water samples only. SDG WA033 contained no field duplicate samples. There were no RPD results outside QC limits for the 5 SDGs. The results suggest that acceptable precision was attained. Few positive results were detected in the field duplicate pairs. The consistency observed in the non-detect sample results suggests that any lack of precision is less than the IDL in the absence of a low bias.

3.1.3 Conclusion

Both the MS/MSD and the field duplicate results indicate good precision was attained in all SDGs. The low number of detections in the samples suggest that any precision problems are largely confined to the concentration range at or below the IDL, which is generally below the concentration range of concern to the dater user.

3.2 Accuracy

The %R results of MS/MSDs and surrogate spikes are used to assess accuracy. MS/MSD recovery results are presented in Table 2. As previously stated, SDGs WA031, WA032 and WA033 included soil only, and SDGs WA026, WA028 and WA030 contained water only. Assessment of accuracy was made by calculating the percent recoveries of the 11 spiking compounds listed in subsection 3.1.1.

3.2.1 MS/MSD Samples

The %R values for the MS/MSD samples listed below exceeded the functional guidelines recovery criteria:

SDG No.	Compound	Matrix	% R MS/MSD	Recovery Limits (%)
WA028	4-chloro-3-methylphenol	Water	116/131	23-97
	4-nitrophenol	Water	*/83	10-80
	2,4-dinitrotoluene	Water	*/100	24-96
	pentachlorophenol	Water	120/125	9-103
WA030	4-nitrophenol	Water	95/92	10-80
	2,4-dinitrotoluene	Water	*/98	24-96
	Pentachlorophenol	Water	133/147	9-103
WA032	4-chloro-3-methylphenol	Soil	104/104	26-103
	2,4-dinitrotoluene	Soil	94/100	28-89
	pentachlorophenol	Soil	111/*	17-109
WA033	pentachlorophenol	Soil	*/110	17-109

*These replicates met QC criteria.

Of the 154 MS/MSD analyses run in the semivolatile fraction, none were below QC limits and seventeen (11 percent) exceeded QC limits. A notable number of exceedances above the QC limits (21) occured in SDGs WA028, WA030 and WA032. A high bias is indicated in the associated data for the particular compounds with high recoveries. The high recoveries do not suggest an analytical trend.

3.2.2 Surrogate Spikes

Eight surrogate compounds were added by the laboratory to each environmental and QA/QC sample submitted for SVOC analysis. Surrogate spike recoveries for SVOC analyses were compared to the QC criteria in the functional guidelines as follows:

Surrogate	Solid Matrix (percent)	Aqueous Matrix (percent)
nitrobenzene-d5	23 to 120	35 to 114
2-fluorobiphenyl	30 to 115	43 to 116
terphenyl-d14	18 to 137	33 to 141
phenol-d6	24 to 113	10 to 94
2-fluorophenol	25 to 121	21 to 100
2,4,6-tribromophenol	19 to 122	10 to 123
2-chlorophenol-d4	20 to 130	33 to 110
1,2-dichlorobenzene-d4	20 to 130	16 to 110

2-Fluorobiphenyl, terphenyl-d14, 2-fluorophenol, and 2,4,6-tribromophenol are not target compounds; nitrobenzene-d5, phenol-d6, 2-chlorophenol-d4, and 1,2-dichlorobenzene-d4 are isotopically labeled target compounds. The use of these compounds as surrogates enables the laboratory to separate the surrogates from compounds of interest and to accurately calculate recoveries. Of the 808 surrogate %Rs evaluated, 9 (1.1 percent) were outside QC limits. Surrogate recovery exceedances in SDG WA028 accounted for the majority (5) of that amount. The surrogate results do not suggest an analytical trend.

3.2.3 Initial and Continuing Calibration

The %RSD and %D QC criteria exceedances and the analytes flagged based on those exceedances are given in Table 4. There were no RRF exceedances in any SDG for any target analyte, however, there were %RSDs and %Ds outside functional guidelines QC criteria. The %RSD and %D QC exceedances create a bias in the data relative to the other calibration information generated. It is not evident, however, that an absolute bias in the data exists. The data user should, for this reason, regard the qualified results imprecise rather than inaccurate. The %RSDs and %Ds that exceeded QC criteria do not suggest any systematic analytical problems with either accuracy or precision.

3.2.4 Conclusion

The QC data from the MS/MSD results do not suggest that any significant accuracy problems exist in the six SDGs. Surrogate spike recoveries and initial and continuing calibrations do not indicate any further systematic problems.

3.3 Representativeness

Method blanks and equipment rinsate blanks were analyzed for SVOCs to evaluate representativeness. These results are presented in Table 2. Di-n-butylphthalate, bis(2-ethylhexyl)phthalate, diethylphthalate and butylbenzylphthalate were detected at low levels in the various blanks. When more than one contaminated blank was associated with a given sample, only the highest detected concentration for an individual target analyte in any associated QC blank was used for qualification.

If contaminants were detected in a blank, corrective actions were made for the chemical analytical data during data validation. The corrective action consisted of amending the laboratory reported results for organic analytes based on the following criteria. The validation qualifier codes used in the blank summary tables are described below.

> CRQL Validation Qualifier. If a sample result for the blank contaminant was less than the CRQL and less than 5 times the blank value for regular target compounds or 10 times the blank value for common laboratory contaminants (the blank action level), the sample result was rejected and amended as negative at the CRQL for the target compound.
>
> U Validation Qualifier. If a sample result for the blank contaminant was greater than the sample CRQL and less than the blank action level, the sample result for the blank contaminant was amended as a negative at the concentration reported in the sample results.
>
> No Action (NA). If a sample result for the blank contaminant was greater than the blank action level, the result was not amended.

The following presents a description of SVOCs detected in method blanks and equipment or rinsate blanks. Corrective actions made for target analytes detected in the environmental samples are described for each SDG in Table 2.

3.3.1 Method Blanks

Method blank samples were analyzed with each SDG to identify compounds that may have been introduced through the analytical instrumentation or sample preparation. Di-n-butylphthalate was detected in the method blanks for SDGs WA026, WA030, WA031, WA032 and WA033 at concentration ranges of 62 ug/kg to 320 ug/kg and 0.6 ug/L to 2.0 ug/L. Bis(2-ethylhexyl)

phthalate was detected in the method blanks for SDGs WA030, WA031, and WA032 at a concentration range between 29 ug/kg and 66 ug/kg and at 0.5 ug/L. Butylbenzylphthalate was detected in the method blank for WA026 at 0.5 ug/L. Diethylphthalate was detected in the method blank for WA033 at a concentration of 23 ug/kg.

3.3.2 Equipment Rinsate Blanks

The equipment rinsate blank samples are used to evaluate target analytes that may have been introduced by the sampling equipment or laboratory handling of the samples. Bis(2-ethyl-hexyl)phthalate was detected at 99 ug/L in the equipment rinsate blank for SDGs WA033.

3.3.3 Conclusion

The target analytes detected in the QC blanks routinely occur at comparable concentrations in laboratory analyses. The analytical results are considered to be representative; however, some of the analytical results were qualified (see Table 5). The application of blank qualification rules affects the completeness of the analytical data. This is discussed in Section 3.5.

3.4 Comparability

The laboratory used standard analytical methods for all of the analyses. In all cases, the method detection limits attained were below the CRQL. The comparability of the data is regarded as acceptable. Some samples were qualified due to low-level blank contamination (as discussed in Section 3.5), which raised the effective detection limits for the suspected blank contaminants in some samples.

3.5 Completeness

The completeness level attained for project SVOC field samples was 100 percent, which met the 96 percent DQO goal. This percentage was calculated as the total number of accepted data points divided by the total number of samples collected multiplied by 100. There were no data points rejected due to QC criteria exceedances. Some data were qualified as "estimated" for various reasons. The remaining data were found to be acceptable.

The application of functional guidelines blank validation rules also affects data completeness. When samples are qualified due to contamination in an associated blank, a "5 times" or "10 times" action limit is set such that sample results below the action limit are flagged as "undetected" for the particular compound in question. This flagging procedure effectively rejects the concentration range between zero and the initial reported result, which becomes the new detection limit. It is possible that the levels of blank contamination detected could eliminate data in a necessary concentration range in some instances. In these cases, more data are needed to verify the existence of the compound in question at the site below the revised detection limit.

4.0 PESTICIDE/POLYCHLORINATED BIPHENYL ORGANIC COMPOUNDS

A total of 101 water and soil samples were analyzed for pesticides and PCB organic compounds. The samples were divided into 6 separate SDGs. This chapter discusses the QC supporting documentation as defined by the PARCC criteria, which are evaluated based on the DQOs. Pesticide and PCB column responses are given in Table 7.

4.1 Precision

MS/MSDs and duplicate sample pairs were used to assess precision. MS/MSD samples were analyzed in all SDGs. Only soil MS/MSD samples were analyzed in SDGs WA031, WA032 and WA033. Only water MS/MSDs were analyzed in SDGs WA026, WA028, and WA030. SDGs WA026, WA028, WA030, WA031 and WA032 contained duplicate sample pairs, which provided an additional measure of precision. SDGs with duplicate sample pairs were evaluated for precision with the understanding that results of the duplicate sample pairs may not be representative of concentrations found in the other samples within the SDG.

4.1.1 MS/MSD Samples

The functional guidelines RPD QC criteria for MS/MSD samples are as follows:

Compound	Soil RPD	Water RPD
Gamma-BHC (lindane)	50	15
Heptachlor	31	20
Aldrin	43	22
Dieldrin	38	18
Endrin	45	21
4,4-DDT	50	27

MS/MSD results for all SDGs are presented in Table 2. A total of 84 MS/MSD analyses were conducted. The following RPD QC exceedance was noted:

SDG No.	Compound	Matrix	RPD	RPD Limit
WA028	gamma-BHC	water	18	15

A high level of precision is indicated in both water and soil matrices. The RPD exceedance in SDG WA028 is regarded as a random anomaly with no appreciable effect on data quality.

4.1.2 Duplicate Sample Pairs

Duplicate sample pairs were analyzed in SDGs WA031 and WA032 for the soil matrix, and SDGs WA026, WA028 and WA030 for the water matrix. SDG WA033 contained no field duplicate samples. All RPD results were within QC limits and represent acceptable precision. The majority of duplicate sample pair analytical results were negative. The consistency observed in the negative results suggests that any lack of precision is less than the IDL in magnitude in the absence of a low bias.

4.1.3 Column Percent Differences

Pesticide/PCB analyses are conducted on a dual column gas chromatography system in which separate compound quantitations are performed on two different columns. The percent difference (%D) is then calculated to assess precision. The equation for %D is:

$$\%D = \frac{C(H) - C(L)}{C(L)} \times 100$$

Where: C(H) = The higher measured concentration on either column
C(L) = The lower measured concentration

%Ds approximate the level of precision attained in the quantitations of single analytes. Lower %Ds indicate higher precision while higher percent differences indicate lower precision. The percent differences for all quantitated compounds are given in Table 7. Column percent differences are specific to the particular analyte quantitated and, as such, do not indicate general analytical trends.

4.1.3 Conclusion

The MS/MSD results indicate that a high level of precision was attained in the associated samples. A low number of detections suggest precision problems are largely confined to the concentration range at or below the IDL, which is generally below the concentration range of concern to the data user. It is essential in the case of negative results to evaluate accuracy, particularly low biases, which could result in target analytes that are actually present being reported as false negatives.

4.2 Accuracy

The percent recovery results of MS/MSDs and surrogate spikes are used to assess accuracy. MS/MSD recovery results are presented in Table 2. MS/MSD samples were analyzed in all SDGs. Only soil MS/MSD samples were analyzed in SDGs WA031, WA032 and WA033. Only water MS/MSDs were analyzed in SDGs WA026, WA028 and WA030. Assessment of accuracy was made by calculating the percent recoveries of the six spiking compounds: alpha-BHC, heptachlor, aldrin, dieldrin, endrin, and 4-4'-DDT.

4.2.1 MS/MSD Samples

Of the 84 MS/MSD analyses run, only one was outside functional guidelines QC criteria. MS/MSD results for all SDGs are presented in Table 2. The following MS/MSD QC exceedance was noted:

SDG No.	Compound	Matrix	%R MS/MSD	QC Limits (percent)
WA026	dieldrin	Water	130/*	56-125

The percent recovery was above the QC criteria for the water MS/MSD in SDG WA026, indicating a high bias. This high bias has the potential to result in false positive detections of target analytes in the same SDG of the same matrix. Because there were no positive detections in the water samples, no false positives could exist. The effect of high bias on negative results is that the reported IDL and CRQL may be slightly higher than the actual IDL or CRQL. This high bias is likely limited to dieldrin only.

4.2.2 Surrogate Spikes

Two surrogate compounds were added by the laboratory to each environmental and QA/QC sample submitted for pesticides and PCB analysis. The surrogate spike compounds were tetrachloro-m-xylene and decachlorobiphenyl. % Rs of these compounds were evaluated on two gas chromatography columns simultaneously as per the CLP 1990 SOW. Surrogate spike recoveries were compared to the QC criteria stipulated in the functional guidelines, which are:

Surrogate	Solid Matrix (percent)	Aqueous Matrix (percent)
tetrachloro-m-xylene	60 to 150	60 to 150
decachlorobiphenyl	60 to 150	60 to 150

At the present time, these QC limits are considered by the SOW to be advisory only. For this project, however, data qualification actions were taken based on exceedances of these criteria. Of the 451 surrogates evaluated, 84 were outside QC limits (18.6 percent). According to the USEPA Statement of Work, the laboratory is not required to reanalyze surrogates outside the limits because they are considered advisory. Samples with high surrogate recoveries were biased high, and positive results in these samples were flagged as estimated. Samples with low surrogate recoveries were biased low; all data (both positive and negative) were flagged as estimated. If surrogate recoveries were below 10 percent, the sample was rejected. The samples that exceeded surrogate recovery limits were qualified accordingly during data validation. It is believed that the surrogate recovery problems are not limited to the individual samples but imply a possible systematic problem with the data overall.

4.2.3 Initial and Continuing Calibration Results

The %RSD exceedances are given in Table 4. One minor exceedance was found in SDG WA032. These results do not suggest a systematic analytical problem related to calibration.

4.2.4 Conclusion

The exceedance for the water MS/MSDs in SDG WA026 could indicate an isolated systematic problem with a matrix effect, instrumental analyses, or sample preparation. No other matrix-related problems are indicated. The large percentage of surrogate recoveries below the QC limits indicates a general problem attaining accuracy in the instrumental analyses.

4.3 Representativeness

If contaminants were detected in a blank, corrective actions were made for the chemical analytical data during data validation. The corrective action consisted of amending the laboratory reported results for organic analytes based on the following criteria. The validation qualifier codes used in the blank summary tables are described below.

> CRQL Validation Qualifier If a sample result for the blank contaminant was less than the CRQL and less than 5 times the blank value (the blank action level), the sample result was rejected and amended as negative at the CRQL for the target compound.
>
> U Validation Qualifier If a sample result for the blank contaminant was greater than the sample CRQL and less than the blank action level, the sample result for the blank contaminant was amended as a negative at the concentration reported in the sample results.
>
> No Action (NA) If a sample result for the blank contaminant was greater than the blank action level, the result was not amended.

The following presents a description of pesticides and PCBs detected in method blanks and equipment or rinsate blanks. Corrective actions made for target analytes detected in the environmental samples are described for each SDG in Table 5.

4.3.1 Method Blanks

Method blank samples were analyzed with each SDG to identify compounds that may have been introduced through the analytical instrumentation or sample preparation. There were no positive detections of any target compound in the method blanks.

4.3.2 Equipment Rinsate Blanks

The equipment or rinsate blank samples are used to evaluate target analytes that may have been introduced by the sampling equipment or laboratory handling of the samples. Heptachlor epoxide was detected in the equipment rinsate blank for SDG WA028 at 0.005 ug/L.

4.3.3 Overall Assessment

The target analyte detected in the QA/QC blanks represents a routine level of contamination typical of laboratory analysis. The analytical results are considered to be representative; however, some of the analytical results were qualified (see Table 5). The application of the blank qualification rules affects completeness of the analytical data.

4.4 Comparability

The laboratory used standard analytical methods for all of the analyses. In all cases, the method detection limits attained were below the CRQL. The comparability of the data is regarded as acceptable. Some samples were qualified due to low-level blank contamination, which raised the effective detection limits for the suspected blank contaminants in those samples.

4.5 Completeness

The completeness level attained for project pesticide and PCB organic field samples was 98.9 percent (31 out of 2,828 were rejected). This percentage was calculated as the total number of accepted data points divided by the total number of samples collected multiplied by 100. The rejected data are given in Table 6. The 96 percent DQO completeness limit was attained.

5.0 METALS AND CYANIDE

A total of 121 water, dissolved metals and soil samples were analyzed for metals and cyanide. The samples were divided into 6 separate SDGs. This section discusses the QC supporting documentation as defined by the PARCC criteria, which are evaluated based on the project DQOs.

5.1 Precision

Metals and cyanide analyses are different from organics analyses in that no matrix spike duplicate sample is evaluated to measure precision. Instead, an unspiked laboratory duplicate is analyzed for each SDG. The two unspiked replicate results are then compared using RPD QC criteria for detections at concentrations at least 5 times the CRDL. The RPD QC criteria for laboratory duplicate samples are 20 percent for the water matrix and 35 percent for soil matrices. The RPD limit for water field duplicates is 30 percent and for soil field duplicate is 60 percent. Analytical values less than 5 times the CRDL are evaluated based on a CRDL standard.

5.1.1 Laboratory and Field Duplicates

The following laboratory and field duplicate results were outside the QC criteria (Table 2).

SDG No.	Analyte	Matrix	RPD	RPD Limit
WA026	aluminum	Water (total)	34	30
WA028	zinc	Water (total)	53	30
WA030	aluminum	Water (total)	79	20
	iron	Water (total)	64	20
	aluminum	Water (Diss.)	47	20
	iron	Water (Diss.)	36	20
WA031	lead	Soil	91	35
WA032	iron	Soil	66	60
	aluminum*	Soil	92	60
	chromium*	Soil	61	60
	iron*	Soil	76	60

*Field Duplicates, set 2

These analytical results and RPD exceedances are typical of inorganics analysis and do not indicate an overall or systematic problem with precision. The data associated with each deviant RPD, however, were flagged as estimated in the data validation process. The samples associated with the above SDGs were qualified as estimated for the same metal of the same matrix within the same SDG as the results listed above. The overall precision of the analytical results was 98.2 percent.

5.2 Accuracy

The percent recovery results of matrix spike samples are used to assess accuracy for the inorganics analyses. Matrix Spike (MS) samples were analyzed for each group of samples of a particular matrix type and for each concentration range within each SDG, as the analytical method requires (SOW ILM02.1, September 1991, p. E-19). MS recovery results are presented in Table 2.

5.2.1 MS Analysis

The matrix spike recovery limits are 75 to 125 percent. However, spike recovery limits do not apply when the sample concentration exceeds the spike concentration by a factor of four or more (these results are presented in Table 8). The following spike recoveries were outside the QC limits:

SDG No.	Analyte	Matrix	Percent Recovery
WA032	mercury	Soil	180
WA033	antimony	Soil	63

These %R values suggest a minimal amount of interference from the sample matrix. On an individual analyte basis inaccuracies were introduced in the environmental samples associated with the above matrix spike samples. The environmental samples were flagged accordingly during data validation.

Results listed above with %Rs exceeding 125 percent suggest a high bias in the data. Positive results for analytes with percent recoveries greater than 125 percent in samples in the same SDG were flagged as estimated. The high percent recovery of mercury in SDG WA032 suggests a strong high bias in results for this analysis. Results listed with recoveries below 75 percent suggest a low bias in the data, and associated positive and negative results were flagged as estimated. The %R exceedances do not suggest a general analytical trend detrimental to accuracy.

5.2.2 Laboratory Control Samples (LCS)

Laboratory Control Samples (LCSs) provide another means to evaluate accuracy within a particular SDG. The LCS serves as a monitor of the overall performance of all steps in the analysis, including the sample preparation. Nine LCSs were processed and analyzed for the 6 SDGs. Of the 217 percent recoveries evaluated, 8 exceeded the 80 to 120 percent QC limits. The acceptability percentage was 96.3 percent.

5.2.3 Initial and Continuing Calibration

All %RSDs and %Ds were within functional guidelines QC limits for each SDG. The %RSD and %D values do not suggest any systematic analytical problems with either accuracy or precision.

5.2.4 Overall Assessment

Overall, the accuracy percentage (laboratory spike recoveries) of the metals results was 97.3 percent, which met the DQO goal of 96 percent.

5.3 Representativeness

Preparation blanks, equipment rinsate blanks, and initial and continuing calibration blanks were analyzed for inorganics to evaluate representativeness. Blank analysis results are presented in Table 5. The highest detected concentration for an individual target analyte in any associated blank was used for data qualification.

If contaminants were detected in a blank, corrective actions were made for the chemical analytical data during data validation. The corrective action consisted of amending the laboratory reported results for inorganic analytes based on the following criteria. The validation qualifier codes utilized in the blank summary tables are described below.

U — Undetected If a sample result for the blank contaminant was less than five times the blank value, the sample result was amended as negative.

UJ — Undetected/Estimated If a sample result for the blank contaminant was less than the sample IDL when the absolute value of the negative blank value was greater than the IDL, the sample result for the blank contaminant was amended as estimated negative.

J — Estimated If a sample result for the blank contaminant was greater than the IDL and less than five times the blank value, when the absolute value of the negative blank value is greater than the IDL the result was amended as estimated at the laboratory reported value.

The following presents a description of analytes detected in the inorganics blanks. Corrective actions made for target analytes detected in the environmental samples are described for each SDG in Table 5.

5.3.1 Preparation Blanks

Preparation blank samples were analyzed with each SDG for inorganics samples to identify target analytes that may have been introduced through the analytical instrumentation or sample preparation. Analytes routinely detected in the preparation blanks are aluminum, calcium, magnesium, sodium and zinc. Preparation blanks are designated "PBW" for water blanks and "PBS" for soil preparation blanks in Table 5.

5.3.2 Equipment Rinsate Blanks

Positive results from the equipment rinsate blank samples identify target analytes that may have been introduced by the sampling equipment or inadequate decontamination procedures. Typically, aluminum, barium, calcium, iron, magnesium, potassium, sodium and zinc were detected in the equipment or rinsate blanks. Equipment rinsate blanks are designated "rinsate" in Table 5.

5.3.3 Initial and Continuing Calibration Blanks

Initial and continuing calibration blanks are used to identify and estimate the effects of carryover contamination and baseline shift. Many analytes were routinely detected in the calibration blanks at low levels including aluminum, barium, calcium, copper, iron, lead, magnesium, manganese, potassium, selenium, sodium, vanadium, and zinc. These detections were not used for implementation of data qualification.

5.3.4 Conclusion

Blank contaminations were detected at concentrations commonly observed in inorganic laboratory analysis. The frequency of these detections, however, was unusually high for the analytical methods used. The data are considered to be representative due to functional guidelines blank qualification. The application of the blank qualification rules does have implications on the completeness of the analytical data, however, which is discussed in Section 5.5.

5.4 Comparability

The laboratory used standard analytical methods for all of the analyses. In all but three cases, the method detection limits attained were below the CRDLs. Some samples were qualified due to blank contamination, which raised the effective detection limits for the suspected blank contaminants in those samples. Otherwise, the comparability of the data is considered acceptable.

5.5 Completeness

The completeness level attained for the project metals and cyanide samples was 99.9 percent (4 out of 2,902 were rejected). This percentage was calculated as the total number of accepted data points divided by the total number of samples collected multiplied by 100. The rejections are given in Table 6. The completeness percentage met the 96 percent DQO goal.

Another type of data qualification having a significant effect on completeness was the application of blank validation qualifiers. When samples are qualified due to contamination in an associated blank, a "5 times" action limit is set such that sample results below the action limit are flagged as "undetected" for the particular analyte in question. This flagging procedure effectively rejects the concentration range between zero and the initial reported result, which becomes the new detection limit. It is possible that the levels of blank contamination detected could eliminate data in a

necessary concentration range in some instances. In these cases, reanalysis is needed to verify the presence of the compound in question at the site below the revised detection limit.

6.0 Variances in Analytical Performance

The laboratory used standard analytical methods for all of the analyses throughout the project. No systematic variances in analytical performance were noted according to the SOW.

The quality of analytical results achieved in the pesticide and PCB fraction throughout the project could have been improved with the reanalysis of samples in SDGs with surrogate recoveries consistently outside QC limits. An inordinantly large number of detections were noted in the inorganics blanks. These detections may have been caused by improper instrument maintanance or adjustment or improper evaluation of instrument parameters.

7.0 Summary of PARCC Criteria

Table 7-1 presents a summary of PARCC criteria for all SDGs. Each PARCC criterion is discussed in detail in the following sections.

Precision

The precision results by analytical fraction were as follows:

Analyses	Precision Acceptability Percentage
VOCs	100
SVOCs	100
Pesticides and PCBs	97.8
Metals and cyanide	98.2
Wet chemistry	100

The overall precision acceptability was 98.5 percent with 4 of 275 RPD QC analyses exceeding the QC criteria. This result met the 96 percent DQO goal.

Accuracy

By analytical fraction accuracy was as follows:

Analyses	Accuracy Acceptability Percentage
VOCs	100
SVOCs	87.7
Pesticides and PCBs	98.8
Metals and cyanide	98.7
Wet chemistry	87.6

The overall accuracy acceptability was 93.6 percent with 37 of 579 percent recovery analyses exceeding the QC limits. This result did not meet the 96 percent DQO goal.

Representativeness

A total of 145 blanks were evaluated with an average of 154 analytes per SDG being evaluated. No blanks exceeded the CRQLs/CRDLs. The representativeness of the project data is considered acceptable after qualification for blank contamination.

Completeness

Data rejections accounted for only 0.4 percent of 16331 total analyses. By analytical fraction completeness for all SDGs is as follows:

Type	Total Analyses	No. of Rejects	% Completeness
VOCs	3,729	38	99.0
SVOCs	6,272	0	100
Pesticides and PCBs	2,828	31	98.9
Metals and cyanide	2,902	4	99.9
Wet chemistry	600	0	100
Total	16,331	73	99.6

The completeness percentage based on rejected data met the 96 percent project DQO goal. A less quantifiable loss of data occurred in the application of blank qualifications. The amount and type of blank qualifications is considered to be unusually high in the inorganics fraction, which led to the loss of many low-level results.

Comparability

Sampling frequency requirements were met in obtaining duplicates and necessary field blanks. The laboratory used standard analytical methods for their analyses. The analytical results were reported in correct standard units. The overall data comparability is considered acceptable.

Table 7-1

Sample Event PARCC Criteria Summary
Operable Unit 2
NAS Cecil Field

SDG	Precision	Accuracy	Representa-tiveness	Complete-ness	Compara-bility
WA026	Acceptable with qualifica-tion	Acceptable with qualifica-tion	Acceptable	Acceptable with qualifica-tion	Acceptable
WA028	Acceptable with qualifica-tion	Acceptable with qualifica-tion	Acceptable	Acceptable	Acceptable
WA030	Acceptable with qualifica-tion	Acceptable with qualifica-tion	Acceptable	Acceptable with qualifica-tion	Acceptable
WA031	Acceptable with qualifica-tion	Acceptable with qualifi-tion	Acceptable	Acceptable with qualifica-tion	Acceptable
WA032	Acceptable with qualifica-tion	Acceptable with qualifica-tion	Acceptable	Acceptable with qualifica-tion	Acceptable

Table 7-1 (Continued)

Sample Event PARCC Criteria Summary

SDG	Precision	Accuracy	Representa-tiveness	Complete-ness	Compara-bility
WA033	Acceptable with qualifica-tion	Acceptable with qualifica-tion	Acceptable	Acceptable	Acceptable

Table 1
LIST OF ENVIRONMENTAL SAMPLES AND SAMPLE DELIVERY GROUP IDENTIFIERS
OPERABLE UNIT 7
NAS CECIL FIELD JACKSONVILLE, FLORIDA

Laboratory Analysis Correlation Table		
SDG Nuamber	Laboratory	Samples
WA026	Wadsworth/Alert Laboratories	CF16MW13S, CF16MW14D, CF16MW15D, CF16MW17S, CF16MW18D, CF16MW21S, CF16MW21SD*, CF16MW23D, CF16MW24S, CF16MW25D, CF16MW26DD, CF16OF, CF16OFF*, CF16SC, CF16SCF*, CF16MW17ST, CF16MW18DT, CF16MW23DT, CF16MW26DDT, CF16MW23DMS, CF16MW23DMSD, CF16MW17SMS, CF16MW17SMD, CF16MW26DDMS, CF16MW26DDMD, CF16MW23DD**, CF16MW23DS**
WA028	Quanterra Environmental Services	CF16MW16D, CF16MW16D C, CF16MW19S, CF16MW19S C, CF16MW22I, CF16MW22I C, CF16MW22I F, CF16MW16DT, CF16MW22IR, CF16MW22IR C, CF16MW22IR F, CF16MW40D, CF16MW40D C, CF16MW40DD, CF16MW40DD C, CF16MW39I, CF16MW39I C, CF16MW38S, CF16MW38S C, CF16MW36I, CF16MW36I C, CF16MW37D, CF16MW37D MS, CF16MW37D MSD, CF16MW37D D, CF16MW37D S, CF16MW37D C, CF16MW37D DC, CF16MW37D SC, CF16MW40DT, CF16MW35S, CF16MW35S C, CF16MW31DD, CF16MW31DD C, CF16MW29S, CF16MW29S C, CF16MW30D, CF16MW30D C, CF16MW35ST
WA030	Quanterra Environmental Services	CF16MW27I, CF16MW27I F, CF16MW28D, CF16MW28D F, CF16MW28DD, CF16MW28DD F, CF16MW32S, CF16MW32S F, CF16MW27IT, CF16MW34DD, CF16MW34DD F, CF16MW33D, CF16MW33D F, CF16MW34DDT, CF16MW33DR, CF16MW33DR F, CF16MW10S, CF16MW10S F, CF16MW10SD, CF16MW10SD F, CF16MW7S, CF16MW7S F, CF16MW11DD, CF16MW11DD D, CF16MW11DD S, CF16MW11DD S, CF16MW11DD F, CF16MW11DD FD, CF16MW11DD FS, CF16MW11DD FS, CF16MW11DD MS, CF16MW11DD MSD, CF16MW10ST, CF16MW5S, CF16M5S F, CF16MW9D, CF16MW9D F, CF16MW12I, CF16MW12I F, CF16MW5ST, CF16MW12IR, CF16MW12IR F, CF16MW20D, CF16MW20D F, CF16MW12IRT
WA031	Wadsworth/Alert Laboratories	CF16SS1R, CF16SS1RF, CF16SS1T, CF16SS1, CF16SS2, CF16SS2MS, CF16SS2MSD, CF16SS2D, CF16SS2S, CF16SS2RE, CF16SS2REMS, CF16SS2REMSD, CF16SS3, CF16SS4, CF16SS5, CF16SS6, CF16SS7, CF16SS8, CF16SS8D, CF16SS9, CF16SS10, CF16SB12S2, CF16SB12S6, CF16SB1S0, CF16SB1S0MS, CF16SB1S0MSD, CF16SB1S0D, CF16SB1S0S, CF16SB1S6, CF16SB2S2, CF16SB2S4, CF16SB3S0

D = DUPLICATE, S,MS = MATRIX SPIKE, M,MSD = MATRIX SPIKE DUPLICATE, F = FILTERED (for Dissolved Metals), RE = REEXTRACTED, DL = DILUTED, C = REDISTILLED (for cyanides)

Table 1 (Cont'd)

Laboratory Analysis Correlation Table		
SDG Nuamber	Laboratory	Samples
WA032	Quanterra Environmental Services	CF16SB3S6, CF16SB4S2, CF16SB4S6, CF16SB5S2, CF16SB5S2D, CF16SB5S6,CF16SB6S2, CF16SB6S4, CF16SB7S2, CF16SB7S2D, CF16SB7S4, CF16SB8S2,CF16SB8S4, CF16SB9S4, CF16SB9S6, CF16SB10S2, CF16SB10S2D, CF16SB10S4, CF16SB6S4RT, CF16SB6S4R, CF16SB4S2MS, CF16SB4S2MSD, CF16SB4S2D*, CF16SB4S2S*
WA033	Quanterra Environmental Services	CF16SB11S2, CF16SB11S2D, CF16SB11S2S, CF16SB11S2MS, CF16SB11S2MSD, CF16SB11S6, CF16SB11S6R, CF16SB11S6RT, CF16SB11S6RF

Table 2
NON-COMPLIANT MATRIX SPIKE/MATRIX SPIKE DUPLICATES
OPERABLE UNIT 7
NAS CECIL FIELD JACKSONVILLE, FLORIDA

MATRIX SPIKE SUMMARY TABLE WA026	UNITS	MS NO. CF16MW23DMS			MSD NO. CF16MW23DMSD			RPD
		UNSPIKED	SPIKED	% R	UNSPIKED	SPIKED	% R	
VOLATILE ORGANIC COMPOUNDS (All criteria were met)		-	-	-	-	-	-	-
SEMIVOLATILE ORGANIC COMPOUNDS (All criteria were met)		-	-	-	-	-	-	-
PESTICIDE/PCB ORGANICS dieldrin * criteria were met	ug/L	0	1.1	110*	0	1.3	130	17*
INORGANICS (All criteria were met)		-	-	-	-	-	-	-

Table 2 (Cont'd)

MATRIX SPIKE SUMMARY TABLE WA028	UNITS	MS No. CF16MW37D MS			MSD No. CF16MW37D MSD			RPD
		UNSPIKED	SPIKED	% R	UNSPIKED	SPIKED	% R	
VOLATILE ORGANIC COMPOUNDS								
(All criteria were met)		-	-	-	-	-	-	-
SEMIVOLATILE ORGANIC COMPOUNDS								
4-chloro-3-methylphenol	ug/L	0	87	116	0	98	131	12
4-nitrophenol	ug/L	0	59	79	0	62	83	5
2,4-dinitrotoluene	ug/L	0	48	96	0	51	102	6
pentachlorophenol	ug/L	0	90	120	0	94	125	4
PESTICIDE/PCB ORGANICS								
gamma-BHC	ug/L	0	0.30	60	0	0.36	72	18
INORGANICS								
(All criteria were met)		-	-	-	-	-	-	-

Table 2 (Cont'd)

MATRIX SPIKE SUMMARY TABLE WA030	UNITS	MS No. CF16MW11DD MS			MSD No. CF16MW11DD MSD			RPD
		UNSPIKED	SPIKED	% R	UNSPIKED	SPIKED	% R	
VOLATILE ORGANIC COMPOUNDS (All criteria were met)		-	-	-	-	-	-	-
SEMIVOLATILE ORGANIC COMPOUNDS								
4-nitrophenol	ug/L	0	71	95	0	69	92	3
2,4-dinitrotoluene	ug/L	0	43	86	0	49	98	13
pentachlorophenol	ug/L	0	100	133	0	110	147	10
PESTICIDE/PCB ORGANICS (All criteria were met)		-	-	-	-	-	-	-
INORGANICS (All criteria were met)		-	-	-	-	-	-	-

Table 2 (Cont'd)

MATRIX SPIKE SUMMARY TABLE WA031	UNITS	MS NO. CF16SB1SO MS			MSD NO. CF16SB1SO MSD			RPD
		UNSPIKED	SPIKED	% R	UNSPIKED	SPIKED	% R	
VOLATILE ORGANIC COMPOUNDS (All criteria were met)		-	-	-	-	-	-	-
SEMIVOLATILE ORGANIC COMPOUNDS (sample CF16SS2)	ug/kg							
phenol		0	2000	69	0	64	2*	189*
2-chlorophenol		0	1900	65	0	18	1*	194*
1,4-dichlorobenzene		0	1200	60	0	340	17*	112*
n-nitroso-di-propylamine		0	1300	65	0	0	0*	200*
1,2,4-trichlorobenzene		0	1400	70	0	480	24*	98*
4-chloro-3-methylphenol		0	2600	90	0	160	5*	179*
acenaphthene		0	1600	80	0	150	7*	168*
4-nitrophenol		0	2500	86	0	0	0*	200*
2,4-dinitrotoluene		0	1800	90*	0	0	0*	200*
pentachlorophenol		0	2700	93	0	0	0*	200*
(* Outside control limits)								
SEMIVOLATILE ORGANIC COMPOUNDS (sample CF16SS2RE) (All criteria were met)		-	-	-	-	-	-	-
SEMIVOLATILE ORGANIC COMPOUNDS (sample CF16SB1S0)	ug/kg							
1,4-dichlorobenzene		0	1200	67	0	1600	89	28*
1,2,4-trichlorobenzene		0	1200	67	0	1700	94	33*
4-chloro-3-methylphenol		0	2300	85	0	2900	107*	23
acenaphthene		0	1400	78	0	1800	100	25*
2,4-dinitrotoluene		0	1600	89	0	1900	105*	16
(* Outside control limits)		-	-	-	-	-	-	-

Table 2 (Cont'd)

MATRIX SPIKE SUMMARY TABLE WA032	UNITS	MS NO. CF16SB4S2 MS			MSD NO. CF16SB4S2 MSD			RPD
		UNSPIKED	SPIKED	% R	UNSPIKED	SPIKED	% R	
VOLATILE ORGANIC COMPOUNDS								
(All criteria were met)		-	-	-	-	-	-	-
SEMIVOLATILE ORGANIC COMPOUNDS								
4-chloro-3-methylphenol	ug/kg	0	2800	104	0	2800	104	*
2,4-dinitrotoluene		0	1700	94	0	1800	100	*
pentachlorophenol		0	3000	111			*	*
* All criteria were met					-	-		
PESTICIDE/PCB ORGANICS								
(All criteria were met)		-	-	-	-	-	-	-
INORGANICS								
mercury	ug/kg	0	1.024	180	-	-	-	-

Table 2 (Cont'd)

MATRIX SPIKE SUMMARY TABLE WA033	UNITS	MS NO. 16SB11S2 MS			MSD NO. 16SB11S2 MSD			RPD
		UNSPIKED	SPIKED	% R	UNSPIKED	SPIKED	% R	
VOLATILE ORGANIC COMPOUNDS								
(All criteria were met)		-	-	-	-	-	-	-
SEMIVOLATILE ORGANIC COMPOUNDS								
1,2,4-trichlorobenzene	ug/kg	0	920	46	0	1200	60	26*
acenaphthene		0	1300	65	0	1700	85	27*
pentachlorophenol		0	2500	86	0	3200	110*	24
*criteria were not met								
PESTICIDE/PCB ORGANICS								
(All criteria were met)		-	-	-	-	-	-	-
INORGANICS								
antimony	ug/kg	0.64	72.9	62.5*	-	-	-	-
*criteria were not met		-	-	-	-	-	-	-

Table 3
COMPARISON BETWEEN FIELD DUPLICATE SAMPLES
OPERABLE UNIT 7
NAS CECIL FIELD JACKSONVILLE, FLORIDA

SOIL AND WATER SAMPLE AND DUPLICATE PRECISION						
SDG NO.	Sample ID	Parameter	Sample ug/L	Duplicate ug/L	RPD	RPD Limit
WA026		Organics (All criteria were met)	-	-	-	-
	CF16MW21S/ CF16MW21SD	Inorganics aluminum	1400	996	34	30

SOIL AND WATER SAMPLE AND DUPLICATE PRECISION						
SDG No.	Sample ID	Parameter	Sample ug/L	Duplicate ug/L	RPD	RPD Limit
WA028		VOLATILE ORGANICS (All criteria were met)	-	-	-	-
		SEMIVOLATILE ORGANICS (All criteria were met)	-	-	-	-
		PESTICIDE/PCB'S (All criteria were met)	-	-	-	-
	CF16MW40D/ CF16MW40DD (Field Dup.)	INORGANICS Zinc	38.8 (ug/L)	22.6 (ug/L)	52.8	30

RDP = Relative Percent Difference
ug/l = Micrograms per Liter
ug/kg = Micrograms per Kilogram
mg/kg = Milligrams per Kilogram

Table 3 (Cont'd)

SOIL AND WATER SAMPLE AND DUPLICATE PRECISION						
SDG No.	Sample ID	Parameter	Sample ug/L	Duplicate ug/L	RPD	RPD Limit
WA030		VOLATILE ORGANICS				
	CF16MW10S CF16MW10SD	1,2-dichloroethene (total)	15000	9900	41	30
		1,1,1-trichloroethane	1700	4300	87	30
		trichloroethene	570	690	19	30
		1,1-dichloroethene	(0)	590	200	30
		SEMIVOLATILE ORGANICS				
		(All criteria were met)	-	-	-	-
		PESTICIDE/PCB'S				
		(All criteria were met)	-	-	-	-
		INORGANICS				
	CF16MW28D F/ CF16MW28DD F	iron	266	184	36.4	30
	CF16MW10S / CF16MW10SD	aluminum	4830	11100	78.7	30
		iron	907	1750	63.5	30
	CF16MW28D F/ CF16MW28DD F (Field Dup.)	aluminum	1440	2330	47.2	30

(0) = This value was not detected

Table 3 (Cont'd)

SOIL AND WATER SAMPLE AND DUPLICATE PRECISION						
SDG NO.	Sample ID	Parameter	Sample ug/kg	Duplicate ug/kg	RPD	RPD Limit
WA031	CF16SS8	VOLATILE ORGANICS				
		1,2-dichloroethene(total)	8	5	46	60
		trichloroethene	70	48	37	60
		SEMIVOLATILE ORGANICS				
		phenanthrene	35	43	21	60
		fluoranthrene	67	70	4	60
		pyrene	43	47	9	60
		butylbenzylphthalate	36	28	25	60
		chrysene	33	36	7	60
		benzo(b)fluoranthrene	47	52	10	60
		benzo(k)fluoranthrene	21	19	10	60
		benzo(a)pyrene	27	31	14	60
		indeno(1,2,3-cd)pyrene	0	18	200	60
		benzo(g,h,i)perylene	18	0	200	60
		PESTICIDE/PCB ORGANICS				
			1.2	1.5	22	60
		heptachlor epoxide	0.8	0.87	8	60
		4,4'-DDE	0	0.42	200	60
		endrin	3.7	9.7	90	60
		4,4'-DDD	23	29	23	60
		alpha-chlordane	27	33	20	60
		gamma-chlordane				
		INORGANICS				
			4920	6980	35	60
		aluminum	5820	4650	20	60
		calcium	9	17	62	60
		chromium	735	942	25	60
		iron	15	39.8	91	60
		lead	8.1	7.2	12	60
		manganese	10.6	15.6	38	60
		zinc				

Tabel 3 (Cont'd)

SOIL SAMPLE AND DUPLICATE PRECISION						
SDG NO.	Sample ID	Parameter	Sample %R	Duplicate %R	RPD	RPD Limit
WA032		Organics				
		(All criteria were met)	-	-	-	-
		Inorganics				
	CF16SB5S2 / D	iron	-	-	66	60
	CF16SB10S2 / D	aluminum	-	-	92	60
	CF16SB10S2 / D	chromium	-	-	61	60
	CF16SB10S2 / D	iron	-	-	76	60

Table 4
INITIAL AND CONTINUING CALIBRATION SUMMARY OF NON-COMPLIANCE
OPERABLE UNIT 7
NAS CECIL FIELD JACKSONVILLE, FLORIDA

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA026	**INITIAL** 7/18/94	**CONTIN-UING** 7/20/94 08:12	**CONTIN-UING** 7/21/94 09:23	**CONTIN-UING** 7/22/94 10:55	**CONTIN-UING**	**CONTIN-UING**
PARAMETER	**% RSD**	**% D**	**% D**	**% D**	**% D**	**% D**
VOLATILE ORGANIC COMPOUNDS						
carbon disulfide	33.0	45.8	30.6	-	-	-
chloromethane	-	44.0	-	-	-	-
2-butanone	-	34.5	27.4	-	-	-
4-methyl-2-pentanone	-	33.8	33.8	31.1	-	-
2-hexanone	-	38.6	40.9	36.4	-	-
QUALIFICATION	J (+)	J (+)	J (+)	J (+)	-	-
SAMPLES AFFECTED	None	None	None	None	-	-

%RSD = Percent Relative Standard Deviation
%D = Percent Difference
J (+) = Estimate All Positive Results

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA026	INITIAL 7/11/94	CONTIN-UING 8/7/94 08:27	CONTIN-UING	CONTIN-UING	CONTIN-UING	CONTIN-UING
PARAMETER	% RSD	% D	% D	% D	% D	% D
SEMIVOLATILE ORGANIC COMPOUNDS						
2,4-dinitrophenol	36.5	-	-	-	-	-
hexachlorocyclopentadiene	-	38.2	-	-	-	-
2-nitroaniline	-	36.1	-	-	-	-
4-nitroaniline	-	25.5	-	-	-	-
QUALIFICATION	J (+)	J (+)	-	-	-	-
SAMPLES AFFECTED	None	None	-	-	-	-

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY				
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA 028	INITIAL 8/2/94	INITIAL 8/9/94	CONTIN-UING 8/3/94	CONTIN-UING
PARAMETER	WATER % RSD	WATER %RSD	WATER %D	%D
VOLATILE ORGANIC COMPOUNDS				
methylene chloride	43.4	-	51.4	-
acetone	58.5	53.5	64.3	-
2-butanone	-	-	47.9	-
2-hexanone	-	-	35.1	-
QUALIFICATION	J (+)	J (+)	J(+)	-
SAMPLES AFFECTED				
methylene chloride	None	None	None	-
acetone	CF16MW16DT	CF16MW35ST	CF16MW37D	-
	CF16MW22IR	-	CF16MW40D	-
	CF16MW37D	-	CF16MW37DMSD	-
	CF16MW40D	-	CF16MW40DT	-
	CF16MW40DT	-	-	-
	CF16MW37DMS	-	-	-
2-butanone	None	None	None	-
2-hexanone	None	None	None	-

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY				
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA028 PARAMETER	INITIAL 7/11/94	CONTIN-UING 8/15/94	CONTIN-UING 8/16/94	CONTIN-UING
	% RSD	% D	% D	% D
SEMIVOLATILE ORGANIC COMPOUNDS				
2,4-dinitrophenol	36.5	50.7	36.0	-
hexachlorocyclopentadiene	-	48.1	42.5	-
dimethylphthalate	-	26.3	-	-
4-nitrophenol	-	30.3	31.2	-
2,4-dinitrotoluene	-	26.3	-	-
diethylphthalate	-	31.0	26.5	-
4,6-dinitro-2-methylphenol	-	31.7	-	-
2,6-dinitrotoluene	-		26.4	-
QUALIFICATION	J(+)	J(+)	J(+)	-
SAMPLES AFFECTED	None	None	None	-

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY				
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA030	INITIAL 8/9/94	INITIAL 8/20/94	CONTIN-UING 8/16/94	CONTIN-UING 8/18/94
PARAMETER	WATER % RSD	WATER %RSD	WATER %D	WATER %D
VOLATILE ORGANIC COMPOUNDS				
chloromethane	-	45.5	-	30.7
vinyl chloride	-	-	26.0	-
acetone	53.5	-	40.0	-
2-butanone	-	-	26.4	25.7
2-hexanone	-	-	34.0	45.4
4-methyl-2-pentanone	-	-	34.5	43.4
1,2-dichloroethene (total)	-	-	-	48.5
QUALIFICATION	J (+)	J (+)	J (+)	J (+)
SAMPLES AFFECTED				
acetone	CF16MW12I	None	None	None
	CF16MW5ST	-	-	-
	CF16MW10ST	-	-	-
	CF16MW27IT	-	-	-
	CF16MW34DDT	-	-	-
1,2-dichloroethene	None	None	None	CF16MW10SD CF16MW7S
2-butanone	None	None	None	None
2-hexanone	None	None	None	None
4-methyl-2-pentanone	None	None	None	None
chloromethane	None	None	None	None
vinyl chloride	None	None	None	None

None = No Samples Affected

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY				
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA030 PARAMETER	INITIAL 7/11/94	CONTIN-UING 8/23/94	CONTIN-UING	CONTIN-UING
	% RSD	% D	% D	% D
SEMIVOLATILE ORGANIC COMPOUNDS				
2,4-dinitrophenol	36.5	-	-	-
2,2'-oxybis(1-chloropropane)	-	42.4	-	-
4-chloroaniline	-	27.9	-	-
hexachlorocyclopentadiene	-	30.0	-	-
3-nitroaniline	-	71.1	-	-
4-nitroaniline	-	81.1	-	-
3,3'-dichlorobenzidine	-	57.2	-	-
QUALIFICATION	J(+)	J(+)	J(+)	-
SAMPLES AFFECTED	None	None	None	-

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA031	INITIAL 08/09/94	CONTIN-UING 08/16/94 08.31	INITIAL 08/18/94 09:06	CONTIN-UING 08/19/94 09:15	CONTIN-UING 08/20/94 11:40	CONTIN-UING
PARAMETER	% RSD	% D	% RSD	% D	% D	% D
VOLATILE ORGANIC COMPOUNDS						
vinyl chloride	-	26.0	-	-	-	-
acetone	53.3	40.0	-	-	47.2	-
chloroethane	-	-	-	31.2	31.7	-
carbon disulfide	-	-	-	29.9	-	-
2-butanone	-	26.4	-	-	42.9	-
4-methyl-2-pentanone	-	34.0	-	-	-	-
2-hexanone	-	34 5	-	-	33.3	-
QUALIFICATION	J (+)	J (+)	J (+)	J (+)	J (+)	-
SAMPLES AFFECTED	None	None	None	None	None	-

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA031	INITIAL 7/11/94	CONTIN-UING 8/24/94 09:00	CONTIN-UING 8/26/94 09:04	CONTIN-UING 9/01/94 08:32	CONTIN-UING	CONTIN-UING
PARAMETER	% RSD	% D	% D	% D	% D	% D
SEMIVOLATILE ORGANIC COMPOUNDS						
2,4-dinitrophenol	36.5	-	-	-	-	-
2,2'-oxybis(1-chloropropane)	-	37.8	37.8	26.1	-	-
4-chloroaniline	-	-	27.3	31.1	-	-
hexachlorocyclopentadiene	-	31.8	30.8	36.4	-	-
3-nitroaniline	-	47.0	53.6	35.5	-	-
4-nitroaniline	-	-	29.2	29.2	-	-
n-nitrosodiphenylamine	-	27.6	32.5	31.6	-	-
carbazole	-	31.0	34.4	-	-	-
QUALIFICATION	J (+)	J (+)	J (+)	J (+)	-	-
SAMPLES AFFECTED	None	CF16SS7	CF16SS10 CF16SS3	None	-	-

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA032	INITIAL 8/20/94	CONTIN-UING 8/20/94 18:56	CONTIN-UING 8/20/94 11:40	CONTIN-UING 8/22/94 11:50	CONTIN-UING 8/23/94 09:13	CONTIN-UING
PARAMETER	% RSD	% D	% D	% D	% D	% D
VOLATILE ORGANIC COMPOUNDS						
chloromethane	45.5	-	-	-	-	-
chloroethane	-	-	31.7	37.1	39.3	-
acetone	-	25.7	47.2	28.9	-	-
carbon disulfide	-	-	-	-	29.0	-
2-butanone	-	-	42.9	29.5	31 8	-
2-hexanone	-	-	33.3	-	25.8	-
4-methyl-2-pentanone	-	-	-	25.9	-	-
QUALIFICATION	J (+)	J (+)	J (+)	J (+)	J (+)	-
SAMPLES AFFECTED	None	CF16SB4SRT	None	CF16SB9S6	None	-

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRATION SUMMARY SDG: WA032	INITIAL 7/11/94	CONTIN-UING 8/25/94 08:32	CONTIN-UING 8/26/94 09:04	CONTIN-UING	CONTIN-UING	CONTIN-UING
PARAMETER	% RSD	% D	% D	% D	% D	% D
SEMIVOLATILE ORGANIC COMPOUNDS						
2,4-dinitrophenol	36.5	-	-	-	-	-
2,2'-oxybis(1-chlorophenol)	-	48.4	47.0	-	-	-
hexachlorocyclopentadiene	-	32.8	30.8	-	-	-
3-nitroaniline	-	54.2	53.6	-	-	-
4-nitroaniline	-	53.8	-	-	-	-
carbazole	-	38.2	34.4	-	-	-
4-chloroaniline	-	-	27.3	-	-	-
4,6-dinitro-2-methylphenol	-	-	32.5	-	-	-
QUALIFICATION	J (+)	J (+)	J (+)	-	-	-
SAMPLES AFFECTED	None	None	None	-	-	-

INITIAL AND CONTINUING CALIBRATION SUMMARY						
INITIAL AND CONTINUING CALIBRA-TION SUMMARY SDG: WA033	INITIAL 8/18/94	CONTIN-UING 8/22/94 11:35	INITIAL 8/20/94	CONTIN-UING 8/20/94 18:56	CONTIN-UING	CONTIN-UING
PARAMETER	% RSD	% D	% RSD	% D	% D	% D
VOLATILE ORGANIC COMPOUNDS						
chloromethane	-	-	45.5	-	-	-
chloroethane	-	37.1	-	-	-	-
acetone	-	28.9	-	25.7	-	-
2-butanone	-	29.5	-	-	-	-
4-methyl-2-pentanone	-	25.9	-	-	-	-
QUALIFICATION	-	J (+)	J (+)	J (+)	-	-
SAMPLES AFFECTED	-	None	None	CF16SB11-S6RT	-	-

Table 4 (Cont'd)

INITIAL AND CONTINUING CALIBRATION SUMMARY						
SDG: WA033 PARAMETER	INITIAL 7/11/94	CONTIN- UING 8/25/94 08:32	CONTIN- UING	CONTIN- UING	CONTIN- UING	CONTIN- UING
	% RSD	% D	% D	% D	% D	% D
SEMIVOLATILE ORGANIC COMPOUNDS						
2,2'-oxybis(1-chloropropane)	-	48.8	-	-	-	-
2,4-dinitrophenol	36.5	-	-	-	-	-
hexachlorocyclopentadiene	-	32.8	-	-	-	-
3-nitroaniline	-	54.2	-	-	-	-
4-nitroaniline	-	53.8	-	-	-	-
carbazole	-	38.2	-	-	-	-
QUALIFICATION	J (+)	J (+)	-	-	-	-
SAMPLES AFFECTED	None	None	-	-	-	-

Table 5
ORGANICS AND INORGANICS LABORATORY AND FIELD BLANK SUMMARY
OPERABLE UNIT 7
NAS CECIL FIELD JACKSONVILLE, FLORIDA

ORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY									
SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA026			VOLATILE ORGANICS						
			(No positive detections)			-	-	-	-
			SEMIVOLATILE ORGANICS						
			di-n-butylphthalate						
	1 ug/L	CF16MW13S		SBLK2	ug/L	1.0	JB	10	U
		CF16MW14D				2.0	JB	10	U
		CF16MW15S				2.0	JB	10	U
		CF16MW17S				3.0	JB	10	U
		CF16MW21S				2.0	JB	10	U
		CF16MW21SD				3.0	JB	10	U
			bis(2-ethylhexyl)phthalate						
	1 ug/L	CF16MW13S		SBLK2	ug/L	0.8	JB	10	U
		CF16MW14D				8.0	JB	10	U
		CF16MW15S				2.0	JB	10	U
		CF16MW17S				2.0	JB	10	U
		CF16MW21S				2.0	JB	10	U
		CF16MW21SD				2.0	JB	10	U
			PESTICIDE/PCB'S						
			(No positive detections)			-	-	-	-

J = Estimated (Laboratory Flag)
B = Detected in Blank (Laboratory Flag)
U = Undetected (Data Validation Flag)
VBLK = Volatile Organics Method Blank
SBLK = Semivolatile Organics Method Blank
PBLK = Pesticide/PCB Method Blank
EB = Equipment Blank
PBW = Water Preparation Blank
PBS = Soil Preparation Blank
TB = Trip Blank

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY									
SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA026	67.7 ug/L	CF16MW15S	aluminum	PBW	ug/L	112	B	112	U
		CF16MW13D				76.5	B	76.5	U
		CF16MW25D				108	B	108	U
		CF16MW26DD				113	B	113	U
	4.35 ug/L	CF16MW13S	zinc	PBW	ug/L	8.8	B	8.8	U
		CF16MW15S				3.0	B	3.0	U
		CF16MW17S				12.1	B	12.1	U
		CF16MW21S				17.7	B	17.7	U
		CF16MW23D				14.7	B	14.7	U
		CF16MW25D				20.6	-	20.6	U

ORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY									
SDG No.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA028			VOLATILE ORGANICS						
	2 ug/L	CF16MW16D	methylene chloride	EB	ug/L	2	B	2	U
		CF16MW19S		EB	ug/L	1	B	1	U
		CF16MW22I		EB	ug/L	1	B	1	U
		CF16MW36I		EB	ug/L	1	B	1	U
		CF16MW39I		EB	ug/L	1	B	1	U
		CF16MW40D		EB	ug/L	2	B	2	U
		CF16MW40DD		EB	ug/L	2	B	1	U
		CF16MW37DMSD		EB	ug/L	1	B	1	U
					ug/L	2	B	2	U
	28 ug/L	CF16MW37D	acetone	EB	ug/L	7	-	7	U
		CF16MW40D		EB	ug/L	6	-	6	U
		CF16MW37DMSD		EB	ug/L	8	-	8	U
		None	SEMIVOLATILE ORGANICS None			-	-	-	-
			PESTICIDE/PCB'S						
	0.005 ug/L	CF16MW16D	heptachlor epoxide	EB	ug/L	0.004	JP	0.05	U
		CF16MW37D		EB	ug/L	0.004	JBP	0.05	U
		CF16MW40D		EB	ug/L	0.004	JBP	0.05	U
		CF16MW40DD		EB	ug/L	0.004	JBP	0.05	U
		CF16MW37D MS		EB	ug/L	0.04	JBP	0.05	U

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY									
SDG No.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA028	45.3 ug/L	CF16MW16D	aluminum	EB	ug/L	171	B	171	U
		CF16MW31DD			ug/L	199	B	199	U
		CF16MW36I			ug/L	154	B	154	U
		CF16MW37D			ug/L	60.6	B	60.6	U
		CF16MW39I			ug/L	136	B	136	U
		CF16MW40DD			ug/L	80.1	B	80.1	U
	5.0 ug/L	CF16MW16D	zinc	PBW	ug/L	21.6	-	21.6	U
		CF16MW22I			ug/L	13.9	B	13.9	U
		CF16MW29S			ug/L	7.2	B	7.2	U
		CF16MW30D			ug/L	23.2	-	23.2	U
		CF16MW35S			ug/L	6.6	B	6.6	U
		CF16MW36I			ug/L	11.6	B	11.6	U
		CF16MW37D			ug/L	6.4	B	6.4	U
		CF16MW38S			ug/L	14.6	B	14.6	U
		CF16MW40DD			ug/L	22.5	-	22.5	U

ORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY									
SDG No.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA030			VOLATILE ORGANICS						
	11 ug/L	CF16MW12I	acetone	TB	ug/L	6	B	6	U
			SEMIVOLATILE ORGANICS						
	0.7 ug/L	CF16MW20D	di-n-butylphthalate	SBLK2	ug/L	0 6	JB	10	U
	0.6 ug/L	CF16MW20D	bis(2-ethylhexyl) phthalate	SBLK2	ug/L	17	B	17	-
			PESTICIDE/PCB'S						
		None	None			-	-	-	-

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY

SDG No.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA030	82.1 ug/L	CF16MW27I	aluminum	EB2	ug/L	184	B	184	U
		CF16MW27I F			ug/L	78.8	B	78.8	U
		CF16MW28D			ug/L	41.0	B	41.0	U
		CF16MW28D F			ug/L	49.4	B	49.4	U
		CF16MW28DD			ug/L	69.8	B	69.8	U
		CF16MW28DD F			ug/L	37.1	B	37.1	U
		CF16MW32S			ug/L	292	-	292	U
		CF16MW32S F			ug/L	143	B	143	U
		CF16MW34DD			ug/L	137	B	137	U
		CF16MW34DD F			ug/L	45.7	B	45.7	U
		CF16MW33D			ug/L	93.8	B	93.8	U
		CF16MW33D F			ug/L	34.6	B	34.6	U
		CF16MW7S			ug/L	188	B	188	U
		CF16MW7S F			ug/L	59.2	B	59.2	U
		CF16MW11DD			ug/L	44.7	B	44.7	U
		CF16MW11DD F			ug/L	54.6	B	54.6	U
		CF16MW5S F			ug/L	42.1	B	42.1	U
		CF16MW9D F			ug/L	73.7	B	73.7	U
		CF16MW12I			ug/L	303	-	303	U
		CF16MW20D			ug/L	349	-	349	U
		CF16MW20D F			ug/L	93.4	B	93.4	U
	2.0 ug/L	CF16MW28DD F	copper	EB2	ug/L	2.2	B	2.2	U
		CF16MW32S			ug/L	2.1	B	2.1	U
		CF16MW32S F			ug/L	2.1	B	2.1	U
		CF16MW34DD			ug/L	5.1	B	5.1	U
		CF16MW34DD F			ug/L	2.3	B	2.3	U
		CF16MW33D			ug/L	3.8	B	3.8	U
		CF16MW33D F			ug/L	2.3	B	2.3	U
		CF16MW10S			ug/L	4.8	B	4.8	U
		CF16MW10S F			ug/L	4.6	B	4.6	U
		CF16MW10SD			ug/L	7.2	B	7.2	U
		CF16MW10SD F			ug/L	6.1	B	6.1	U
		CF16MW7S			ug/L	2.6	B	2.6	U
		CF16MW7S F			ug/L	2.6	B	2.6	U
		CF16MW11DD			ug/L	2.2	B	2.2	U
		CF16MW11DD F			ug/L	2.4	B	2.4	U
		CF16MW5S			ug/L	7.0	B	7.0	U
		CF16MW5S F			ug/L	3.1	B	3.1	U
		CF16MW9D			ug/L	4.4	B	4.4	U
		CF16MW9D F			ug/L	3.2	B	3.2	U
		CF16MW12I			ug/L	5.0	B	5.0	U
		CF16MW12I F			ug/L	5.0	B	5.0	U
		CF16MW20D			ug/L	2.6	B	2.6	U

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY (CONT'D)									
SDG No.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA030	19.3 ug/L	CF16MW34DD F	iron	EB1	ug/L	47.2	B	47.2	U
		CF16MW33D F			ug/L	46.9	B	46.9	U
	1.2 ug/L	CF16MW7S	manganese	EB1	ug/L	3.6	B	3.6	U
		CF16MW7S F			ug/L	3.5	B	3.5	U
		CF16MW5S			ug/L	4.1	B	4.1	U
		CF16MW5S F			ug/L	3.0	B	3.0	U
	14.5 ug/L	CF16MW27I	nickel	EB2	ug/L	10.8	B	10.8	U
		CF16MW27I F			ug/L	10.9	B	10.9	U
		CF16MW28D			ug/L	7.9	B	7.9	U
		CF16MW34DD			ug/L	9.3	B	9.3	U
		CF16MW34DD F			ug/L	8.5	B	8.5	U
		CF16MW33D			ug/L	8.5	B	8.5	U
		CF16MW10S			ug/L	14.8	B	14.8	U
		CF16MW10S F			ug/L	10.8	B	10.8	U
		CF16MW10SD			ug/L	22.3	B	22.3	U
		CF16MW10SD F			ug/L	25.8	B	25.8	U
		CF16MW7S			ug/L	16.8	B	16.8	U
		CF16MW11DD F			ug/L	10.0	B	10.0	U
		CF16MW5S			ug/L	14.1	B	14.1	U
		CF16MW5S F			ug/L	14.3	B	14.3	U
		CF16MW9D			ug/L	14.3	B	14.3	U
		CF16MW9D F			ug/L	15.4	B	15.4	U
		CF16MW12I			ug/L	25.4	B	25.4	U
		CF16MW12I F			ug/L	13.1	B	13.1	U
		CF16MW20D			ug/L	7.7	B	7.7	U
		CF16MW20D F			ug/L	13.1	B	13.1	U
	6.8 ug/L	CF16MW27I	thallium	EB2	ug/L	11.7	-	11.7	U
		CF16MW28D			ug/L	6.9	B	6.9	U
		CF16MW28DD F			ug/L	8.0	B	8.0	U
		CF16MW34DD			ug/L	6.7	B	6.7	U
		CF16MW34DD F			ug/L	6.8	B	6.8	U
		CF16MW10SD			ug/L	6.7	B	6.7	U
		CF16MW11DD			ug/L	7.9	B	7.9	U
		CF16MW5S F			ug/L	7.6	B	7.6	U

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY (CONT'D)									
SDG No.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA030	8.8 ug/L	CF16MW27I	zinc	EB1	ug/L	18.4	B	18.4	U
		CF16MW27I F			ug/L	27.4	-	27.4	U
		CF16MW28D			ug/L	11.1	B	11.1	U
		CF16MW28DD			ug/L	18.0	B	18.0	U
		CF16MW32S			ug/L	25.5	-	25.5	U
		CF16MW32S F			ug/L	19.8	B	19.8	U
		CF16MW34DD F			ug/L	33.4	-	33.4	U
		CF16MW33D F			ug/L	34.6	-	34.6	U
		CF16MW10S F			ug/L	31.0	-	31.0	U
		CF16MW10SD F			ug/L	31.8	-	31.8	U
		CF16MW7S			ug/L	24.7	-	24.7	U
		CF16MW7S F			ug/L	21.4	-	21.4	U
		CF16MW11DD			ug/L	13.6	B	13.6	U
		CF16MW11DD F			ug/L	14.4	B	14.4	U
		CF16MW5S			ug/L	17.1	B	17.1	U
		CF16MW5S F			ug/L	10.0	B	10.0	U
		CF16MW9D			ug/L	40.8	-	40.8	U
		CF16MW9D F			ug/L	19.6	B	19.6	U
		CF16MW12I			ug/L	34.6	-	34.6	U
		CF16MW12I F			ug/L	42.1	-	42.1	U
		CF16MW20D			ug/L	10.6	B	10.6	U
		CF16MW20D F			ug/L	14.8	B	14.8	U

ORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY									
SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA031			VOLATILE ORGANICS						
	2	CF16SS1	acetone	VBLK2	ug/kg	12	B	20	U
		CF16SS10				4	JB	20	U
		CF16SS2				5	JB	20	U
		CF16SS3				9	JB	20	U
		CF16SS4				19	B	20	U
		CF16SS5				11	B	20	U
		CF16SS9				7	JB	20	U
		CF16SB12S6				26	B	90	U
	9	CF16SB1S0	acetone	VBLK3	ug/kg	27	B	90	U
		CF16SB1S6				11	JB	90	U
		CF16SB2S2				6	JB	90	U
		CF16SB2S4				14	B	90	U
		CF16SB3S0				75	B	90	U

Table 5 (Cont'd)

ORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA031			SEMIVOLATILE ORGANICS						
	23	CF16SS1	diethylphthalate	SBLK1	ug/kg	29	JB	230	U
		CF16SS10				23	JB	230	U
		CF16SS2				34	JB	230	U
		CF16SS3				23	JB	230	U
		CF16SS4				30	JB	230	U
		CF16SS5				29	JB	230	U
		CF16SS6				29	JB	230	U
		CF16SS7				32	JB	230	U
		CF16SS8D				22	JB	230	U
		CF16SS9				19	JB	230	U
	62	CF16SS1	di-n-butylphthalate	SBLK1	ug/kg	390	JB	620	U
		CF16SS10				440	B	620	U
		CF16SS2				450	B	620	U
		CF16SS2MS				300	JB	620	U
		CF16SS3				330	JB	620	U
		CF16SS4				350	JB	620	U
		CF16SS5				350	JB	620	U
		CF16SS6				450	B	620	U
		CF16SS7				460	B	620	U
		CF16SS8				570	B	620	U
		CF16SS8D				420	B	620	U
		CF16SS9				280	JB	620	U
	66	CF16SS1	bis(2-ethylhexyl)phthalate	SBLK1	ug/kg	71	JB	660	U
		CF16SS10				100	JB	660	U
		CF16SS2				93	JB	660	U
		CF16SS2MS				300	JB	660	U
		CF16SS3				450	B	660	U
		CF16SS4				58	JB	660	U
		CF16SS5				80	JB	660	U
		CF16SS6				26	B	660	U
		CF16SS7				240	JB	660	U
		CF16SS8				150	JB	660	U
		CF16SS8D				120	JB	660	U
		CF16SS9				200	JB	660	U
	0.6	CF16SS1R	di-n-butylphthalate	SBLK2	ug/L	0.5	JB	6	U

Table 5 (Cont'd)

ORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY									
SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA031			SEMIVOLATILE ORGANICS (continued)						
	260	CF16SB12S2	di-n-butylphthalate	SBLK3	ug/kg	410	B	2600	U
		CF16SB3S0				360	B	2600	U
		CF16SB12S6				110	JB	2600	U
		CF16SB1S0				99	JB	2600	U
		CF16SB1S0MS				66	JB	2600	U
		CF16SB1S0MSD				84	JB	2600	U
		CF16SB1S0				83	JB	2600	U
		CF16SB2S2				74	JB	2600	U
		CF16SB2S4				540	B	2600	U
	20	CF16SS2RE	fluoranthene	SBLK5	ug/Kg	30	JB	200	U
		CF16SS2REMS				34	JB	200	U
		CF16SS2REMSD				48	JB	200	U
	510	CF16SS2RE	di-n-butylphthalate	SBLK5	ug/Kg	700	B	5100	U
		CF16SS2REMS				760	B	5100	U
		CF16SS2REMSD				1100	B	5100	U
	49	CF16SS2RE	bis(2-ethylhexyl)phthalate	SBLK5	ug/Kg	150	JB	490	U
		CF16SS2REMS				170	JB	490	U
		CF16SS2REMSD				160	JB	490	U
			PESTICIDES/PCB'S						
			(no positive detections)	-	-	-	-	-	-

Table 5 (Cont'd)

ORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY									
SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA032			VOLATILE ORGANICS						
	13 ug/L	CF16SB4S2	Acetone	Trip CF16SB4S2RT	ug/L	20	B	20	U
		CF16SB4S6				40	B	40	U
		CF16SB5S2				12	B	12	U
		CF16SB5S2D				27	B	27	U
		CF16SB5S6				17	B	17	U
		CF16SB6S2				11	B	11	U
		CF16SB6S4				150	B	150	U
		CF16SB7S2				12	JB	19	U
		CF16SB7S2D				21	JB	23	U
		CF16SB7S4				16	JB	28	U
		CF16SB8S2				13	B	13	U
		CF16SB8S4				21	B	21	U
		CF16SB10S2				15	B	15	U
		CF16SB10S2D				11	B	11	U
		CF16SB10S4				68	B	68	U

Table 5 (Cont'd)

ORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY (CONT'D)									
SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA032			SEMIVOLATILE ORGANICS						
			di-n-butylphthalate						
	320 ug/kg	CF16SB3S6		SBLK1	ug/kg	430	B	430	U
		CF16SB4S2				430	B	430	U
		CF16SB4S6				480	B	480	U
		CF16SB5S2				350	JB	370	U
		CF16SB5S2D				290	JB	370	U
		CF16SB5S6				270	JB	390	U
		CF16SB6S2				290	JB	380	U
		CF16SB6S4				350	JB	390	U
		CF16SB7S2				180	JB	370	U
		CF16SB7S2D				260	JB	380	U
		CF16SB7S4				330	JB	380	U
		CF16SB8S2				490	B	490	U
		CF16SB8S4				410	B	410	U
		CF16SB9S4				730	B	730	U
		CF16SB9S6				430	B	430	U
		CF16SB10S2				370	B	370	U
		CF16SB10S2D				420	B	420	U
		CF16SB10S4				420	B	420	U
			bis(2-ethylhexyl)phthalate						
	29 ug/kg	CF16SB3S6		SBLK3	ug/kg	25	J	400	U
		CF16SB4S2				28	J	360	U
		CF16SB4S6				23	J	400	U
		CF16SB5S2				20	J	370	U
		CF16SB5S2D				22	J	370	U
		CF16SB5S6				26	J	390	U
		CF16SB6S2				49	J	380	U
		CF16SB6S4				46	J	390	U
		CF16SB7S2				92	JB	370	U
		CF16SB7S2D				53	JB	380	U
		CF16SB7S4				39	JB	380	U
		CF16SB8S2				600	B	600	U
		CF16SB8S4				26	JB	390	U
		CF16SB9S6				31	JB	400	U
		CF16SB10S2				38	JB	370	U
		CF16SB10S2D				45	JB	380	U
		CF16SB10S4				160	JB	390	U
			PESTICIDES / PCB's (No positive detections)			-	-	-	-

Table 5 (Cont'D)

INORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY									
SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA032	6.90 ug/L	CF16SB3S6	antimony	RINSATE	mg/kg	0.72	B	0.72	U
		CF16SB4S6				0.64	B	0.64	U
		CF16SB7S2D				0.47	B	0.47	U
		CF16SB8S4				0.50	B	0.50	U
	2.00 ug/L	CF16SB4S2	barium	RINSATE	mg/kg	2.1	B	2.1	U
		CF16SB6S2				1.7	B	1.7	U
	52.0 mg/kg	CF16SB3S6	calcium	PBS	mg/kg	211	B	211	U
		CF16SB4S6				110	B	110	U
		CF16SB5S6				233	B	233	U
		CF16SB8S4				262	B	262	U
		CF16SB9S4				216	B	216	U
		CF16SB9S6				128	B	128	U
	-2.626 ug/L	CF16SB3S6	lead	PBW	mg/kg	6.8	-	6.8	J
		CF16SB4S2				1.6	-	1.6	J
		CF16SB4S6				7.9	-	7.9	J
		CF16SB5S2				2.5	-	2.5	J
		CF16SB5S2D				2.3	-	2.3	J
		CF16SB5S6				6.1	-	6.1	J
		CF16SB6S2				1.7	-	1.7	J
		CF16SB6S4				4.7	-	4.7	J
		CF16SB7S2				8.3	-	8.3	J
		CF16SB7S2D				8.5	-	8.5	J
		CF16SB7S4				9.2	-	9.2	J
		CF16SB8S4				5.1	-	5.1	J
		CF16SB9S4				8.9	-	8.9	J
		CF16SB9S6				9.4	-	9.4	J
		CF16SB10S2				2.4	-	2.4	J
		CF16SB10S2D				3.2	-	3.2	J
		CF16SB10S4				10.3	-	10.3	J
	81.0 ug/L	CF16SB4S2	magnesium	PBW	mg/kg	39.7	B	39.7	J
		CF16SB5S2				40.6	B	40.6	J
		CF16SB5S2D				40.7	B	40.7	J
		CF16SB6S2				28.7	B	28.7	J
		CF16SB7S2				82.4	B	82.4	J
		CF16SB7S2D				65.4	B	65.4	J
		CF16SB7S4				88.6	B	88.6	J

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY (CONT'D)									
SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA032	81.0 ug/L	CF16SB7S2	magnesium	PBW	mg/kg	82.4	B	82.4	U
		CF16SB7S2D				65.4	B	65.4	U
		CF16SB7S4				88.6	B	88.6	U
		CF16SB8S2				65.1	B	65.1	U
		CF16SB10S2				51.0	B	51.0	U
	-2.495 ug/L	CF16SB3S6	nickel	PBW	mg/kg	3.2	B	3.2	J
		CF16SB4S2				0.44	U	0.44	UJ
		CF16SB4S6				5.0	B	5.0	J
		CF16SB5S2				0.45	U	0.45	UJ
		CF16SB5S2D				0.45	U	0.45	UJ
		CF16SB5S6				2.6	B	2.6	J
		CF16SB6S2				1.4	B	1.4	J
		CF16SB6S4				2.2	B	2.2	J
		CF16SB7S2				1.1	B	1.1	J
		CF16SB7S2D				0.69	B	0.69	J
		CF16SB7S4				1.4	B	1.4	J
		CF16SB8S2				1.1	B	1.1	J
		CF16SB8S4				2.5	B	2.5	J
		CF16SB9S4				3.8	B	3.8	J
		CF16SB9S6				3.8	B	3.8	J
		CF16SB10S2				0.46	U	0.46	UJ
		CF16SB10S2D				1.3	B	1.3	J
		CF16SB10S4				3.5	B	3.5	J
	22.9 ug/L	CF16SB4S2	potassium	RINSATE	mg/kg	14.1	B	14.1	U
		CF16SB5S2				11.1	B	11.1	U
		CF16SB5S2D				10.2	B	10.2	U
		CF16SB6S2				12.1	B	12.1	U
		CF16SB8S2				25.8	B	25.8	U
		CF16SB10S2				22.0	B	22.0	U
	104 mg/kg	CF16SB3S6	sodium	PBS	mg/kg	176	B	176	U
		CF16SB4S2				167	B	167	U
		CF16SB4S6				315	B	315	U
		CF16SB5S2				146	B	146	U
		CF16SB5S2D				127	B	127	U
		CF16SB5S6				334	B	334	U
		CF16SB6S2				132	B	132	U
		CF16SB6S4				332	B	332	U
		CF16SB7S2				133	B	133	U
		CF16SB7S2D				149	B	149	U
		CF16SB7S4				160	B	160	U
		CF16SB8S2				124	B	124	U
		CF16SB8S4				169	B	169	U

Table 5 (Cont'd)

INORGANICS LABORATORY AND FIELD BLANK DATA QUALIFICATION SUMMARY (CONT'D)									
SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA032	104 mg/kg	CF16SB9S4	sodium	PBS	mg/kg	202	B	202	U
		CF16SB9S6				216	B	216	U
		CF16SB10S2				131	B	131	U
		CF16SB10S2D				174	B	174	U
		CF16SB10S4				198	B	198	U
	12.9 ug/L	CF16SB3S6	zinc	RINSATE	mg/kg	3.3	B	3.3	U
		CF16SB4S2				2.1	B	2.1	U
		CF16SB4S6				3.9	B	3.9	U
		CF16SB5S2				4.1	B	4.1	U
		CF16SB5S2D				3.7	B	3.7	U
		CF16SB5S6				2.5	B	2.5	U
		CF16SB6S2				2.3	B	2.3	U
		CF16SB6S4				2.3	B	2.3	U
		CF16SB7S2				5.3	B	5.3	U
		CF16SB7S2D				5.7	B	5.7	U
		CF16SB7S4				6.7	B	6.7	U
		CF16SB8S4				4.4	B	4.4	U
		CF16SB9S4				3.5	B	3.5	U
		CF16SB9S6				3.3	B	3.3	U
		CF16SB10S2				2.2	B	2.2	U
		CF16SB10S2D				2.2	B	2.2	U
		CF16SB10S4				2.7	B	2.7	U

Table 5 (Cont'd)

ORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported		Validated	
						Conc.	Qual.	Conc.	Qual.
WA033			VOLATILE ORGANICS (No positive detections)			-	-	-	-
			SEMIVOLATILE ORGANICS						
			di-n-butylphthalate	SBLK1A	ug/kg	340	JB	380	U
	190	CF16SB11S2				-	-	-	-
		CF16SB11S2MS				380	B	380	U
		CF16SB11S2MSD				-	-	-	-
		CF16SB11S6				38	JB	380	U
		CF16SB11S2MS				67	JB	410	U
		CF16SB11S2MSD	bis(2-ethylhexyl)phthalate	ERB	ug/kg	-	-	-	-
	99	CF16SB11S6				31	J	380	U
						32	J	380	U
						40	J	410	U
			PESTICIDE/PCB'S (No positive detections)			-	-	-	-

INORGANICS LABORATORY AND FIELD BLANK
DATA QUALIFICATION SUMMARY

SDG NO.	Blank Conc.	Qualified Samples	Parameter	Blank ID	Units	Reported Conc.	Reported Qual.	Validated Conc.	Validated Qual.
WA033	64.6	CF16SB11S6RF	aluminum	PBW	ug/L	31.1	B	31.1	U
	122	CF16SB11S6RF	magnesium	PBW		27.3	B	27.3	U
	40.7	CF16SB11S6RF	sodium	PBW		166	B	166	U
	8.2	CF16SB11S6RF	zinc	PBW		19.9	B	19.9	U
	1.4	CF16SB11S2	zinc	PBS	ug/kg	2.4	B	33.6	-
		CF16SB11S6				2.4	B	94.6	-
	3.6	CF16SB11S2	antimony	ERB	ug/kg	0.65	B	2.4	U
	ug/L	CF16SB11S6				1.0	B	2.4	U

Table 6
REJECTED DATA
OPERABLE UNIT 7
NAS CECIL FIELD JACKSONVILLE, FLORIDA

SDG NO.	FRACTION	SAMPLE	No. of Rejected Analytes	ANALYTE	REASON
WA026	Volatiles	All negative results for water samples	36	2-hexanone 4-methyl-2-pentanone	Low RRFS in Initial Calibration & Continuing Calibrations
	Pesticides/PCB's	CF16MW21S	28	All negative results	Low DCB Surrogate recovery (9%)
WA028	None	None	0	None	None
WA030	Metals/Cyanide	CF16MW32S CF16MW32SF	4	iron and manganese	High % D for total and dissolved metals
WA031	Volatiles	CF16SS1T CF16SS1R	2	2-hexanone	Low RRF
WA032	Pesticides/PCB's	CF16SB6S4R CF16SB7S2 CF16SB8S2	3	endosulfan II heptachlor epoxide heptachlor epoxide	high PIS%D high PIS%D high PIS%D
WA033	None	None	0	None	None

Table 7
PESTICIDE COLUMN PERCENT DIFFERENCES
OPERABLE UNIT 7
NAS CECIL FIELD JACKSONVILLE, FLORIDA

SDG NO	SAMPLE NO	COMPOUND	C1* (ug/L)	C2* (ug/L)	%D
WA028	CF16MW16D	heptachlor epoxide	0.004	0.035	775
	CF16MW19S	endrin	0.005	0.009	86
	CF16MW22IR	heptachlor epoxide	0.005	0.059	1080
	CF16MW37D	heptachlor epoxide	0.004	0.021	425
	CF16MW40D	heptachlor epoxide	0.004	0.031	675
	CF16MW40DD	heptachlor epoxide	0.004	0.033	725
WA030	CF16MW5S	heptachlor epoxide	0.018	0.05	177.8
		endorsulfan I	0 012	0.032	166.7
		dieldrin	0.011	0.024	118.2
		endrin	0.018	0.019	5.6
		endosulfan II	0.007	0.017	142.9

Table 7 (Cont'd)

SDG NO	SAMPLE NO	COMPOUND	C1* (ug/L)	C2* (ug/L)	%D
WA031	CF16SB12S2	gamma-chlordane	1.1	1.0	10
		aroclor-1254	49	66	34.7
	CF16SB12S6	4,4'-DDE	0.28	0.72	157.1
		gamma-chlordane	1.2	1.4	16.7
		aroclor-1254	66	80	21.2
	CF16SB3S0	4,4'-DDE	0.38	0.27	40.7
	CF16SS10	4,4'-DDE	0.36	0.44	22.2
		alpha-chlordane	1.9	2.1	10.5
		gamma-chlordane	1.7	3	76.5
		aroclor-1260	23	26	13
	CF16SS1R	endosulfan II	0.063	0.007	751.4
	CF16SS2	4,4'DDE	0.33	0.34	3
		endrin	0.31	1.9	512.9
		aroclor-1260	5.5	5.8	5.5
	CF16SS3	4,4'-DDE	0.44	0.85	93.2
	CF16SS4	alpha-chlordane	0.97	0.6	61.7
		gamma-chlordane	0.12	2.6	2066.7
	CF16SS5	4.4'-DDE	0.32	0.42	31.2
	CF16SS6	4,4'-DDT	0.72	1.7	136.1
	CF16SS7	4,4'-DDE	0.64	0.41	56.1
		endosulfan sulfate	0.27	0.39	44.4
		gamma-chlordane	1.8	3.3	83.3
		aroclor-1260	23	33	43.5
	CF16SS8	heptachlor epoxide	3.6	1.2	200
		4,4'-DDE	0.8	1.1	37.5
		4,4'-DDD	3.7	7.6	105.4
		alpha-chlordane	223	26	13
	CF16SS8D	heptachlor epoxide	3.6	1.5	140
		4,4'-DDE	0.91	0.87	4.6
		endrin	0.42	0.88	109.5
		4,4'-DDD	10	9.7	3.1
		alpha-chlordane	29	34	17.2
	CF16SS9	4,4'-DDE	3.2	3.1	3.2
		gamma-chlordane	0.12	0.57	375
		aroclor-1260	33	42	27.3

Table 7 (Cont'd)

SDG NO	SAMPLE NO.	COMPOUND	C1* (ug/L)	C2* (ug/L)	%D
WA032	CF16SB4S6	4,4'-DDT	0.31	52	67.7
	CF16SB5S2	4,4'-DDE	4.2	4.0	5.0
		4,4'-DDD	1.3	0.62	109.7
		4,4'-DDT	0.79	1.5	89.9
	CF16SB5S2D	4,4'-DDE	4.5	4.4	2.3
		4,4'-DDD	1.2	0.42	185.7
	CF16SB5S6	4,4'-DDE	0.75	0.68	10.3
	CF16SB6S2	heptachlor epoxide	1.5	2.2	46.7
		4,4'-DDD	3.1	3.2	3.2
		alpha-chlordane	1.7	2.4	41.2
		gamma-chlordane	3.5	3.7	5.7
	CF16SB6S4R	endosulfan II	0.065	0.01	550
	CF16SB7S2	heptachlor epoxide	1.6	0.36	344.4
		4,4'-DDE	1.2	1.3	8.3
		4,4'-DDD	1.7	3.4	100
		alpha-chlordane	8.2	9.8	19.5
		gamma-chlordane	9.1	8.7	4.6
	CF16SB7S2D	heptachlor epoxide	1.7	0.43	295.3
		4,4'-DDE	1.3	1.4	7.7
		endrin	0.23	0.71	208.7
		4,4'-DDD	1.7	3.6	111.8
		alpha-chlordane	9.3	11	18.3
		aroclor-1254	18	16	12.5
	CF16SB7S4	4,4'-DDE	0.95	0.98	3.2
		4,4'-DDD	0.99	1.5	51.5
		alpha-chlordane	3.4	3.9	14.7
		gamma-chlordane	3.2	3.3	3.1
		aroclor-1260	5.2	6.3	21.2
	CF16SB8S2	heptachlor epoxide	3.1	0.73	324.7
		4,4'-DDE	0.83	1.1	32.5
		alpha-chlordane	19	24	26.3
		gamma-chlordane	22	24	9.1
		aroclor-1248	31	30	3.3
		aroclor-1260	49	64	30.6
	CF16SB10S2	aroclor-1260	8.6	9.4	9.3
	CF16SB10S2D	aroclor-1260	9.8	8.6	14
	CF16SB10S4	aroclor-1260	4.3	3.1	38.7
WA033	CF16SB11S6	heptachlor epoxide	1.0	0.4	150
		4,4'-DDE	0.38	0.32	18.8
	SB11S2	4,4'-DDE	0.88	0.97	10.2

APPENDIX O

APPENDIX O

REGULATORY STANDARDS

Table O-1
Comparison with Criteria
Surficial Aquifer

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection [1]	Range of Detected Concentrations	Mean of Detected Concentrations [2]	Analyte HHCPC? [3] (Yes/No)	Federal Primary MCL [4]	Florida Primary Standard [5]	Florida Guidance Concentration [6]	Exceedance? [7] (Yes/No)
Volatiles (µg/l)								
1,1,1-Trichloroethane	1/21	[8] 3,000 - [8] 3,000	3,000	Yes	200	200	200	Yes [13,14,15]
1,1-Dichloroethane	1/21	1 - 1	1	No	NA	NA	700	No
1,1-Dichloroethene	1/21	[8] 400 - [8] 400	400	Yes	7	7	7	Yes [13,14,15]
1,2-Dichloroethene (total)	2/21	270 - [8] 12,450	6,360	Yes	[9] 70	[9] 70	[9] 70	Yes [13,14,15]
4-Methyl-2-pentanone	1/16	1 - 1	1	No	NA	NA	350	No
Trichloroethene	7/21	12 - [8] 630	238	Yes	5	3	3	Yes [13,14,15]
Semivolatiles (µg/l)								
2-Methylnaphthalene	1/21	[8] 2.75 - [8] 2.75	2.8	No	NA	NA	NA	NA
Diethylphthalate	2/21	1 - 1	1	No	NA	NA	5,600	No
Naphthalene	1/21	[8] 3.5 - [8] 3.5	3.5	No	NA	NA	6.8	No
Phenanthrene	1/21	3 - 3	3	No	NA	NA	10	No
Phenol	3/21	0.8 - [8] 1.45	1.1	No	NA	NA	10	No
bis(2-Ethylhexyl) phthalate	17/21	0.5 - [8] 20.5	5.7	Yes	6	6	6	Yes [13,14,15]
Pesticides/PCBs (µg/l)								
Endrin	1/20	0.02 - 0.02	0.02	No	2	2	2	No
Inorganics (µg/l)								
Aluminum	12/21	[8] 175.5 - [8] 7,965	1,483	No	[10] 200	[11] 200	200	Yes [13,14,15]
Antimony	3/21	2.2 - [8] 16.05	7.3	Yes	6	6	6	Yes [13,14,15]
Arsenic	10/21	3.6 - 56.2	13.2	Yes	50	50	50	Yes [13,14,15]
Barium	21/21	6.5 - 108	27.5	No	2,000	2,000	2,000	No
Cadmium	1/21	[8] 3.3 - [8] 3.3	3.3	No	5	5	5	No
Calcium	21/21	603 - [8] 58,450	19,819	No	NA	NA	NA	NA

Table O-1
Comparison with Criteria
Surficial Aquifer

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection [1]	Range of Detected Concentrations	Mean of Detected Concentrations [2]	Analyte HHCPC? [3] (Yes/No)	Federal Primary MCL [4]	Florida Primary Standard [5]	Florida Guidance Concentration [6]	Exceedance? [7] (Yes/No)
Chromium	4/21	2 2 - 7.9	4.8	No	100	100	100	No
Cobalt	3/21	[8] 2.3 - 5.9	4 6	Yes	NA	NA	NA	NA
Copper	5/21	[8] 2.1 - 3.8	3	No	[10] 1,000	[11] 1,000	1,000	No
Iron	20/20	[8] 260 - 9,150	1,828	Yes	[10] 300	[11] 300	300	Yes [13,14,15]
Lead	1/21	[8] 2.55 - [8] 2.55	2.6	No	[12] 15	15	15	No
Magnesium	21/21	254 - 28,000	8,188	Yes	NA	NA	NA	NA
Manganese	18/20	[8] 4.9 - 56.8	27.4	Yes	[10] 50	[11] 50	50	Yes [13,14,15]
Mercury	1/21	1 - 1	1	No	2	2	2	No
Nickel	2/21	[8] 11 - 12.5	11.8	No	100	100	100	No
Potassium	21/21	125 - [8] 4,470	806	No	NA	NA	NA	NA
Sodium	21/21	[8] 2,665 - [8] 31,700	7,506	No	NA	NA	NA	NA
Thallium	3/21	6 - 6.3	6.2	Yes	2	2	2	Yes [13,14,15]
Vanadium	13/21	1 1 - 14 3	4.1	No	NA	NA	49	No
Zinc	8/21	[8] 15.95 - 89.5	40.4	No	[10] 5,000	[11] 5,000	5,000	No

Table O-1
Comparison with Criteria
Surficial Aquifer

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection [1]	Range of Detected Concentrations	Mean of Detected Concentrations [2]	Analyte HHCPC? [3] (Yes/No)	Federal Primary MCL [4]	Florida Primary Standard [5]	Florida Guidance Concentration [6]	Exceedance? [7] (Yes/No)

[1] Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed.
[2] The average of detected concentrations is the arithmetic mean of all samples in which the analyte was detected. It does not include those samples in which the analyte was not detected.
[3] HHCPCs were selected for groundwater associated with Site 16 Surficial Aquifier as described in the baseline risk assessment (ABB-ES, 1995?).
[4] Federal Primary MCLs are taken from USEPA Drinking Water Regulations and Health Advisories (May 1994)
[5] Florida Primary Standards are taken from Chapter 1 (Primary Standards) of the FDEP Groundwater Guidance Concentrations (June 1994)
[6] Florida Guidance Concentrations are taken from Chapter 6 (Guidance Concentrations Index) of the FDEP Groundwater Guidance Concentrations (June 1994)
[7] An exceedance of the available critieria is identified when the maximum detected site concentration is greater than one or more of the criteria
[8] Value is the average of a sample and its duplicate(s).
[9] Primary MCL is for cis-1,2-Dichloroethylene
[10] Value is a Federal Secondary MCL.
[11] Value is a Florida Secondary MCL.
[12] Treatment technology action limit for lead in drinking water distribution system identified in the USEPA Drinking Water Standards and Health Advisories (May, 1994)
[13] The maximum detected concentration of the contaminant exceeds the Federal Primary MCL.
[14] The maximum detected concentration of the contaminant exceeds the Florida Primary Standard
[15] The maximum detected concentration of the contaminant exceeds the Florida Guidance Concentration.

Notes. HHCPC = human health chemical of potential concern.
μg/l = micrograms per liter.
DDD = dichlorodiphenyldichloroethane
DDT = dichlorodiphenyltrichloroethane
MCL = Maximum Contaminant Level.
NA = not available.
DDE = dichlorodiphenyldichloroethylene

Table O-2
Comparison with Criteria
Intermediate Aquifier

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection [1]	Range of Detected Concentrations	Mean of Detected Concentrations [2]	Analyte HHCPC? [3] (Yes/No)	Federal Primary MCL [4]	Florida Primary MCL [5]	Florida Guidance Concentration [6]	Exceedance? [7] (Yes/No)
Semivolatiles (µg/l)								
Di-n-butylphthalate	1/4	1 - 1	1	No	NA	NA	700	No
bis(2-Ethylhexyl) phthalate	4/4	1 - 10	5.5	Yes	6	6	6	Yes [10,11,12]
Inorganics (µg/l)								
Antimony	2/4	3 1 - 10 3	6 7	Yes	6	6	6	Yes [10,11,12]
Barium	4/4	7 - 41 8	27.3	No	2,000	2,000	2,000	No
Calcium	4/4	9,160 - 63,400	49,290	No	NA	NA	NA	NA
Chromium	1/4	9 8 - 9 8	9.8	No	100	100	100	No
Copper	2/4	8 - 8.2	8.1	No	[8] 1,000	[9] 1,000	1,000	No
Iron	4/4	69 6 - 444	250	No	[8] 300	[9] 300	300	Yes [10,11,12]
Magnesium	4/4	16,000 - 28,700	24,525	No	NA	NA	NA	NA
Manganese	4/4	6.7 - 57.5	40.5	Yes	[8] 50	[9] 50	50	Yes [10,11,12]
Potassium	4/4	853 - 39,900	10,721	No	NA	NA	NA	NA
Sodium	4/4	8,050 - 30,600	14,798	No	NA	NA	NA	NA
Zinc	3/4	48 6 - 98 5	75.7	No	[8] 5,000	[9] 5,000	5,000	No

Table O-2
Comparison with Criteria
Intermediate Aquifier

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection [1]	Range of Detected Concentrations	Mean of Detected Concentrations [2]	Analyte HHCPC? [3] (Yes/No)	Federal Primary MCL [4]	Florida Primary MCL [5]	Florida Guidance Concentration [6]	Exceedance? [7] (Yes/No)

[1] Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed.
[2] The average of detected concentrations is the arithmetic mean of all samples in which the analyte was detected. It does not include those samples in which the analyte was not detected.
[3] HHCPCs were selected for groundwater associated with Site 16 Intermediate Aquifier in the baseline risk assessment (ABB-ES, 1995?).
[4] Federal Primary MCLs are taken from USEPA Drinking Water Regulations and Health Advisories (May 1994).
[5] Florida Primary Standards are taken from Chapter 1 (Primary Standards) of the FDEP Groundwater Guidance Concentrations (June 1994).
[6] Florida Guidance Concentrations are taken from Chapter 6 (Guidance Concentrations Index) of the FDEP Groundwater Guidance Concentrations (June 1994)
[7] An exceedance of the criteria is identified when the maximum detected site concentration is greater than one or more criteria.
[8] Value is a Federal Secondary MCL
[9] Value is a Florida Secondary MCL.
[10] The maximum detected concentration of the contaminant exceeds the Federal Primary MCL.
[11] The maximum detected concentration of the contaminant exceeds the Florida Primary Standard.
[12] The maximum detected concentration of the contaminant exceeds the Florida Guidance Concentration.

Notes: HHCPC = human health chemical of potential concern.
μg/l = micrograms per liter
MCL = Maximum Contaminant Level.
NA = not available.

Table O-3
Comparison with Criteria
Surface Soil

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection [1]	Range of Detected Concentrations	Range of Reporting Limits	Mean of Detected Concentrations [2]	Analyte HHCPC? [3] (Yes/No)	Background Screening Concentration [4]	FDEP Clean-up Goals [5]	Exceedance? (Yes/No) [6]
Volatiles (µg/kg)								
1,2-Dichloroethene (total)	1/10	[7] 6.5	5 - 11	6.5	No	NA	NP	NA
Trichloroethene	6/10	3 - 150	5 - 12	43 2	No	NA	12,000	No
Semivolatiles (µg/kg)								
Acenaphthene	3/10	32 - 82	360 - 380	55	No	NA	4,000,000	No
Acenaphthylene	1/10	31	360 - 380	31	No	NA	ND	NA
Anthracene	3/10	46 - 170	360 - 380	102	No	NA	18,300,000	No
Benzo (a) anthracene	3/10	200 - 420	360 - 380	340	Yes	NA	1,480	No
Benzo (a) pyrene	5/10	[7] 29 - 310	360 - 380	178	Yes	NA	148	No
Benzo (b) fluoranthene	9/10	23 - 620	360 - 380	193	Yes	NA	1,480	No
Benzo (g,h,i) perylene	5/10	82 - 140	360 - 380	110	No	NA	ND	NA
Benzo (k) fluoranthene	5/10	[7] 20 - 180	360 - 380	103	Yes	NA	1,470	No
Butylbenzylphthalate	6/10	32 - 140	360 - 380	78 2	No	NA	15,300,000	No
Carbazole	3/10	65 - 140	360 - 380	94.7	No	NA	58,100	No
Chrysene	7/10	26 - 360	360 - 380	150	Yes	NA	14,800	No
Dibenz (a,h) anthracene	3/10	29 - 52	360 - 380	41.7	Yes	NA	148	No
Dibenzofuran	1/10	44	360 - 380	44	Yes	NA	290,000	No
Fluoranthene	7/10	41 - 870	360 - 380	351	No	NA	2,990,000	No
Fluorene	3/10	26 - 97	360 - 380	55 3	No	NA	2,760,000	No
Indeno (1,2,3-cd) pyrene	5/10	62 - 190	360 - 380	125	Yes	NA	1,480	No
Naphthalene	1/10	28	360 - 380	28	No	NA	2,290,000	No
Phenanthrene	6/10	[7] 39 - 740	360 - 380	288	No	NA	ND	NA
Pyrene	8/10	24 - 600	360 - 380	203	No	NA	2,224,000	No

See notes at end of table.

Table O-3
Comparison with Criteria
Surface Soil

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection [1]	Range of Detected Concentrations	Range of Reporting Limits	Mean of Detected Concentrations [2]	Analyte HHCPC? [3] (Yes/No)	Background Screening Concentration [4]	FDEP Clean-up Goals [5]	Exceedance? (Yes/No) [6]
Pesticides/PCBs (µg/kg)								
4,4-DDD	1/10	[7] 5 85	3.6 - 4	5 9	No	NA	4,740	No
4,4-DDE	7/10	0.32 - 3.1	3.6 - 4	0.97	No	NA	3,340	No
Aroclor-1260	4/10	5.5 - 33	36 - 38	21 1	No	NA	NP	NA
Endosulfan sulfate	1/10	0 27	3 6 - 4	0 27	No	NA	NP	NA
alpha-Chlordane	4/10	0.6 - [7] 26	1.9 - 2	7 4	No	NA	869	No
gamma-Chlordane	1/10	[7] 30	1.9 - 2	30	No	NA	869	No
Inorganics (mg/kg)								
Aluminum	10/10	932 - [7] 5,950	40 - 40	2,774	No	29,000	ND	No [8]
Barium	10/10	1 7 - 8 7	40 - 40	5 8	No	21	NP	No [8]
Cadmium	5/10	[7] 0.35 - 0 94	1 - 1	0.69	No	-	37.5	No
Calcium	10/10	994 - 13,000	1,000 - 1,000	4,035	Yes	-	NP	NA
Chromium	10/10	1.8 - [7] 13	2 - 2	6 5	No	31.2	[9] 201	No [8]
Cobalt	4/10	0 49 - 0.71	10 - 10	0 61	Yes	-	ND	No
Copper	9/10	0.81 - 3 1	5 - 5	1.7	No	-	2,880	No
Iron	10/10	207 - 1,030	20 - 20	603	No	8,060	ND	No [8]
Lead	10/10	3.9 - 32 1	0.6 - 0 6	16.1	No	15.6	ND	No
Magnesium	10/10	66 - [7] 172.5	1,000 - 1,000	114	No	474	NP	No [8]
Manganese	10/10	2 9 - 14	3 - 3	7.7	No	18	5,710	No [8]
Nickel	9/10	0 81 - 2 6	8 - 8	1 6	No	8	1,510	No [8]
Potassium	9/10	21.7 - 93 7	1,000 - 1,000	45 3	No	310	NP	No [8]
Silver	1/10	0 4	2 - 2	0 4	No	-	NP	No
Sodium	10/10	143 - 192	1,000 - 1,000	164	Yes	-	NP	No

See notes at end of table.

Table O-3
Comparison with Criteria
Surface Soil

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection [1]	Range of Detected Concentrations	Range of Reporting Limits	Mean of Detected Concentrations [2]	Analyte HHCPC? [3] (Yes/No)	Background Screening Concentration [4]	FDEP Clean-up Goals [5]	Exceedance? (Yes/No) [6]
Inorganics (mg/kg)								
Vanadium	10/10	1.2 - 5	10 - 10	2.9	No	34 2	501,000	No [8]
Zinc	8/10	9.4 - 25.2	4 - 4	14.2	No	-	23,330,000	No

[1] Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (16SS01, 16SS02, 16SS03, 16SS04, 16SS05, 16SS06, 16SS07, 16SS08, 16SS09, and 16SS10, including a duplicate at 16SS08).
[2] The average of detected concentrations is the arithmetic mean of all samples in which the analyte was detected It does not include those samples in which the analyte was not detected
[3] HHCPCs were selected for surface soil as described in the baseline risk assessment (ABB-ES, 1995[7]).
[4] Twice the average of detected concentrations for inorganic analytes at BSS01, BSS02, BSS03, and BSS04, including a duplicate at BSS02 (Arents soil unit).
[5] Florida Department of Environmental Protection (FDEP) memorandum dated July 5, 1994 Values presented are the lesser of the Clean-up Goals based on the hazard index for the child resident or the cancer risk for the aggregate resident.
[6] An exceedance of the FDEP clean-up goal is identified when the maximum detected anlayte concentration is greater than the Clean-up goal concentration. Pursuant to FDEP guidance (July, 1994), an analyte that has a maximum detected concentration that is less than the background concentration is not listed as exceeding the FDEP Clean-up goal.
[7] Value is the average of a sample and its duplicate
[8] This analyte is not listed as exceeding the FDEP Clean-up Goal because the maximum detected concentration of the analyte is less than the background soil screening concentration
[9] Value is for chromium VI.

Notes. HHCPC = human health chemical of potential concern.
mg/kg = milligrams per kilogram
ND = analayte is presented in FDEP guidance but no data is provided.
DDD = dichlorodiphenyldichloroethane.
- = not detected in any background samples
µg/kg = micrograms per kilogram
NP = analyte is not presented in FDEP guidance
DDE = dichlorodiphenyldichloroethylene
NA = not applicable.

Table O-4
Comparison with Criteria
Subsurface Soil

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection [1]	Range of Detected Concentrations	Range of Reporting Limits	Mean of Detected Concentrations [2]	Analyte HHCPC? [3] (Yes/No)	Background Screening Concentration [4]	FDEP Clean-up Goals Based on Leachability [5]	Exceedance? [6] (Yes/No)
Volatiles (µg/kg)								
1,2-Dichloroethene (total)	3/24	[7] 3 - [7] 350	5 - 28	145	No	NA	NP	NA
2-Butanone	1/24	6	11 - 54	6	No	NA	878	No
Acetone	4/24	46 - 220	11 - 150	169	No	NA	143	Yes
Methylene chloride	10/24	[7] 2.5 - 10	5 - 28	6	No	NA	1.13	Yes
Trichloroethene	9/24	3 - 650	5 - 54	146	No	NA	1.46	Yes
Semivolatiles (µg/kg)								
2-Methylnaphthalene	1/24	21	360 - 410	21	No	NA	ND	NA
Benzo (a) pyrene	2/24	20 - 21	360 - 410	20.5	No	NA	2,200	No
Benzo (b) fluoranthene	6/24	23 - 49	360 - 410	32.4	No	NA	4,400	No
Benzo (g,h,i) perylene	2/24	19 - 21	360 - 410	20	No	NA	32,000	No
Butylbenzylphthalate	4/24	21 - 750	360 - 410	244	No	NA	24,200	No
Chrysene	1/24	46	360 - 410	46	No	NA	2,000	No
Diethylphthalate	1/24	23	360 - 410	23	No	NA	NP	NA
Dimethylphthalate	1/24	29	360 - 410	29	No	NA	NP	NA
Fluoranthene	2/24	[7] 23.5 - 28	360 - 410	25.8	No	NA	21,300	No
Indeno (1,2,3-cd) pyrene	1/24	20	360 - 410	20	No	NA	24,000	No
Phenol	2/24	20 - 33	360 - 410	26.5	No	NA	NP	NA
Pyrene	2/24	21 - [7] 23	360 - 410	22	No	NA	16,000	No
bis(2-Ethylhexyl) phthalate	8/24	23 - 600	360 - 410	108	No	NA	NP	NA
Pesticides/PCBs (µg/kg)								
4,4-DDD	2/24	0.99 - 3.1	0.6 - 4.1	2	No	NA	154	No
4,4-DDE	8/24	0.27 - [7] 4.2	3.6 - 4.1	1.2	No	NA	880	No

See notes at end of table.

Table O-4
Comparison with Criteria
Subsurface Soil

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection [1]	Range of Detected Concentrations	Range of Reporting Limits	Mean of Detected Concentrations [2]	Analyte HHCPC? [3] (Yes/No)	Background Screening Concentration [4]	FDEP Clean-up Goals Based on Leachability [5]	Exceedance? [6] (Yes/No)
Pesticides/PCBs (µg/kg)								
4,4-DDT	1/24	0 31	2.25 - 4 1	0 31	No	NA	48 6	No
Aroclor-1248	2/24	[7] 15.8 - 30	33 - 41	22 9	No	NA	NP	NA
Aroclor-1254	3/24	[7] 15 - 66	36 - 41	43.3	No	NA	NP	NA
Aroclor-1260	4/24	3.1 - 49	36 - 41	16.5	No	NA	NP	NA
Heptachlor epoxide	1/24	1.5	0 4 - 2 1	1.5	No	NA	0.128	No
alpha-Chlordane	5/24	[7] 1.25 - 19	1.8 - 2.1	6 8	No	NA	560	No
gamma-Chlordane	7/24	1 - 22	1 8 - 2.1	5.9	No	NA	560	No
Inorganics (mg/kg)								
Aluminum	24/24	882 - 15,300	40 - 140	6,150	No	11,200	ND	NA
Arsenic	5/24	0.75 - 1.9	2 - 2	1.1	Yes	1.64	ND	NA
Barium	22/24	1 6 - 15 6	40 - 40	7 1	No	16	NP	NA
Cadmium	1/24	0.93	1 - 1	0.93	No	-	ND	NA
Calcium	18/24	304 - 45,500	1,000 - 1,000	4,370	Yes	320	NP	NA
Chromium	24/24	[7] 1.4 - 19.5	2 - 2	8.3	No	16	ND	NA
Cobalt	14/24	0 49 - [7] 2 85	10 - 10	1	Yes	-	ND	NA
Copper	16/24	[7] 0.525 - 2 1	5 - 5	0 84	No	1 16	ND	NA
Cyanide	2/23	1.7 - 2	0.5 - 0.5	1.9	No	-	NP	NA
Iron	24/24	191 - 4,420	20 - 20	1,030	No	2,840	ND	NA
Lead	24/24	1.6 - 55	0.6 - 0 6	7.6	No	14	ND	NA
Magnesium	18/24	39.7 - 339	1,000 - 1,000	189	No	268	NP	NA
Manganese	24/24	2.8 - 8	3 - 3	4.8	No	7.8	ND	NA
Mercury	4/24	0 12 - [7] 0 13	0.1 - 0.1	0.13	No	1 1	NP	NA

See notes at end of table.

Table O-4
Comparison with Criteria
Subsurface Soil

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection [1]	Range of Detected Concentrations	Range of Reporting Limits	Mean of Detected Concentrations [2]	Analyte HHCPC? [3] (Yes/No)	Background Screening Concentration [4]	FDEP Clean-up Goals Based on Leachability [5]	Exceedance? [6] (Yes/No)
Inorganics (mg/kg)								
Nickel	22/24	0.48 - 5	8 - 8	2.2	No	5 4	ND	NA
Potassium	18/24	33 6 - [7] 277	1,000 - 1,000	103	No	152	NP	NA
Sodium	8/24	142 - 781	1,000 - 1,000	239	No	312	NP	NA
Thallium	2/24	2.1 - 2 6	2 - 2	2.4	Yes	-	NP	NA
Vanadium	24/24	[7] 1.1 - 17	10 - 10	5.7	No	16	ND	NA
Zinc	2/24	9.4 - 25 8	4 - 4	17.6	No	-	ND	NA

[1] Frequency of detection is the number of samples in which the analyte was detected divided by the total number of samples analyzed (16SB10S2, 16SB10S4, 16SB11S2, 16SB11S6, 16SB12S2, 16SB12S6, 16SB1S0, 16SB1S6, 16SB2S2, 16SB2S4, 16SB3S0, 16SB3S6, 16SB4S2, 16SB4S6, 16SB5S2, 16SB5S6, 16SB6S2, 16SB6S4, 16SB7S2, 16SB7S4, 16SB8S2, 16SB8S4, 16SB9S4, 16SB9S6, including duplicates at 16SB10S2, 16SB5S2, and 16SB7S2)

[2] The average of detected concentrations is the arithmetic mean of all samples in which the analyte was detected It does not include those samples in which the analyte was not detected

[3] HHCPCs were selected for subsurface soil as described in the baseline risk assessment (ABB-ES, 1995?).

[4] Twice the average of detected concentrations for inorganic analytes at CEFBBMS1S0, CEFBBMS1S6, CEFBBMS2S2, CEFBBMS2S6, CEFBBMS312, CEFBBMS316, CEFBBMS4S2, CEFBBMS4S4, CEFBBMS5S2, CEFBBMS5S6, CEFBBMS610, CEFBBMS616, CEFBBMS7S0, CEFBBMS7S4, CEFBBMS8S2, CEFBBMS8S6, CEFBBMS910, and CEFBBMS916, including a duplicate at CEFBBMS7S0 (background).

[5] Florida Department of Environmental Protection (FDEP) memorandum dated July 5, 1994. Values presented are the Clean-up Goals based on Leachability

[6] An exceedance of the FDEP clean-up goal is identified when the maximum detected anlalyte concentration is greater than the Clean-up goal concentration Pursuant to FDEP guidance (July, 1994), an analyte that has a maximum detected concentration that is less than the background concentration is not listed as exceeding the FDEP Clean-up goal

[7] Value is the average of a sample and its duplicate.

Notes:
HHCPC = human health chemical of potential concern
mg/kg = milligrams per kilogram.
ND = analyte is presented in FDEP guidance but no criterion is provided
DDE = dichlorodiphenyldichloroethylene
NP = FDEP clean-up criterion for this analyte not presented in guidance
NA = not applicable.
μg/kg = micrograms per kilogram.
DDD = dichlorodiphenyldichloroethane
DDT = dichlorodiphenyltrichloroethane.
- = not detected in any background samples.

Table O-5
Summary of Total Petroleum Hydrocarbon Data

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Sampling Location	TPH (mg/kg)
Surface Soil	
16SS01	ND
16SS02	170 [1]
16SS03	85 [1]
16SS04	16
16SS05	49
16SS06	18
16SS07	ND
16SS08	11
16SS08dup	42
16SS09	18
16SS10	14
Subsurface Soil	
16SB10S2	ND
16SB10S2dup	ND
16SB10S4	ND
16SB11S2	68 [1]
16SB11S6	21
16SB12S2	100 [1]
16SB12S6	450 [1]
16SB1S0	ND
16SB1S6	ND
16SB2S2	ND
16SB2S4	ND
16SB3S0	32
16SB3S6	ND
16SB4S2	ND
16SB4S6	ND
16SB5S2	ND
16SB5S2dup	ND

See notes at end of table.

Table O-5
Summary of Total Petroleum Hydrocarbon Data

Remedial Investigation
NAS Cecil Field
Jacksonville, Florida

Sampling Location	TPH (mg/kg)
Subsurface Soil	
16SB5S6	ND
16SB6S2	ND
16SB6S4	ND
16SB7S2	17
16SB7S2dup	ND
16SB7S4	ND
16SB8S2	ND
16SB8S4	ND
16SB9S4	ND
16SB9S6	ND
Sediment	
STCSD1	1,920 [1]
STCSD3	1,030 [1]
STCSD4	214 [1]

[1] This value exceeds the Florida TPH soil clean-up goal of 50 mg/kg for thermally treated soil as cited in Chapter 62-775, of the Florida Administrative Code (Florida Legislature, 1992).

Notes: TPH = total petroleum hydrocarbon ND = not detected

Table O-6
Regulatory Guidance Comparison
Site 16 Surface Water Associated With Drainage Ditches

Remedial Investigation
Operable Unit 7, NAS Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection[1]	Range of Detected Concentrations	Mean of Detected Concentrations[2]	Contaminant of Potential Concern[3]	AWQC[4]	State of Florida Surface Water Quality Standard[5]	Exceedance? (Yes/No)
Volatiles (µg/l)							
1,2-Dichloroethene (total)	2/3	4 - 9	6.5	A/W	NA	NA	NA
Toluene	1/3	2 - 2	2	W	NA	NA	NA
Trichloroethene	2/3	8 - 20	14	A/W	[6]21,900	80.7	No
Inorganics (µg/l)							
Aluminum	3/3	292 - 490	384	No	[7]748	NA	No
Barium	3/3	17.6 - 18.6	18 2	No	NA	NA	NA
Beryllium	1/3	0.49 - 0.49	0 49	W	5 3	0.13	Yes[9]
Cadmium	2/3	0.32 - 37 3	18 8	A/W	1 1	0.63	Yes[8,9]
Calcium	3/3	6,510 - 10,800	9,137	No	NA	NA	NA
Copper	3/3	2.4 - 11.9	6.4	A/W	12	6.2	Yes[9]
Iron	3/3	847 - 1,470	1,112	A/W	1,000	1.0	Yes[8 9]
Lead	1/3	14.1 - 14.1	14.1	A/W	3.2	1.22	Yes[8,9]
Magnesium	3/3	1,190 - 3,290	2,520	No	NA	NA	NA
Manganese	1/3	9.6 - 9 6	9.6	No	NA	NA	NA
Sodium	3/3	3,120 - 5,200	4,373	No	NA	NA	NA
Zinc	3/3	25.4 - 68.4	39.8	A/W	110	55 9	Yes[9]

Table O-6
Regulatory Guidance Comparison
Site 16 Surface Water Associated With Drainage Ditches

Remedial Investigation
Operable Unit 7, NAS Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection[1]	Range of Detected Concentrations	Mean of Detected Concentrations[2]	Contaminant of Potential Concern[3]	AWQC[4]	State of Florida Surface Water Quality Standard[5]	Exceedance? (Yes/No)

[1] Frequency of detection is the number of samples in which the analyte is detected divided by the total number of samples analyzed.
[2] The average of detected concentrations is the arithmetic mean of all samples in which the analyte was detected; it does not include those samples in which the analyte was not detected
[3] Contaminants of potential concern were selected for surface water associated with Sal Taylor Creek adjacent to Site 16 as described in Section 6 4
A = ECPC for Aquatic Receptors
W = ECPC for Terrestrial Receptors
[4] Federal Ambient Water Quality Criteria (AWQC) (USEPA, 1988 and 1991)
[5] Florida Department of Environmental Protection (17-302; 4/25/93 version) Surface Water Quality Standards. Values for cadmium, copper, lead, and zinc are based upon equations using the average measured hardness for surface water samples of 47 mg/l from Sal Taylor Creek, including STC-SW-R1, STC-SW-1, STC-SW-3, and STC-SW-4.
[6] Value is the lowest observed effect level (LOEL).
[7] The AWQC represented is the Final Chronic Value for aluminum of 748 μg/l. The Federal AWQC for aluminum of 87 μg/l is not appropriate as a screening value because it represents extra protection for brook trout and striped bass, which are not present in the wetlands.
[8] The maximum detected concentration of the contaminant exceeds the Federal AWQC.
[9] The maximum detected concentration of the contaminant exceeds the Florida Surface Water Quality Standard.

Notes: μg/l = micrograms per liter.
mg/l = milligrams per liter
ECPC = ecological contaminant of potential concern.
NA = Not available
AWQC = Ambient Water Quality Criteria.

Table O-7
Regulatory Guidance Comparison
Site 16 Sediment Associated With Drainage Ditches

Remedial Investigation
Operable Unit 7, NAS Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection[1]	Range of Detected Concentrations	Mean of Detected Concentrations[2]	Contaminant of Ecological Concern[3]	Region IV Sediment Quality Screening Values[4]	Exceedance? (Yes/No)
Volatiles (µg/kg)						
2-Butanone	2/3	3 - 5	4	A/W	NA	NA
Acetone	3/3	3 - 11	7 3	A/W	NA	NA
Toluene	2/3	4 - 6	5	A/W	NA	NA
Semivolatiles (µg/kg)						
bis(2-Ethylhexyl) phthalate	2/3	8,200 - 12,000	10,100	A/W	NA	NA
Inorganics (mg/kg)						
Aluminum	3/3	1,820 - 3,890	2,840	A/W	NA	NA
Barium	3/3	3 - 11.1	6.3	A/W	NA	NA
Cadmium	1/3	4.6 - 4.6	4.6	A/W	1 0	Yes[5]
Calcium	2/3	142 - 436	289	No	NA	NA
Chromium	2/3	11 4 - 11 9	11.7	W	33	No
Chromium,hexavalent	1/1	0 99 - 0.99	0.99	A/W	NA	NA
Copper	3/3	2 8 - 13.5	9 3	W	28	No
Iron	3/3	463 - 1,500	815	A/W	NA	NA
Lead	3/3	4.7 - 30.6	21.7	A/W	21	Yes[5]
Magnesium	2/3	60.1 - 138	99.1	No	NA	NA
Manganese	1/3	4.9 - 4.9	4.9	A/W	NA	NA
Mercury	2/3	0.06 - 0.12	0.09	A/W	0.1	Yes[5]
Nickel	1/3	4.6 - 4.6	4.6	W	20.9	No
Sodium	1/3	21.2 - 21.2	21.2	No	NA	NA
Vanadium	2/3	4.1 - 6.8	5.4	A/W	NA	NA

Table O-7
Regulatory Guidance Comparison
Site 16 Sediment Associated With Drainage Ditches

Remedial Investigation
Operable Unit 7, NAS Cecil Field
Jacksonville, Florida

Analyte	Frequency of Detection[1]	Range of Detected Concentrations	Mean of Detected Concentrations[2]	Contaminant of Ecological Concern[3]	Region IV Sediment Quality Screening Values[4]	Exceedance? (Yes/No)
Zinc	3/3	19.5 - 109	68.4	A/W	68	Yes[5]

[1] Frequency of detection is the number of samples in which the analyte is detected divided by the total number of samples analyzed.
[2] The average of detected concentrations is the arithmetic mean of all samples in which the analyte was detected; it does not include those samples in which the analyte was not detected.
[3] Contaminants of potential concern were selected for sediment associated with the drainage ditches are described in Section 6.4.
A = ECPC for Aquatic Receptors
W = ECPC for Terrestrial Wildlife
[4] Region IV Waste Management Division Sediment Screening Values for Hazardous Waste Sites (2/16/94 Version)
[5] The maximum detected concentration of the contaminant exceeds the Region IV Sediment Quality Screening Value

Notes: µg/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ECPC = ecological contaminant of potential concern.
NA = Not available.

APPENDIX P

APPENDIX P

STORM DRAIN SAMPLING AND ANALYSIS DATA

STORM SEWER RECONNAISSANCE
SITE 16
NAS CECIL FIELD

A storm sewer reconnaissance was conducted by Eric Blomberg and Alan Workman of ABB on October 25, 1994 to evaluate the potential discharge of groundwater from the Site 16 contaminant plume into the storm sewer and eventually into Sal Taylor Creek. This information will be used to determine if the groundwater to surface water contaminant migration pathway will be included in the ecological risk assessment.

Storm Sewer Assessment

Storm sewers (see attached figure) that intersect or may influence the Site 16 groundwater contaminant plume were identified and sampled. For convenience, the storm sewers were numbered 1 through 4, with 1 being the northern most storm sewer. Storm sewers 1 and 2 were found to be the sewers that most likely would influence the contaminant plume at Site 16. The ground elevation in this area is approximately 74 to 76 feet msl and the invert elevation of the storm sewers is approximately 65 feet msl, indicating that the bottom of the main storm sewer approximately 3 feet below the water table. It should be noted that many other smaller diameter storm sewers drain into the main sewers and are above the water table.
in it during the investigation.

Storm Sewer No. 1

Storm sewer No. 1 begins at the eastern side of Building 313 and runs to the east and discharges to the east of the north-south runways. No water was observed in the initial catch basin which was approximately 3 feet below land surface. Water was observed in the next catch basin which is located at the southeast corner of Building 815 and has a land surface elevation of 76.96 feet msl and an invert elevation of 69.13 feet msl. Sample CF-STM-1-1 was collected from this catch basin. Sample CF-STM-1-2 was collected from the next catch basin (land surface elevation of 75.82 feet msl and invert elevation of 67.78 feet msl) east of sample CF-STM-1-1. As shown on the storm sewer figure, several smaller storm sewers discharge into the main storm sewer. At sample location CF-STM-1-2, water was flowing into the main stormsewer from a smaller pipe in the north wall of the catch basin. This water was mixing with the water in the main storm sewer and a sample of the mixed water was collected. Strong unidentifiable chemical odors emanated from the catch basin. Sample locations are shown on the attached figure. The water samples were sent offsite for analysis of VOCs using USEPA method 8240.

Storm Sewer No. 2

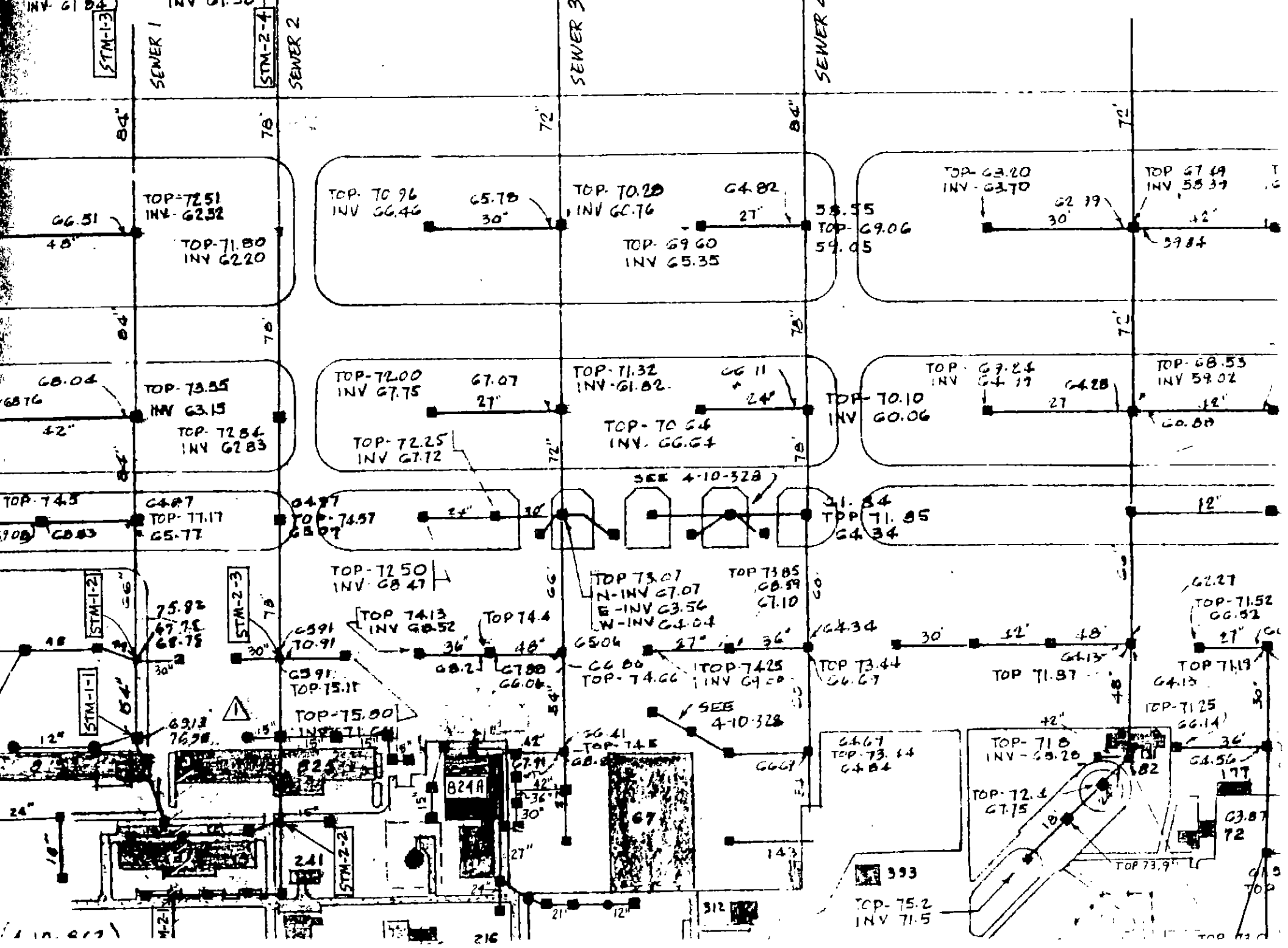
Storm sewer No. 2 begins west of Building 313 at the base housing area and runs east to building 313, turns south and runs to the south end of Building 313, turns east and runs under Building 825 and the runways and discharges east of the north-south runways. Water was observed and sampled where the main sewer turns to the south on the west side of Building 313. The sample number at that location was CF-STM-2-1 and will represent water that is west of and outside the assessed groundwater contaminant plume at Site 16. No invert elevation information is available for this location but it appeared to be approximately 8 feet bls. Only a few inches of water were flowing through the storm sewer at this location. Sample number CF-STM-2-1 was collected from the catch basin located at the southeastern corner of Building 313. Sample number CF-STM-2-3 was collected from the second catch basin east of Building 825 along the main storm sewer No. 2. Sample CF-STM-2-4 was collected east of the north-south runways at the outfall of stormsewer No. 2. The water samples were sent offsite for analysis of VOCs using USEPA method 8240.

Storm Sewer Outfalls

The storm sewer outfalls from the four sewer lines (see attached figure), numbered 1 through 4, that drain the east side of the industrial area were visually observed. Water was flowing from each of sewer outfalls at a flowrate of approximately 5-10 gallons per minute. No rain had fallen at Cecil Field in over a week indicating that the water discharging from the end of the storm sewers may be groundwater. Booms were stretched across each of the tributaries created by the outfalls to absorb any petroleum products that may have entered the sewers. The depth of water in the tributaries ranged from approximately 1 to 4 feet. Petroleum sheens were observed on the water upstream of the booms at the sewer outfalls 3 and 4.

A ditch that drained the area of investigation prior to the construction of the north-south runways was also investigated. The ditch was filled in during the construction of the runways in the early 1950's. The ditch formerly ran through the area that is currently occupied by the southern end of Building 313, to the southeast and eventually turning to the east and passing between storm sewer 3 and 4 outfalls. The previous location of the drainage ditch can be seen of the attached USGS quad map. No remnants of the ditch or water seeps/discharges were observed along the former ditch location between sewers 3 and 4.

Surface water and sediment samples (CF-STM-1-3 and 2-4) were collected at the outfalls of the two northern stormsewers because they were the only sewers that intersected or were near to the Site 16 contaminant plume. The samples were sent to an offsite laboratory for Level III analysis by USEPA method 8240.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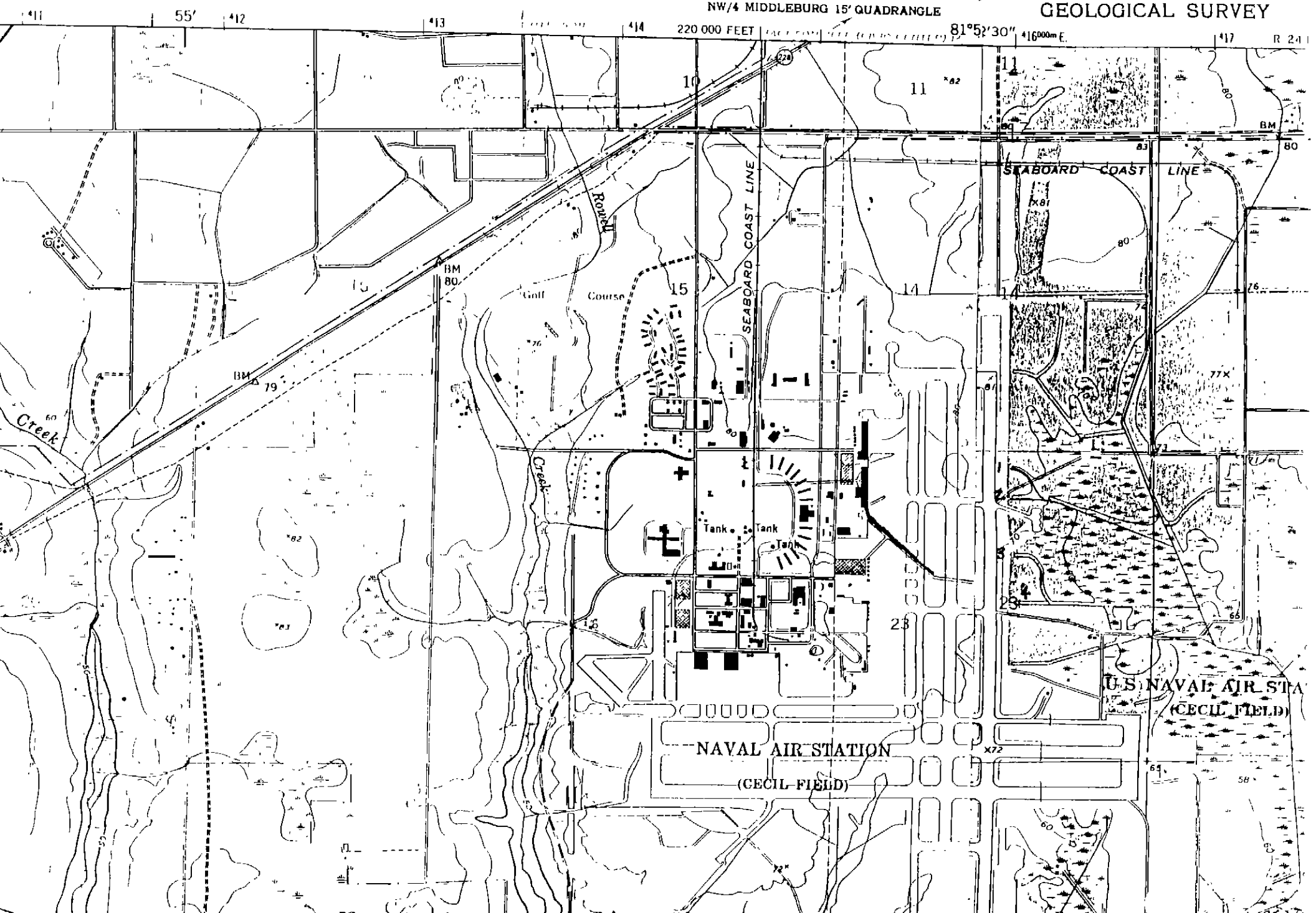
SEWER 2
SEWER 3
STM-1-3
STM-2-4
STM-1-2
STM-2-3
STM-1-1
STM-2-2
TOP-72.51
INV-62.32
TOP-71.80
INV 62.20
TOP-73.55
INV 63.15
TOP-72.84
INV 62.83
TOP-70.96
INV 66.46
TOP-70.28
INV 66.76
TOP-69.60
INV 65.35
TOP-69.06
TOP-72.00
INV 67.75
TOP-71.32
INV-61.82
TOP-70.64
INV. 66.64
TOP-70.10
INV 60.06
TOP-72.25
INV 67.72
SEE 4-10-328
TOP-74.5
TOP-77.17
TOP-74.57
TOP-72.50
INV 68.47
TOP 73.07
N-INV 67.07
E-INV 63.56
W-INV 64.04
TOP 73.85
TOP 74.13
INV 68.52
TOP 74.4
TOP-74.66
TOP-74.25
TOP 73.44
TOP 71.87
TOP-71.52
TOP-71.25
TOP-75.80
TOP-75.11
TOP-71.8
INV-65.28
TOP-72.4
TOP-75.2
INV 71.5
824A
825
241
393
312
216
177

UNITED STATES
DEPARTMENT OF THE INTERI
GEOLOGICAL SURVEY

7.5 MINUTE SERIES (TOPOGRAPHIC)
NW/4 MIDDLEBURG 15' QUADRANGLE



CHAIN OF CUS Y RECORD

PROJECT NO.	PROJECT NAME
8500-09	NAS CECIL FIELD OPERABLE UNIT 7

CLIENT NAME
ABB ENVIRONMENTAL SERVICES, INC.
2590 Executive Ctr. Circle East
Berkely Building
Tallahassee, Florida 32301

PROJECT MANAGER: Barry Lester

COPY TO: Charles Donahue

FIELD OPERATION LEADER: NAME: MARIA PIJNENBERG
NAS Cecil Field
(904) 566-0425

REQUESTED COMP. DATE: 1 WEEK TURNAROUND

SAMPLING REQUIREMENTS: SDWA NPDES RCRA OTHER

FOR LAB USE ONY
Client Code: 026323
Enseco – Wadsworth/ALERT Laboratories
4101 Shuffel Drive N.W.
North Canton, Ohio 44720
Contact: Deb Hula
(216) 497-9396 (Voice)
(216) 497-0772 (Fax)
QUOTE # 16467

ANALYSES REQUESTED

SITE ID CODE XX	SAMPLE MATRIX CODE XX	SAMPLE LOCATION CODE XXX	SAMPLE SEQUENCE CODE XX	DATE	TIME	DEPTH	AIR	WTR	SOIL	NO. OF CONTAINERS	CLP-VOC (4oz. gl) ice	CLP-SVOC (4oz. gl) ice	PCB/PEST (4oz. gl) ice	TAL-METALS (16oz. gl) ice	TOC (4oz. gl) ice	TPH (4oz. gl) ice	8240 (40ml) HCl	8240 (4oz) ICE						LAB ID	REMARKS
CF	STM	2-4	W	10-25-94	1130			✓		2							2								
CF	STM	1-3	W	10-25-94	1115			✓		2							2								
CF	STM	2-4	S	10-25-94	1130				✓	1								1							
CF	STM	1-3	S	10-25-94	1115				✓	1								1							
CF	STM	2-1	W	10-25-94	1410			✓		2							2								
CF	STM	2-2	W	10-25-94	1415			✓		2							2								
CF	STM	1-1	W	10-25-94	1425			✓		2							2								
CF	STM	1-2	W	10-25-94	1435			✓		2							2								
CF	STM	2-3	W	10-25-94	1445			✓		2							2								

SAMPLED BY AND TITLE: ALAN WORKMAN	DATE/TIME: 10-25-94 1100	RELINQUISHED BY: Alan Workman	DATE/TIME: 10-25-94 1700
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY:	DATE/TIME	RELINQUISHED BY:	DATE/TIME
RECEIVED BY LAB:	DATE/TIME	SAMPLE SHIPPED VIA: UPS BUS FED-EX HAND OTHER	AIR BILL NUMBER: 2412877784

HAZWRAP/NEESA Y N
QC LEVEL 1 2 3 4 5
COC | ICE
ANA REQ | TEMP
CUST SEAL | Ph
SAMPLE CONDITION

REMARKS

ENTERED INTO LIMS ____ COC REVIEWED ____

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

M1-1W

Lab Name: QUANTERRA INC. Contract: -

Lab Code: QESOH Case No.: SAS No.: SDG No.: J2632

Matrix: (soil/water) WATER Lab Sample ID: A110L101

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V1501186.D

Level: (low/med) LOW Date Received: 10/26/94

% Moisture: not dec. _____ Date Analyzed: 10/27/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	50	U
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
156-60-5	1,2-Dichloroethene(TOTAL)	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	50	U
156-59-2	cis-1,2-dichloroethene	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-10-1	4-Methyl-2-pentanone	50	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
591-78-6	2-Hexanone	50	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	m + p-Xylene	5	U
95-47-6	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

M1-1W

Lab Name: QUANTERRA INC. Contract: -

Lab Code: QESOH Case No.: SAS No.: SDG No.: J2632

Matrix: (soil/water) WATER Lab Sample ID: A110L101

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V1501186.D

Level: (low/med) LOW Date Received: 10/26/94

% Moisture: not dec. _____ Date Analyzed: 10/27/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

M1-2W

Lab Name: QUANTERRA INC. Contract: -

Lab Code: QESOH Case No.: SAS No.: SDG No.: J2632

Matrix: (soil/water) WATER Lab Sample ID: A110N101

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V1601187.D

Level: (low/med) LOW Date Received: 10/26/94

% Moisture: not dec. _____ Date Analyzed: 10/27/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	50	U
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
156-60-5	1,2-Dichloroethene(TOTAL)	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	50	U
156-59-2	cis-1,2-dichloroethene	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	6	
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-10-1	4-Methyl-2-pentanone	50	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
591-78-6	2-Hexanone	50	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	m + p-Xylene	5	U
95-47-6	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

M1-2W

Lab Name: QUANTERRA INC. Contract: -

Lab Code: QESOH Case No.: SAS No.: SDG No.: J2632

Matrix: (soil/water) WATER Lab Sample ID: A110N101

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V1601187.D

Level: (low/med) LOW Date Received: 10/26/94

% Moisture: not dec. _____ Date Analyzed: 10/27/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

M1-3W

Lab Name: QUANTERRA INC. Contract: -

Lab Code: QESOH Case No.: SAS No.: SDG No.: J2632

Matrix: (soil/water) WATER Lab Sample ID: A110D101

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V1201183.D

Level: (low/med) LOW Date Received: 10/26/94

% Moisture: not dec. _____ Date Analyzed: 10/27/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	50	U
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
156-60-5	1,2-Dichloroethene(TOTAL)	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	50	U
156-59-2	cis-1,2-dichloroethene	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-10-1	4-Methyl-2-pentanone	50	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
591-78-6	2-Hexanone	50	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	m + p-Xylene	5	U
95-47-6	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

M1-3W

Lab Name: QUANTERRA INC. Contract: -

Lab Code: QESOH Case No.: SAS No.: SDG No.: J2632

Matrix: (soil/water) WATER Lab Sample ID: A110D101

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V1201183.D

Level: (low/med) LOW Date Received: 10/26/94

% Moisture: not dec. _____ Date Analyzed: 10/27/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

M2-1W

Lab Name: QUANTERRA INC. Contract: -

Lab Code: QESOH Case No.: SAS No.: SDG No.: J2632

Matrix: (soil/water) WATER Lab Sample ID: A110H101

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V1301184.D

Level: (low/med) LOW Date Received: 10/26/94

% Moisture: not dec. _____ Date Analyzed: 10/27/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	50	U
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
156-60-5	1,2-Dichloroethene (TOTAL)	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	50	U
156-59-2	cis-1,2-dichloroethene	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	3	J
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-10-1	4-Methyl-2-pentanone	50	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
591-78-6	2-Hexanone	50	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	m + p-Xylene	5	U
95-47-6	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

M2-1W

Lab Name: QUANTERRA INC. Contract: -

Lab Code: QESOH Case No.: SAS No.: SDG No.: J2632

Matrix: (soil/water) WATER Lab Sample ID: A110H101

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V1301184.D

Level: (low/med) LOW Date Received: 10/26/94

% Moisture: not dec. _____ Date Analyzed: 10/27/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

M2-2W

Lab Name: QUANTERRA INC. Contract: -

Lab Code: QESOH Case No.: SAS No.: SDG No.: J2632

Matrix: (soil/water) WATER Lab Sample ID: A110K101

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V1401185.D

Level: (low/med) LOW Date Received: 10/26/94

% Moisture: not dec. _____ Date Analyzed: 10/27/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	4	J
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
156-60-5	1,2-Dichloroethene (TOTAL)	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	50	U
156-59-2	cis-1,2-dichloroethene	52	
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	126	
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-10-1	4-Methyl-2-pentanone	50	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
591-78-6	2-Hexanone	50	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	m + p-Xylene	5	U
95-47-6	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

M2-2W

Lab Name: QUANTERRA INC. Contract: -

Lab Code: QESOH Case No.: SAS No.: SDG No.: J2632

Matrix: (soil/water) WATER Lab Sample ID: A110K101

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V1401185.D

Level: (low/med) LOW Date Received: 10/26/94

% Moisture: not dec. _____ Date Analyzed: 10/27/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

M2-3W

Lab Name: QUANTERRA INC. Contract: -

Lab Code: QESOH Case No.: SAS No.: SDG No.: J2632

Matrix: (soil/water) WATER Lab Sample ID: A110P101

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V1701188.D

Level: (low/med) LOW Date Received: 10/26/94

% Moisture: not dec. _____ Date Analyzed: 10/27/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	50	U
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
156-60-5	1,2-Dichloroethene (TOTAL)	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	50	U
156-59-2	cis-1,2-dichloroethene	19	
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	55	
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-10-1	4-Methyl-2-pentanone	50	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
591-78-6	2-Hexanone	50	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	m + p-Xylene	5	U
95-47-6	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

M2-3W

Lab Name: QUANTERRA INC. Contract: -

Lab Code: QESOH Case No.: SAS No.: SDG No.: J2632

Matrix: (soil/water) WATER Lab Sample ID: A110P101

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V1701188.D

Level: (low/med) LOW Date Received: 10/26/94

% Moisture: not dec. _____ Date Analyzed: 10/27/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

M2-4W

Lab Name: QUANTERRA INC. Contract: -

Lab Code: QESOH Case No.: SAS No.: SDG No.: J2632

Matrix: (soil/water) WATER Lab Sample ID: A110A101

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V0401175.D

Level: (low/med) LOW Date Received: 10/26/94

% Moisture: not dec. _____ Date Analyzed: 10/27/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	50	U
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
156-60-5	1,2-Dichloroethene(TOTAL)	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	50	U
156-59-2	cis-1,2-dichloroethene	10	
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	26	
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-10-1	4-Methyl-2-pentanone	50	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
591-78-6	2-Hexanone	50	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	m + p-Xylene	5	U
95-47-6	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

M2-4W

Lab Name: QUANTERRA INC. Contract: -

Lab Code: QESOH Case No.: SAS No.: SDG No.: J2632

Matrix: (soil/water) WATER Lab Sample ID: A110A101

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V0401175.D

Level: (low/med) LOW Date Received: 10/26/94

% Moisture: not dec. _____ Date Analyzed: 10/27/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3S

Lab Name:QUANTERRA INC. Contract:-

Lab Code:QESOH Case No.: SAS No.: SDG No.:J2632

Matrix: (soil/water) SOIL Lab Sample ID:A110G101

Sample wt/vol: 5.00 (g/ml) G Lab File ID: VOI5857

Level: (low/med) LOW Date Received:10/26/94

% Moisture: not dec. 24 Date Analyzed:10/27/94

GC Column:RTX502.2 ID: 0.53(mm) Dilution Factor: 1.00

Soil Extract Volume: 1.00 (uL) Soil Aliquot Volume: 1.00(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13.	U
74-83-9	Bromomethane.	13.	U
75-01-4	Vinyl Chloride	13.	U
75-00-3	Chloroethane	13.	U
75-09-2	Methylene Chloride	6.	U
67-64-1	Acetone	22.	JB
75-15-0	Carbon Disulfide	6.	U
75-35-4	1,1-Dichloroethene	6.	U
75-34-3	1,1-Dichloroethane	6.	U
156-60-5	trans-1,2-Dichloroethene	6.	U
67-66-3	Chloroform	6.	U
107-06-2	1,2-Dichloroethane	6.	U
78-93-3	2-Butanone	4.	J
71-55-6	1,1,1-Trichloroethane	6.	U
56-23-5	Carbon Tetrachloride	6.	U
75-27-4	Bromodichloromethane	6.	U
78-87-5	1,2-Dichloropropane	6.	U
10061-01-5	cis-1,3-Dichloropropene	6.	U
79-01-6	Trichloroethene	6.	U
124-48-1	Dibromochloromethane	6.	U
79-00-5	1,1,2-Trichloroethane	6.	U
71-43-2	Benzene	6.	U
10061-02-6	trans-1,3-Dichloropropene	6.	U
75-25-2	Bromoform	6.	U
108-10-1	4-Methyl-2-Pentanone	66.	U
591-78-6	2-Hexanone	66.	U
127-18-4	Tetrachloroethene	6.	U
79-34-5	1,1,2,2-Tetrachloroethane	6.	U
108-88-3	Toluene	6.	U
108-90-7	Chlorobenzene	6.	U
100-41-4	Ethylbenzene	6.	U
100-42-5	Styrene	6.	U
1330-20-7	Xylene (total)	6.	U
156-59-2	cis-1,2-Dichloroethene	6.	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

4S

Name:QUANTERRA INC. Contract:-

Code:QESOH Case No.: SAS No.: SDG No.:J2632

trix: (soil/water) SOIL Lab Sample ID:A11OE101

mple wt/vol: 5.00 (g/ml) G Lab File ID: VOI5856

vel: (low/med) LOW Date Received:10/26/94

Moisture: not dec. 19 Date Analyzed:10/27/94

Column:RTX502.2 ID: 0.53(mm) Dilution Factor: 1.00

il Extract Volume: 1.00 (uL) Soil Aliquot Volume: 1.00(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12.	U
74-83-9	Bromomethane	12.	U
75-01-4	Vinyl Chloride	12.	U
75-00-3	Chloroethane	12.	U
75-09-2	Methylene Chloride	6.	U
67-64-1	Acetone	7.	JB
75-15-0	Carbon Disulfide	6.	U
75-35-4	1,1-Dichloroethene	6.	U
75-34-3	1,1-Dichloroethane	6.	U
156-60-5	trans-1,2-Dichloroethene	6.	U
67-66-3	Chloroform	6.	U
107-06-2	1,2-Dichloroethane	6.	U
78-93-3	2-Butanone	3.	J
71-55-6	1,1,1-Trichloroethane	6.	U
56-23-5	Carbon Tetrachloride	6.	U
75-27-4	Bromodichloromethane	6.	U
78-87-5	1,2-Dichloropropane	6.	U
10061-01-5	cis-1,3-Dichloropropene	6.	U
79-01-6	Trichloroethene	6.	U
124-48-1	Dibromochloromethane	6.	U
79-00-5	1,1,2-Trichloroethane	6.	U
71-43-2	Benzene	6.	U
10061-02-6	trans-1,3-Dichloropropene	6.	U
75-25-2	Bromoform	6.	U
108-10-1	4-Methyl-2-Pentanone	62.	U
591-78-6	2-Hexanone	62.	U
127-18-4	Tetrachloroethene	6.	U
79-34-5	1,1,2,2-Tetrachloroethane	6.	U
108-88-3	Toluene	6.	U
108-90-7	Chlorobenzene	6.	U
100-41-4	Ethylbenzene	6.	U
100-42-5	Styrene	6.	U
1330-20-7	Xylene (total)	6.	U
156-59-2	cis-1,2-Dichloroethene	6.	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

M2-3TB

Lab Name: QUANTERRA INC. Contract: -

Lab Code: QESOH Case No.: SAS No.: SDG No.: J2632

Matrix: (soil/water) WATER Lab Sample ID: A110Q101

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V1801189.D

Level: (low/med) LOW Date Received: 10/26/94

% Moisture: not dec. _____ Date Analyzed: 10/27/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	12	J
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
156-60-5	1,2-Dichloroethene (TOTAL)	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	50	U
156-59-2	cis-1,2-dichloroethene	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-10-1	4-Methyl-2-pentanone	50	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
591-78-6	2-Hexanone	50	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	m + p-Xylene	5	U
95-47-6	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

M2-3TB

Lab Name: QUANTERRA INC. Contract: -

Lab Code: QESOH Case No.: SAS No.: SDG No.: J2632

Matrix: (soil/water) WATER Lab Sample ID: A110Q101

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: V1801189.D

Level: (low/med) LOW Date Received: 10/26/94

% Moisture: not dec. _____ Date Analyzed: 10/27/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	5	U

STORM SEWER 2 INVESTIGATION
SITE 16
NAS CECIL FIELD
DECEMBER 28, 1994

An initial storm sewer reconnaissance was conducted on October 25, 1994 to evaluate the potential discharge of groundwater from the Site 16 contaminant plume into the storm sewer and eventually into Sal Taylor Creek. After assessing the data from storm sewer 2, additional sampling was recommended to investigate a continuous discharge from Building 313 and other catch basins that were previously not sampled along storm sewer 2. This memorandum summarizes the investigation of storm sewer 2 that was conducted on December 28, 1994.

Storm Sewer No. 2 Investigation

Storm sewer No. 2 begins west of Building 313 at the base housing area and runs east to building 313, turns south and runs to the south end of Building 313, turns east and runs under Building 825 and the runways and discharges east of the north-south runways (see attached figure).

The results of the October 25, 1994 storm sewer 2 sampling indicated the presence of TCE in the two samples collected from catch basins and in the sample collected from the outfall, east of the runways. The highest concentration of TCE detected was 130 ug/l and was collected from the catch basin located to the southeast of Building 313. After the collection of these samples, the source of the TCE was not apparent and additional sampling was proposed. Additional reconnaissance identified a continuous discharge of water (apparently coming from a 4-inch pipe from Building 313 and may be a source of the TCE) entering the storm sewer at the northwest corner of Building 313. The source of this discharge is not known and a review of Building 313 plans and drawings indicated no pipe leading from the building to the storm sewer at this location.

In an attempt to identify the source of TCE, six water samples were collected on December 28, 1994, from catch basins along storm sewer 2. Locations of these samples are shown in the attached figure. Sample CF-STM-2-5 was collected from the outfall of the pipe at the northeast of building 313, sample CF-STM-2-6 was collected from the northern pipe entering the catch basin, and the remaining samples were collected from the bottom of their respective catch basin. Samples CF-STM-2-5 and CF-STM-2-6 were collected from a part of the storm sewer that does not intersect the water table. The bottom of the storm sewer (approximately 10 feet below land surface) at the remaining four samples appears to be approximately three feet below the water table. No rain had fallen at Cecil Field for the previous week prior to sampling, indicating that all water present in the storm sewer would be from the direct discharge northeast of building 313 and from groundwater entering the storm sewer through pipe joints or cracks. The samples were sent offsite for analysis of VOCs using USEPA Method 8240.

Results of the Storm Sewer 2 Investigation

Several VOCs including chloroform, 1,1-DCE, 1,2-DCE, 1,1,1-TCA, TCE, and 2-butanone were detected in the water samples collected from storm sewer 2. A complete analytical data set is attached to this memorandum.

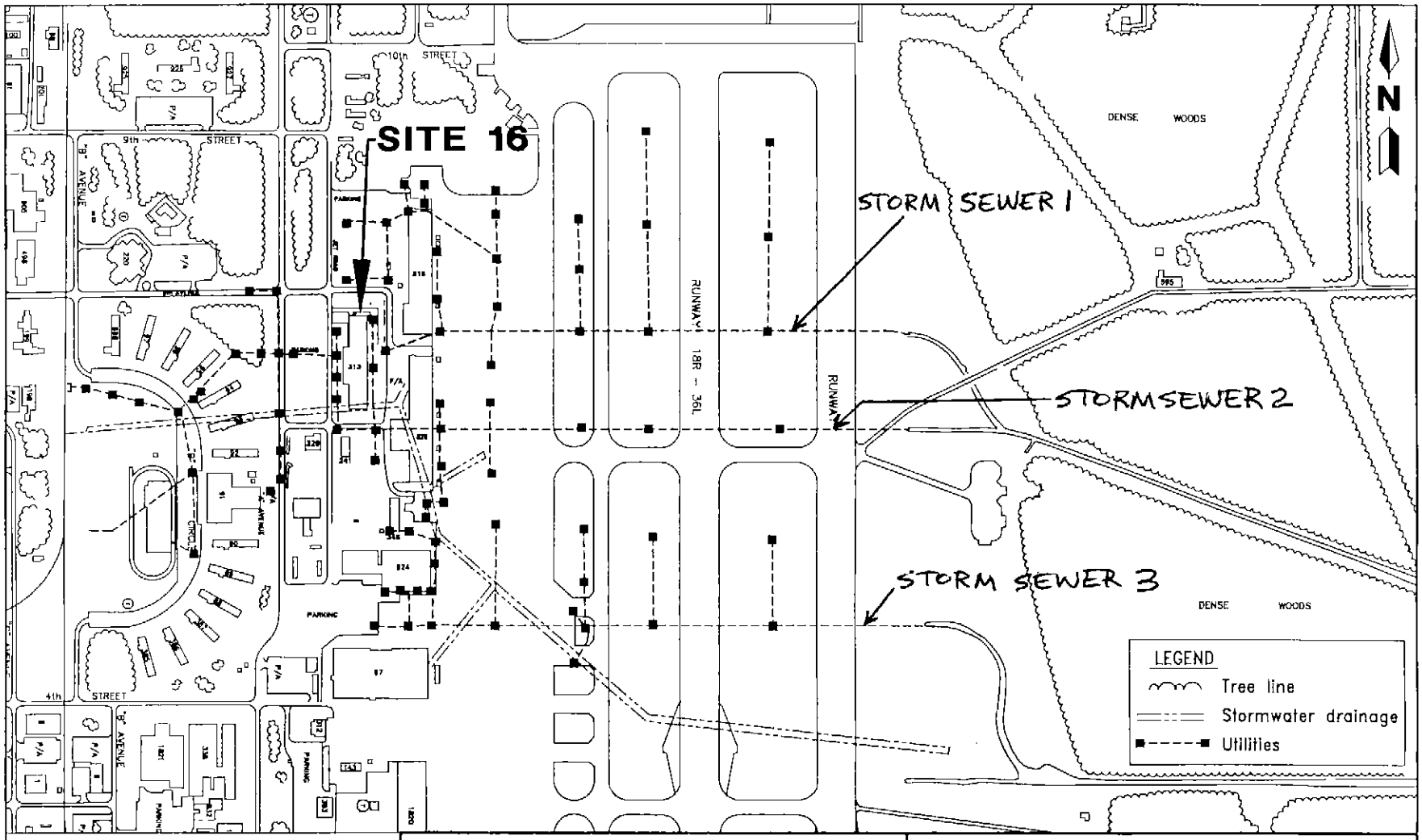
The only VOC that was detected in sample CF-STM-2-5 (the outfall at the northeast corner of Building 313) was chloroform at 3.8 J ug/l. Chloroform was also the only VOC detected in sample CF-STM-2-6. As mentioned above, the storm sewer at these sample locations is above the water table.

All the remaining samples collected, CF-STM-2-7, CF-STM-2-8, CF-STM-2-9, and CF-STM-2-10, contained

chlorinated solvents. TCE and 1,2-DCE were the only VOCs detected in all four of these samples. The bottom of the storm sewer at these locations is below the water table. The highest detection of TCE was 190 ug/l in sample CF-STM-2-7. The TCE concentration then dropped slightly in the next catch basin (CF-STM-2-8) to 170 ug/l, then to 33 ug/l at CF-STM-2-9, and finally increasing to 79 ug/l in the furthest downgradient sample CF-STM-2-10. The catch basin where CF-STM-2-10 was also sampled during the October 1994 investigation and the TCE concentration was slightly higher at 130 ug/l. The highest detection of 1,2-DCE (74 ug/l) was at CF-STM-2-7. Downgradient of this location, DCE was detected as follows: CF-STM-2-8, 70 ug/l; CF-STM-2-9, 13 ug/l; and CF-STM-2-10, 31 ug/l.

The decrease and subsequent increase of the TCE and DCE concentrations moving downgradient from CF-STM-2-7 to CF-STM-2-10 indicates that contaminated groundwater may be entering the storm sewer near sample location CF-STM-2-7 and as the contaminated water travels through the storm sewer some of the contaminants volatilize lowering the concentration until it reaches CF-STM-2-10 where additional contaminated groundwater may be entering the storm sewer causing the TCE and 1,2-DCE concentrations to increase. Both TCE and 1,2-DCE were detected in groundwater screening samples collected near the water table on the west side of Building 313 (see attached figure). The locations of the screening samples are near storm sewer sample CF-STM-2-6 (which had no detection of TCE or 1,2-DCE) but as mentioned before, sample CF-STM-2-6 was collected from a pipe that does not intersect the water table. No contaminants were detected in the groundwater screening sample GS-16-17 (which is located on the east side of storm sewer 2 between storm sewer samples CF-STM-2-7 and CF-STM-2-8) indicating that contaminants are most likely entering the storm sewer between CF-STM-2-6 and CF-STM-2-7. The absence of contamination at screening location GS-16-17 supports the decrease in concentration between CF-STM-2-7 and CF-STM-2-9 through dilution by uncomtaminated groundwater entering the storm sewer after CF-STM-2-7 and/or volatilization. Groundwater screening sample GS-16-18 (located approximately 85 feet south of Building 313) also was free of contamination indicating the storm sewer may be picking up some contaminated groundwater (due to the increase in TCE and 1,2-DCE concentration at CF-STM-2-10) between GS-16-18 and CF-STM-2-10.

Flow through the storm sewer could not be physically measured at the time of sampling to assess any contribution of groundwater into the storm sewer. However, flow was visually observed to increase from the outfall at CF-STM-2-5 (approximately 2-3 gallons per minute) to CF-STM-2-7 (approximately 3-4 gallons per minute).



0 400 800

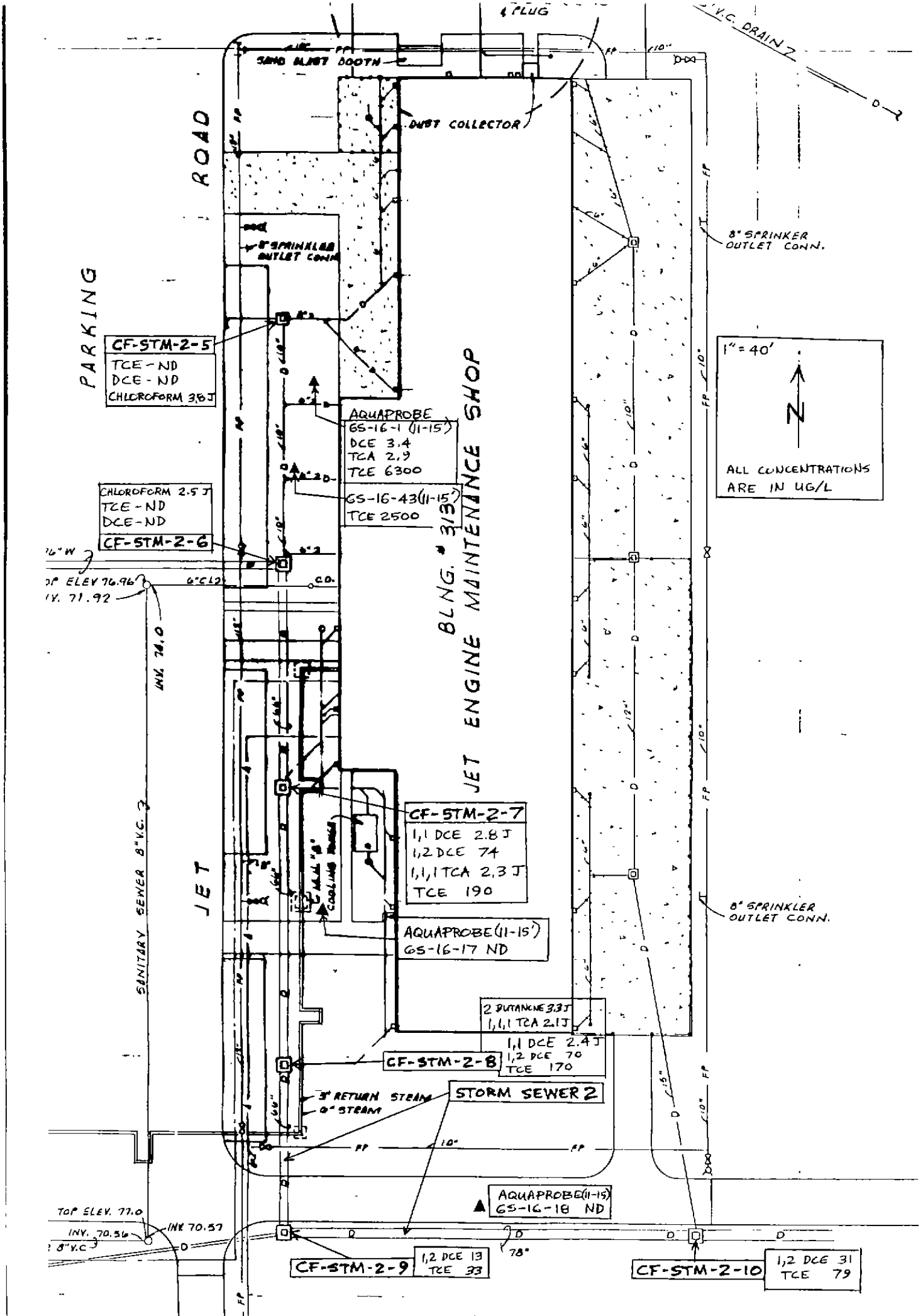
SCALE: 1" = 800'

CECIL\CE-SUR\NP\12-18-94

FIGURE 3-2
STORMWATER DRAINAGE, UTILITIES

REMEDIAL INVESTIGATION
OPERABLE UNIT 7

NAS CECIL FIELD
JACKSONVILLE, FLORIDA


PLUG
V.C. DRAIN
SAND BLAST BOOTH
DUST COLLECTOR
PARKING ROAD
8" SPRINKLER OUTLET CONN.
CF-STM-2-5
TCE - ND
DCE - ND
CHLOROFORM 3.6 J
AQUAPROBE
GS-16-1 (11-15')
DCE 3.4
TCA 2.9
TCE 6300
GS-16-43 (11-15')
TCE 2500
CHLOROFORM 2.5 J
TCE - ND
DCE - ND
CF-STM-2-6
BLDG. # 313
JET ENGINE MAINTENANCE SHOP
1" = 40'
N
ALL CONCENTRATIONS ARE IN UG/L
TOP ELEV 76.96
INV. 71.92
INV. 74.0
SANITARY SEWER 8" V.C.
CF-STM-2-7
1,1 DCE 2.8 J
1,2 DCE 74
1,1,1 TCA 2.3 J
TCE 190
COOLING TOWER
AQUAPROBE (11-15')
GS-16-17 ND
JET
8" SPRINKLER OUTLET CONN.
2 BUTANONE 3.3 J
1,1,1 TCA 2.1 J
1,1 DCE 2.4 J
1,2 DCE 70
TCE 170
CF-STM-2-8
3" RETURN STEAM
6" STEAM
STORM SEWER 2
AQUAPROBE (11-15')
GS-16-18 ND
TOP ELEV. 77.0
INV. 70.56
INV. 70.57
8" V.C.
CF-STM-2-9
1,2 DCE 13
TCE 33
CF-STM-2-10
1,2 DCE 31
TCE 79

Chain of Custody

PHONE (216) 497-9396 FAX (216) 497-0772

Environmental Services

CLIENT CODE _____

QUOTE / SAR NUMBER _____

Chain-of Custody Record

70448

PROJ. NO. 8500-09-13 (1-4)

PROJECT NAME/LOCATION: RI OU7 SITE 16 NAS CECIL FIELD

SAMPLERS: (Signature)

STA. NO.	DATE	TIME	COMP.	GRAB.	STATION LOCATION	NO. OF CONTAINERS	PARAMETER: 8240						REMARKS
	12-28-94	1200		✓	CFSTM25W	3		3					LEVEL III
		1210		✓	CFSTM26W	3		3					
		1215		✓	CFSTM27W	3		3					
		1225		✓	CFSTM28W	3		3					
		1235		✓	CFSTM29W	3		3					
		1245		✓	CFSTM210W	3		3					

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
	12-28-94 1400				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
				AIRBILL # 308 7641653	
				1 WEEK TURNAROUND	

Distribution Original Accompanies Shipment. Copy returned with Report.

FORM 004

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QUANTERRA INCORPORATED
PRELIMINARY DATA SUMMARY

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Data have NOT been through final levels of review and are subject to change upon this review.
Actions taken on these Data are the responsibility of the Data user.

A4L290011
ABB ENVIRONMENTAL SERVICES
NAS CECIL FIELD/RI OU7 SITE 16

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD
CFSTM25W 12-28-94 1200				
TCL Volatile Organics				In Review
Chloromethane	ND	10	ug/L	SW846 8240A
Bromomethane	ND	10	ug/L	SW846 8240A
Vinyl chloride	ND	10	ug/L	SW846 8240A
Chloroethane	ND	10	ug/L	SW846 8240A
Methylene chloride	ND	5.0	ug/L	SW846 8240A
Acetone	ND	50	ug/L	SW846 8240A
Carbon disulfide	ND	5.0	ug/L	SW846 8240A
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8240A
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8240A
1,2-Dichloroethene, Total	ND	5.0	ug/L	SW846 8240A
Chloroform	3.8 J	5.0	ug/L	SW846 8240A
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8240A
2-Butanone	ND	50	ug/L	SW846 8240A
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8240A
Carbon tetrachloride	ND	5.0	ug/L	SW846 8240A
Bromodichloromethane	ND	5.0	ug/L	SW846 8240A
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8240A
cis-1,3-Dichloropropene	ND	5.0	ug/L	SW846 8240A
Trichloroethene	ND	5.0	ug/L	SW846 8240A
Dibromochloromethane	ND	5.0	ug/L	SW846 8240A
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8240A
Benzene	ND	5.0	ug/L	SW846 8240A
trans-1,3-Dichloropropene	ND	5.0	ug/L	SW846 8240A
Bromoform	ND	5.0	ug/L	SW846 8240A
4-Methyl-2-pentanone	ND	50	ug/L	SW846 8240A
2-Hexanone	ND	50	ug/L	SW846 8240A
Tetrachloroethene	ND	5.0	ug/L	SW846 8240A
Toluene	ND	5.0	ug/L	SW846 8240A
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8240A
Chlorobenzene	ND	5.0	ug/L	SW846 8240A
Ethylbenzene	ND	5.0	ug/L	SW846 8240A
Styrene	ND	5.0	ug/L	SW846 8240A
Xylenes, Total	ND	5.0	ug/L	SW846 8240A
CFSTM26W 12-28-94 1210				
TCL Volatile Organics				In Review
Chloromethane	ND	10	ug/L	SW846 8240A
Bromomethane	ND	10	ug/L	SW846 8240A
Vinyl chloride	ND	10	ug/L	SW846 8240A

QUANTERRA INCORPORATED
PRELIMINARY DATA SUMMARY

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A4LZ90011
ABB ENVIRONMENTAL SERVICES
NAS CECIL FIELD/RI OU7 SITE 16

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD
CFSTM26W 12-28-94 1210				
TCL Volatile Organics				In Review
Chloroethane	ND	10	ug/L	SW846 8240A
Methylene chloride	ND	5.0	ug/L	SW846 8240A
Acetone	ND	50	ug/L	SW846 8240A
Carbon disulfide	ND	5.0	ug/L	SW846 8240A
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8240A
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8240A
1,2-Dichloroethene, Total	ND	5.0	ug/L	SW846 8240A
Chloroform	2.5 J	5.0	ug/L	SW846 8240A
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8240A
2-Butanone	ND	50	ug/L	SW846 8240A
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8240A
Carbon tetrachloride	ND	5.0	ug/L	SW846 8240A
Bromodichloromethane	ND	5.0	ug/L	SW846 8240A
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8240A
cis-1,3-Dichloropropene	ND	5.0	ug/L	SW846 8240A
Trichloroethene	ND	5.0	ug/L	SW846 8240A
Dibromochloromethane	ND	5.0	ug/L	SW846 8240A
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8240A
Benzene	ND	5.0	ug/L	SW846 8240A
trans-1,3-Dichloropropene	ND	5.0	ug/L	SW846 8240A
Bromoform	ND	5.0	ug/L	SW846 8240A
4-Methyl-2-pentanone	ND	50	ug/L	SW846 8240A
2-Hexanone	ND	50	ug/L	SW846 8240A
Tetrachloroethene	ND	5.0	ug/L	SW846 8240A
Toluene	ND	5.0	ug/L	SW846 8240A
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8240A
Chlorobenzene	ND	5.0	ug/L	SW846 8240A
Ethylbenzene	ND	5.0	ug/L	SW846 8240A
Styrene	ND	5.0	ug/L	SW846 8240A
Xylenes, Total	ND	5.0	ug/L	SW846 8240A
CFSTM27W 12-28-94 1215				
TCL Volatile Organics				In Review
Chloromethane	ND	10	ug/L	SW846 8240A
Bromomethane	ND	10	ug/L	SW846 8240A
Vinyl chloride	ND	10	ug/L	SW846 8240A
Chloroethane	ND	10	ug/L	SW846 8240A
Methylene chloride	ND	5.0	ug/L	SW846 8240A
Acetone	ND	50	ug/L	SW846 8240A

QUANTERRA INCORPORATED
PRELIMINARY DATA SUMMARY

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A4LZ90011
ABB ENVIRONMENTAL SERVICES
NAS CECIL FIELD/RI OU7 SITE 16

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD
CFSTM27W 12-28-94 1215				
TCL Volatile Organics				In Review
Carbon disulfide	ND	5.0	ug/L	SW846 8240A
1,1-Dichloroethene	2.8 J	5.0	ug/L	SW846 8240A
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8240A
1,2-Dichloroethene, Total	74	5.0	ug/L	SW846 8240A
Chloroform	ND	5.0	ug/L	SW846 8240A
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8240A
2-Butanone	ND	50	ug/L	SW846 8240A
1,1,1-Trichloroethane	2.3 J	5.0	ug/L	SW846 8240A
Carbon tetrachloride	ND	5.0	ug/L	SW846 8240A
Bromodichloromethane	ND	5.0	ug/L	SW846 8240A
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8240A
cis-1,3-Dichloropropene	ND	5.0	ug/L	SW846 8240A
Trichloroethene	190	5.0	ug/L	SW846 8240A
Dibromochloromethane	ND	5.0	ug/L	SW846 8240A
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8240A
Benzene	ND	5.0	ug/L	SW846 8240A
trans-1,3-Dichloropropene	ND	5.0	ug/L	SW846 8240A
Bromoform	ND	5.0	ug/L	SW846 8240A
4-Methyl-2-pentanone	ND	50	ug/L	SW846 8240A
2-Hexanone	ND	50	ug/L	SW846 8240A
Tetrachloroethene	ND	5.0	ug/L	SW846 8240A
Toluene	ND	5.0	ug/L	SW846 8240A
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8240A
Chlorobenzene	ND	5.0	ug/L	SW846 8240A
Ethylbenzene	ND	5.0	ug/L	SW846 8240A
Styrene	ND	5.0	ug/L	SW846 8240A
Xylenes, Total	ND	5.0	ug/L	SW846 8240A
CFSTM28W 12-28-94 1225				
TCL Volatile Organics				In Review
Chloromethane	ND	10	ug/L	SW846 8240A
Bromomethane	ND	10	ug/L	SW846 8240A
Vinyl chloride	ND	10	ug/L	SW846 8240A
Chloroethane	ND	10	ug/L	SW846 8240A
Methylene chloride	ND	5.0	ug/L	SW846 8240A
Acetone	ND	50	ug/L	SW846 8240A
Carbon disulfide	ND	5.0	ug/L	SW846 8240A
1,1-Dichloroethene	2.4 J	5.0	ug/L	SW846 8240A
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8240A

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QUANTERRA INCORPORATED
PRELIMINARY DATA SUMMARY

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Data have NOT been through final levels of review and are subject to change upon this review.
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A4L290011
ABB ENVIRONMENTAL SERVICES
NAS CECIL FIELD/RI OU7 SITE 16

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD
CFSTM28W 12-28-94 1225				
TCL Volatile Organics				In Review
1,2-Dichloroethene, Total	70	5.0	ug/L	SW846 8240A
Chloroform	ND	5.0	ug/L	SW846 8240A
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8240A
2-Butanone	3.3 J	50	ug/L	SW846 8240A
1,1,1-Trichloroethane	2.1 J	5.0	ug/L	SW846 8240A
Carbon tetrachloride	ND	5.0	ug/L	SW846 8240A
Bromodichloromethane	ND	5.0	ug/L	SW846 8240A
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8240A
cis-1,3-Dichloropropene	ND	5.0	ug/L	SW846 8240A
Trichloroethene	170	5.0	ug/L	SW846 8240A
Dibromochloromethane	ND	5.0	ug/L	SW846 8240A
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8240A
Benzene	ND	5.0	ug/L	SW846 8240A
trans-1,3-Dichloropropene	ND	5.0	ug/L	SW846 8240A
Bromoform	ND	5.0	ug/L	SW846 8240A
4-Methyl-2-pentanone	ND	50	ug/L	SW846 8240A
2-Hexanone	ND	50	ug/L	SW846 8240A
Tetrachloroethene	ND	5.0	ug/L	SW846 8240A
Toluene	ND	5.0	ug/L	SW846 8240A
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8240A
Chlorobenzene	ND	5.0	ug/L	SW846 8240A
Ethylbenzene	ND	5.0	ug/L	SW846 8240A
Styrene	ND	5.0	ug/L	SW846 8240A
Xylenes, Total	ND	5.0	ug/L	SW846 8240A
CFSTM29W 12-28-94 1235				
TCL Volatile Organics				In Review
Chloromethane	ND	10	ug/L	SW846 8240A
Bromomethane	ND	10	ug/L	SW846 8240A
Vinyl chloride	ND	10	ug/L	SW846 8240A
Chloroethane	ND	10	ug/L	SW846 8240A
Methylene chloride	ND	5.0	ug/L	SW846 8240A
Acetone	ND	50	ug/L	SW846 8240A
Carbon disulfide	ND	5.0	ug/L	SW846 8240A
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8240A
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8240A
1,2-Dichloroethene, Total	13	5.0	ug/L	SW846 8240A
Chloroform	ND	5.0	ug/L	SW846 8240A
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8240A

QUANTERRA INCORPORATED
PRELIMINARY DATA SUMMARY

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A4L290011
ABB ENVIRONMENTAL SERVICES
NAS CECIL FIELD/RI OU7 SITE 16

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD
CFSTM29W 12-28-94 1235				
TCL Volatile Organics				In Review
2-Butanone	ND	50	ug/L	SW846 8240A
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8240A
Carbon tetrachloride	ND	5.0	ug/L	SW846 8240A
Bromodichloromethane	ND	5.0	ug/L	SW846 8240A
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8240A
cis-1,3-Dichloropropene	ND	5.0	ug/L	SW846 8240A
Trichloroethene	33	5.0	ug/L	SW846 8240A
Dibromochloromethane	ND	5.0	ug/L	SW846 8240A
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8240A
Benzene	ND	5.0	ug/L	SW846 8240A
trans-1,3-Dichloropropene	ND	5.0	ug/L	SW846 8240A
Bromoform	ND	5.0	ug/L	SW846 8240A
4-Methyl-2-pentanone	ND	50	ug/L	SW846 8240A
2-Hexanone	ND	50	ug/L	SW846 8240A
Tetrachloroethene	ND	5.0	ug/L	SW846 8240A
Toluene	ND	5.0	ug/L	SW846 8240A
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8240A
Chlorobenzene	ND	5.0	ug/L	SW846 8240A
Ethylbenzene	ND	5.0	ug/L	SW846 8240A
Styrene	ND	5.0	ug/L	SW846 8240A
Xylenes, Total	ND	5.0	ug/L	SW846 8240A
CFSTM210W 12-28-94 1245				
TCL Volatile Organics				In Review
Chloromethane	ND	10	ug/L	SW846 8240A
Bromomethane	ND	10	ug/L	SW846 8240A
Vinyl chloride	ND	10	ug/L	SW846 8240A
Chloroethane	ND	10	ug/L	SW846 8240A
Methylene chloride	ND	5.0	ug/L	SW846 8240A
Acetone	ND	50	ug/L	SW846 8240A
Carbon disulfide	ND	5.0	ug/L	SW846 8240A
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8240A
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8240A
1,2-Dichloroethene, Total	31	5.0	ug/L	SW846 8240A
Chloroform	ND	5.0	ug/L	SW846 8240A
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8240A
2-Butanone	ND	50	ug/L	SW846 8240A
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8240A
Carbon tetrachloride	ND	5.0	ug/L	SW846 8240A

QUANTERRA INCORPORATED
PRELIMINARY DATA SUMMARY

Data have NOT been through final levels of review and are subject to change upon this review.
Actions taken on these Data are the responsibility of the Data user.

A4L290011
ABB ENVIRONMENTAL SERVICES
NAS CECIL FIELD/RI OU7 SITE 16

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD
CFSTM210W 12-28-94 1245				
TCL Volatile Organics				In Review
Bromodichloromethane	ND	5.0	ug/L	SW846 8240A
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8240A
cis-1,3-Dichloropropene	ND	5.0	ug/L	SW846 8240A
Trichloroethene	79	5.0	ug/L	SW846 8240A
Dibromochloromethane	ND	5.0	ug/L	SW846 8240A
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8240A
Benzene	ND	5.0	ug/L	SW846 8240A
trans-1,3-Dichloropropene	ND	5.0	ug/L	SW846 8240A
Bromoform	ND	5.0	ug/L	SW846 8240A
4-Methyl-2-pentanone	ND	50	ug/L	SW846 8240A
2-Hexanone	ND	50	ug/L	SW846 8240A
Tetrachloroethene	ND	5.0	ug/L	SW846 8240A
Toluene	ND	5.0	ug/L	SW846 8240A
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8240A
Chlorobenzene	ND	5.0	ug/L	SW846 8240A
Ethylbenzene	ND	5.0	ug/L	SW846 8240A
Styrene	ND	5.0	ug/L	SW846 8240A
Xylenes, Total	ND	5.0	ug/L	SW846 8240A