N83447.AR.000590
NAS FORT WORTH
5090.3a

FINAL RCRA FACILITY INVESTIGATION FOR SOLID WASTE MANAGEMENT UNIT 22, 23, 24 AND 25 VOLUME 2 OF 3 PART 2 NAS FORT WORTH TX
5/1/2001
HYDROGEOLOGIC

676 628B File: 17G P.W.

NAVAL AIR STATION FORT WORTH JRB CARSWELL FIELD TEXAS

ADMINISTRATIVE RECORD COVER SHEET

AR File Number 676

Part 2 of 2

676 629

TAB

APPENDIX C

APPENDIX C

MONITORING WELL CONSTRUCTION DETAILS

676 631

WELL CONSTRUCTION DETAILS AND ABANDONMENT FORM

FIELD REPRESENTATIVE: Costello
AFIID: CRSWL
DRILLING CONTRACTOR: Dixie Drilling
LOCID: WHGL TA 002
DRILLING TECHNIQUE. HSA
AUGER SIZE AND TYPE: 8.25 inches OD. HSA

BOREHOLE IDENTIFICATION: WHGL TA 002
BOREHOLE DIAMETER: 8.25 OD
WELL IDENTIFICATION: WHGL TA 002

WELL CONSTRUCTION START DATE. 8/25/97
WELL CONSTRUCTION COMPLETE DATE. 8/25/97

SCREEN MATERIAL. PVC
SCREEN DIAMETER: 2 inches
STRATUM-SCREENED INTERVAL (FT). 10 feet
SCREEN PERCENT OPEN AREA:
CASING MATERIAL: Schedule 40 PVC
CASING DIAMETER: 2 inches

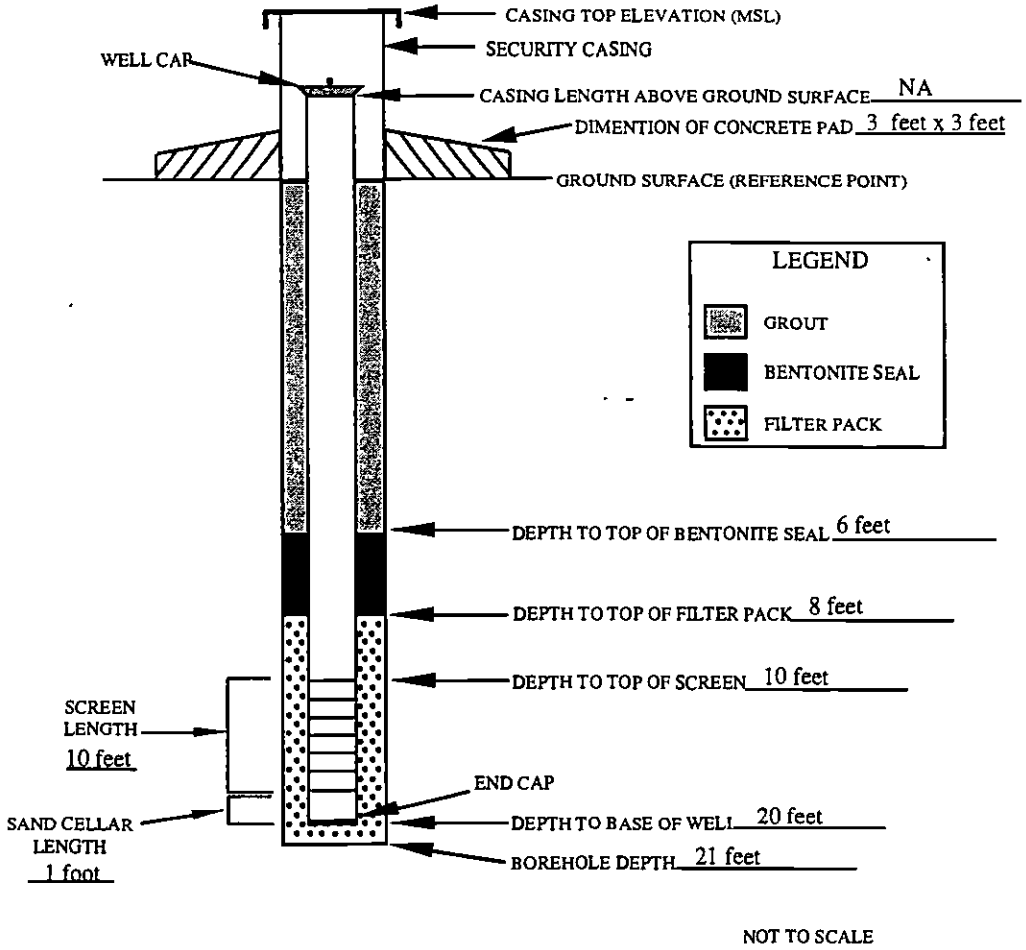
TYPE OF FILTER PACK: Silica Sand
GRADIATION: 20/40
AMOUNT OF FILTER PACK USED:
SITEID: LF08
TYPE OF BENTONITE: Sodium Bentonite
AMOUNT BENTONITE USED: NA

TYPE OF CEMENT: Sodium Bentonite
AMOUNT CEMENT USED: NA
GROUT MATERIALS USED: NA

DIMENSIONS OF SECURITY CASING: NA

TYPE OF WELL CAP: Flush Mount
TYPE OF END CAP: Flush Thread Screw
COMMENTS:

SPECIAL CONDITIONS
(describe and draw)



INSTALLED BY: Dixie Drilling INSTALLATION OBSERVED BY: Costello

DISCREPANCIES:

676 632

HYDRO GeoLogic INC

WELL CONSTRUCTION DETAILS AND ABANDONMENT FORM

FIELD REPRESENTATIVE: Costello
AFIID: CRSWL
DRILLING CONTRACTOR: Dixie Drilling
LOCID: WHGL TA 003
DRILLING TECHNIQUE: HSA
AUGER SIZE AND TYPE: 10.5 OD

TYPE OF FILTER PACK: 20/40 Silica Sand
GRADIATION: 20/40
AMOUNT OF FILTER PACK USED.
SITEID. LF05
TYPE OF BENTONITE: 100% Sodium Bentonite
AMOUNT BENTONITE USED: NA

BOREHOLE IDENTIFICATION: WHGL TA 003
BOREHOLE DIAMETER: 10.5 OD
WELL IDENTIFICATION: WHGL TA 003

TYPE OF CEMENT: Bentonite
AMOUNT CEMENT USED. NA
GROUT MATERIALS USED NA

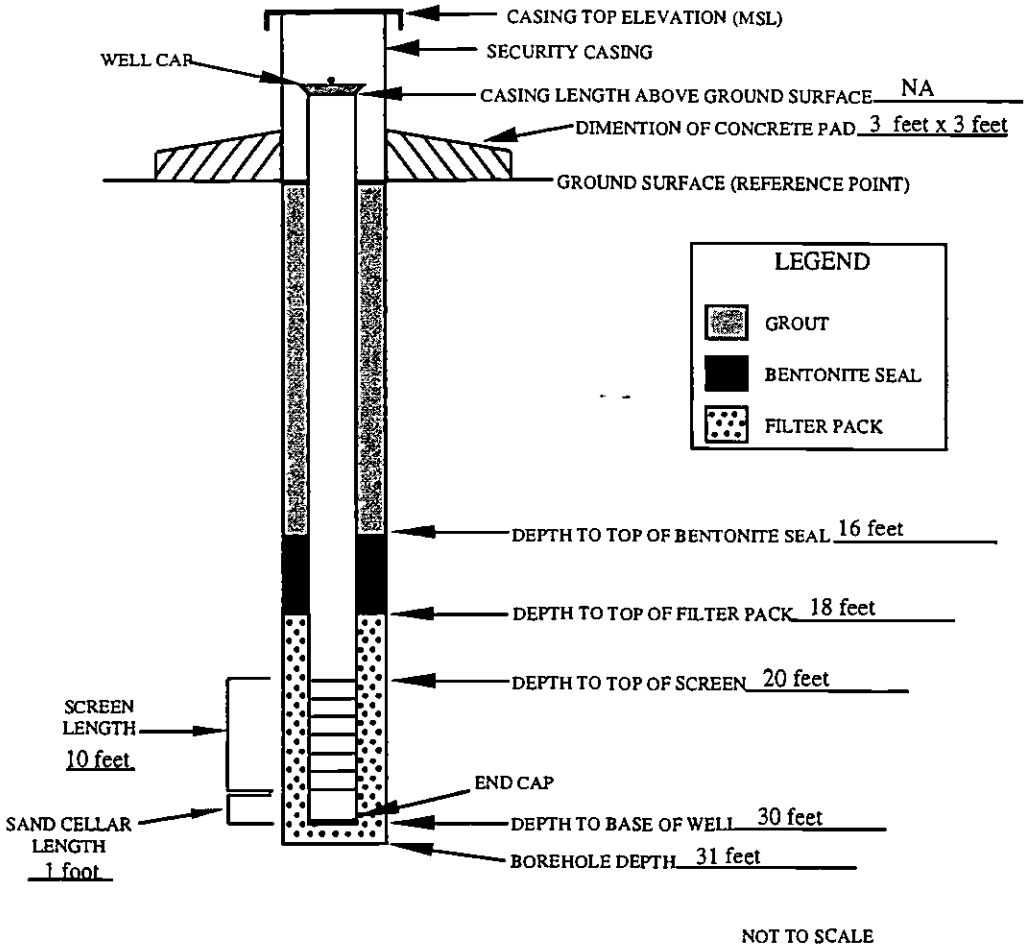
WELL CONSTRUCTION START DATE: 8/25/97
WELL CONSTRUCTION COMPLETE DATE. 8/25/97

DIMENSIONS OF SECURITY CASING: Flush Mount

SCREEN MATERIAL: PVC
SCREEN DIAMETER: 2 inches
STRATUM-SCREENED INTERVAL (FT). 10 feet
SCREEN PERCENT OPEN AREA: 0.010
CASING MATERIAL: PVC
CASING DIAMETER: 2 inches

TYPE OF WELL CAP Compression Cap
TYPE OF END CAP· Flush Thread Screw
COMMENTS:

SPECIAL CONDITIONS
(describe and draw)



INSTALLED BY: Costello
INSTALLATION OBSERVED BY.

DISCREPANCIES.

676 633

WELL CONSTRUCTION DETAILS AND ABANDONMENT FORM

FIELD REPRESENTATIVE: Rodtang
AFIID: CRSWL
DRILLING CONTRACTOR: Dixie Drilling
LOCID: WHGL TA 004
DRILLING TECHNIQUE: HSA
AUGER SIZE AND TYPE: 8.25 OD

TYPE OF FILTER PACK: 20/40 Silica Sand
GRADIATION 20/40
AMOUNT OF FILTER PACK USED: 7
SITEID: LF08
TYPE OF BENTONITE: 100% Sodium Bentonite
AMOUNT BENTONITE USED: 3 bags, 150 lbs.

BOREHOLE IDENTIFICATION: WHGL TA 004
BOREHOLE DIAMETER: 8.25 OD
WELL IDENTIFICATION: WHGL TA 004

TYPE OF CEMENT: Bentonite
AMOUNT CEMENT USED: NA
GROUT MATERIALS USED: NA

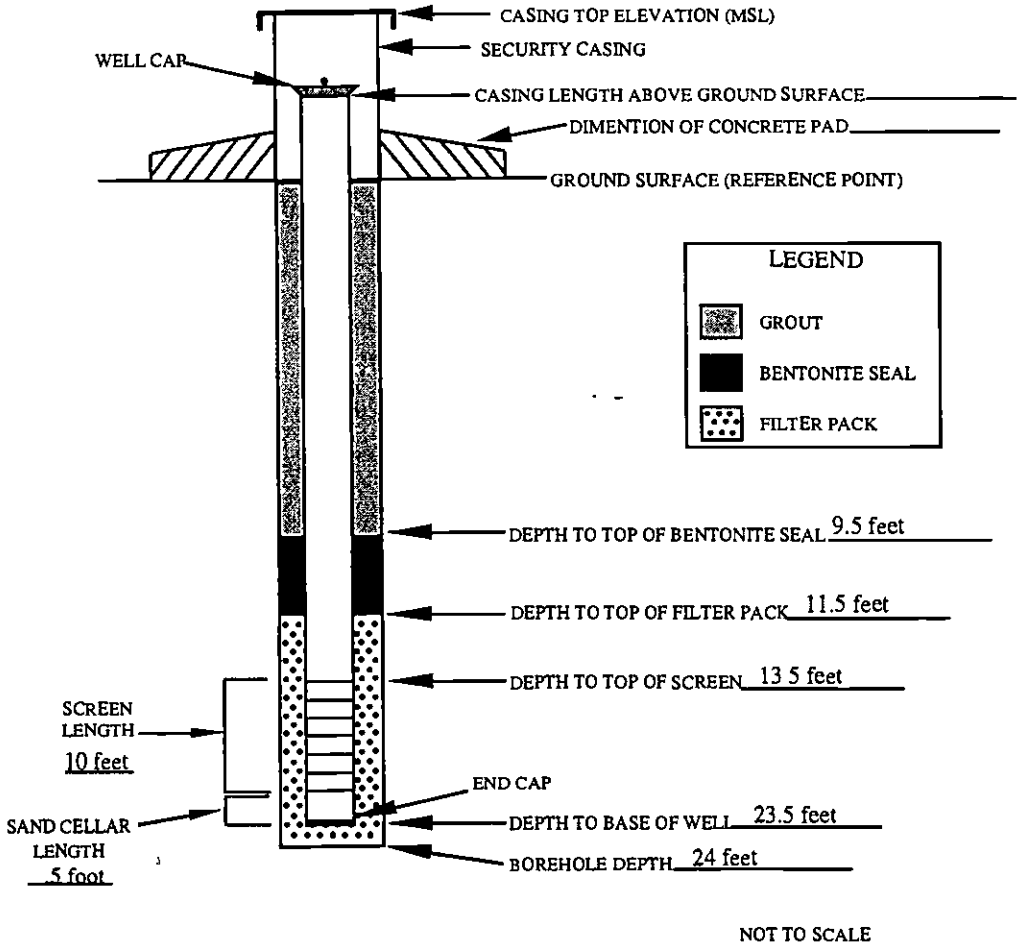
WELL CONSTRUCTION START DATE: 8/25/97
WELL CONSTRUCTION COMPLETE DATE: 8/25/97

DIMENSIONS OF SECURITY CASING: Flush Mount

SCREEN MATERIAL: 23.5-13.5
SCREEN DIAMETER: 2 inches
STRATUM-SCREENED INTERVAL (FT): 10 feet
SCREEN PERCENT OPEN AREA: 0.010
CASING MATERIAL: PVC
CASING DIAMETER: 2 inches

TYPE OF WELL CAP: Compression Cap
TYPE OF END CAP: PVC
COMMENTS:

SPECIAL CONDITIONS
(describe and draw)



INSTALLED BY: _____ INSTALLATION OBSERVED BY: _____

DISCREPANCIES: _____

aband_frms ppt

676 634

HYDRO GeoLogic

WELL CONSTRUCTION DETAILS AND ABANDONMENT FORM

FIELD REPRESENTATIVE: Brad Nielsen

DRILLING CONTRACTOR: TSS

DRILLING TECHNIQUE: HSA
AUGER SIZE AND TYPE: 8.0" / 5.0' length

BOREHOLE IDENTIFICATION: WH6LTA 80'
BOREHOLE DIAMETER: 8.0"
WELL IDENTIFICATION: WH6LTA 80'

WELL CONSTRUCTION START DATE: 10/28/99
WELL CONSTRUCTION COMPLETE DATE: 10/28/99

SCREEN MATERIAL: Schedule 40 PVC / 0.010 slot
SCREEN DIAMETER: 2 inch
STRATUM-SCREENED INTERVAL (FT): 4-14'

CASING MATERIAL: Schedule 40 PVC
CASING DIAMETER: 2 inch

TYPE OF FILTER PACK: 20/40 Colorado Northern silica sand
GRADIATION: 20/40
AMOUNT OF FILTER PACK USED: 6.0 bags / 50 lb bag

TYPE OF BENTONITE: USCLAY / Medium Clay Plug
AMOUNT BENTONITE USED: 1 bag / 50 lb bag

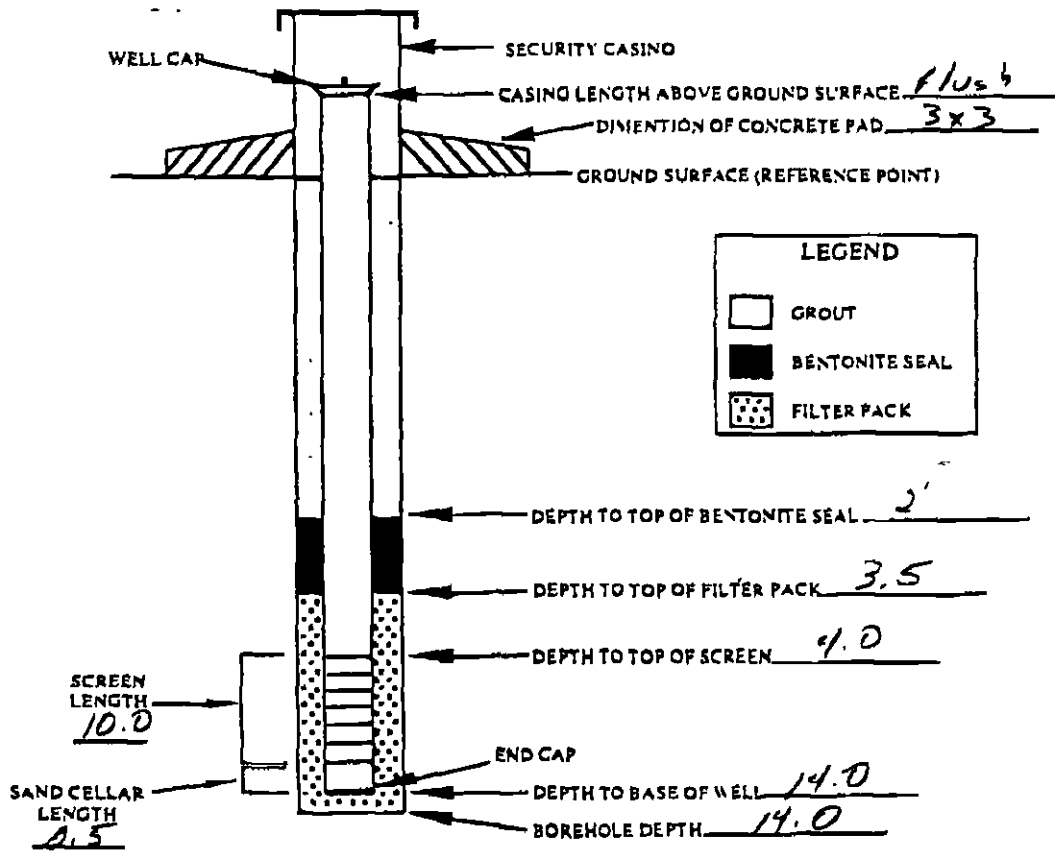
TYPE OF CEMENT: portland cement
AMOUNT CEMENT USED:
GROUT MATERIALS USED:

DIMENSIONS OF SECURITY CASING: 12 inch diam

TYPE OF WELL CAP: expanding / locking
TYPE OF END CAP: threaded PVC

COMMENTS:

SPECIAL CONDITIONS
(describe and draw)



INSTALLED BY: TSS

INSTALLATION OBSERVED BY: Brad Nielsen / Mark Webster

DISCREPANCIES:

AFCEE FORM WAA.0

676 625

HYDRO GeoLogic

WELL CONSTRUCTION DETAILS AND ABANDONMENT FORM

FIELD REPRESENTATIVE: Brad Nielsen

DRILLING CONTRACTOR: TSS

DRILLING TECHNIQUE: HSA

AUGER SIZE AND TYPE: 8.0" x 5' length

BOREHOLE IDENTIFICATION: WH6CTA803

BOREHOLE DIAMETER:

WELL IDENTIFICATION: WH6CTA803

WELL CONSTRUCTION START DATE: 10/18/00

WELL CONSTRUCTION COMPLETE DATE: 10/18/00

SCREEN MATERIAL: 0.010 slot Schedule 40 PVC

SCREEN DIAMETER: 2.0 inch

STRATUM-SCREENED INTERVAL (FT): 7-12'

CASING MATERIAL: Schedule 40 PVC

CASING DIAMETER: 2 inch

TYPE OF FILTER PACK: Colorado Morton Silica Sand

GRADIATION: 20/40

AMOUNT OF FILTER PACK USED: 5 bags

TYPE OF BENTONITE:

AMOUNT BENTONITE USED: 2 bags

TYPE OF CEMENT: portland cement

AMOUNT CEMENT USED:

GROUT MATERIALS USED:

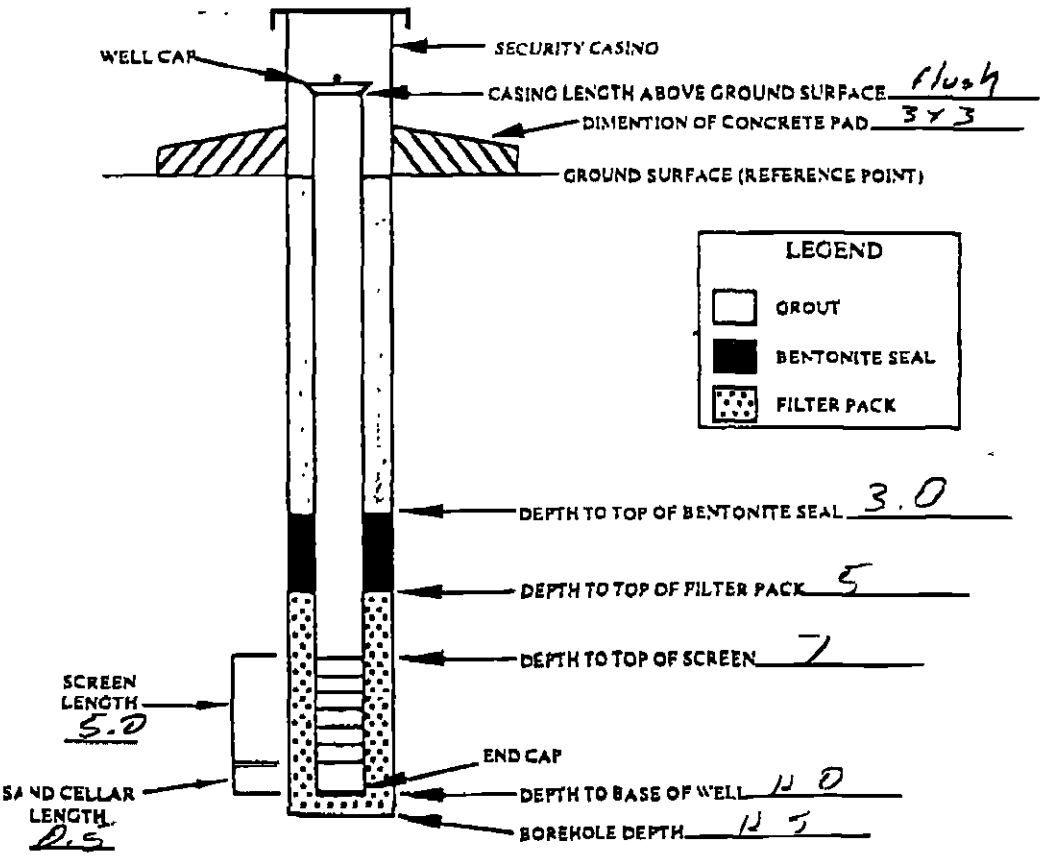
DIMENSIONS OF SECURITY CASING: 12 inch diam

TYPE OF WELL CAP: expanding/locking

TYPE OF END CAP: Threaded PVC

COMMENTS:

SPECIAL CONDITIONS (describe and draw)



NOT TO SCALE

INSTALLED BY: TSS

INSTALLATION OBSERVED BY: Brad Nielsen/Mark Webster

DISCREPANCIES:

AFCEE FORM WAA.0

676 636

IT CORPORATION
A Member of The IT Group

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER 774902	PROJECT NAME NAS Ft. Worth JRB		
BORING NUMBER WITCTA057	COORDINATES:		DATE
ELEVATION	GWL Depth	Date/Time	DATE STARTED 4-20-00
ENGINEER/GEOLOGIST D. Holman	Depth	Date/Time	DATE COMPLETED. 4-20-00
DRILLING METHODS Hollow stem auger			PAGE 1 OF 1

DEPTH (ft.)	SAMPLE TYPE & NO	~~BLOWS ON SAMPLER PER~~ PID ppm	RECOVERY ( ) %	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
		1.5	90	Clay, silty, dk reddish brown (5YR 3/3), moist, roots & rootlets, white (5YR 8/1) caliche-like matrix 4-5'				
		1.7 / 1.8	80	Clay, fn sandy, few sm gravel, med sandy clay at 10 ft, red (2.5YR 4/6)				25'x2" sch 40 PVC risor casing
10		1.1 / 1.5	50	Sand, fine grained, very pale yellow (10YR 8/4), dry to moist, saturated at 29 ft, sand 1.5-2.0φ				
		1.8 / 0	60					bentonite hole plug
20		3.0 / 2.6	60					
		5.0 / 24	60					20-40 silica sand
30		18.8 / 18.3	50					20'x2" sch 40 PVC 0.010-in slotted screen
		NS / 9.2	60					
40				clay, lt gray to dk gray ls, chert gravel at 35 ft walnut				
				TD boring at 41 ft.				
50								

NOTES:

Drilling Contractor Associated

Drilling Equipment

Driller Danny Jarman

243B-3-86

676 637

IT CORPORATION
A Member of The IT Group

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER 774902	PROJECT NAME NAS Ft. Worth JRB		
BORING NUMBER WITCTA058	COORDINATES		DATE
ELEVATION	GWL. Depth	Date/Time	DATE STARTED 4-20-00
ENGINEER/GEOLOGIST D. Holman	Depth	Date/Time	DATE COMPLETED 4-20-00
DRILLING METHODS. Hollow stem auger			PAGE 1 OF 1

DEPTH (ft)	SAMPLE TYPE & NO	~~BLOWS ON SAMPLER PER 6 in~~ PID ppm	RECOVERY (%)	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
		6.0 / 16.2	100	clayey sand, silt & gravel, dk reddish brown, (5YR 3/3), sl. moist				
		3.6 / 4.4	100					25'x2" sch 40 PVC riser casing
10		10.1 / 15.7	50	Sand, fn grained, gravelly (10-12.5), clayey (10-14 ft), v pale yellow (10YR 8/4)				
		13.8 / 9.3	60					bentonite hole plug
20		NS / 5.2	40					20-40 silica sand
		16.2 / 11.5	50	Saturated at 30 ft.				20'x2" sch 40 PVC 0.010-in slot screen
30		NS / 12.1	40					
		NS / 9.7	60					
40				clay, some gravel at 38 ft, brown				
				TD boring at 40 ft				

NOTES.

Drilling Contractor Associated

Drilling Equipment

Driller Danny Jarman

243B-3-86

IT CORPORATION
A Member of The IT Group

676 638

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER 774902	PROJECT NAME NAS Ft Worth JRB LFOS		
BORING NUMBER WITCTA059	COORDINATES		DATE.
ELEVATION	GWL Depth	Date/Time	DATE STARTED 4-21-00
ENGINEER/GEOLOGIST O. Holman	Depth	Date/Time	DATE COMPLETED 4-21-00
DRILLING METHODS Hollow Stem Auger			PAGE 1 OF 1

DEPTH (ft)	SAMPLE TYPE & NO	BLOWS ON SAMPLER PER 6 in	RECOVERY (%)	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
		0	60	Clay, silty to fn sandy, brown (7.5YR 4/3), few gravels + roots in upper 3 inches, trash, cans, paper, plastic, mort.				20' x 2" sch 40 PVC riser
		14.7						
		0.9	50					
		1.3						
10		0	50	Clay, v.f. sandy, brown (7.5YR 4/3) + H. gray, 1ft layer of fn sand, brown, moist				bentonite hole plug
		3.2						
		2.3	60	Sand, fine grained, 1.5-2.5 ϕ, very pale yellow (10YR 8/4), moist to saturated at 25 ft.				20-40 Silica Sand
20		0						
		3.5	60					
		3.7						
		3.5	70					20' x 2" sch 40 PVC 0.010-in slotted screen
		2.7						
30		1.1	50					
		10.2						
		5.8	100	dk & lt. gray limestone, hard drilling				
40				TD boring at 37 ft				

NOTES:

Drilling Contractor Associated

Drilling Equipment

Driller Danny Jarman

243B-3-86

676 639

IT CORPORATION
A Member of The IT Group

VISUAL CLASSIFICATION OF SOILS

PROJECT NUMBER. 774902	PROJECT NAME NAS Ft. Worth JRB LFOS	
BORING NUMBER WITCTA060	COORDINATES:	DATE:
ELEVATION:	GWL Depth Date/Time	DATE STARTED 4-21-00
ENGINEER/GEOLOGIST D. Holman	Depth Date/Time	DATE COMPLETED: 4-21-00
DRILLING METHODS. Hollow stem auger		PAGE 1 OF 1

DEPTH (ft)	SAMPLE TYPE & NO	BLOWS ON SAMPLER PER PID ppm	RECOVERY ( ) %	DESCRIPTION	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	WELL CONSTRUCTION	REMARKS
		0.4 / 8.5	90	Clay, strong brown (7.5YR 5/6), roots + gravels upper 3 inches, trash; plastic, metal, paper, moist				2" sch 40 pvc riser
		NS / NS	0					
10		NS / 12.6	20	Sand, fine-grained, 1.5-2.5 ϕ, very pale yellow, moist to saturated at 20 ft, carbonate gravels at 29 ft				bentonite hole plug
		NS / 24.2	40					20-40 Silica sand
20		21.3 / 23.4	60					15' x 2" sch 40 PVC 0.010-in slotted screen
		25.2 / 34.1	80					
30		NS	100	Limestone, gray, dry				
40								

NOTES.

Drilling Contractor Associated

Drilling Equipment

Driller: Danny Jarman

243B-3-86

676 610

TAB

APPENDIX D

APPENDIX D

MONITORING WELL DEVELOPMENT FORMS

676 642

INTERNATIONAL TECHNOLOGY CORPORATION

DATE	0 4 2 7 0 0
TIME	1 1 5 0
PAGE 1 OF 1	
PAGE	
PROJECT NO. 768579	

SAMPLE COLLECTION LOG

PROJECT NAME NAS FT. WORTH JRB

SAMPLE NO.

SAMPLE LOCATION WITCTA 045

SAMPLE TYPE

COMPOSITE ____ YES ____ NO

COMPOSITE TYPE

DEPTH OF SAMPLE

WEATHER CLOUDY, LOW CLOUDS, NORTHERLY WIND <5 MPH, NO PRECIPITATION

CONTAINERS USED	AMOUNT COLLECTED

COMMENTS:

SET UP EXCLUSION ZONE @ 11:50

PID = 2.7 ppm CH_4 ; - 0 - PRODUCT

PRODUCT

W.L = 3.58

T.D = 6.66

W.C = 3.08

1V = 0.5

5V = 2.5

FINISH WELL DEVELOPMENT @ 12:30, GALLONS PURGED, PARAMETERS STABLE

PREPARED BY:

BLDG. 1191 PARKING LOT

Groundwater Well Development/Purge Log

Carswell Field D.O. 39 Sanitary Sewer System, NAS Fort Worth, Texas
PROJECT: 768579
AIR FORCE INSTALLATION ID CRSWL

676 643

SITE ID: NAS FT. WORTH LRB LOCATION ID: WCTCTA 046 (Well Number) Static Water Level: 3.31 ft Sample No.: —

Target Purge Volume: 3.3 gal WELL DEPTH: 7.35 (ft from TOC) Well Casing Diameter: 2 in Total Volatiles (PID): -0- ppm

SAP	Date mmddyy	Time (24hr)	Purge Rate (gal /min)	Water Level (ft)	Volume purged (gal)	Temp °C	pH	Cond	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By (Init.)	Water Description
	04-27-00	10:45	0.08	3.37	0	20.8	6.73	631					HEAVY TURB- MURKY BROWN
		10:50	0.08	3.37	2.3	20.4	6.79	645					V. LOW TURB V SLI. CLOUDY
		10:55	0.08	3.37	3.3	20.8	6.63	646					CLEAR
		11:00	0.08	3.37	4.4	20.6	6.63	646					CLEAR
		11:05	0.08	3.37	5.4	20.6	6.60	614					CLEAR
		11:10	0.08	3.37	6.4	20.5	6.62	646					CLEAR
		11:15	0.08	3.37	7.3	20.6	6.62	644					CLEAR
		11:20	0.08	3.37	8.4	20.7	6.61	642					CLEAR

676 644

INTERNATIONAL TECHNOLOGY CORPORATION

DATE	0	4	2	7	0	0
TIME	1	0	3	5		
PAGE 1 OF 1						
PAGE						
PROJECT NO. 768579						

SAMPLE COLLECTION LOG

PROJECT NAME NAS FT. WORTH JRB

SAMPLE NO. _____

SAMPLE LOCATION WITCTA 046

SAMPLE TYPE _____

COMPOSITE ____ YES ____ NO

COMPOSITE TYPE _____

DEPTH OF SAMPLE _____

WEATHER CLOUDY, LOW CLOUDS, WIND - NIL, ≈70°F

CONTAINERS USED	AMOUNT COLLECTED

COMMENTS:

SET UP EXCLUSION ZONE @ 10:35
PID = 0 ppm
W.L = 3.31
T.D = 7.35
W.C = 4.04
1 V = 0.7 GALLON
5 V = 3.3 GALLONS
- 0 - PRODUCT

FINISH WELL DEVELOPMENT @ 11:20 ; 84 GALLONS PURGED. PARAMETERS STABILIZED

PREPARED BY: _____

BLDG 1191 PARKING LOT

Groundwater Well Development/Purge Log

676 645

Carswell Field D.O. 39 Sanitary Sewer System, NAS Fort Worth, Texas
PROJECT: 768579
AIR FORCE INSTALLATION ID. CRSWL

SITE ID: NAS FT. WORTH NRB **LOCATION ID:** W1TCTA047 **(Well Number)** **Static Water Level:** 2.90 **ft** **Sample No.:** —

Target Purge Volume: 3.5 **gal** **WELL DEPTH:** 7.15 **(ft from TOC)** **Well Casing Diameter:** 2 **in.** **Total Volatiles (PID):** 0.0 ppm

S/P	Date mmddyy	Time (24hr)	Purge Rate (gal /min)	Water Level (ft)	Volume purged (gal)	Temp °C	pH	Cond _____	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By (init.)	Water Description
	04-22-00	09:55	0.08+	2.9	0	21.4	6.64	585					HIGH TURB. BROWN
		10:00	0.08	3.07	1.5	22.3	6.68	602					MED. TURB. BROWN
		10:05	0.08	3.07	2.0	22.5	6.59	594					LOW TURB. MUDDY BROWN
		10:10	0.08	3.07	2.8	22.8	6.59	603					CLEAR
		10:15	0.08	3.07	3.8	22.6	6.57	590					CLEAR
		10:20	0.08	3.07	4.8	22.7	6.60	598					CLEAR
		10:25	0.08	3.07	5.6	22.9	6.64	600					CLEAR

676 646

INTERNATIONAL TECHNOLOGY CORPORATION

DATE	0	4	2	7	0	0
TIME	0	9	3	5		
PAGE 1 OF 1						
PAGE						
PROJECT NO. 768579						

SAMPLE COLLECTION LOG

PROJECT NAME NAS FT. WORTH JRB

SAMPLE NO.

SAMPLE LOCATION WITCTA 047

SAMPLE TYPE —

COMPOSITE ____ YES ____ NO

COMPOSITE TYPE

DEPTH OF SAMPLE

WEATHER CLOUDY, SLIGHT PRECIPITATION, ±65°F, WIND - NIL

CONTAINERS USED	AMOUNT COLLECTED

COMMENTS:

09:40: SET UP EXCLUSION ZONE
PID = -0- ppm
W.L = ~~2.19~~ 2.90
T.D. = 7.15
W.C = 4.25
1 V = 0.7
5 V = 3.5
-0- PRODUCT
PID = -0- ppm CH_4
FINISH WELL DEVELOPMENT @ 10:25 - PARAMETERS STABILIZED; 5.6 GALLONS PURGED

PREPARED BY: _____

BUILDING 1191 PARKING LO

676 647

Groundwater Well Development/Purge Log

Carswell Field D.O. 39 Sanitary Sewer System, NAS Fort Worth, Texas
PROJECT: 768579
AIR FORCE INSTALLATION ID. CRSWL

SITE ID: NAS FT WORTH **LOCATION ID:** WITCTA 048 (Well Number) **Static Water Level:** 3.91 ft **Sample No.:** —

Target Purge Volume: 3.7 gal **WELL DEPTH:** 8.40 (ft from TOC) **Well Casing Diameter:** 2 in. **Total Volatiles (PID):** 1.5 ppm

S/P	Date mmddyy	Time (24hr)	Purge Rate (gal /min)	Water Level (ft)	Volume purged (gal)	Temp °C 1°	pH 1%	Cond. 5%	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By (init.)	Water Description
	04/27/00	09:10	0.08+	~~3.91~~ 4.10	0	22.4	6.16	592					MURKEY BROWN
		09:15	0.08	4.20	1.2	22.4	6.24	568					SLL BROWN
		09:20	0.08	4.20	2.5	22.2	6.48	585					CLEAR
		09:25	0.08	4.20	3.0	22.6	6.52	587					CLEAR
		09:30	0.08	4.20	4.0	22.4	6.58	587					CLEAR
		09:35	0.08	4.20	4.5	22.6	6.59	588					CLEAR

HYDRO GeoLogic INC.

MONITOR WELL PURGING FORM

PROJECT : NAS fort Worth JRB, AFC 001-023G

DATE: 9/5/97

LOCATION ~~LF05-14~~ HL-01

EXPLOSIMETER BOREHOLE READING _____

WELL ID: WHHLTA003

PURGE VOLUME
(3 WELLBORE VOLUMES). _____ (gal)

WELL DEPTH: 30.30 ft

Time	Depth to Water (ft)	Flow Meter Reading	Volume Purged (gal)	Temp. (°C)	pH	Specific Conductance (µmhos/cm) mS/cm	Turbidity (NTU)	Dis. Oxy. (mg/L)	Comments millivolts
1605	22.52	1L/min		26.6	7.29	0.849	999	10.47	
1610	22.52			25.7	7.22	0.874	999	10.62	
1615	22.52		–	25.5	7.14	0.870	980	10.36	
1620	22.52			24.9	7.08	0.870	500	10.21	
1625	22.52			25.0	7.02	0.867	380	9.87	-4.2
1630	22.56			24.9	6.98	0.871	320	9.60	-4.3
1635	22.57		–	24.9	6.96	0.874	291	9.48	-4.5
1640	22.57			24.8	6.95	0.876	240	9.35	-3.5
1645	22.59			24.6	6.96	0.874	175	9.29	-1.9
1650	22.57		–	24.5	7.03	0.866	172	8.99	-2.0
1655	22.60			24.4	7.13	0.876	189	8.67	-1.7
1700	22.61			24.3	7.16	0.876	163	8.63	-0.9
1705	22.59		–	24.2	7.18	0.880	137	8.58	-0.4
1710	22.55			24.3	7.21	0.875	470	8.49	-0.3 ← Pump slipped down hole
1715	22.61			24.0	7.23	0.876	455	8.57	-0.1
1720	22.63		–	24.0	7.24	0.875	307	8.50	-0.1
1725	22.63			23.9	7.25	0.877	240	8.43	-0.1

Note: Condition of the well: Excellent (New well)

pH - Calibrate at start and before last reading.

Sampler _____ Observer _____

676 619

HYDRO GeoLogic INC.

MONITOR WELL PURGING FORM

2 of 2

PROJECT . NAS fort Worth JRB, AFC 001-023G

DATE: 9/5/97

LOCATION: HGL-01

EXPLOSIMETER BOREHOLE READING _____

WELL ID: WIHGLTA003

PURGE VOLUME
(3 WELLBORE VOLUMES): _____ (gal)

WELL DEPTH: 30.30

Time	Depth to Water (ft)	Flow Meter Reading	Volume Purged (gal)	Temp. (°C)	pH	Specific Conductance (µmhos/cm)	Turbidity (NTU)	Dis. Oxy (mg/L)	~~Comments~~ millivolts
1730	22.63			23.9	7.27	0.877	173	8.41	-0.1
1735	22.65		→	23.9	7.27	0.877	166	8.37	-0.1
1740	22.66			23.9	7.27	0.877	162	8.37	-0.1

Note: Condition of the well: Excellent (new well)

pH - Calibrate at start and before last reading.

Sampler EJN @ 1746 Observer _____

FORM WP0

HYDRO GeoLogic Inc.

MONITOR WELL PURGING FORM

PROJECT : NAS fort Worth JRB, AFC 001-023G

DATE. 9/8/97

LOCATION. LF04-04B

EXPLOSIMETER BOREHOLE READING _____

WELL ID: _____

PURGE VOLUME
(3 WELLBORE VOLUMES): _____ (gal)

WELL DEPTH: 25.88 ft

Time	Depth to Water (ft)	Flow Meter Reading	Volume Purged (gal)	Temp. (°C)	pH	Specific Conductance (µmhos/cm)	Turbidity (NTU)	Dis. Oxy. (mg/L)	~~Comments~~ Redox (mV)
940	20.33	1 L/min		24.9	7.28	0.647	28	9.06	-11.3
945	20.32			24.9	7.31	0.648	24	8.98	-8.8
950	20.31			25.3	7.31	0.645	19	8.78	-8.9
955	20.33			25.4	7.31	0.664	15	8.54	-8.6
1000	20.34			25.8	7.31	0.664	11	8.51	-8.0
1010	20.32			25.9	7.31	0.662	9	8.50	-7.7
1020	20.32			26.2	7.31	0.663	7	8.48	-7.4
1025	20.32			26.5	7.30	0.663	7	8.48	-6.8
1030	20.32			26.7	7.30	0.662	5	8.50	-6.7
Sampled @ 1030									

Note: Condition of the well: Excellent; outside fence so fed tube through fence

pH - Calibrate at start and before last reading.

Sampler EJR

Observer KJH

FORM WP.0

676.651

HYDRO GeoLogic INC.

MONITOR WELL PURGING FORM

PROJECT : NAS fort Worth JRB, AFC 001-023G

DATE: 9/10/97

LOCATION: WHGLTA002

EXPLOSIMETER BOREHOLE READING _____

WELL ID: _____

PURGE VOLUME
(3 WELLBORE VOLUMES): _____ (gal)

WELL DEPTH: 20.1 ft

Time	Depth to Water (ft)	Flow Meter Reading	Volume Purged (gal)	Temp. (°C)	pH	Specific Conductance (µmhos/cm)	Turbidity (NTU)	Dis Oxy. (mg/L)	Comments
825	15.16	1L/min		23.6	7.16	0.671	212	9.39	-7.4
830	15.15			23.7	7.14	0.674	121	9.28	-5.0
835	15.18		—	23.9	7.13	0.670	82	9.11	-5.0
840	15.23			24.0	7.13	0.669	60	9.01	-5.1
845	15.18			24.0	7.12	0.671	47	9.01	-5.5
850	15.20		—	24.1	7.13	0.668	100	8.74	-5.6
855	15.21			23.9	7.13	0.669	75	8.75	-5.2
900	15.22			24.0	7.13	0.666	46	8.67	-5.1
905	15.18			24.1	7.12	0.666	58	8.62	-5.2
910	15.16		—	24.1	7.12	0.665	35	8.59	-4.8
915	15.16			24.1	7.12	0.664	23	8.41	-4.9
920	15.16			24.1	7.12	0.663	12	8.38	-4.8
925	15.16			24.2	7.12	0.662	10	8.37	-5.2
930	15.18		—	24.1	7.12	0.661	9	8.38	-5.1
935	15.21			24.2	7.12	0.658	9	8.49	-5.5
940	15.22			24.2	7.13	0.658	8	8.53	-5.1
945	15.22		—	24.2	7.13	0.657	7	8.53	-4.9

Note: Condition of the well: Excellent (Brad new)
Sampled @ 0945
pH - Calibrate at start and before last reading.

Sampler EJD

Observer KJH

FORM WP 0

HYDRO GeoLogic INC.

MONITOR WELL PURGING FORM

PROJECT : NAS fort Worth JRB, AFC 001-023G

DATE: 9/9/97

LOCATION WHGLTA11A

EXPLOSIMETER BOREHOLE READING _____

WELL ID: _____

PURGE VOLUME
(3 WELLBORE VOLUMES): _____ (gal)

WELL DEPTH: 17.68

Time	Depth to Water (ft)	Flow Meter Reading	Volume Purged (gal)	Temp. (°C)	pH	Specific Conductance (µmhos/cm)	Turbidity (NTU)	Dis. Oxy. (mg/L)	~~Comments~~ Redox (MV)
1650	14.03	1L/min		28.3	6.97	0.752	355	5.17	-1.1
1655	14.02			28.1	6.84	0.772	278	4.14	6.9
1700	14.76			27.8	6.79	0.775	159	3.99	8.0
1705	13.10			27.9	6.87	0.792	112	16.01	4.1
1710	12.79			28.1	6.89	0.803	237	15.95	6.9
1715	12.96			28.8	6.89	0.809	170	15.64	6.9
1720	12.66			28.8	6.93	0.805	121	15.59	7.5
1725	14.30			29.2	6.98	0.778	161	4.72	7.9
1730	15.16			27.8	6.99	0.757	161	4.18	8.1
1735	15.21			27.3	6.97	0.759	120	4.34	9.7
1740	15.21			27.1	6.96	0.770	75	4.25	11.5
1745	15.21			26.8	6.97	0.793	45	4.09	10.4
1750	15.21			26.5	6.93	0.804	25	4.16	10.2
1755	15.11			26.4	6.93	0.805	29	4.05	9.7
1800	15.11			26.6	6.92	0.805	27	4.01	9.6
Sampled @ 1800									

Note: Condition of the well: _____

pH - Calibrate at start and before last reading.

Sampler EJD Observer KJH

FORM WP 0

676 653

HYDRO GeoLogic INC.

MONITOR WELL PURGING FORM

PROJECT . NAS fort Worth JRB, AFC 001-023G

DATE. 9/9/97

LOCATION: WHGLTA004

EXPLOSIMETER BOREHOLE READING _____

WELL ID: _____

PURGE VOLUME
(3 WELLBORE VOLUMES): _____ (gal)

WELL DEPTH: 24.1 ft

Time	Depth to Water (ft)	Flow Meter Reading	Volume Purged (gal)	Temp. (°C)	pH	Specific Conductance (µmhos/cm)	Turbidity (NTU)	Dis. Oxy. (mg/L)	~~Comments~~ Redox (mv)
1425	18.46	Approx 1L/min		25.4	7.21	0.645	820	2.99	-23.5
1430	18.45			25.0	7.03	0.655	765	5.20	-11.9
1435	18.45			25.2	6.85	0.659	614	3.78	-9.7
1440	18.45			25.2	6.77	0.663	374	3.99	-6.7
1445	18.49			25.3	6.80	0.657	216	4.14	-7.9
1450	18.50			24.1	6.97	0.680	104	4.00	-8.5
1455	18.50			23.8	6.95	0.663	50	1.80	-8.6
1500	18.50			23.7	6.97	0.661	36	1.67	-6.9
1505	18.50			23.7	7.01	0.661	15	1.30	-5.6
1510	18.50			23.8	7.04	0.661	10	1.70	-5.4
1515	18.50			23.7	7.06	0.662	7	1.74	-5.3
1520	18.50			23.7	7.08	0.661	5	1.60	-5.2
1525	18.50			23.6	7.10	0.661	3	1.59	-5.5
Sampled @ 1525									

Note: Condition of the well Excellent (Brad new)

pH - Calibrate at start and before last reading.

Sampler SJD

Observer KSH

FORM WP 0

676 651

HYDRO GeoLogic INC.

MONITOR WELL PURGING FORM

PROJECT : NAS fort Worth JRB. AFC 001-023G

DATE: 9/8/97

LOCATION. LF04-04

EXPLOSIMETER BOREHOLE READING _____

WELL ID: _____

PURGE VOLUME
(3 WELLBORE VOLUMES): _____ (gal)

WELL DEPTH: 20.1 ft

Time	Depth to Water (ft)	Flow Meter Reading	Volume Purged (gal)	Temp. (°C)	pH	Specific Conductance (µmhos/cm)	Turbidity (NTU)	Dis. Oxy. (mg/L)	~~Comments~~ Redox (MV)
1355	18.53	1 L/min		25.9	7.20	0.843	930	2.35	2.3
1400	18.52			24.0	6.94	0.855	930	2.44	1.9
1405	18.53			24.0	~~24.0~~ 6.77	0.862	693	2.16	1.5
1410	18.53			23.9	6.68	0.866	487	1.29	1.8
1415	18.53			23.5	6.99	0.864	135	0.75	5.4
1420	18.53			22.9	6.93	0.866	66	0.81	5.8
1425	18.53			22.8	6.91	0.868	25	0.50	4.5
1430	18.53			22.8	6.93	0.871	21	0.26	5.7
1435	18.53			22.8	6.94	0.870	16	0.26	5.7
1440	18.53			22.9	6.98	0.871	7	0.37	6.1
1445	18.53			23.1	7.01	0.871	5	0.39	5.8
1450	18.53			23.0	7.05	0.871	6	0.42	5.7
Sampled @ 1450; Dup WHGLTADUP05 @ 1520									

Note: Condition of the well: Good; near grassy/wooded area

pH - Calibrate at start and before last reading.

Sampler SJP

Observer KJH

FORM WP 0

676 655

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INTERNATIONAL TECHNOLOGY CORPORATION

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Purge ~~SAMPLE~~ COLLECTION LOG

PROJECT NAME NAS FT WORTH

SAMPLE NO

SAMPLE LOCATION WITCTA 058

SAMPLE TYPE NONE Taken

COMPOSITE ____ YES ____ NO

COMPOSITE TYPE

DEPTH OF SAMPLE NONE Taken

WEATHER clear 75° 10mph NW

CONTAINERS USED	AMOUNT COLLECTED
0	

COMMENTS

12:20 set up exclusion zone
12:30 water Depths water level at start of purge 31.12
TD 42.18

11.06' X .163 X 5 = 9.0 gal 5 Vols
PID 423 ppm
Interface Probe 0.0' product

13:00 Began with peristolic pump.
15:00 Depth too Great for pump. Tried several ways, but still no Luck
15:00 Began Bailing the well with disposable Bailers
17:30 Field Perimeters stabilized and Turbidity OK
17:45 clean up the site and left

PREPARED BY: R. Jones

Groundwater Well D velopment/Purg Log

Carswell Field D.O. 39 Sanitary Sewer System, NAS Fort Worth, Texas
PROJECT: 768579
AIR FORCE INSTALLATION ID. CRSWL

NAS FT WORTH

SITE ID: [illegible] LOCATION ID: W1TCTA058 (Well Number) Static Water Level: 31.12 ft Sample No.: NONE

Target Purge Volume: ~~100~~ 90 gal WELL DEPTH: 42.19 (ft from TOC) Well Casing Diameter: 2 in Total Volatiles (PID): 423 ppm

S/P	Date mmddyy	Time (24hr)	Purge Rate (gal /min)	Water Level (ft)	Volume purged (gal)	Temp °C 1°	pH 1%	Cond. 5%	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By (Init.)	Water Description	PID
	4/24/00	15:02		31.12	0	22.3	7.06	709	High					
		15:06			0.5	21.9	7.09	673						
		15:09			1.6	21.3	7.11	695					BROWN	95.0 ppm
		15:11			2.6	21.5	6.95	686					BROWN	
		15:16			3.3	21.0	7.11	695	High				BROWN	
		15:23			4.7	21.4	7.10	695						
		15:27			6.0	20.6	7.08	698	High				BROWN	
		15:35			7.6	21.1	7.10	687					BROWN	12.3 ppm
		15:40		31.03	8.8	21.4	7.12	694						
		15:46			9.9	21.3	6.92	697	High				BROWN	
		15:55			11.5	21.3	6.91	697						
		16:00		31.12	13.00	21.1	7.09	695	medium				BROWN	21.4 ppm
		16:08			14.2	21.3	7.10	693						
		16:15		31.10	15.6	21.4	7.07	695						

676 657

Groundwater Well Development/Purge Log

Carswell Field D.O. 39 Sanitary Sewer System, NAS Fort Worth, Texas
PROJECT: 768579
AIR FORCE INSTALLATION ID. CRSWL

SITE ID: NAS Ft Worth LOCATION ID: WITETA 058 (Well Number) Static Water Level: 31.12 ft Sample No.: NONE

Target Purge Volume: ~~[illegible]~~ 9.0 gal WELL DEPTH: 42.19 (ft from TOC) Well Casing Diameter: 2 in. Total Volatiles (PID): 423 ppm

S/P	Date mmddyy	Time (24hr)	Purge Rate (gal /min)	Water Level (ft)	Volume purged (gal)	Temp °C 1°	pH 1%	Cond. mV 5%	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By (Init.)	Water Description
	4/24/00	16:23		31.10	17.01	21.1	6.99	696	medium				
		16:37			18.3	21.6	7.06	685					
		16:47			19.8	21.3	7.08	700					
		1652			21.3	21.5	6.99	695	medium				
		1659			22.8	21.5	7.06	700					
		17:05			24.2	21.5	7.05	700					
		17:16			25.7	21.4	7.00	697	LOW				
		17:19			27.2	21.3	6.99	7.00					
		17:21		31.12	28.7	21.1	7.01	694	LOW				clear

PID 9.0 ppm

676 658

676 659

INTERNATIONAL TECHNOLOGY CORPORATION

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PROJECT NO	774902

Purge ~~SAMPLE~~ COLLECTION LOG

PROJECT NAME NAS FT. WORTH JRB

SAMPLE NO

SAMPLE LOCATION WITCTA 057

SAMPLE TYPE

COMPOSITE ____ YES ____ NO

COMPOSITE TYPE

DEPTH OF SAMPLE

WEATHER CLEAR, ± 70°F, WESTERLY WIND @ ± 5 MPH

CONTAINERS USED	AMOUNT COLLECTED

COMMENTS:

07:50 - SET UP EXCLUSION ZONE
STATIC WATER LEVEL - 30.93'
T.D. = 42.38'
WATER COLUMN = 11.45'
1 WELL VOLUME = 1.86 GALLONS
5 WELL VOLUMES = 9.30 GALLONS
PID = 52.0 ppm CH_4
-0- PRODUCT
08:05 - BEGIN BAILING w/ DISPOSABLE BAILER
09:25 - WELL DEVELOPED

PREPARED BY. _____

Groundwater Well Development/Purg Log

Carswell Field D.O. 39 Sanitary Sewer System, NAS Fort Worth, Texas
PROJECT: 768579
AIR FORCE INSTALLATION ID. CRSWL

WASTE PILE #7

SITE ID: NAS FT WORTH JRB **LOCATION ID:** WFTCTA 057 **(Well Number)** **Static Water Level:** 30.95 ft **Sample No.:** —

Target Purge Volume: 9.3 gal **WELL DEPTH:** 42.38 **(ft from TOC)** **Well Casing Diameter:** 2 in. **Total Volatiles (PID):** 52.0 ppm CH_4

S/P	Date mmddyy	Time (24hr)	Purge Rate (gal /min)	Water Level (ft)	Volume purged (gal)	Temp °C	pH	Cond.	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By (init.)	Water Description
	04-25-00	8:05		30.95	0	20.1	6.11	740					CLOUDY
		8:15			1.6	20.2	6.28	699					"
		8:18			3.0	20.2	6.42	697					"
		8:24			4.5	20.2	6.50	694					"
		8:28		30.96	6.0	20.1	6.58	695					"
		8:32			7.5	20.1	6.61	697					"
		8:35			9.0	20.2	6.62	692					SLI LESS CLOUDY
		8:39			10.5	20.3	6.65	693					"
		8:43		30.95	12.0	20.2	6.64	695					"
		8:48			13.5	20.3	6.61	692					"
		8:52			15.0	20.3	6.64	691					SLI CLOUDY
		8:57		30.95	16.5	20.2	6.64	693					"
		9:00			18.0	20.3	6.63	694					"
		9:02			19.5	20.3	6.62	694					"

20.8 ppm CH_4

676 660

676 661

Groundwater Well Development/Purge Log

Carswell Field D.O. 39 Sanitary Sewer System, NAS Fort Worth, Texas
PROJECT: 768579
AIR FORCE INSTALLATION ID. CRSWL

SITE ID: WASTE PILE #7 NAS FT. WORTH JRB LOCATION ID: WITCTA057 (Well Number) Static Water Level: 3095 ft Sample No.: —

Target Purge Volume: 9.3 gal WELL DEPTH: 42.38 (ft from TOC) Well Casing Diameter: 2 in. Total Volatiles (PID): 52.0 ppm CH_4

S/P	Date mmddyy	Time (24hr)	Purge Rate (gal /min)	Water Level (ft)	Volume purged (gal)	Temp °C	pH	Cond. ____	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By (Init.)	Water Description
	04-25-00	9:07			21.0	20.6	6.66	688					V. SLI CLOUDY
		9:10			22.5	20.5	6.65	689					V. SLI CLOUDY
		9:14			24.0	20.5	6.67	691					V. SLI CLOUDY
		9:20			25.5	20.7	6.69	690					V. SLI CLOUDY
		9:25			27.0	20.8	6.70	688					V. SLI CLOUDY

20.8 ppm CH_4

676 662

INTERNATIONAL TECHNOLOGY CORPORATION

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Purge

~~SAMPLE~~ COLLECTION LOG

PROJECT NAME NAS FT. WORTH JRB

SAMPLE NO

SAMPLE LOCATION WIICTA 059

SAMPLE TYPE

COMPOSITE ____ YES ____ NO

COMPOSITE TYPE

DEPTH OF SAMPLE

WEATHER CLEAR, ± 74°F, NORTHWESTERLY WIND ± 5-10 MPH

CONTAINERS USED	AMOUNT COLLECTED

COMMENTS

10:07 - SET UP EXCLUSION ZONE
10:10 - PID = -0- ppm CH4
-0- PRODUCT
T.D. = 38.50'
WATER COLUMN = 9.89'
1 VOLUME = 1.6 GALLONS
5 VOLUMES = 8.1 GALLONS

FINISH DEVELOPING WELL @ 14:40
FINAL WATER LEVEL = 28.61
-0- ppm CH4 @ END OF WELL DEVELOPMENT

PREPARED BY. _____

Groundwater Well Development/Purge Log

Carswell Field D.O. 39 Sanitary Sewer System, NAS Fort Worth, Texas
PROJECT: 768579
AIR FORCE INSTALLATION ID. CRSWL

676 663

SITE ID: LANDFILL 5 NAS FT WORTH JRB LOCATION ID: WITCTA 059 (Well Number) Static Water Level: 28.61 ft Sample No.: —

Target Purge Volume: 8.1 gal WELL DEPTH: 38.50 (ft from TOC) Well Casing Diameter: 2 in Total Volatiles (PID): 0.0 ppm

S/P	Date mmddyy	Time (24hr)	Purge Rate (gal /min)	Water Level (ft)	Volume purged (gal)	Temp °C	pH	Cond.	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By (init.)	Water Description	
	04-25-00	10:15		28.61	0	21.3	6.55	1010					CLOUDY	0.0ppm CH4
		10:21			1.5	21.4	6.54	970					"	
		10:23			3.0	21.4	6.59	744					"	
		10:26			4.5	21.1	6.63	701					"	
		10:29			6.0	21.3	6.67	698					"	
		10:34			7.5	21.3	6.68	697					"	
		10:39		28.61	9.0	21.3	6.63	690					"	0.5ppm CH4
		10:43			10.5	21.4	6.64	691					"	
		10:46			12.0	21.4	6.65	696					"	
		10:50			13.5	21.4	6.67	687					"	
		10:54			15.0	21.3	6.63	688					"	
		10:58		28.57	16.5	21.1	6.66	684					"	
		11:00			18.0	21.3	6.66	681					"	
		11:04			19.5	21.3	6.68	687					"	0.4ppm CH4

Groundwater Well D velopment/Purge Log

Carswell Field D.O. 39 Sanitary Sewer System, NAS Fort Worth, Texas
PROJECT: 768579
AIR FORCE INSTALLATION ID: CRSWL

LANDFILL 5

SITE ID: NAS FT. WORTH JRB **LOCATION ID:** WITCTA059 **(Well Number)** **Static Water Level:** 28.61 ft **Sample No.:** —

Target Purge Volume: 8.1 gal **WELL DEPTH:** 38.50 **(ft from TOC)** **Well Casing Diameter:** 2 in. **Total Volatiles (PID):** 0.0 ppm

S/P	Date mmddyy	Time (24hr)	Purge Rate (gal /min)	Water Level (ft)	Volume purged (gal)	Temp °C	pH	Cond ____	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By (init.)	Water Description
	04-25-00	11:07			21.0	21.4	6.64	681					LESS CLOUDY
		11:11			22.5	21.3	6.65	679					LESS CLOUDY
		11:14			24.0	21.2	6.68	683					"
		11:19		28.60	25.5	21.2	6.70	677					"
		11:21			27.0	21.3	6.64	671					"
		11:24			28.5	21.3	6.67	680					V. SLI CLOUDY
		11:29			30.0	21.4	6.68	688					"
		11:33			31.5	21.5	6.66	676					"
		11:37			33.0	21.5	6.66	671					"
		11:40		28.61	34.5	21.5	6.67	672					FAIRLY CLEAR

6.76; 6.64

676 665.

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676-666

INTERNATIONAL TECHNOLOGY CORPORATION

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PROJECT NO	774902

~~SAMPLE~~ Purge COLLECTION LOG

PROJECT NAME NAS FT. WORTH JRB

SAMPLE NO

SAMPLE LOCATION WITCTA 060

SAMPLE TYPE

COMPOSITE ____ YES ____ NO

COMPOSITE TYPE

DEPTH OF SAMPLE

WEATHER CLEAR, ± 80°F, NORTHERLY WIND ± 3-10MPH

CONTAINERS USED	AMOUNT COLLECTED

COMMENTS:

- 1330 PLACE CAUTION TAPE AROUND WITCTA 060
- FID = -0- ppm CH_4
- WATER LEVEL = 20.60'
- PRODUCT = -0-
- T.D. = 33.17
- WATER COLUMN = 12.57

1 VOLUME = 2.0 GALLONS
5 VOLUMES = 10.2 GALLONS

WELL COMPLETED @ 14:25; 30 GALLONS PURGED; WATER STILL VERY SLIGHTLY CLOUDY DUE TO BAILING

FINAL WATER LEVEL = 20.60'
-0- ppm CH_4

PREPARED BY:

Groundwater Well Development/Purge Log

Carswell Field D.O. 39 Sanitary Sewer System, NAS Fort Worth, Texas
PROJECT: 768579
AIR FORCE INSTALLATION ID. CRSWL

676-667

SITE ID: NAS FT WORTH JRB LOCATION ID: WITCTA 060 (Well Number) Static Water Level: 20.60 ft Sample No.: —

Target Purge Volume: 10.2 gal WELL DEPTH: 33.17 (ft from TOC) Well Casing Diameter: 2 in. Total Volatiles (PID): 0.0 ppm

S/P	Date mmddyy	Time (24hr)	Purge Rate (gal /min)	Water Level (ft)	Volume purged (gal)	Temp °C	pH	Cond. ____	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By (Init.)	Water Description	
	04-25-00	13:18		20.60	0	22.8	6.77	705					V. CLOUDY	0.0 ppm CH_4
		13:20			1.5	22.5	6.67	719					"	
		13:23			3.0	22.0	6.64	726					"	
		13:27			4.5	21.7	6.60	728					"	
		13:30			6.0	21.8	6.51	725					"	
		13:34		20.66	7.5	21.8	6.45	728					SL LESS CLOUDY	
		13:37			9.0	21.7	6:52	730					"	1.0 ppm CH_4
		13:41			10.5	21.9	6:48	728					"	
		13:43			12.0	21.9	6:49	728					"	
		13:46			13.5	21.8	6.56	724					"	
		13:48			15.0	21.8	6.53	725					"	
		13:50			16.5	21.9	6.54	721					"	
		13:54		20.70	18.0	22.0	6.54	726					"	0.0 ppm CH_4
		13:58			19.5	21.8	6.56	724					"	

Groundwater Well Development/Purge Log

Carswell Field D.O. 39 Sanitary Sewer System, NAS Fort Worth, Texas
PROJECT: 768579
AIR FORCE INSTALLATION ID: CRSWL

SITE ID: NAS FT WORTH IRP **LOCATION ID:** WITCTA 060 **(Well Number)** **Static Water Level:** 20.60 ft **Sample No.:** —

Target Purge Volume: 10.2 gal **WELL DEPTH:** 33.17 **(ft from TOC)** **Well Casing Diameter:** 2 in. **Total Volatiles (PID):** 0.0 ppm

S/P	Date mmddyy	Time (24hr)	Purge Rate (gal /min)	Water Level (ft)	Volume purged (gal)	Temp °C	pH	Cond.	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By (Init.)	Water Description
	04-25-00	14:01			21.0	21.8	6.57	724					SL CLOUDY
		14:04			22.5	22.0	6.52	719					"
		14:08		20.68	24.0	21.8	6.57	732					"
		14:12			25.5	21.8	6.58	735					"
		14:15			27.0	21.8	6.57	727					"
		14:19			28.5	21.9	6.51	730					"
		14:25			30.0	21.9	6.53	723					"

.05

.3 gal/min

Groundwater Well Development/Purge Log

Carswell Field D.O. 39 Sanitary Sewer System, NAS Fort Worth, Texas
PROJECT: 768579
AIR FORCE INSTALLATION ID CRSWL

676 669

SITE ID: NAS FT WORTH LOCATION ID: WITCTA058 (Well Number) Static Water Level: 31.13 ft Sample No.:

Target Purge Volume: 4.9 gal WELL DEPTH: 41.10 (ft from TOC) Well Casing Diameter: 2 in. Total Volatiles (PID): 35.6

S/P	Date mmddyy	Time (24hr)	Purge Rate (gal /min)	Water Level (ft)	Volume purged (gal)	Temp °C	pH	Cond	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By (Init.)	Water Description
	4/26/00	17:30	.06	31.25	1.0	22.2	6.60	6.71	182	0.58			
		17:35	.06	31.26	1.3	22.3	6.58	6.72	203	0.69			
		17:40	.06	31.23	1.7	22.4	6.52	6.76	177	0.41			
*		17:45	.06	31.20	2.0	21.3	6.52	6.97	32	0.29			clear
		17:50	.06	31.20	2.4	21.6	6.52	698	20	0.31			clear
		17:55	.06	31.19	2.7	21.5	6.53	697	15	0.25			clear
	4/26/00	18:00	.06	31.20	2.1	21.3	6.53	699	12	0.27			clear
		18:05	.06	31.20	2.4	21.4	6.53	698	9	0.21			
		18:10	.06	31.20	2.7	21.4	6.53	699	8	0.26			
		18:15	.06	31.20	3.0	21.4	6.53	699	6	0.21			
	18:20	sampled											

* Fixed slight problem with Horiba - correct reading after 14:40

Groundwater Well Development/Purge Log

Carswell Field D.O. 39 Sanitary Sewer System, NAS Fort Worth, Texas
PROJECT: 768579
AIR FORCE INSTALLATION ID CRSWL

SITE ID: NAS FT WORTH **LOCATION ID:** W1TLTA 057 (Well Number) **Static Water Level:** 30.90 ft **Sample No.:** _____

Target Purge Volume: 5.7 gal **WELL DEPTH:** 42.57 (ft from TOC) **Well Casing Diameter:** 2 in **Total Volatiles (PID):** 0.0

S/P	Date mmddyy	Time (24hr)	Purge Rate (gal /min)	Water Level (ft)	Volume purged (gal)	Temp °C 1°	pH 1%	Cond. 5%	Turbidity (NTU) <10	Dissolved oxygen (mg/L) .3	Redox (mV)	Prepared By (init.)	Water Description
	4/26/00	16:05	.04	30.90	4.3	21.7	6.60	700	17	0.71			clear
		16:10	.04	30.90	4.6	21.7	6.60	700	11	0.70			clear
		16:15	.06	30.90	4.9	21.7	6.60	700	10	0.61			clear
		16:20	.06	30.90	5.2	21.8	6.60	700	9	0.68			clear
		16:25	.06	30.90	5.5	21.8	6.60	700	8	0.72			clear
		16:30		sampled									

676 670

KNOXVILLE DATA MANAGEMENT
C:\FILES\CARSWELL\IP PIMS\CW.GPL
July 9, 1996

.1 L/m

.03 gal/min
.12 gal/5 min

Groundwater Well Development/Purge Log

Carswell Field D.O. 39 Sanitary Sewer System, NAS Fort Worth, Texas
PROJECT: 768579
AIR FORCE INSTALLATION ID CRSWL

676 671

SITE ID: NAS FT WORTH LOCATION ID: W1TCTA057 (Well Number) Static Water Level: 30.90 ft Sample No.:

Target Purge Volume: 5.7 gal WELL DEPTH: 42.57 (ft from TOC) Well Casing Diameter: 2" in Total Volatiles (PID): 0.0

S/P	Date mmddyy	Time (24hr)	Purge Rate (gal /min)	Water Level (ft)	Volume purged (gal)	Temp °C 1°	pH 1%	Cond m 5%	Turbidity (NTU) < 10	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By (init.)	Water Description
	4/26/00	15:00	.03	30.90	1.0	23.1	6.60	6.96	440	1.25			CLEAR
		15:05	.04	30.90	1.2	22.7	6.64	704	255	0.95			CLEAR
		15:10	.04	30.91	1.4	22.4	6.63	6.99	156	0.91			CLEAR
		15:15	.04	30.91	1.6	22.6	6.62	698	120	1.31			CLEAR
		15:20	.04	30.91	1.8	22.8	6.62	699	104	1.22			CLEAR
		15:25	.04	30.91	2.0	22.5	6.62	701	83	0.53			CLEAR
		15:30	.04	30.90	2.3	22.5	6.62	699	65	0.41			clear
	4/26/00	15:35	.04	30.90	2.5	22.2	6.62	700	53	0.48			clear
		15:35	.04	30.90	2.7	21.9	6.62	698	49	0.57			clear
		15:40	.04	30.90	3.0	21.8	6.61	698	52	0.54			clear
		15:45	.04	30.90	3.2	21.7	6.61	698	55	0.53			clear
		15:50	.04	30.90	3.4	21.5	6.61	698	55	0.55			clear
		15:55	.04	30.90	3.6	21.5	6.60	697	52	0.56			clear
	4/26/00	16:00	.04	30.90	4.0	21.6	6.61	697	35	0.60			clear

.17 gal/5min

Groundwater Well Development/Purge Log

Carswell Field D.O. 39 Sanitary Sewer System, NAS Fort Worth, Texas
PROJECT: 768579
AIR FORCE INSTALLATION ID CRSWL

LANDFILL 5

SITE ID: NAS FT. WORTH JRB LOCATION ID: WTTCTA059 (Well Number) Static Water Level: 28.62 ft Sample No.:

Target Purge Volume: 4.7 gal WELL DEPTH: 39.18 (ft from TOC) Well Casing Diameter: 2 in. Total Volatiles (PID): 0.0

S/P	Date mmddyy	Time (24hr)	Purge Rate (gal /min)	Water Level (ft)	Volume purged (gal)	Temp °C 1°	pH 1%	Cond 5%	Turbidity mlscm (NTU)	Dissolved oxygen (mg/L) .3	Redox (mV)	Prepared By (Init.)	Water Description
	4/26/00	12:50	.15	28.62	1.50	21.9	6.51	665	70	0.90			clear
	↓	12:55	.16	28.62	2.50	21.9	6.53	670	51	0.73			clear
		13:00	.15	28.62	3.25	21.5	6.54	6.66	36	0.50			clear
		13.05	.15	28.62	4.00	21.4	6.53	664	23	0.41			CLEAR
		13.10	.15	28.62	4.70	21.4	6.53	664	23	0.42			CLEAR
		13:15	.15	28.62	5.50	21.4	6.52	663	22	0.40			CLEAR
		13:20	.15	28.62	6.25	21.4	6.52	663	21	0.42			CLEAR
		13.25	.15	28.62	7.00	21.4	6.52	663	19	0.50			CLEAR
		13:30	.15	28.62	7.75	21.4	6.52	663	19	0.42			CLEAR
		13:35	.15	28.62	8.50	21.4	6.52	662	18	0.35			CLEAR
		13.40	.15	28.62	9.25	21.4	6.52	663	18	0.38			CLEAR
		13:45	.15	28.62	10.00	21.4	6.52	662	17	0.26			CLEAR
		13:50	.15	28.62	10.75	21.4	6.52	662	17	0.24			
	Sample 13:50												

676 672

b/min = .26 all/min
.2
.052 = .25/5 in
5
.26
.26
NF 1.03 F 2.39

676 673

Groundwater Well Development/Purge Log

Carswell Field D.O. 39 Sanitary Sewer System, NAS Fort Worth, Texas
PROJECT: 768579
AIR FORCE INSTALLATION ID CRSWL

SITE ID: NAS FT WORTH LOCATION ID: WITCTA60 (Well Number) Static Water Level: 20.56 ft Sample No.: _____

Target Purge Volume: ____ gal WELL DEPTH: 33.19 (ft from TOC) Well Casing Diameter: 2 in. Total Volatiles (PID): 0.0

mw .3 mg/L

S/P	Date mmddyy	Time (24hr)	Purge Rate (L)	Water Level (ft)	Volume purged (gal)	Temp °C 1°	pH 1%	Cond 5%	Turbidity (NTU) <10	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By (init.)	Water Description
	4/26/00	10:25	.2	20.60	5.0	21.8	6.52	709	55	1.36			
		10:30	.2	20.60	5.3	21.9	6.52	709	42	1.36			
		10:35	.2	20.60	5.5	21.9	6.52	711	36	1.30			
		10:40	.2	20.60	5.7	21.8	6.53	711	36	1.29			
		10:45	.2	20.60	6.0	21.9	6.54	713	46	1.38			
		10:50	.2	20.60	6.2	21.8	6.55	713	32	1.43			
		10:55	.2	20.60	6.5	21.9	6.54	714	30	1.36			
		11:00	.2	20.60	6.8	21.7	6.53	718	38	0.92			
		11:05	.2	20.60	7.0	21.9	6.52	719	39	0.98			
		11:10	.2	20.60	7.3	22.0	6.52	718	38	1.33			
		11:15	.2	20.60	7.6	22.3	6.55	715	34	1.37			
		11:20	.2	20.60	7.9	22.3	6.56	714	34	1.53			
		11:25		sampled									

676 671

INTERNATIONAL TECHNOLOGY CORPORATION

DATE	0	4	2	7	0	0
TIME	0	8	1	5		
PAGE 1 OF 1						
PAGE						
PROJECT NO. 768579						

Purge ~~SAMPLE~~ COLLECTION LOG

PROJECT NAME NAS Ft WORTH

SAMPLE NO.

SAMPLE LOCATION WITCTA048

SAMPLE TYPE None Taken

COMPOSITE ____ YES ____ NO

COMPOSITE TYPE

DEPTH OF SAMPLE

WEATHER cloudy 65° no wind

CONTAINERS USED	AMOUNT COLLECTED

COMMENTS.

0815 set up exclusion zone
stopped for Rain
PID 1.5 ppm
WL 3.91'
5 Vol = 3.70 Gal
TD 8.40'
No Product detected interface probe
WC 4.49
0830 stopped for Rain

Completed well development @ 09:30 ; 4.5 Gallons purged, parameter stable.

PREPARED BY: _____

BCDG C191 PARKING LOT

676 675

Groundwater Well Development/Purge Log

Carswell Field D.O. 39 Sanitary Sewer System, NAS Fort Worth, Texas
PROJECT: 768579
AIR FORCE INSTALLATION ID CRSWL

SITE ID: NAS FT. WORTH ARB LOCATION ID: WITCTA 045 (Well Number) Static Water Level: 3.58 ft Sample No.: —

Target Purge Volume: 2.5 gal WELL DEPTH: 6.66 (ft from TOC) Well Casing Diameter: 2 in Total Volatiles (PID): 2.4 ppm

S/P	Date mmddyy	Time (24hr)	Purge Rate (gal /min)	Water Level (ft)	Volume purged (gal)	Temp °C	pH	Cond	Turbidity (NTU)	Dissolved oxygen (mg/L)	Redox (mV)	Prepared By (Init.)	Water Description
	04-27-00	12:05		3.62	0	20.8	6.86	709					HIGH TURB MURKY BROWN
		12:10		3.62	1.75	21.0	6.70	715					HIGH TURB MURKEY BROWN
		12:15		3.62	3.50	21.0	6.64	713					LOW TURB CLEAR
		12:20		3.62	4.90	21.1	6.60	679					CLEAR
		12:25		3.62	6.40	21.1	6.60	708					CLEAR
		12:30		3.62	7.50	21.1	6.61	711					CLEAR
		~~12:35~~		~~3.62~~									CLEAR

TAB

APPENDIX E

APPENDIX E

CHAIN-OF-CUSTODY FORMS

Chain of Custody Record

Quanterra

QUA 4124

Client: Hydrogeologic, Inc.	Project Manager: [illegible]	Date: 11 Sept 97	Chain Of Custody Number: 006[illegible]
Address: 1155 Herndon Parkway, Ste #900	Telephone Number (Area Code)/Fax Number: 703-[illegible]-5786	Lab Number	Page 2 of 2
City: Herndon; State: VA; Zip Code: 20170	Site Contact: Michael Redlang		
Project Name: Carswell AFB	Carrier/Waybill Number: Fedex		
Contract/Purchase Order/Quote No: [illegible]-023			

Analysis

Sample I D No and Description	Date	Time	Sample Type	Total Volume	Containers Type	Containers No	Preservative	Condition on Receipt	[illegible]	[illegible]	Metals (Hg)	Hg (Water)	Hg (Solids)	Hg (Tissue)	[illegible]
THG-TA028-01	11 Sept 97	1015	Soil	500 g	500 g jar	1	ice		✓						
↓		↓	↓	8 oz jar	8 oz jar	1	↓			✓					
↓		↓	↓	8 oz jar	8 oz jar	1	↓				✓	✓		✓	
THG-TA028-02		1100	↓	4 oz	4 oz jar	1	↓		✓						
↓		↓	↓	8 oz	8 oz jar	1	↓			✓					
↓		↓	↓	8 oz	8 oz jar	1	↓				✓	✓		✓	
THG-TA028-02MS		1100	↓	4 oz	4 oz jar	1	↓		✓						
↓		↓	↓	8 oz	8 oz jar	1	↓			✓					
↓		↓	↓	8 oz	8 oz jar	1	↓				✓	✓		✓	
THG-TA028-02MSD		1100	↓	4 oz	4 oz jar	1	↓		✓						
↓		↓	↓	8 oz	8 oz jar	1	↓			✓					
↓		↓	↓	8 oz	8 oz jar	1	↓				✓	✓		✓	
TB091197		1200	Water	120 mL	40 mL vial	3	HCl		✓						
EB091197		1115	Water	120 mL	40 mL vial	3	HCl		✓						
↓		↓	↓	2 L	1 Amber	2	----			✓					
↓		↓	↓	1 L	1 L Poly	1	NaOH				✓	✓	✓		

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☑ Unknown

Sample Disposal: ☐ Return To Client ☑ Disposal By Lab ☐ Archive For ____ Months

Turn Around Time Required: ☐ Normal ☐ Rush Standard

QC Level: ☐ I ☐ II ☐ III

Project Specific (Specify)

	Date	Time		Date	Time
1 Relinquished By: [signature]	11 Sept 97	1800	1 Received By		
2 Relinquished By			2 Received By		
3 Relinquished By			3 Received By		

Comments

DISTRIBUTION WHITE - Stays with Sample, CANARY - Returned to Client with Report, PINK - Field Copy

676 678

Best Available Copy

Chain of Custody Record

Quanterra

QUA 4124

676 679

Client	Project Manager	Date	Chain Of Custody Number
Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page ___ of ___
City / State / Zip Code	Site Contact		
Project Name	Carrier/Waybill Number		
Contract/Purchase Order/Quote No			

Analysis

Sample I D No. and Description	Date	Time	Sample Type	Total Volume	Containers Type	Containers No	Preservative	Condition on Receipt										
New well																		
WLF05'																		
FT08-11AW601																		

Special Instructions

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Turn Around Time Required
☐ Normal ☐ Rush

QC Level
☐ I. ☐ II ☐ III.

Project Specific (Specify)

	Date	Time		Date	Time
1 Relinquished By			1 Received By		
2 Relinquished By			2 Received By		
3 Relinquished By			3 Received By		

Comments

DISTRIBUTION: WHITE - Stays with Sample, CANARY - Returned to Client with Report, PINK - Field Copy

Best Available Copy

Chain of Custody Record

Quanterra

QUA-4124

Client	Project Manager	Date	Chain Of Custody Number
Hydrogeologic Inc.	Jim Costelli	11 Sept 97	00610
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 2**
1155 Herndon Parkway Ste #900	703-834-5720		
City / **State** / **Zip Code**	**Site Contact**		
Herndon / VA / 20170	Mr. Lloyd Ruthven		
Project Name	**Carrier/Waybill Number**		
Caldwell AFB	Fedex		
Contract/Purchase Order/Quote No			
AF8001 .0.23			

Analysis

Sample I D No and Description	Date	Time	Sample Type	Total Volume	Containers Type	Containers No	Preservative	Condition on Receipt	VOC (Aromatics)	SVOC (Acids)	Metals (Total)	Lab Filtered	Field Filtered	Total Metals						Best Available Copy 676 680
WHGLTA002-01	10Sept97	1445	Water	120 mL	40 mL vial	3	HCl		✓											
↓	↓	↓	↓	2 L	1L amber	2	—			✓										
↓	↓	↓	↓	1 L	1L poly	1	HNO3				✓	✓	✓							
WHGLTA002-01MS	↓	↓	↓	120 mL	40 mL vial	3	HCl		✓											
↓	↓	↓	↓	2 L	1L amber	2	—			✓										
↓	↓	↓	↓	1 L	1L poly	1	HNO3				✓	✓	✓							
WHGLTA002-01MSD	↓	↓	↓	120 mL	40 mL vial	3	HCl		✓											
↓	↓	↓	↓	2 L	1L amber	2	—			✓										
↓	↓	↓	↓	1 L	1L poly	1	HNO3				✓	✓	✓							
FB091097	↓	0950	↓	120 mL	40 mL vial	3	HCl		✓											
↓	↓	↓	↓	2 L	1L amber	2	—			✓										
↓	↓	↓	↓	1 L	1L poly	1	HNO3				✓	✓	✓							
TIGLTA024-01	↓	0830	Soil	8oz	8oz jar	1	ice		✓											
↓	↓	↓	↓	8oz	8oz jar	1	↓			✓										
↓	↓	↓	↓	8oz	8oz jar	1	↓				✓	✓		✓						

Special Instructions

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Turn Around Time Required
☐ Normal ☐ Rush Standard

QC Level
☐ I ☐ II ☐ III.

Project Specific (Specify)

	Date	Time		Date	Time
1 Relinquished By: [signature]	10Sept97	1800	1 Received By		
2 Relinquished By			2 Received By		
3 Relinquished By			3 Received By		

Comments

DISTRIBUTION WHITE - Stays with Sample, CANARY - Returned to Client with Report, PINK - Field Copy

Chain of Custody Record

Quanterra

OUA 4124

Client	Project Manager	Date	Chain Of Custody Number
Hydrogeologic, Inc.	Jim Pistello	10 Sept 97	00000
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	
11155 Herndon Parkway, Ste #300	703/471-3-5816		Page 2 of 2
City / **State** / **Zip Code**	**Site Contact**		
Herndon / VA / 20170	Michael Rodtang		
Project Name	**Carrier/Waybill Number**		
Carswell AFB	Fedex		
Contract/Purchase Order/Quote No			
AFCEE-0023			

Sample I D No and Description	Date	Time	Sample Type	Total Volume	Containers Type	Containers No	Preservative	Condition on Receipt	VOC 8260	Extra VOC 8260	Methyl Hg (Water)	Hg (Water)	Hg (Soil)	Methyl Hg (Soil)				
THGLTA024-02	10 Sept 97	1030	Soil	[illegible]	[illegible]	1	[illegible]		✓									
↓	↓	↓	↓	[illegible]	[illegible]	1	↓			✓								
↓	↓	↓	↓	[illegible]	[illegible]	1	↓				✓	✓		✓				
TB091097	↓	1000	Water	[illegible]	[illegible]	3	[illegible]		✓									
THGLTA025-01	↓	1400	Soil	[illegible]	[illegible]	1	[illegible]		✓									
↓	↓	↓	↓	[illegible]	[illegible]	1	↓			✓								
↓	↓	↓	↓	[illegible]	[illegible]	1	↓				✓	✓		✓				
THGLTA025-02	↓	1400	↓	[illegible]	[illegible]	1	↓		✓									
↓	↓	↓	↓	[illegible]	[illegible]	1	↓			✓								
				[illegible]	[illegible]	1	↓				✓	✓		✓				

Analysis

Best Available Copy

676 681

Special Instructions

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Turn Around Time Required

☐ Normal ☐ Rush Standard

QC Level

☐ I ☐ II ☐ III

Project Specific (Specify)

	Date	Time		Date	Time
1 Relinquished By: [signature]	10 Sept 97	1200	1 Received By		
2 Relinquished By			2 Received By		
3 Relinquished By			3 Received By		

Comments

DISTRIBUTION: WHITE - Stays with Sample, CANARY - Returned to Client with Report, PINK - Field Copy

Chain Custody Record

676 682

Quanterra

QUA 4124

LOTNUM 01212A

Client	Project Manager	Date	Chain Of Custody Number
[illegible]	[illegible]	[illegible]	00607
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** ___ **of** ___
[illegible]	[illegible]		

City	State	Zip Code	Site Contact
[illegible]	VA	[illegible]	[illegible]

Project Name	Carrier/Waybill Number
[illegible]	[illegible]

Contract/Purchase Order/Quote No: [illegible]

Sample I D No and Description	Date	Time	Sample Type	Total Volume	Containers Type	Containers No	Preservative	Condition on Receipt	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]		✓										
↓		↓		[illegible]	↓	1	↓			✓									
↓		↓		[illegible]	↓	1	↓				✓	✓		✓					
[illegible]		↓		[illegible]	↓	1	↓		✓										
↓		↓		[illegible]	↓	1	↓			✓									
↓		↓		[illegible]	↓	1	↓				✓	✓		✓					
[illegible]		↓		[illegible]	↓	1	↓		✓										
↓		↓		[illegible]	↓	1	↓			✓									
↓		↓		[illegible]	↓	1	↓				✓	✓		✓					
[illegible]		[illegible]		[illegible]	↓	1	↓		✓										
↓		↓		[illegible]	↓	1	↓			✓									
↓		↓		[illegible]	↓	1	↓				✓	✓		✓					
[illegible]																			

Best Available Copy

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Turn Around Time Required: ☐ Normal ☐ Rush [illegible]

QC Level: ☐ I ☐ II ☐ III

Project Specific (Specify)

	Date	Time		Date	Time
1 Relinquished By: [illegible]	[illegible]	[illegible]	1 Received By		
2 Relinquished By			2 Received By		
3 Relinquished By			3 Received By		

Comments

DISTRIBUTION WHITE - Stays with Sample, CANARY - Returned to Client with Report, PINK - Field Copy

IRPIMS
Chain of Custody

Quanterra Incorporated
5910 Breckenridge Parkway
Tampa, Florida, 33610
Phone Number _____

Quanterra Environmental Services

QUA 4150

676 683

Air Force ID	PO Number	Project Manager
CKSW1	AFC 001 023	[illegible] (703)478-5186

Sample Description	Lab ID	SBD	SED	Date	Time	SA	MC	Analysis								Remarks/ Special Instructions
[illegible]		-	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]								

Best Available Copy

	Signature	Print Name	Company/Title	Date	Time
Relinquished by	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Received by					
Relinquished by					
Received by					

Comments

Air Force ID From IRPIMS Handbook
Lab ID Quanterra Project Number
PO Number Purchase Order Number
Sample Description Client ID

SBD Sample Beginning Depth
SED Sample Ending Depth
Date Collection Date
Time Collection Time

Sample Aliquot (SA) Table

EB Equipment Blank
FD Field Duplicate
AB Ambient Blank
FB Field Blank
TB Trip Blank
XX Sample X

Matrix Cone (MC) Table

WG Ground Water
WW Waste Water
WQ Water QC
WS Surface Water
SD Sediment
SO Soil

IRPIMS
Chain of Custody

Quanterra Incorporated
5910 Breckenridge Parkway
Tampa, Florida, 33610
Phone Number _____

Quanterra Environmental Services

676 681

QUA-4150

Air Force ID	PO Number	Project Manager

Sample Description	Lab ID	SBD	SED	Date	Time	SA	MC	Analysis									Remarks/ Special Instructions

Best Available Copy

Signature	Print Name	Company/Title	Date	Time
Relinquished by				
Received by				
Relinquished by				
Received by				

Comments

		Sample Aliquot (SA) Table		Matrix Cone (MC) Table	
Air Force ID From IRPIMS Handbook	SBD Sample Beginning Depth	EB Equipment Blank	FB Field Blank	WG Ground Water	WS Surface Water
Lab ID Quanterra Project Number	SED Sample Ending Depth	FD Field Duplicate	TB Trip Blank	WW Waste Water	SD Sediment
PO Number Purchase Order Number	Date Collection Date	AB Ambient Blank	XX Sample X	WQ Water QC	SO Soil
Sample Description Client ID	Time Collection Time				

[redacted]

IRPIMS
Chain of Custody

Quanterra Incorporated
5910 Breckenridge Parkway
Tampa, Florida, 33610
Phone Number _____

Quanterra Environmental Services

676 685

QUA-4150

Air Force ID	PO Number	Project Manager
[illegible]	[illegible]	[illegible]

Sample Description	Lab ID	SBD	SED	Date	Time	SA	MC	Analysis									Remarks/ Special Instructions
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]									[illegible]
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓		[illegible]								
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓			[illegible]	[illegible]	[illegible]					
[illegible]		[illegible]	[illegible]	↓	↓	[illegible]	[illegible]	[illegible]									
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓		[illegible]								
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓			[illegible]	[illegible]		[illegible]				
[illegible]		[illegible]	[illegible]	↓	↓	[illegible]	[illegible]	[illegible]									
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓		[illegible]								
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓			[illegible]	[illegible]	[illegible]					
[illegible]		[illegible]	[illegible]	↓	↓	[illegible]	[illegible]	[illegible]									
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓		[illegible]								
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓			[illegible]	[illegible]	[illegible]					
[illegible]		[illegible]	[illegible]	↓	↓	[illegible]	[illegible]	[illegible]									
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓		[illegible]								
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓			[illegible]	[illegible]	[illegible]					

Best Available Copy

Signature	Print Name	Company/Title	Date	Time
Relinquished by [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Received by				
Relinquished by				
Received by				

Comments

Air Force ID From IRPIMS Handbook
Lab ID Quanterra Project Number
PO Number Purchase Order Number
Sample Description Client ID
SBD Sample Beginning Depth
SED Sample Ending Depth
Date. Collection Date
Time Collection Time

Sample Aliquot (SA) Table

EB. Equipment Blank
FD Field Duplicate
AB Ambient Blank
FB Field Blank
TB Trip Blank
XX Sample X

Matrix Cone (MC) Table

WG Ground Water
WW Waste Water
WQ Water QC
WS Surface Water
SD Sediment
SO Soil

[redacted]

IRPIM[redacted]
Chain of Custody

Quanterra Incorporated
5910 Breckenridge Parkway
Tampa, Florida, 33610
Phone Number.

Quanterra Environmental Services

676 686

QUA-4150

Air Force ID

PO Number

Project Manager

Sample Description	Lab ID	SBD	SED	Date	Time	SA	MC	Analysis									Remarks/ Special Instructions

Best Available Copy

Signature	Print Name	Company/Title	Date	Time
Relinquished by				
Received by				
Relinquished by				
Received by				

Comments

		Sample Aliquot (SA) Table		Matrix Cone (MC) Table	
Air Force ID From IRPIMS Handbook	SBD Sample Beginning Depth	EB Equipment Blank	FB Field Blank	WG Ground Water	WS Surface Water
Lab ID Quanterra Project Number	SED Sample Ending Depth	FD. Field Duplicate	TB Trip Blank	WW Waste Water	SD Sediment
PO Number Purchase Order Number	Date Collection Date	AB Ambient Blank	XX Sample X	WQ Water QC	SO Soil
Sample Description Client ID	Time Collection Time				

IRPIMS
Chain of Custody

Quanterra Incorporated
5910 Breckenridge Parkway
Tampa, Florida, 33610
Phone Number _____

Quanterra Environment Services

676 687

QUA-4150

Air Force ID	PO Number	Project Manager
[illegible]	[illegible]	[illegible]

Sample Description	Lab ID	SBD	SED	Date	Time	SA	MC	Analysis									Remarks/ Special Instructions
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	✓									
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓		✓								
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓			✓	✓		✓				
[illegible]		[illegible]	[illegible]	↓	↓	[illegible]	[illegible]	✓									
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓		✓								
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓			✓	✓	✓					
[illegible]		[illegible]	[illegible]	↓	[illegible]	[illegible]	[illegible]	✓									
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓		✓								
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓			✓	✓		✓				
[illegible]		[illegible]	[illegible]	↓	[illegible]	[illegible]	[illegible]										
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓		✓								
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓			✓	✓		✓				
[illegible]		[illegible]	[illegible]	↓	[illegible]	[illegible]	[illegible]	✓									
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓		✓								
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓			✓	✓		✓				

Best Available Copy

	Signature	Print Name	Company/Title	Date	Time
Relinquished by	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Received by					
Relinquished by					
Received by					

Comments

Air Force ID From IRPIMS Handbook
Lab ID Quanterra Project Number
PO Number Purchase Order Number
Sample Description Client ID

SBD Sample Beginning Depth
SED Sample Ending Depth
Date Collection Date
Time Collection Time

Sample Aliquot (SA) Table

EB Equipment Blank
FD Field Duplicate
AB Ambient Blank
FB Field Blank
TB Trip Blank
XX Sample X

Matrix Cone (MC) Table

WG Ground Water
WW Waste Water
WQ Water QC
WS Surface Water
SD Sediment
SO Soil

IRPIMS
Chain of Custody

Quanterra Incorporated
5910 Breckenridge Parkway
Tampa, Florida, 33610
Phone Number: _____

Quanterra Environmental Services

676 688

QUA-4150

Air Force ID	PO Number	Project Manager
[illegible]	[illegible]	[illegible]

Sample Description	Lab ID	SBD	SED	Date	Time	SA	MC	Analysis									Remarks/ Special Instructions
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	✓									
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓		✓								
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓			✓	✓	✓					
[illegible]		[illegible]	[illegible]	↓	[illegible]	[illegible]	[illegible]	✓									
↓			[illegible]	↓	↓	[illegible]	↓		✓								
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓			✓	✓		✓				
[illegible]		[illegible]	[illegible]	↓	↓	[illegible]	[illegible]	✓									
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓		✓								
↓		[illegible]	[illegible]	↓	↓	[illegible]	↓			✓	✓	✓					
[illegible]		[illegible]	[illegible]	↓	[illegible]	[illegible]	[illegible]	✓									
↓		[illegible]	[illegible]	↓	↓	↓	↓		✓								
↓			[illegible]	↓	↓	↓	↓			✓	✓		✓				
[illegible]		[illegible]	[illegible]	↓	↓	↓	[illegible]	✓									
↓		[illegible]	[illegible]	↓	↓	↓	↓		✓								
↓		[illegible]	[illegible]	↓	↓	↓	↓			✓	✓	✓					

Best Available Copy

Signature	Print Name	Company/Title	Date	Time
Relinquished by: [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Received by:				
Relinquished by:				
Received by:				

Comments

		Sample Aliquot (SA) Table		Matrix Cone (MC) Table	
Air Force ID From IRPIMS Handbook	SBD Sample Beginning Depth	EB Equipment Blank	FB Field Blank	WG Ground Water	WS Surface Water
Lab ID Quanterra Project Number	SED Sample Ending Depth	FD Field Duplicate	TB Trip Blank	WW Waste Water	SD Sediment
PO Number Purchase Order Number	Date Collection Date	AB Ambient Blank	XX Sample X	WQ Water QC	SO Soil
Sample Description Client ID	Time Collection Time				

IRPIMS
Chain of Custody

Quanterra Incorporated
5910 Breckenridge Parkway
Tampa, Florida, 33610
Phone Number: _____

Quanterra Environmental Services

676 689

QUA-4150

Air Force ID	PO Number	Project Manager
[illegible]	[illegible]	[illegible]

Sample Description	Lab ID	SBD	SED	Date	Time	SA	MC	Analysis									Remarks/ Special Instructions
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	✓									
↓		↓	↓	↓	↓	↓	↓		✓								
↓		↓	↓	↓	↓	↓	↓			✓	✓		✓				
[illegible]		[illegible]	[illegible]	↓	[illegible]	[illegible]	[illegible]	✓									
↓		↓	↓	↓	↓	↓	↓		✓								
↓		↓	↓	↓	↓	↓	↓			✓	✓		✓				
[illegible]		[illegible]	[illegible]	↓	[illegible]	[illegible]	[illegible]	✓									
↓		↓	↓	↓	↓	↓	↓										
↓		↓	↓	↓	↓	↓	↓			✓	✓		✓				
[illegible]		--	-	↓	[illegible]	TB		✓									
[illegible]		-	-	↓	[illegible]	EB	✓	✓									
↓		-	-	↓	↓	↓	↓		✓								
↓		-	-	↓	↓	↓	↓			✓	✓	✓					
[illegible]		[illegible]	[illegible]	↓	[illegible]		[illegible]	✓									
↓		↓	↓	↓	↓	-	↓		✓								

Best Available Copy

Signature	Print Name	Company/Title	Date	Time
Relinquished by: [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Received by:				
Relinquished by:				
Received by:				

Comments

Air Force ID From IRPIMS Handbook
Lab ID Quanterra Project Number
PO Number Purchase Order Number
Sample Description Client ID
SBD Sample Beginning Depth
SED Sample Ending Depth
Date Collection Date
Time Collection Time

Sample Aliquot (SA) Table

EB Equipment Blank
FD Field Duplicate
AB Ambient Blank
FB Field Blank
TB Trip Blank
XX Sample X

Matrix Cone (MC) Table

WG Ground Water
WW Waste Water
WQ Water QC
WS Surface Water
SD Sediment
SO Soil

IRPIMS
Chain of Custody

Quanterra Incorporated
5910 Breckenridge Parkway
Tampa, Florida, 33610
Phone Number _____

Quanterra Environmental Services

676 690

QUA-4150

Air Force ID	PO Number	Project Manager
[illegible]	[illegible]	[illegible]

Sample Description	Lab ID	SBD	SED	Date	Time	SA	MC	Analysis									Remarks/ Special Instructions
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]		[illegible]				
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]									
↓		↓	↓	↓	↓		↓		[illegible]								
										[illegible]	[illegible]		[illegible]				
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]									
↓		↓	↓	↓	↓	[illegible]	↓		[illegible]								
										[illegible]			[illegible]				

Best Available Copy

Signature	Print Name	Company/Title	Date	Time
Relinquished by [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Received by				
Relinquished by				
Received by				

Comments

Air Force ID From IRPIMS Handbook
Lab ID Quanterra Project Number
PO Number Purchase Order Number
Sample Description Client ID
SBD Sample Beginning Depth
SED Sample Ending Depth
Date Collection Date
Time Collection Time

Sample Aliquot (SA) Table

EB Equipment Blank
FD Field Duplicate
AB Ambient Blank
FB Field Blank
TB Trip Blank
XX Sample X

Matrix Cone (MC) Table

WG Ground Water
WW Waste Water
WQ Water QC
WS Surface Water
SD Sediment
SO Soil

IRPIMS
Chain of Custody

Quanterra Incorporated
5910 Breckenridge Parkway
Tampa, Florida, 33610
Phone Number _____

Quanterra Environmental Services

676 691

QUA-4150

Air Force ID	PO Number	Project Manager
[illegible]	[illegible]	[illegible]

Sample Description	Lab ID	SBD	SED	Date	Time	SA	MC	Analysis									Remarks/ Special Instructions
[illegible]				[illegible]	[illegible]		SD	[illegible]									
↓				↓	↓		↓		[illegible]								
↓				↓	↓		↓			[illegible]	[illegible]		[illegible]				
[illegible]				↓	[illegible]		[illegible]	[illegible]									
↓				↓	↓		↓		[illegible]								
↓				↓	↓		↓			[illegible]	[illegible]	[illegible]					
[illegible]				↓	↓		SD	[illegible]									
↓				↓	↓		↓		[illegible]								
↓				↓	↓		↓			[illegible]	[illegible]		[illegible]				
[illegible]				↓	[illegible]		[illegible]	[illegible]									
↓				↓	↓		↓		[illegible]								
↓				↓	↓		↓			[illegible]	[illegible]						
[illegible]				↓	↓		SD	[illegible]									
↓				↓	↓		↓		[illegible]								
↓				↓	↓		↓			[illegible]	[illegible]		[illegible]				

Signature	Print Name	Company/Title	Date	Time
Relinquished by [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Received by				
Relinquished by				
Received by				

Comments

Best Available Copy

Air Force ID From IRPIMS Handbook
Lab ID Quanterra Project Number
PO Number Purchase Order Number
Sample Description Client ID
SBD Sample Beginning Depth
SED Sample Ending Depth
Date Collection Date
Time Collection Time

Sample Aliquot (SA) Table

EB Equipment Blank
FD Field Duplicate
AB Ambient Blank
FB Field Blank
TB Trip Blank
XX Sample X

Matrix Cone (MC) Table

WG Ground Water
WW Waste Water
WQ Water QC
WS Surface Water
SD Sediment
SO Soil

IRPIM
Chain of Custody

Quanterra Incorporated
5910 Breckenridge Parkway
Tampa, Florida, 33610
Phone Number: _____

Quanterra Environmental Services

676 692

QUA-4150

Air Force ID	PO Number	Project Manager
[illegible]	[illegible]	[illegible]

Sample Description	Lab ID	SBD	SED	Date	Time	SA	MC	Analysis									Remarks/ Special Instructions
																	0.88m
[illegible]				[illegible]	1200		[illegible]	✓									
↓				↓	↓		↓		✓								
↓				↓	↓		↓			✓	✓	✓					
[illegible]				↓	↓		SO	✓									
↓				↓	↓		↓		✓								
↓				↓	↓		↓			✓	✓		✓				
[illegible]				↓	[illegible]		[illegible]	✓									
↓				↓	↓		↓		✓								
↓				↓	↓		↓			✓	✓	✓					
[illegible]				↓	↓		SO	✓									
↓				↓	↓		↓		✓								
↓				↓	↓		↓			✓	✓		✓				
[illegible]				↓	1130		[illegible]	✓									
↓				↓	↓		↓		✓								
↓				↓	↓		↓			✓	✓	✓					

Best Available Copy

Signature	Print Name	Company/Title	Date	Time
Relinquished by: [illegible]	[illegible]	[illegible]	[illegible]	15[illegible]
Received by:				
Relinquished by:				
Received by:				

Comments

Air Force ID From IRPIMS Handbook	SBD Sample Beginning Depth		
Lab ID Quanterra Project Number	SED Sample Ending Depth		
PO Number Purchase Order Number	Date Collection Date		
Sample Description Client ID	Time Collection Time		

Sample Aliquot (SA) Table

EB Equipment Blank	FB Field Blank
FD Field Duplicate	TB Trip Blank
AB Ambient Blank	XX Sample X

Matrix Cone (MC) Table

WG Ground Water	WS Surface Water
WW Waste Water	SD Sediment
WQ Water QC	SO Soil

IRPIMS Chain of Custody

Quanterra Incorporated
5910 Breckenridge Parkway
Tampa, Florida, 33610
Phone Number, _____

Quanterra Environmental Services

676 693

QUA-4150

Air Force ID	PO Number	Project Manager
[illegible]	[illegible]	[illegible]

Sample Description	Lab ID	SBD	SED	Date	Time	SA	MC	Analysis									Remarks/ Special Instructions
[illegible]		12.8	13.3	[illegible]	0920	—	SO	✓									
↓		↓	↓		↓	↓			✓								
↓		↓	↓		↓	↓				✓	✓		✓				
[illegible]		12.5	13.0		1120	—		✓									
↓		↓	↓		↓	↓			✓								
↓		↓	↓		↓	↓				✓	✓		✓				
[illegible]		9.5	10.0		1520	—		✓									
↓		↓	↓		↓	↓			✓								
↓		↓	↓		↓	↓	↓			✓	✓		✓				
[illegible]		—	—		[illegible]	FB	—	✓									
↓		—			↓	↓	—		✓								
↓		—	—		↓	↓				✓	✓	✓					
[illegible]		—	—	↓	[illegible]	TB	—	✓									

Best Available Copy

Signature	Print Name	Company/Title	Date	Time
Relinquished by: [illegible]	Eric Dambaugh	Hydrogeologic/Geologist	9/3/97	16:00
Received by				
Relinquished by				
Received by				

Comments

Air Force ID: From IRPIMS Handbook
Lab ID Quanterra Project Number
PO Number Purchase Order Number
Sample Description Client ID

SBD Sample Beginning Depth
SED Sample Ending Depth
Date Collection Date
Time Collection Time

Sample Aliquot (SA) Table

EB Equipment Blank
FD Field Duplicate
AB Ambient Blank
FB Field Blank
TB Trip Blank
XX Sample X

Matrix Cone (MC) Table

WG Ground Water
WW Waste Water
WQ Water QC
WS Surface Water
SD Sediment
SO Soil

IRPIMS Chain of Custody

Quanterra Incorporated
5910 Breckenridge Parkway
Tampa, Florida, 33610
Phone Number: _____

Quanterra Environmental Services

676 691

0770

Best Available Copy

QUA-4150

Air Force ID: [illegible]

PO Number: [illegible]

Project Manager: [illegible]

Sample Description	Lab ID	SBD	SED	Date	Time	SA	MC	Analysis									Remarks/ Special Instructions
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	✓									[illegible]
↓		↓	↓	↓	↓	[illegible]	↓		✓								[illegible]
↓		↓	↓	↓	↓	[illegible]	↓			✓	✓		✓				[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	✓									[illegible]
↓		↓	↓	↓	↓	[illegible]	↓		✓								[illegible]
↓		↓	↓	↓	↓	[illegible]	↓			✓	✓		✓				[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	✓									[illegible]
↓		↓	↓	↓	↓	[illegible]	↓		✓								[illegible]
↓		↓	↓	↓	↓	[illegible]	↓			✓	✓		✓				[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	✓									[illegible]
↓		↓	↓	↓	↓	[illegible]	↓		✓								[illegible]
↓		↓	↓	↓	↓	[illegible]	↓			✓	✓		✓				[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	✓									[illegible]
↓		↓	↓	↓	↓	[illegible]	↓		✓								[illegible]
↓		↓	↓	↓	↓	[illegible]	↓			✓	✓		✓				[illegible]

Signature	Print Name	Company/Title	Date	Time
Relinquished by: [illegible]	[illegible]	[illegible]	[illegible]	1500
Received by:				
Relinquished by:				
Received by:				

Comments:

		Sample Aliquot (SA) Table		Matrix Cone (MC) Table	
Air Force ID: From IRPIMS Handbook	SBD Sample Beginning Depth	EB Equipment Blank	FB Field Blank	WG Ground Water	WS Surface Water
Lab ID: Quanterra Project Number	SED Sample Ending Depth	FD Field Duplicate	TB Trip Blank	WW Waste Water	SD Sediment
PO Number: Purchase Order Number	Date Collection Date	AB Ambient Blank	XX Sample X	WQ Water QC	SO Soil
Sample Description: Client ID	Time Collection Time				

IRPIMS
Chain of Custody

Quanterra Incorporated
5910 Breckenridge Parkway
Tampa, Florida, 33610
Phone Number _____

Quanterra Environmental Services

676 695

OUA-4150

Air Force ID	PO Number	Project Manager
[illegible]	[illegible]	[illegible]

Sample Description	Lab ID	SBD	SED	Date	Time	SA	MC	Analysis								Remarks/ Special Instructions
[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]								[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]								[illegible]
[illegible]		[illegible]	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]							[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]				[illegible]

Best Available Copy

	Signature	Print Name	Company/Title	Date	Time
Relinquished by	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Received by					
Relinquished by					
Received by					

Comments

		Sample Aliquot (SA) Table		Matrix Cone (MC) Table	
Air Force ID From IRPIMS Handbook	SBD Sample Beginning Depth	EB Equipment Blank	FB Field Blank	WG Ground Water	WS Surface Water
Lab ID Quanterra Project Number	SED Sample Ending Depth	FD Field Duplicate	TB Trip Blank	WW Waste Water	SD Sediment
PO Number Purchase Order Number	Date Collection Date	AB Ambient Blank	XX Sample X	WQ Water QC	SO Soil
Sample Description Client ID	Time Collection Time				

Chain of Custody Record

QUA 4124

676 696

Lot Number [illegible]

Client	Project Manager	Date	Chain Of Custody Number
Hydrogeologic, Inc	[illegible]	11 Sept 97	[illegible]

Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page 1 of 2
1155 Herndon Parkway Ste #400	703/478-5186		

City	State	Zip Code	Site Contact
Herndon	VA	20170	Michael Rodison

Project Name	Carrier/Waybill Number
Carswell AFB	Federal [illegible]

Contract/Purchase Order/Quote No: AFC001-023

Analysis

Sample I D No and Description	Date	Time	Sample Type	Total Volume	Containers Type	Containers No	Preservative	Condition on Receipt	VOC (8260A)	SVOC (8270B)	Metals (6010A)	Hex (7196A)	Hg (7470A)	Sb (6010A)						Best Available Copy
THGLTA026-01	11 Sept 97	0815	soil	5 oz	SS Ring	1	4 oz		✓											
↓	↓	↓	↓	8 oz	8 oz Glass	1	↓			✓										
↓	↓	↓	↓	8 oz	8 oz Glass	1	↓				✓	✓		✓						
THGLTA026-02	↓	0830	↓	4 oz	4 oz Glass	1	↓		✓											
↓	↓	↓	↓	8 oz	8 oz Glass	1	↓			✓										
↓	↓	↓	↓	8 oz	8 oz Glass	1	↓				✓	✓		✓						
THGLTA027-01	↓	0945	↓	5 oz	SS Ring	1	↓		✓											
↓	↓	↓	↓	8 oz	8 oz Glass	1	↓			✓										
↓	↓	↓	↓	8 oz	8 oz Glass	1	↓				✓	✓		✓						
THGLTA027-02	↓	0950	↓	4 oz	4 oz Glass	1	↓		✓											
↓	↓	↓	↓	8 oz	8 oz Glass	1	↓			✓										
↓	↓	↓	↓	8 oz	8 oz Glass	1	↓				✓	✓		✓						
THGLTA[illegible]12	↓	0900	↓	4 oz	4 oz Glass	1	↓		✓											
↓	↓	↓	↓	8 oz	8 oz Glass	1	↓			✓										
↓	↓	↓	↓	8 oz	8 oz Glass	1	↓				✓	✓		✓						

Special Instructions

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Turn Around Time Required: ☐ Normal ☐ Rush Standard

QC Level: ☐ I ☐ II. ☐ III.

Project Specific (Specify)

	Date	Time		Date	Time
1 Relinquished By: [signature]	11 Sept 97	1230	1 Received By		
2 Relinquished By			2 Received By		
3 Relinquished By			3 Received By		

Comments

DISTRIBUTION. WHITE - Stays with Sample, CANARY - Returned to Client with Report, PINK - Field Copy

IRPIMS Chain of Custody

Quanterra Incorporated
5910 Breckenridge Parkway
Tampa, Florida, 33610
Phone Number: _____

Quante
Envi
Servi

676 697

QUA-4150

Air Force ID	PO Number	Project Manager

Sample Description	Lab ID	SBD	SED	Date	Time	SA	MC	Analysis									Remarks/ Special Instructions

Signature	Print Name	Company/Title	Date	Time
Relinquished by				
Received by				
Relinquished by				
Received by				

Comments

Air Force ID From IRPIMS Handbook
Lab ID Quanterra Project Number
PO Number Purchase Order Number
Sample Description Client ID
SBD Sample Beginning Depth
SED Sample Ending Depth
Date. Collection Date
Time Collection Time

Sample Aliquot (SA) Table

EB Equipment Blank
FD Field Duplicate
AB Ambient Blank
FB Field Blank
TB Trip Blank
XX Sample X

Matrix Cone (MC) Table

WG Ground Water
WW Waste Water
WQ Water QC
WS Surface Water
SD Sediment
SO Soil

Best Available Copy

IRPIMS
Chain of Custody

Quanterra Incorporated
5910 Breckenridge Parkway
Tampa, Florida, 33610
Phone Number _____

Quanterra Environmental Services

QUA-4150

676 698

Air Force ID | PO Number | Project Manager

Sample Description	Lab ID	SBD	SED	Date	Time	SA	MC	Analysis									Remarks/ Special Instructions

Signature	Print Name	Company/Title	Date	Time
Relinquished by				
Received by				
Relinquished by				
Received by				
Comments				

Air Force ID From IRPIMS Handbook
Lab ID Quanterra Project Number
PO Number Purchase Order Number
Sample Description Client ID

SBD Sample Beginning Depth
SED Sample Ending Depth
Date Collection Date
Time Collection Time

Sample Aliquot (SA) Table

EB Equipment Blank
FD Field Duplicate
AB Ambient Blank
FB Field Blank
TB Trip Blank
XX Sample X

Matrix Cone (MC) Table

WG Ground Water
WW Waste Water
WQ Water QC
WS Surface Water
SD Sediment
SO Soil

Best Available Copy

Chain of Custody Record

QUA-4124-1

Quanterra Environmental Services

676 699

Client	Project Manager	Date	Chain Of Custody Number
[illegible]	[illegible]	[illegible]	[illegible]
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 **of** [illegible]
[illegible]	[illegible]		

City	State	Zip Code	Site Contact	Lab Contact
[illegible]	[illegible]	[illegible]	[illegible]	

Project Name	Carrier/Waybill Number
[illegible]	[illegible]

Contract/Purchase Order/Quote No: [illegible]

Analysis (Attach list if more space is needed)

Special Instructions/ Conditions of Receipt

Sample ID No and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed	Soil		Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH		Analysis												Special Instructions/ Conditions of Receipt
[illegible]	[illegible]	[illegible]			✓		1							✓												
↓		↓			✓		1								✓											
↓		↓			✓		1										✓		✓							
[illegible]		[illegible]			✓		1							✓												
		↓			✓		1								✓											
		↓			✓		1									✓	✓		✓							
[illegible]		[illegible]			✓		1							✓												[illegible]
[illegible]		[illegible]			✓		1							✓												[illegible]
↓		↓			✓		1								✓											
↓		↓			✓		1									✓	✓		✓							
[illegible]		[illegible]			✓		1							✓												
↓		↓			✓		1								✓											

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1 Relinquished By	Date	Time	1 Received By	Date	Time
[illegible]	[illegible]	[illegible]			
2 Relinquished By	**Date**	**Time**	**2 Received By**	**Date**	**Time**
3 Relinquished By	**Date**	**Time**	**3 Received By**	**Date**	**Time**

Comments

DISTRIBUTION: WHITE - Stays with the Sample, CANARY - Returned to Client with Report, [illegible] - Field Copy

Best Available Copy

Chain Custody Record

QUA-4124 1

Quanterra Environmental Services

676 700

Client	Project Manager	Date	Chain Of Custody Number
[illegible]			67118
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 3 **of** 34

City	State	Zip Code	Site Contact	Lab Contact

Project Name

Carrier/Waybill Number: [illegible]

Contract/Purchase Order/Quote No

Analysis (Attach list if more space is needed)

Special Instructions/ Conditions of Receipt

Best Available Copy

Sample I D No and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed	Soil		Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]							Special Instructions/ Conditions of Receipt
BHG 74024-4 175	27 Nov 90	1[illegible]			X		1									1	✓		✓							
BHG 74027-01		1[illegible]			X		1							✓												
↓		↓			X		1								✓											
↓		↓			X		1									✓	✓		✓							
BHG 74028-02		1[illegible]			X		1							✓												
↓		↓			X		1								✓											
↓		↓			X		1									✓	✓		✓							
BHG 74035-01		0[illegible]			X		1							✓												
↓		↓			X		1								✓											
↓		↓			X		1									✓	✓		✓							
~~[illegible]~~	~~[illegible]~~	~~[illegible]~~			~~X~~		~~1~~							~~✓~~	~~✓~~											~~[illegible]~~

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other [illegible]

QC Requirements (Specify)

1 Relinquished By	Date	Time	1 Received By	Date	Time
[illegible]	[illegible]	1[illegible]			
2 Relinquished By	Date	Time	2 Received By	Date	Time
3 Relinquished By	Date	Time	3 Received By	Date	Time

Comments

DISTRIBUTION. WHITE - Stays with the Sample, CANARY - Returned to Client with Report, PINK - Field Copy

Chain of Custody Record

QUA-4124-1

Quanterra Environmental Services

676 701

Client	Project Manager	Date	Chain Of Custody Number
[illegible]	[illegible]	[illegible]	[illegible]
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 **of** 3
[illegible]	[illegible]		

City	State	Zip Code	Site Contact	Lab Contact
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Project Name	Carrier/Waybill Number
[illegible]	[illegible]

Contract/Purchase Order/Quote No: [illegible]

Analysis (Attach list if more space is needed)

Sample I D No and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed	Soil		Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Special Instructions/ Conditions of Receipt
[illegible]	[illegible]	[illegible]	[illegible]							[illegible]				[illegible]											
[illegible]	[illegible]	[illegible]					[illegible]								[illegible]										
[illegible]	[illegible]	[illegible]							[illegible]							[illegible]	[illegible]	[illegible]							
[illegible]	[illegible]	[illegible]	[illegible]							[illegible]				[illegible]											
[illegible]	[illegible]	[illegible]			[illegible]		[illegible]							[illegible]											
[illegible]	[illegible]	[illegible]			[illegible]		[illegible]								[illegible]										
[illegible]	[illegible]	[illegible]			[illegible]		[illegible]									[illegible]	[illegible]		[illegible]						
[illegible]	[illegible]	[illegible]			[illegible]		[illegible]							[illegible]											
[illegible]	[illegible]	[illegible]			[illegible]		[illegible]								[illegible]										
[illegible]	[illegible]	[illegible]			[illegible]		[illegible]									[illegible]	[illegible]		[illegible]						
[illegible]	[illegible]	[illegible]			[illegible]		[illegible]							[illegible]											
	[illegible]	[illegible]			[illegible]		[illegible]								[illegible]										

Best Available Copy

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☑ Unknown

Sample Disposal

☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other [illegible]

QC Requirements (Specify)

1 Relinquished By	Date	Time	1 Received By	Date	Time
[illegible]	[illegible]	[illegible]			
2 Relinquished By	**Date**	**Time**	**2 Received By**	**Date**	**Time**
3 Relinquished By	**Date**	**Time**	**3 Received By**	**Date**	**Time**

Comments

DISTRIBUTION: WHITE - Stays with the Sample, CANARY - Returned to Client with Report, PINK - Field Copy

Chain of Custody Record

QUA-4124-1

Quanterra Environmental Services

676 702

Client	Project Manager	Date	Chain Of Custody Number
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page ___ of ___**

City	State	Zip Code	Site Contact	Lab Contact

Project Name	Carrier/Waybill Number

Contract/Purchase Order/Quote No

Analysis (Attach list if more space is needed)

Special Instructions/ Conditions of Receipt

Sample I D No and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed	Soil		Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH														

Best Available Copy

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other

QC Requirements (Specify)

1 Relinquished By	Date	Time	1 Received By	Date	Time
2 Relinquished By	**Date**	**Time**	**2 Received By**	**Date**	**Time**
3 Relinquished By	**Date**	**Time**	**3 Received By**	**Date**	**Time**

Comments

DISTRIBUTION. WHITE - Stays with the Sample, CANARY - Returned to Client with Report, PINK - Field Copy

Chain of Custody Record

QUA-4124-1

Quanterra Environmental Services

676 703

Client	Project Manager	Date	Chain Of Custody Number
[illegible]	[illegible]	[illegible]	67116

Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page 3 of 3
[illegible]	[illegible]		

City	State	Zip Code	Site Contact	Lab Contact
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Project Name	Carrier/Waybill Number
[illegible]	[illegible]

Contract/Purchase Order/Quote No
[illegible]

Analysis (Attach list if more space is needed)

Sample I D No and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Matrix: Sed	Matrix: Soil	Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Special Instructions/ Conditions of Receipt
[illegible]	[illegible]	[illegible]			2	1								✓	✓		✓	
[illegible]		[illegible]			2	1						✓						
↓		↓			2	1							✓					
					2	1								✓	✓		✓	
[illegible]		[illegible]			2	1						✓						
↓		↓			2	1							✓					
					2	1								✓	✓		✓	

Best Available Copy

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard 7 [illegible]

QC Requirements (Specify)

	Date	Time		Date	Time
1 Relinquished By: [illegible]	[illegible]	1800	1 Received By		
2 Relinquished By			2 Received By		
3 Relinquished By			3 Received By		

Comments

DISTRIBUTION WHITE - Stays with the Sample, CANARY - Returned to Client with Report, PINK - Field Copy

Chain Custody Record

QUA-4124-1

Quanter Environmental Services

676 701

Client	Project Manager	Date	Chain Of Custody Number
[illegible]			67119
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 3 **of** 34
City / **State** / **Zip Code**	**Site Contact** / **Lab Contact**		
Project Name	**Carrier/Waybill Number** [illegible]		
Contract/Purchase Order/Quote No			

Sample I D No and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Matrix: Sed	Matrix: Soil	Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Special Instructions/ Conditions of Receipt
B1161A DUP01	27 Aug 97	0915			x	1						✓						
↓		↓			x	1							✓					
↓		↓			x	1								✓	✓		✓	
B1161A 306 01		0930			x	1						✓						
↓		↓			x	1							✓					
↓		↓			x	1								✓	✓		✓	
T0682797		1800	x						3			✓						
EB082797		1810	x						3			✓						
↓		↓	x			2							✓					
↓		↓	x					1						✓	✓	✓		
T1161A 021 [illegible]		1210	x			1						✓						
↓		↓	x			1							✓					

Best Available Copy

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1 Relinquished By: [illegible]	27 Aug 97	1800	1 Received By		
2 Relinquished By			2 Received By		
3 Relinquished By			3 Received By		

Comments

DISTRIBUTION. WHITE - Stays with the Sample, CANARY - Returned to Client with Report, PINK - Field Copy

IRPIMS
Chain of Custody

Quanterra Incorporated
5910 Breckenridge Parkway
Tampa, Florida, 33610
Phone Number: _____

Quanterra Environmental Services

676 705

QUA-4150

Air Force ID	PO Number	Project Manager

Sample Description	Lab ID	SBD	SED	Date	Time	SA #	MC	Analysis									Remarks/ Special Instructions

Best Available Copy

Signature	Print Name	Company/Title	Date	Time
Relinquished by				
Received by				
Relinquished by				
Received by				

Comments

Air Force ID From IRPIMS Handbook
Lab ID, Quanterra Project Number
PO Number Purchase Order Number
Sample Description Client ID

SBD Sample Beginning Depth
SED Sample Ending Depth
Date Collection Date
Time Collection Time

Sample Aliquot (SA) Table

EB Equipment Blank
FD Field Duplicate
AB Ambient Blank
FB Field Blank
TB Trip Blank
XX Sample X

Matrix Cone (MC) Table

WG Ground Water
WW Waste Water
WQ Water QC
WS Surface Water
SD Sediment
SO Soil

Chain of Custody Record

Quanterra Environmental Services

676 706

QUA-4124-1

Client	Project Manager	Date	Chain Of Custody Number
[illegible]	[illegible]	[illegible]	67109
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 **of** 2
[illegible]	[illegible]		

City	State	Zip Code	Site Contact	Lab Contact
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Project Name	Carrier/Waybill Number
[illegible]	[illegible]

Contract/Purchase Order/Quote No: [illegible]

Analysis (Attach list if more space is needed)

Special Instructions/ Conditions of Receipt

Sample I D No and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed	Soil		Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH		Analysis: [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]							Special Instructions/ Conditions of Receipt
TIRE TOOL-1	[illegible]	[illegible]			✓		1							✓												[illegible]
↓		↓			✓		1								✓											
↓		↓			✓		1									✓	✓		✓							
TIRE TOOL-2		[illegible]			✓		1							✓												
↓		↓			✓		1								✓											
↓		↓			✓		1									✓	✓		✓							
TIRE TOOL-3		[illegible]			✓		1							✓												
↓		↓			✓		1								✓											
↓		↓			✓		1									✓	✓		✓							
TB092214		[illegible]	✓							3				✓												
TB092213		[illegible]	✓							1				✓												
↓		↓	✓				3								✓											

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other [illegible]

QC Requirements (Specify):

	Date	Time		Date	Time
1 Relinquished By: [illegible]	[illegible]	[illegible]	1 Received By		
2 Relinquished By			2 Received By		
3 Relinquished By			3 Received By		

Comments

DISTRIBUTION. WHITE - Stays with the Sample, CANARY - Returned to Client with Report, PINK - Field Copy

Best Available Copy

Chain of Custody Record

QUA-4124-1

Quanterra Environmental Services

676 707

Client	Project Manager	Date	Chain Of Custody Number
[illegible]	[illegible]	[illegible]	67110

Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page 2 of 2
[illegible]	[illegible]		

City	State	Zip Code	Site Contact	Lab Contact
[illegible]	VA	[illegible]	[illegible]	[illegible]

Project Name	Carrier/Waybill Number
[illegible]	[illegible]

Contract/Purchase Order/Quote No
[illegible]

Analysis (Attach list if more space is needed)

Sample I D No and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Matrix: Sed	Matrix: Soil	Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	VOC (P260A)	SVOC (P270B)	[illegible]	[illegible]	[illegible]	[illegible]	Special Instructions/ Conditions of Receipt
FB082207	[illegible]	[illegible]	✓					✓						✓	✓	✓		[illegible]
TH61TA003-01		[illegible]			✓	1						✓						[illegible]
↓		↓			✓	1							✓					
					✓	1								✓	✓		✓	

Best Available Copy

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other [illegible]

QC Requirements (Specify)

	Date	Time		Date	Time
1 Relinquished By: [illegible]	[illegible]	[illegible]	1 Received By		
2 Relinquished By			2 Received By		
3 Relinquished By			3 Received By		

Comments

DISTRIBUT[illegible] WHITE - Stays with the Sample, CANARY - Returned to Client with Report, PIN[illegible]eld Copy

Chain of Custody Record

Quanterra Environmental Services

676 708

QUA-4124-1

Client	Project Manager	Date	Chain Of Custody Number
[illegible]	[illegible]	[illegible]	6711
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 **of** 3
[illegible]	[illegible]		

City	State	Zip Code	Site Contact	Lab Contact
[illegible]	UT	[illegible]	[illegible]	[illegible]

Project Name	Carrier/Waybill Number
[illegible]	[illegible]

Contract/Purchase Order/Quote No

Analysis (Attach list if more space is needed)

Special Instructions/ Conditions of Receipt

Sample I D No and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed	Soil		Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Special Instructions/ Conditions of Receipt
[illegible]	[illegible]	[illegible]	✓		✓		1			✓				✓												
↓	↓	↓	✓		✓		1								✓											
↓	↓	↓	✓		✓		1									✓	✓		✓							
[illegible]	↓	[illegible]			✓		1							✓												
↓	↓	↓			✓		1								✓											
↓	↓	↓			✓		1									✓	✓		✓							
[illegible]	↓	[illegible]			✓		1	✓						✓												
↓	↓	↓			✓		1								✓											
↓	↓	↓			✓		1									✓	✓		✓							
[illegible]	↓	[illegible]			✓		1							✓												
↓	↓	↓			✓		1								✓											
↓	↓	↓			✓		1									✓	✓		✓							

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other [illegible]

QC Requirements (Specify)

1 Relinquished By	Date	Time	1 Received By	Date	Time
[illegible]	[illegible]				
2 Relinquished By	**Date**	**Time**	**2 Received By**	**Date**	**Time**
3 Relinquished By	**Date**	**Time**	**3 Received By**	**Date**	**Time**

Comments

DISTRIBUTION: WHITE - Stays with the Sample, CANARY - Returned to Client with Report, PINK - Field Copy

Best Available Copy

Chain of Custody Record

Quanterra Environmental Services

676 709

QUA 4124-1

Client: [illegible]

Address: [illegible]

City | State | Zip Code

Project Name

Contract/Purchase Order/Quote No

Project Manager: [illegible]

Telephone Number (Area Code)/Fax Number: [illegible]

Site Contact: [illegible]

Lab Contact: [illegible]

Carrier/Waybill Number: [illegible]

Date: [illegible]

Chain Of Custody Number: [illegible]

Lab Number

Page 2 of 2

Analysis (Attach list if more space is needed)

Special Instructions/ Conditions of Receipt

Best Available Copy

Sample I D No and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed	Soil		Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH													
[illegible]	[illegible]	[illegible]			✓		1							✓											
↓		↓			✓		1								✓										
↓	↓	↓			✓		1									✓	✓		✓						
[illegible]	↓	↓	✓							✓				✓											
↓	↓	↓	✓				✓								✓										
↓	↓	↓	✓						✓							✓	✓	✓							
[illegible]	↓	[illegible]	✓							✓				✓											
[illegible]	↓	[illegible]			✓		1							✓											
↓	↓				✓		1								✓										
↓	↓	↓			✓		1									✓	✓		✓						
[illegible]	↓	[illegible]			✓		1							✓											
↓	✓				✓		1								✓										

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other [illegible]

QC Requirements (Specify)

	Date	Time
1 Relinquished By: [illegible]	[illegible]	
2 Relinquished By		
3 Relinquished By		

	Date	Time
1 Received By		
2 Received By		
3 Received By		

Comments

DIST[illegible]TION: WHITE - Stays with the Sample, CANARY - Returned to Client with Repo[illegible]NK - Field Copy

Chain of Custody Record

Quanterra Environmental Services

676 710

QUA-4124-1

Client	Project Manager	Date	Chain Of Custody Number
Hydro-Geologic, Inc	[illegible]	25 Aug 97	67113
Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page 2 of 2
	702-[illegible]-5786		

City	State	Zip Code	Site Contact	Lab Contact
			Michael Rattan	Michele [illegible]

Project Name	Carrier/Waybill Number
	Fdx 514361 1061 514361 0990 514361 0960

Contract/Purchase Order/Quote No

Analysis (Attach list if more space is needed)

Sample I D No and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Matrix: Sed	Matrix: Soil	Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	VOC (8260)	SVOC (8270)	Metals (6010)	Hg (7470)	Hg (7470)	Hg (7470)	Special Instructions/ Conditions of Receipt
↓	25 Aug 97				✓	1								✓	✓		✓	
THGLTA015-01	↓	1430			✓	1						✓						
↓					✓	1							✓					
↓					✓	1								✓	✓		✓	
THGLTA016-01		1510			✓	1						✓						
↓					✓	1							✓					
↓					✓	1								✓	✓		✓	
THGLTA017-01		1545			✓	1						✓						
↓					✓	1							✓					
↓	↓				✓	1								✓	✓		✓	

Best Available Copy

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Standard TAT

QC Requirements (Specify)

	Date	Time		Date	Time
1 Relinquished By: [signature]	25 Aug 97		1 Received By		
2 Relinquished By			2 Received By		
3 Relinquished By			3 Received By		

Comments

DISTRIBUTION WHITE - Stays with the Sample, CANARY - Returned to Client with Report, PINK - Field Copy

IRPIMS Chain of Custody

Quanterra Incorporated
5910 Breckenridge Parkway
Tampa, Florida, 33610
Phone Number.

Quanterra Environmental Services

QUA-4150

676 711

Air Force ID	PO Number	Project Manager
CRSWL	AFC 001 023	[illegible]

Sample Description	Lab ID	SBD	SED	Date	Time	SA	MC	Analysis: VOC (8020)	SVOC (8020B)	Metals (6010A)	Hg (7470)	Ag (6010A)				Remarks/ Special Instructions
TAG12A017-02		12.0	12.5	9/8/97	16:30	-	SO	✓								Lot Mm
↓		↓	↓	↓	↓	-	SO		✓							01111A
↓		↓	↓	↓	↓	-	SO			✓	✓		✓			
FB[illegible]		—	—	9/8/97	16:00	FB	WW	✓								~~[illegible]~~
↓		—	—	↓	↓	EB	↓		✓							~~[illegible]~~
↓		—	—	↓	↓	EB	↓			✓	✓	✓				~~[illegible]~~
~~[illegible]~~ LF04-4BWG01		—	—	9/8/97	10:30	-	WG	✓								
↓		—	—	↓	↓	-	WG		✓							
↓		—	—	↓	↓	—	WG			✓	✓	✓				
~~LF04-C4DUP05~~ ~~[illegible]~~		—	—	9/8/97	15:20	FD	WG	✓								
↓		—	—	↓	↓	↓	WG		✓							
↓		—	—	↓	↓	↓	WG			✓	✓	✓				
~~[illegible]~~ LF04-04WG01		—	—	9/8/97	14:50	—	WG	✓								
↓		—	—	↓	↓	—	WG		✓							
↓		—	—	↓	↓	—	WG			✓	✓	✓				

Signature	Print Name	Company/Title	Date	Time
Relinquished by: Kenneth J Hurley	Kenneth Hurley	Hydro Geologist / Engineer	9/8/97	18:00
Received by				
Relinquished by				
Received by				

Comments

Air Force ID From IRPIMS Handbook
Lab ID Quanterra Project Number
PO Number Purchase Order Number
Sample Descrip[illegible]lient ID
SBD Sample Beginning Depth
SED Sample Ending Depth
Date Collection Date
Time Collection Time

Sample Aliquot (SA) Table

EB Equipment Blank
FD Field Duplicate
AB Ambient Blank
FB Field Blank
TB Trip Blank
XX Sample X

Matrix Cone (MC) Table

WG Ground Water
WW Waste Water
WQ Water QC
WS Surface Water
SD Sediment
SO Soil

Best Available Copy

Chain of Custody Record

Quanterra Environmental Services

676 712

QUA-4124 1

Client	Project Manager	Date	Chain Of Custody Number
[illegible]	[illegible]		57106
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** ___ **of** ___

City	State	Zip Code	Site Contact	Lab Contact

Project Name	Carrier/Waybill Number

Contract/Purchase Order/Quote No

Analysis (Attach list if more space is needed)

Special Instructions/ Conditions of Receipt

Sample I D No and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed	Soil		Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Special Instructions/ Conditions of Receipt
[illegible]	[illegible]	[illegible]	X							X				X												
↓	↓	↓	X				X								X											
↓		↓	X						X							X	X	X								
[illegible]		[illegible]			X		X							X												
↓		↓			X		X								X											
↓		↓			X		X									X	X		X							
[illegible]		[illegible]			X		X							X												
↓		↓			X		X								X											
↓		↓			X		X									X	X		X							
[illegible]		[illegible]			X		X							X												
↓		↓			X		X								X											
↓	↓	↓			X		X									X	X		X							

Best Available Copy

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☑ Disposal By Lab ☐ Archive For ___ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☑ Other [illegible]

QC Requirements (Specify)

	Date	Time		Date	Time
1 Relinquished By [illegible]	[illegible]	[illegible]	1 Received By		
2 Relinquished By			2 Received By		
3 Relinquished By			3 Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample, CANARY - Returned to Client with Report, PINK - Field Copy

Chain of Custody Record

QUA-4124 1

Quanterra Environmental Services

676 713

Client	Project Manager	Date	Chain Of Custody Number
Hydro Carbon, I	[illegible]	2/20/97	67108
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 2 of 2**
1155 Heron, Ave, Suite 400	877 762-9939		

City	State	Zip Code	Site Contact	Lab Contact
Meridian	MI	2013	[illegible]	[illegible]

Project Name	Carrier/Waybill Number
NAS Kingsville JRB (Cont-II DFO)	Fed Ex 5739019762 5739019790

Contract/Purchase Order/Quote No: DFC001-023

Sample I D No and Description (Containers for each sample may be combined on one line)	Date	Time	Aqueous	Sed	Soil		Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		VOC (SW846)	SVOC (SW846)	Pesticides (SW846)	PAH (SW846)	Metals (SW846)								Special Instructions/ Conditions of Receipt
TIGL TA0U02	2/20/97	1200			X		1							✓												
↓	↓	↓			X		1								✓											
↓	↓	↓			X		1									✓	✓	✓								
TIGL TA0U4-01	↓	1330			X		1							✓												
↓	↓	↓			X		1								✓											
↓	↓	↓			X		1									✓	✓	✓								
TB082117	↓	1630	X							?				✓												
↓	↓	↓																								
↓	↓	↓																								

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard TAT

QC Requirements (Specify):

1 Relinquished By	Date	Time	1 Received By	Date	Time
[signature]	2/20/97	1600			
2 Relinquished By	**Date**	**Time**	**2 Received By**	**Date**	**Time**
3 Relinquished By	**Date**	**Time**	**3 Received By**	**Date**	**Time**

Comments

DISTRIBUTION: WHITE - Stays with the Sample, CANARY - Returned to Client with Report, PINK - Field Copy

Best Available Copy

RECRA LabNet Use Only

676 711

Custody Transfer Record/Lab Work Request

RECRA LabNet

Client: Hydro Geologic, Inc
Est. Final Proj. Sampling Date: 4/18/98
Project #: AFC 001023E
Project Contact/Phone #: Jim Costello
RECRA Project Manager: Chuck Mann
QC: Del: TAT: 21 day
Date Rec'd: Date Due:
Account #:

Refrigerator #																
#/Type Container	Liquid															
	Solid	G	G								G	G	G	G	G	G
Volume	Liquid															
	Solid	4oz	8oz													
Preservatives		None	None								4oz	5oz	8oz	5oz	2oz	8oz
ANALYSES REQUESTED		ORGANIC							INORG							
		TCLP VOA	TCLP BNA	Pest/ PCB	Herb.				Metal	CN	TCLP Metals	pH	Reactive Cyanide	Reactive Sulfide	Flash Point	Paint Filter

RECRA LabNet Use Only

MATRIX CODES		Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	TCLP VOCs	TCLP SVOCs											
S	Soil		WC040898			S	4/8/98	1000	X	X						X	X	X	X	X	X
SE	Sediment																				
SO	Solid																				
SL	Sludge																				
W	Water																				
O	Oil																				
A	Air																				
DS	Drum Solids																				
DL	Drum Liquids																				
L	EP/TCLP Leachate																				
WI	Wipe																				
X	Other																				
F	Fish																				

Best Available Copy

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions

Please bill under Project # AFC001023E
WASTE Characterization - Soil - D02
- Seperate SDG ⇒ AFC001076PA

DATE/REVISIONS

1 Analyze for:
2 pH by SW9045, Flashpoint (SW1010);
3 Reactive Cyanide (CN - Section 7)
4 Reactive Sulfide (S - Section 7)
5 Paint Filter (SW9095); TCLP-Metals
6 TCLP-VOCs, TCLP-SVOCs

Relinquished by	Received by	Date	Time
Ken Hurley		4/14/98	1900

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

RECRA LabNet Use Only

Samples were
1) Shipped ___ or Hand Delivered ___
Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

RECRA LabNet Use Only

676 715

Custody Transfer Record/Lab Work Request

ECRA LabNet

Best Available Copy

Client [illegible]
Est. Final Proj. Sampling Date
Project # [illegible]
Project Contact/Phone # [illegible]
RECRA Project Manager [illegible]
QC ____ Del ____ TAT ____
Date Rec'd ____ Date Due ____
Account # ____

Refrigerator #
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives
ANALYSES REQUESTED →

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	ORGANIC VOA	BNA	Pest/PCB	Herb				INORG Metal/Metals	CN						
							RECRA LabNet Use Only														
	[illegible] 815-01				5/12/98	1100														NL	0-6
	[illegible] 815-02				5/12/98	1150														NL	3.5-5
	[illegible]				5/12/98	1630														NL	
	[illegible] 815-02				5/12/98	1410														NL	
	[illegible]				5/12/98	1150	X	X	X												
	TR051298			W	5/12/98	1715															
	TR051298			W	5/12/98	1930															

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:
Appendix IV VOC + CN [illegible]
Combined [illegible]
Fed Ex # [illegible] Cooler A (VOC)
805324516004 Cooler B (soil)

DATE/REVISIONS
1 ____
2 ____
3 ____
4 ____
5 ____
6 ____

Relinquished by	Received by	Date	Time
[illegible]		5/12/98	1800

Relinquished by	Received by	Date	Time

RECRA LabNet Use Only

Samples were
1) Shipped ___ or Hand Delivered ___ Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

Best Available Copy

RECRA LabNet Use Only

Custody Transfer Record/Lab Work Request

RECRA LabNet

Client: AFCEE
Est. Final Proj. Sampling Date: 6/1/98
Project #: AFC001-023E
Project Contact/Phone #: Jim Costello
RECRA Project Manager: Chuck Mann
QC: Del: TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #:
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives:

ANALYSES REQUESTED →

MATRIX CODES: S - Soil, SE - Sediment, SO - Solid, SL - Sludge, W - Water, O - Oil, A - Air, DS - Drum Solids, DL - Drum Liquids, L - EP/TCLP Leachate, WI - Wipe, X - Other, F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	ORGANIC VOA 8260A	BNA 8270B	Pest/PCB 8080A	Herb 8150B	Pest/PCB 8140	D/F 8280	INORG Metal 6010A	CN 9010A	Sulfide 9030	Mercury 7471
	BHGLTA506-01			S	5/13/98	1445	X	X	X	X	X	X	X	X	X	X
	BHGLTA506-02					1420	X	X	X	X	X	X	X	X	X	X
	BHGLTA506-03					1435	X	X	X	X	X	X	X	X	X	X
	BHGLTA507-01					1010	X	X	X	X	X	X	X	X	X	X
	BHGLTA507-02					0951	X	X	X	X	X	X	X	X	X	X
	BHGLTA507-03					0955	X	X	X	X	X	X	X	X	X	X
	BHGLTA508-01					1445	X	X	X	X	X	X	X	X	X	X
	BHGLTA508-02					1025	X	X	X	X	X	X	X	X	X	X
	BHGLTA508-03					1035	X	X	X	X	X	X	X	X	X	X
	DUP02					1200	X	X	X	X	X	X	X	X	X	X

RECRA LabNet Use Only

FIELD PERSONNEL COMPLETE ONLY SHADED AREAS

Special Instructions

Appendix IX Volatiles
VOCs in cooler A
Fed ex #s 805329515946 (cooler A)
805329515957
805329515968

DATE/REVISIONS

1
Note: BHGLTA506-01 was actually
2 collected at 1520
3
4
5
6

Relinquished by	Received by	Date	Time
[signature]		5/13/98	1850

Relinquished by	Received by	Date	Time

RECRA LabNet Use Only

Samples were
1) Shipped ___ or Hand Delivered ___ Airbill #
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

676 716

RECRA LabNet Use Only

676 717

Custody Transfer R cord/Lab Work Request

ECRA LabNet

Client: AFCEE
Est. Final Proj. Sampling Date: 6/1/89
Project #: AF6001-023E
Project Contact/Phone #: Tim Costello
RECRA Project Manager: Chuck Mau
QC: Del: TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #:
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives

ANALYSES REQUESTED

ORGANIC: VOA, BNA, Pest/PCB, Herb
INORG: Metal, CN

RECRA LabNet Use Only

MATRIX CODES: S - Soil; SE - Sediment; SO - Solid; SL - Sludge; W - Water; O - Oil; A - Air; DS - Drum Solids; DL - Drum Liquids; L - EP/TCLP Leachate; WI - Wipe; X - Other; F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	8260A	8270B	8080A	8150B	8140	8180		6010A	7000A	9030	7471				
	EB051398A			W	5/13/89	1745	X	X	X	X	X	X		X	X	X	X				
	TP051398A			W	5/13/89	1831	X														

FIELD PERSONNEL COMPLETE ONLY SHADED AREAS

Special Instructions:
Appendix IV Volatiles
VOCs in Cooler A

DATE/REVISIONS:
1
2
3
4
5
6

Relinquished by	Received by	Date	Time
Bill [illegible]		5/13/89	1830

Relinquished by	Received by	Date	Time

RECRA LabNet Use Only

Samples were 1) Shipped ___, or Hand Delivered ___ Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was 1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

RECRA LabNet Use Only

Custody Transfer Record/Lab Work Request

ECRA LabNet

Best Available Copy

Client: AFCEE
Est. Final Proj. Sampling Date:
Project #: [illegible]
Project Contact/Phone #: [illegible]
RECRA Project Manager: [illegible]
QC: Del: TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #:
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives

ANALYSES REQUESTED → ORGANIC: VOA, BNA, Pest/PCB, Herb; INORG: Metal, CN

RECRA LabNet Use Only

MATRIX CODES: S - Soil; SE - Sediment; SO - Solid; SL - Sludge; W - Water; O - Oil; A - Air; DS - Drum Solids; DL - Drum Liquids; L - EP/TCLP Leachate; WI - Wipe; X - Other; F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	VOA	BNA	Pest/PCB	Herb				Metal	CN					
	HGLTA504-01			SO		1000														
	HGLTA504-02			SO		1155														
	HGLTA509-01					1415														
	HGLTA509-01MS	✓				1415														
	HGLTA509-01MS		✓			1415														
	HGLTA505-01					1440														
	EB051498			WQ		1720														
	EB051498A			WQ		1740														
	EB051498			WQ		1800														
	EB051498			WQ		0700														

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:
Cooler 1 - VOCs / CLP / 2 ACE
Extra 1L amber added for Equip Blank
COC - Analyses as marked
[illegible] addition
FedEx # 805329515887 Cooler A (VOC + Soil)
805329515898 Cooler B (EB051498 + 051398)
805329515902 Cooler C (EB051498A)

DATE/REVISIONS:
1
2
3
4
5
6

RECRA LabNet Use Only

Samples were 1) Shipped ___ or Hand Delivered ___ Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was 1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
[illegible]		5/14/98					

676-718

Page 1 of 1

RECRA LabNet Use Only

676 719

Custody Transfer Record/Lab Work Request

ECRA LabNet

Best Available Copy

Client: AFCEE
Est. Final Proj. Sampling Date:
Project #: AFC001 GSL
Project Contact/Phone #: Robert Wallace
RECRA Project Manager: Chuck Mauro
QC: Del: TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #:
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives:
ANALYSES REQUESTED: ORGANIC (VOA, BNA, Pest/PCB, Herb); INORG (Metal, CN)

RECRA LabNet Use Only

MATRIX CODES: S - Soil; SE - Sediment; SO - Solid; SL - Sludge; W - Water; O - Oil; A - Air; DS - Drum Solids; DL - Drum Liquids; L - EP/TCLP Leachate; WI - Wipe; X - Other; F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	8260A	8270B	8310A	8151A	8140	8150		7421/7471	9010A	7470				
	GH6LTA509-02			SO	5/15/98	9:28	1												NI	
	GH6LTA509-03			SO	5/15/98	9:45	1												NI	
	GH6LTA509-04			SO	5/15/98	9:55	1												NI	
	EB051598			EQ	5/15/98	10:50	3	1	1	2	1	1	1	4	1	1			LB	
	AB051598			WQ	5/15/98	[illegible]	3												AB	
	TB051598			WQ	5/15/98	9:00	1												TB	

FIELD PERSONNEL, COMPLETE ONLY SHADED AREAS

Special Instructions
Appendix IX VOCs, 1,2 DCE
+ Extra 1L amber from Equip Blank in case needed in Lab
Fed. Ex # 805329515913 Cooler A (VOCs + soil)
805329515924 Cooler B (Equip Blnk)

DATE/REVISIONS
1
2
3
4
5
6

RECRA LabNet Use Only

Samples were 1) Shipped ___ or Hand Delivered ___ Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was 1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

Relinquished by	Received by	Date	Time
[illegible]		5/15/98	1420

Relinquished by	Received by	Date	Time

RECRA LabNet Use Only

Custody Transfer Record/Lab Work Request

ECRA LabNet

Best Available Copy

Client: AFEE
Est. Final Proj. Sampling Date: 5/12/98
Project #: AECOM-0135
Project Contact/Phone #: Jim Postelli
RECRA Project Manager: Chuck Mann
QC: Del TAT
Date Rec'd: Date Due:
Account #:

Refrigerator #																			
#/Type Container	Liquid	Vial	Amb	Amb	Amb	Amb	Amber												
	Solid	Jar	Jar	Jar	Jar	Jar	Jar												
Volume	Liquid	40ml	1L	1L	1L	1L	1L		1L	1L	1L								
	Solid	4oz	8oz	8oz	8oz	8oz	8oz		8oz	8oz	8oz								
Preservatives																			
ANALYSES REQUESTED		ORGANIC: VOA	BNA	Pest/PCB	Herb	D/F	OP Pest		INORG: Metals	CN	Solids								

RECRA LabNet Use Only

MATRIX CODES: S - Soil; SE - Sediment; SO - Solid; SL - Sludge; W - Water; O - Oil; A - Air; DS - Drum Solids; DL - Drum Liquids; L - EP/TCLP Leachate; WI - Wipe; X - Other; F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	8260A	8270B	8081	8151	8260	8140		6010 7471	9060A	9030				
	BHGLTA505-02			S	5.18.98	1020	X	X	X	X	X	X		X	X	X				1112
	BHGLTA505-03			S	5.18.98	1030	X	X	X	X	X	X		X	X	X				1113
	BHGLTA505-04			S	5.18.98	1050	X	X	X	X	X	X		X	X	X				1114
	BHGLTA505-05			S	5.18.98	1105	X	X	X	X	X	X		X	X	X				1115
	FB051898			W	5.18.98	1120	X	X	X	X	X	X		X	X	X				F3
	BHGLTA814-01			S	5.18.98	1445	X	X	X	X	X	X		X	X	X				N1
	BHGLTA814-02*			S	5.18.98	1525	X	X	X	X	X	X		X	X	X				N2
	BHGLTA814-03			S	5.18.98	1535	X	X	X	X	X	X		X	X	X				N3
	FB051898A VOID			WPER	1610	Kenn	X	Capano				X		X	X	X				F1
	TB051898			W	5.18.98	1700	X													TB

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

VOC's in cooler A — Fed Ex #s
Analyze TX VOC + 8260 VOC — 805329513553 Cooler A
805329513564 Cooler B
805329513575 Cooler C
*serial dilution — 805329513586 Cooler D

DATE/REVISIONS:
1
2

RECRA LabNet Use Only

Samples were: 1) Shipped ___ or Hand Delivered ___ Airbill #: ___ 2) Ambient or Chilled 3) Received in Good Condition Y or N 4) Labels Indicate Properly Preserved Y or N 5) Received Within Holding Times Y or N

COC Tape was: 1) Present on Outer Package Y or N 2) Unbroken on Outer Package Y or N 3) Present on Sample Y or N 4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

Relinquished by	Received by	Date	Time
[illegible]		5/18/98	1745

Relinquished by	Received by	Date	Time

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Page 1 of 2

RECRA LabNet Use Only

676 721

Custody Transfer Record/Lab Work Request

ECRA LabNet

Best Available Copy

Client: AFCEE
Est. Final Proj. Sampling Date: 5/29/98
Project #: AFC001-023E
Project Contact/Phone #: Jim Costello
RECRA Project Manager: Chuck Mau
QC ____ Del ____ TAT ____
Date Rec'd ____ Date Due ____
Account # ____

Refrigerator #																
#/Type Container	Liquid															
	Solid	Jar	Jar	Jar	Jar	Jar	Jar		Jar	Jar	Jar					
Volume	Liquid															
	Solid	4oz	8oz	8oz	8oz	8oz	8oz		8oz	8oz	8oz					
Preservatives																
ANALYSES REQUESTED		ORGANIC							INORG							
		VOA	BNA	Pest/PCB	Herb	DLE	0.3 Phos		Metal	CN	Sulfides					
		RECRA LabNet Use Only														
		8260A	8270B	8080A	8150B	8280	8140		6010/7471	9010A	9030					
		X	X	X	X	X	X		X	X	X					DUP

MATRIX CODES
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected
	DUP01			S	5/18/98	1200

FIELD PERSONNEL COMPLETE ONLY SHADED AREAS

Special Instructions: ~~Ex #s~~
Appendix IV VOCs + 12 DCE

DATE/REVISIONS:
1 ____
2 ____
3 ____
4 ____
5 ____
6 ____

Relinquished by	Received by	Date	Time
[signature]		5/18/98	1745

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

RECRA LabNet Use Only

Samples were
1) Shipped ___ or Hand Delivered ___
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

[illegible] LabNet Use Only

Custody Transfer Record/Lab Work Request

ECRA LabNet

Best Available Copy

Client: AFCEE
Est. Final Proj. Sampling Date:
Project #: AFC001-02-E
Project Contact/Phone #:
RECRA Project Manager:
QC: Del: TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #:																						
#/Type Container	Liquid																					
	Solid																					
Volume	Liquid																					
	Solid																					
Preservatives																						
ANALYSES REQUESTED		ORGANIC							INORG													
		VOA	BNA	Pest/PCB	Herb				Metal	CN												
		RECRA LabNet Use Only																				
				8081A	8150B	8140																

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	VOA	BNA	Pest/PCB	Herb				Metal	CN						
	BHGLTA404-01			SO	5/20	1545	1													NI	[illegible]
	BHGLTA404-02			SO	5/20	950	1													NI	[illegible]
	BHGLTA404-03				5/20	940	1													NI	[illegible]
	BHGLTA404-04			SO	5/20	950	1													NI	[illegible]
	BHGLTA404-05			SO	5/20	1000	1													NI	[illegible]
	BHGLTA403-02			SO	5/20	1340	1													NI	[illegible]
	FGTS2098			WO	5/20	1550	2														
	TGAS2098			WO	5/20	1525	1														
	BHGLTA818-02			SO	5/20	945	1													NI	[illegible]

FIELD PERSONNEL. COMPLETE ONLY SHADED AREAS

Special Instructions:
[illegible] VOC [illegible]
Fed Ex # 805329513656 Cooler A [illegible]
805329513667 Cooler B [illegible]

DATE/REVISIONS
1
2
3
4
5
6

Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
[illegible]		9/20/12	1733				
[illegible]							

RECRA LabNet Use Only

Samples were
1) Shipped ___ or Hand Delivered ___
Airbill # _____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

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Page _____ of _____

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Custody Transfer Record/Lab Work Request

ECRA LabNet

Best Available Copy

RECRA LabNet Use Only

Client: AFCEE
Est. Final Proj. Sampling Date:
Project #: AFC001-023E
Project Contact/Phone #: [illegible]
RECRA Project Manager: [illegible]
QC: Del: TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #:
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives:
ANALYSES REQUESTED →

MATRIX CODES: S - Soil, SE - Sediment, SO - Solid, SL - Sludge, W - Water, O - Oil, A - Air, DS - Drum Solids, DL - Drum Liquids, L - EP/TCLP Leachate, WI - Wipe, X - Other, F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	ORGANIC VOA	BNA	Pest/PCB	Herb.	[illegible]	[illegible]		INORG Metal	CN	[illegible]					
							RECRA LabNet Use Only														
	BHGLTA401-01			SO	5/21/98	805	1	X	X	X	X	X		X	X	X			N	[illegible]	[illegible]
	BHGLTA401-02			SO	5/21/98	850	1	X	X	X	X	X		X	X	X			N	[illegible]	[illegible]
	BHGLTA401-03			SO		905	1	X	X	X	X	X		X	X	X			N	[illegible]	[illegible]
	BHGLTA401-04			SO		920	1	X	X	X	X	X		X	X	X			N	13.5-16.5	[illegible]
	BHGLTA405-01			SO		830	1	X	X	X	X	X		X	X	X			N	[illegible]	[illegible]
	BHGLTA405-02			SO		1045	1	X	X	X	X	X		X	X	X			N	[illegible]	[illegible]
	BHGLTA405-03			SO		1055	1	X	X	X	X	X		X	X	X			N	[illegible]	[illegible]
	BHGLTA405-04			SO		1105	1	X	X	X	X	X		X	X	X			N	[illegible]	[illegible]
	BHGLTA405-05			SO		1120	1	X	X	X	X	X		X	X	X			N	[illegible]	[illegible]
	BHGLTA406-01			SO		1500	1	X	X	X	X	X		X	X	X			N	[illegible]	[illegible]

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions
Appendix IX VOC + CIS 1,2, DCE
[illegible] 805 329 513 715 - Cooler 1 (VOC)
805 329 513 726 - Cooler 2

DATE/REVISIONS
1
2
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Relinquished by	Received by	Date	Time
[illegible]		5/21/98	1700

Relinquished by	Received by	Date	Time

RECRA LabNet Use Only

Samples were
1) Shipped ___ or Hand Delivered ___ Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Lables and COC Record? Y or N.
NOTES

RE[illegible] LabNet Use Only

Custody Transfer Record/Lab Work Request

ECRA LabNet

Best Available Copy

Client AFCEE
Est. Final Proj. Sampling Date
Project # AFC001-023F
Project Contact/Phone # [illegible]
RECRA Project Manager [illegible]
QC Del TAT
Date Rec'd Date Due
Account #

Refrigerator #																						
#/Type Container	Liquid																					
	Solid	[illegible]																				
Volume	Liquid																					
	Solid																					
Preservatives																						
ANALYSES REQUESTED		ORGANIC							INORG													
		VOA	BNA	Pest/PCB	Herb	[illegible]	D/F		Metal/[illegible]	CN	Sulfide											
		RECRA LabNet Use Only																				
		8260A	8270B	8080A	8150B	7140	8280		[illegible]	9010A	9030											

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	8260A	8270B	8080A	8150B	7140	8280		[illegible]	9010A	9030						
	DUP02			SO	5/21/9[illegible]	1700	1															
	TB052198			[illegible]	5/21/9[illegible]	1630	2															

FIELD PERSONNEL. COMPLETE ONLY SHADED AREAS

Special Instructions
Appendix IV VOC [illegible]

DATE/REVISIONS
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Relinquished by	Received by	Date	Time
[illegible]		5/21/9[illegible]	1701

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

RECRA LabNet Use Only

Samples were
1) Shipped ___ or Hand Delivered ___
Airbill # _____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

676 724

RECRA LabNet Use Only

676 725

Custody Transfer Record/Lab Work Request

RECRA LabNet

Best Available Copy

Client: AFCEE
Est. Final Proj. Sampling Date:
Project #: AFCEE
Project Contact/Phone #:
RECRA Project Manager: Chuck Nash
QC: Del: TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #:
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives

ANALYSES REQUESTED

ORGANIC: VOA, BNA, Pest/PCB, Herb, Pest, DLT
INORG: Metal, CN

RECRA LabNet Use Only

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	VOA	BNA	Pest/PCB	Herb	Pest	DLT		Metal	CN						
	BHGLTA406-02			SO	5/22	755	1	X	X	X	X	X		X	X	X					
	BHGLTA406-03			SO	5/22	805	X	X	X	X	X	X		X	X	X					
	BHGLTA406-04			SO	5/22	915	1	X	X	X	X	X		X	X	X					
	BHGLTA406-05			SO	5/22	930	1	X	X	X	X	X		X	X	X					
	BHGLTA406-06			SO	5/22	1005	1	X	X	X	X	X		X	X	X					
	TA522-93			WQ	5/22	905	3	1	1	1	1										
	TB052298			WQ	5/22	1030	2														

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions

Approaches IV VOC + CLP 2 DGE

Fed Ex 805329513 745 (Cooler - VOC + Soil)
805329513 759 (Cooler 2 - ER)

DATE/REVISIONS:
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Relinquished by	Received by	Date	Time
[illegible]		5/22/95	1030

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

RECRA LabNet Use Only

Samples were
1) Shipped ___ or Hand Delivered ___
Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

RECRA LabNet Use Only

Custody Transfer Record/Lab Work Request

RECRA LabNet

Best Available Copy

Client: ATCFE
Est. Final Proj. Sampling Date: 6/5/98
Project #: ATC001-023
Project Contact/Phone #: Jim Costello
RECRA Project Manager: Chuck Mann
QC: Del: TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #: 7

#/Type Container																	
	Liquid	VM	VA	A													
	Solid	SGR															
Volume	Liquid	VM	VA														
	Solid																
Preservatives																	

ANALYSES REQUESTED → ORGANIC: VOA, BNA, Pest/PCB, Herb, Other; INORG: Metal, CN, Sulfide, Mercury

RECRA LabNet Use Only

MATRIX CODES: S - Soil; SE - Sediment; SO - Solid; SL - Sludge; W - Water; O - Oil; A - Air; DS - Drum Solids; DL - Drum Liquids; L - EP/TCLP Leachate; WI - Wipe; X - Other; F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	8260	8270	8080A	8150A	8140			7470A	9010A	9030				
	BHGLTA402-02**			S	5/16/98	1400	X	X	X	X	X	X		X	X	X	X			
	BHGLTA402-03			S	5/16/98	1445	X	X	X	X	X	X		X	X	X	X			
	BHGLTA402-04			S	5/16/98	1455	X	X	X	X	X	X		X	X	X	X			
	BHGLTA402-01			S	5/16/98	1645	X	X	X	X	X	X		X	X	X	X			
	BHGLTA402-01MS	X		S	5/16/98	1645	X	X	X	X	X	X		X	X	X	X			
	BHGLTA402-01MD		X	S	5/16/98	1645	X	X	X	X	X	X		X	X	X	X			
	FB051698			W	5/16/98	1600	X	X	X	X	X	X		X	X	X	X			
	TB051698			W	5/16/98	1715	X													

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:
Appendix IX volatiles, cont. 2 OCE
** run serial dilution
FedEx #s 805309513884 1 (water w/volatiles) (A)
805309513895 (B)

DATE/REVISIONS:
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RECRA LabNet Use Only

Samples were 1) Shipped ___ or Hand Delivered ___ Airbill # ___ 2) Ambient or Chilled 3) Received in Good Condition Y or N 4) Labels Indicate Properly Preserved Y or N 5) Received Within Holding Times Y or N

COC Tape was 1) Present on Outer Package Y or N 2) Unbroken on Outer Package Y or N 3) Present on Sample Y or N 4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

Relinquished by	Received by	Date	Time
[illegible]		5/16/98	1800

Relinquished by	Received by	Date	Time

676 726

Page 1 of 1

676 727

RECRA LabNet Use Only

Custody Transfer Record/Lab Work Request

RECRA LabNet

Best Available Copy

Client: AFCEE
Est. Final Proj. Sampling Date: 6/5/98
Project #: AFC001-023E
Project Contact/Phone #: Jim Costello
RECRA Project Manager: Chuck Mao
QC: Del: TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #:
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives:
ANALYSES REQUESTED →

MATRIX CODES: S - Soil, SE - Sediment, SO - Solid, SL - Sludge, W - Water, O - Oil, A - Air, DS - Drum Solids, DL - Drum Liquids, L - EP/TCLP Leachate, WI - Wipe, X - Other, F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	ORGANIC VOA 8260	BNA 8270A	Pest/PCB 8140	Herb 8150A	D/F 8280	Extra	INORG Metal per QAP	CN 9010A	Sulfide 9030	Mercury per QAP				
	BH6LTA074-01			S	5/27/98	0925	X	X	X	X	X	X	X	X	X	X				
	BH6LTA074-02			S		0945	X	X	X	X	X		X	X	X	X				
	BH6LTA074-03			S		0950	X	X	X	X	X		X	X	X	X				
	BH6LTA074-04			S		1000	X	X	X	X	X		X	X	X	X				
	BH6LTA074-05			S		1015	X	X	X	X	X		X	X	X	X				
	BH6LTA073-01			S		1110	X	X	X	X	X		X	X	X	X				
	BH6LTA073-02			S		1320	X	X	X	X	X		X	X	X	X				
	BH6LTA073-03			S		1325	X	X	X	X	X		X	X	X	X				
	BH6LTA073-04			S		1330	X	X	X	X	X		X	X	X	X				
	BH6LTA073-05			S		1340	X	X	X	X	X		X	X	X	X				

FIELD PERSONNEL COMPLETE ONLY SHADED AREAS

Special Instructions:
Appendix IX volatiles + cis 1,2 DCE
Fed Ex #s 805329513900 (A) contains volatiles samples
805329513910 (B)
805329513921 (C)
805329513932 (D)

DATE/REVISIONS:
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Relinquished by	Received by	Date	Time
[signature]		5/27/98	1850

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

RECRA LabNet Use Only

Samples were
1) Shipped ___ or Hand Delivered ___
Airbill # _____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

RECRA LabNet Use Only

Custody Transfer Record/Lab Work Request

RECRA LabNet

Best Available Copy

Client: AFCEE
Est. Final Proj. Sampling Date: 8/5/09
Project #: AFC001-0132
Project Contact/Phone #: Tim Costello
RECRA Project Manager: Chuck Maw
QC: Del: TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #:
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives:
ANALYSES REQUESTED: ORGANIC (VOA, BNA, Pest/PCB, Herb.); D/E; Extra; INORG (Metal, CN); 531.1; Aerum

RECRA LabNet Use Only

MATRIX CODES: S - Soil; SE - Sediment; SO - Solid; SL - Sludge; W - Water; O - Oil; A - Air; DS - Drum Solids; DL - Drum Liquids; L - EP/TCLP Leachate; WI - Wipe; X - Other; F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	8260	8270A	8140	8150A	8280			DRP	9010A	903.0	DRP			
	BHG1TA072-01			SO	5/12/09	1410	X	X	X	X	X			X	X	X	X			
	BHG1TA071-02 **			SO		1455	X	X	X	X	X			X	X	X	X			
	BHG1TA073-03			SO		1505	X	X	X	X	X			X	X	X	X			
	BHG1TA074-04			SO		1640	X	X	X	X	X			X	X	X	X			
	BHG1TA075-05			SO		1645	X	X	X	X	X			X	X	X	X			
	BHG1TA071-01MS	X		SO		1410	X	X	X	X	X			X	X	X	X			
	BHG1TA071-01MD		X	SO		1410	X	X	X	X	X			X	X	X	X			
	EB052798			WI		1555	X	X	X	X	X	X		X	X	X	X			
	TB052798			WI		1835	X													

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:
Appendix IX Volatiles + cis 1,2 DCE
** run serial dilution

DATE/REVISIONS:
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Relinquished by	Received by	Date	Time
[illegible]		5/12/09	1850

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

RECRA LabNet Use Only

Samples were
1) Shipped ___ or Hand Delivered ___
Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

676 728

RECRA LabNet Use Only

676 729

Custody Transfer Record/Lab Work Request

RECRA LabNet

Client: AFCEE
Est. Final Proj. Sampling Date: 6/5/93
Project #: AFC001-023E
Project Contact/Phone #: Jim Castello
RECRA Project Manager: Chuck Mow
QC: Del: TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #

#/Type Container	Volume	Preservatives
Liquid	Liquid	
Solid	Solid	

ANALYSES REQUESTED: ORGANIC (VOA, BNA, Pest/PCB, Herb, Extra); INORG (Metal, CN, Sulfide, Mercury)

RECRA LabNet Use Only

MATRIX CODES: S - Soil; SE - Sediment; SO - Solid; SL - Sludge; W - Water; O - Oil; A - Air; DS - Drum Solids; DL - Drum Liquids; L - EP/TCLP Leachate; WI - Wipe; X - Other; F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	8260A	8270A	8080A	8150A	8080			6010A	7470A	9030	8270A				
	BHGLTA075-01			S	5/18/93	0820	X	X	X	X	X			X	X	X	X				
	BHGLTA075-02			S		0835	X	X	X	X	X			X	X	X	X				
	BHGLTA075-03			S		0845	X	X	X	X	X			X	X	X	X				
	BHGLTA075-04			S		0855	X	X	X	X	X			X	X	X	X				
	BHGLTA075-05			S		0925	X	X	X	X	X			X	X	X	X				
	DUPD4			S		1200	X	X	X	X	X			X	X	X	X				
	BHGLTA076-01			S		1150	X	X	X	X	X			X	X	X	X				
	BHGLTA076-02			S		1035	X	X	X	X	X			X	X	X	X				
	BHGLTA076-03			S		1040	X	X	X	X	X			X	X	X	X				
	BHGLTA076-04			S	✓	1050	X	X	X	X	X			X	X	X	X				

FIELD PERSONNEL COMPLETE ONLY SHADED AREAS

Special Instructions:

Appendix IX Volatiles + cis-1,2-DCE

Fed Ex #'s 805329513932 (A) Contains Volatiles
805329513965 (B)
805329513976 (C)

DATE/REVISIONS.
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RECRA LabNet Use Only

Samples were
1) Shipped ___ or Hand Delivered ___
Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

Relinquished by	Received by	Date	Time
[signature]		5/18/93	1745

Relinquished by	Received by	Date	Time

RECRA LabNet Use Only

Custody Transfer Record/Lab Work Request

RECRA LabNet

Client: AFCEE
Est. Final Proj. Sampling Date: 6/5/99
Project #: AFC001-013F
Project Contact/Phone #: Jim Costello
RECRA Project Manager: Carl Neal
QC: Del: TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #:
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives:
ANALYSES REQUESTED: ORGANIC (VOA, BNA, Pest/PCB, Herb.); INORG (Metal, CN)

RECRA LabNet Use Only

MATRIX CODES: S - Soil; SE - Sediment; SO - Solid; SL - Sludge; W - Water; O - Oil; A - Air; DS - Drum Solids; DL - Drum Liquids; L - EP/TCLP Leachate; WI - Wipe; X - Other; F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	8260A	8270A	8081	8151A	8270	—	—	pr OMP	9010A	9030D	pr OMP				
	BHLLTA076-05			S	5/18/99	1055	X	X	X	X	X			X	X	X	X				
	BHLLTA071-01			S		1605	X	X	X	X	X			X	X	X	X				
	BHLLTA071-02			S		1535	X	X	X	X	X			X	X	X	X				
	BHLLTA071-03			S		1537	X	X	X	X	X			X	X	X	X				
	BHLLTA071-04			S		1540	X	X	X	X	X			X	X	X	X				
	BHLLTA071-05			S		1548	X	X	X	X	X			X	X	X	X				
	FB051899			W		1455	X	X	X	X	X	X		X	X	X	X				
	TB051899			W	5/19	1720	X														

FIELD PERSONNEL COMPLETE ONLY SHADED AREAS

Special Instructions: Appendix IX volatiles + cis 1,2, DCE

DATE/REVISIONS
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RECRA LabNet Use Only

Samples were 1) Shipped ___ or Hand Delivered ___ Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was 1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

Relinquished by	Received by	Date	Time
BHLLTA		5/18/99	1745

Relinquished by	Received by	Date	Time

Page 2 of 2

Best Available Copy

676 730

RECRA LabNet Use Only

676 731

Custody Transfer Record/Lab Work Request

RECRA LabNet

Best Available Copy

Client: CFCEE
Est. Final Proj. Sampling Date: 6/5/98
Project #: AFC001-0[illegible]
Project Contact/Phone #: ROBERT [illegible]
RECRA Project Manager: CHUCK [illegible]
QC: Del: TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #															
#/Type Container	Liquid	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
	Solid	[illegible]	[illegible]												
Volume	Liquid														
	Solid														
Preservatives															
ANALYSES REQUESTED		ORGANIC: VOA	BNA	Pest/PCB	Herb	OP Pest	Dioxin/Furan	Extra	INORG: Metal	CN	Sulfide				
		RECRA LabNet Use Only													
		8260A	8270B	8080	8150B	8140	8280		8270AAA	9010	9030				

MATRIX CODES: S - Soil; SE - Sediment; SO - Solid; SL - Sludge; W - Water; O - Oil; A - Air; DS - Drum Solids; DL - Drum Liquids; L - EP/TCLP Leachate; WI - Wipe; X - Other; F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	8260A	8270B	8080	8150B	8140	8280		8270AAA	9010	9030	
	BHGLTA813-03			SO	6/1/98	1535											Disard this sample
	BHGLTA813-04			SO		1550											
	BHGLTA813-05			SO		1625											
	BHGLTA817-01			SO		1710											
	[illegible]60198			SO		1710											
	EB060198			WQ		1715											
	TB060198			WQ	6/1/98	1800						(BN)					

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions
Appendix IV - VOCs + CIS 1,2 DCE
Fed Ex #s 805329514012 (A) Contains VOCs
805329514023 (B)

DATE/REVISIONS
6/2/98 1 Discard the BHGLTA813-03 sample
2 Samples labled as BHGLTA815 should be changed to BHGLTA813. (BN 6/4/98)
4
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Relinquished by	Received by	Date	Time
[illegible]		6/1/98	1815

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

RECRA LabNet Use Only

Samples were
1) Shipped ___ or Hand Delivered ___ Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

REC[illegible]abNet Use Only

RECRA LabNet

Custody Transfer Record/Lab Work Request

Best Available Copy

Client [illegible]
Est. Final Proj. Sampling Date [illegible]
Project # [illegible]
Project Contact/Phone # [illegible]
RECRA Project Manager [illegible]
QC ____ Del ____ TAT ____
Date Rec'd ____ Date Due ____
Account # ____

Refrigerator # ____
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives
ANALYSES REQUESTED →
ORGANIC: VOA, BNA, Pest/PCB, Herb
INORG: Metal, CN

RECRA LabNet Use Only

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected
	[illegible]				[illegible]	935
	[illegible]				[illegible]	1215
	[illegible]				[illegible]	1100
	[illegible]				[illegible]	1130
	[illegible]				[illegible]	1115
	[illegible]				[illegible]	815
	[illegible]				[illegible]	840
	[illegible]				[illegible]	900
	[illegible]				[illegible]	1200
	EB060298				[illegible]	945

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:
Appendix IX [illegible]
Fed Ex 8053295140[illegible] Cooler A (VOCs [illegible] blank)
8053295140[illegible] Cooler B
8053295140[illegible] Cooler C

DATE/REVISIONS:
1
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Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
[illegible]		[illegible]	1040				

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

RECRA LabNet Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ______
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

676 732

RECRA LabNet Use Only

676 733

Custody Transfer Record/Lab Work Request

RECRA LabNet

Best Available Copy

Client: ARCO
Est. Final Proj. Sampling Date: 6/7/95
Project #: ARCO 0298
Project Contact/Phone #: Robert Wallace
RECRA Project Manager: Chuck Mills
QC: Del: TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives

ANALYSES REQUESTED

ORGANIC: VOA, BNA, Pest/PCB, Herb, Cost, Cost, Cost
INORG: Metal, CN, Cost, Cost, Cost, Cost

RECRA LabNet Use Only

MATRIX CODES: S - Soil; SE - Sediment; SO - Solid; SL - Sludge; W - Water; O - Oil; A - Air; DS - Drum Solids; DL - Drum Liquids; L - EP/TCLP Leachate; WI - Wipe; X - Other; F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	8260A	8270B						7470	7000					
	AB0602-98			WS	6-1-95	1045	3	X	X	X	X		X	X	X	X			AB	
	TB0602-98			WQ		1030	2	X	X	X	X		X	X	X	X			TB	
	RHGETA 8-16-01			SO		1440	1	X	X	X	X		X	X	X	X			NH	
	RHGETA 8-16-02			SO		1545	1	X	X	X	X		X	X	X	X			NH	
	RHGETA 8-16-03			SO		1530	1	X	X	X	X		X	X	X	X			NH	
	RHGETA 8-16-04			SO		1530	1	X	X	X	X		X	X	X	X			NH	
	DUP01-0298A			SO	✓	1130	1	X	X	X	X		X	X	X	X			DUP	

FIELD PERSONNEL COMPLETE ONLY SHADED AREAS

Special Instructions:
Appendix IX - VOCs 1015, 1 Nic

DATE/REVISIONS:
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Relinquished by	Received by	Date	Time
[illegible]		6/2/95	1645

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

RECRA LabNet Use Only

Samples were
1) Shipped ___ or Hand Delivered ___
Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

LabNet Use Only

Custody Transfer Record/Lab Work Request

RECRA LabNet

Best Available Copy

Client: AECOM
Est. Final Proj. Sampling Date:
Project #:
Project Contact/Phone #:
RECRA Project Manager:
QC: Del: TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #:
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives:
ANALYSES REQUESTED: ORGANIC: VOA, BNA, Pest/PCB, Herb; INORG: Metal, CN

RECRA LabNet Use Only

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	VOA	BNA	Pest/PCB	Herb				Metal	CN						
	BHGLTA 315-01			S	6/1/98	1400															
	BHGLTA 315-02			S	6/1/98	1350															
	BHGLTA 315-04			S	6/1/98																
	BHGLTA 317-01MS	✓		S	6/1/98	1350															
	BHGLTA 318-04MD		✓	S	6/1/98	1350															
	BHGLTA 319			S	6/1/98	1350															
	BHGLTA 319			W	6/1/98																
	BHGLTA 403-05			S	6/1/98	1350															
	BHGLTA 403-06			S	6/1/98	1420															

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions: Appendix IX VOCs + CIS 1,2 DCE
Rel Ex 805 329 5140 Carole
805 329 5140 78 Coordinator

DATE/REVISIONS
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Relinquished by	Received by	Date	Time
[illegible]		6/1/98	1700

Relinquished by	Received by	Date	Time

RECRA LabNet Use Only

Samples were
1) Shipped ___ or Hand Delivered ___ Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES:

676 734

Page 1 of 1

RECRA LabNet Use Only

676 735

Custody Transfer Record/Lab Work Request

RECRA LabNet

Best Available Copy

Client: AFCEE
Est. Final Proj. Sampling Date:
Project #: AFC001-0238
Project Contact/Phone #: [illegible]
RECRA Project Manager: CHUCK [illegible]
QC: Del: TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #:

#/Type Container	Liquid	4	4	4	4	4	4		4	4	4				
	Solid														
Volume	Liquid														
	Solid														
Preservatives															
ANALYSES REQUESTED	ORGANIC: VOA	BNA	Pest/PCB	Herb				INORG: Metal	CN						
RECRA LabNet Use Only	5030A	3510	5030A	8151A	8140	8250		7470A	9010A	9050					

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected													
	FB0604 98			DW	6/4/98	1045	2												
	FB0604 98			DW	6/4/98	1000	3	1	1	1	1	1		1	1	1			
	FB6TJA405-06			SO	6/4/98	9450	1												

FIELD PERSONNEL COMPLETE ONLY SHADED AREAS

Special Instructions:
Appendix IV VOCs + CIS 1,2 DCE
Fed Ex 805 3295 1408 9

DATE/REVISIONS
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Relinquished by	Received by	Date	Time
[illegible]		6/4/98	1140

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

RECRA LabNet Use Only

Samples were
1) Shipped ___ or Hand Delivered ___
Airbill # _____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

STL
Committed To Your Success

Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone 708-534-5200
Fax 708-534-5211

Custom / CLP-Like
Int COC

Report To:
Contact: Miquette Rochford
Company: HydroGeoLogic
Address: 1155 Herndon Pkwy #900 Herndon VA 20170
Phone: 703-478-5186
Fax: 703-471-4180
E-Mail: merehgl.com

Bill To:
Contact:
Company:
Address:
Phone:
Fax:
PO#: Quote:

Shaded Areas For Internal Use Only of

Lab Lot # 9910G245

Package Sealed: Yes No 64364
Samples Sealed: Yes No
Received on Ice: Yes No
Samples Intact: Yes No
Temperature °C of Cooler: 26.5.8
Within Hold Time: Yes No
Preserv. indicated: Yes No NA
pH Check ok: Yes No NA
Res. Cl_2 Check ok: Yes No NA
Sample Labels and COC Agree: Yes No COC not present

Sampler Name: R. Wallace / M. Johnston
Signature:
Project Name: DOZ
Project Number: AFC-001-023E
Project Location: NAS FW JRB
Lab PM: Bosco Ramirez
Date Required Hard Copy: ~~10/29/99~~ 10/1/99
Fax: / /

Refrg #	5	3	5 2/2	3	2m
#/ Cont.	1 SS	1	2 VOA	2	2/4
Volume	4oz	8oz	40mL	1L	
Preserv	—	—	HCl	—	

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	VOCs-App IX 8260B	SVOCs-App IX 8270	VOCs App IX 8260B	SVOCs App IX 8270	Additional Analyses / Remarks
001		BHGLTA407-05	10/5/99	1525	S	G	X	X			
002		BHGLTA407-~~05~~04		1505	S	G	X	X			
003		BHGLTA407-03		~~1635~~ 1435	S	G	X	X			
004		DUP002		1200	S	G	X				
005	X	BHGLTA407-MS		~~1633~~ 1405	S	G	X				
		BHGLTA407-02		1405	S	G	X	X			
	X	BHGLTA407MSD		1405	S	G	X				
006		TB100599		1330	W	W	~~X~~		X		
007		EB100599		1620	W	G			X	X	
008		EB100499		1640	W	G				X	
009		BHGLTA408-01	10/4/99	1635	S	G		X			
010		DUP01	10/4/99	1200	S	G		X			

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]	Hydro GeoLogic Inc	10/5/99	17:50	[signature]	STL	10-6-99	1455
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O =

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other

Preservative Key
1 HCl Cool to 4°
2 H2SO4 Cool to 4°
3 HNO3, Cool to 4°
4 NaOH Cool to 4°
5 NaOH/Zn Acetate, Cool to 4°
6 Cool to 4°
7 None

COMMENTS
200000

Date Received: 10/6/99
Courier: Fed-X
Hand Delivered:
Bill of Lading: see attached

676 736

676 707

STL Committed To *Your* Success

Custom CLP-Like

Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone 708-534-5200
Fax 708-534-5211

Int Coc

Report To:
Contact Miquette Rochford
Company HydroGeologic
Address 1155 Herndon Pkwy
STE 900 Herndon VA 20170
Phone 703-478-5186
Fax 703-471-4180
E-Mail mer@hgl.com

Bill To:
Contact
Company
Address
Phone
Fax
PO# Quote

Shaded Areas For Internal Use Only of

Lab Lot # 9910G245

Package Sealed (Yes) No 64364	Samples Sealed Yes (No)
Received on Ice (Yes) No	Samples Intact (Yes) No
Temperature 26.5 °C 8 of Cooler	
Within Hold Time (Yes) No	Preserv. indicated Yes No (NA)
pH Check ok Yes No (NA)	Res. Cl_2 Check ok (Yes) No NA
Sample Labels and COC Agree (Yes) No	COC not present

Sampler Name: R Wallace / M Johnston	Signature:
Project Name: DOZ	Project Number: AFC001-023E
Project Location: NAS FW JRB	Date Required Hard Copy: ~~10/29/99~~ 10/6/99
Lab PM: Dolco Ramirez	Fax: / /

Refrg #	5
#/ Cont.	2
Volume	4oz
Preserv	6

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	SVOCs App IX 8270
009	X	BH6LTA408MS	10/4/99	1635	S	G	X
↓	X	BH6LTA408MSD	10/4/99	1635	S	G	X

Additional Analyses / Remarks

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]	HydroGeologic Inc	10/5/99	17:50	Sherri Scott	STL	10-6-99	1455

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O = _____

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other _____

Preservative Key
1 HCl, Cool to 4°
2 H2SO4 Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate Cool to 4°
6 Cool to 4°
7 None

COMMENTS
200000

Date Received 10/6/99
Courier Fed-X Hand Delivered ☐
Bill of Lading see attached

Shaded Areas For Internal Use Page 2 of 7

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Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone. 708-534-5200
Fax 708-534-5211

QC - Std
Del - CLP Like

Contact: Miquette Rochford
Company: HydroGeologic
Address: 1155 Herndon Pkwy
STE 900 Herndon, VA 20170
Phone: 703/478-5186
Fax: 703/471-4180
E-Mail: mer@hgl.com

Contact:
Company:
Address:
Phone:
Fax:
PO#: Quote:

Lab Lot # 99106290

Package Sealed: Yes No	Samples Sealed: Yes No
Received on Ice: Yes No	Samples Intact: Yes No
Temperature °C of Cooler: 3.2, 3.2	
Within Hold Time: Yes No	Preserv. indicated: Yes No NA
pH Check ok: Yes No NA	Res. Cl_2 Check ok: Yes No NA
Sample Labels and COC Agree: Yes No COC not present	

Sampler Name: Margaret Johnston
Signature: Margaret Johnston
Project Name: C2 RCRA Landfills
Project Number: AFC001 023E
Project Location:
Lab PM.:
Date Required Hard Copy: 10/25/99
Fax: / /

Refrg #		
# Cont.	6	5
Volume	1	2
Preserv	6	6

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	VOCs (App. IV)	Lead/SPLP	Additional Analyses / Remarks
013		BH6LTA083-04	10/7/99	1530	S	G	1		
014		BH6LTA083-05	10/7/99	1545	S	G	1		
~~015~~ 016		BH6LTA080-01	10/7/99	1730	S	G		2	Possible SPLP
~~016~~ 017/018		BH6LTA084-01	10/7/99	1725	S	G		2	
~~017~~ 019/020		BH6LTA829-01	10/7/99	1650	S	G		2	
~~018~~ 021/022		BH6LTA830-01	10/7/99	1655	S	G		2	
~~019~~ 023/024		BH6LTA407-01	10/7/99	1755	S	G		1	No SPLP for BH6LTA407-01

11/19/99 [illegible]

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	HydroGeologic	10-8-99	1800	[signature]	STL	10-8-99	17:00
110G290 US-023	Jodie Bracken STL	11-19-99	1600	Jodie Bracken	STL	11-19-99	1600

Matrix Key
W = Wastewater
= Water
= Soil
= Sludge
S = Miscellaneous
= Oil
= Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O = _____

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other 6" sleeve

Preservative Key
1 HCl, Cool to 4°
2 H2SO4, Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate, Cool to 4°
6 Cool to 4°
7 None

COMMENTS: Hold metals samples for SPLP

Date Received: 10, 8, 99
Courier: FedEx 8144 2173 8147
Hand Delivered
Bill of Lading

676 738

STL Chicago Chain of Custody CHI-22-09-231/A-5/99

7C0000

STL
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AFCEE
LL-UKE
INT COC

Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone 708-534-5200
Fax 708-534-5211

Report To:
Contact: Miquette Rochford
Company: HydroGeologic Inc
Address: 11155 Herndon Pkwy Ste 100
Herndon, VA 20170
Phone: 703/478-5786
Fax: 703/471-4180
E-Mail: mer@hgi.com

Bill To: 676 739
Contact: SAA
Company:
Address:
Phone:
Fax:
PO#: Quote:

Shaded Areas For Internal Use Only 1 of 1

Lab Lot # 99/DG388

Package Sealed: Yes (circled) No	Samples Sealed: Yes (circled) No
Received on Ice: Yes (circled) No	Samples Intact: Yes (circled) No
Temperature °C of Cooler: 2.8, 1.0, 2.0, 4.0, 4.8, 2.3	
Within Hold Time: Yes (circled) No	Preserv. Indicated: Yes (circled) No NA
pH Check ok: Yes (circled) No NA	Res Cl₂ Check ok: Yes (circled) No NA
Sample Labels and COC Agree: Yes (circled) No COC not present	

Sampler Name: Nicole Hade
Signature: Nicole Hade
Project Name: DO2 Groundwater Sampling
Project Number: AFC-001-023G
Project Location: NAS Ft Worth JRB, TX
Date Required Hard Copy: 10/25/99
Fax: / /
Lab PM: Bosco Ramirez

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	Applx VOCs * Sw8260B	Applx SVOCs 625N Sw8270C	Total Metals Applx Sw6010/7470	OC Pest/PCBs Applx Sw8081A	Organophosphorus Pest Applx Sw 8141A	EDD
Refrg #							5	1	1	1	1	
#/Cont.							2	4	1	4	4	
Volume							40ml	1L	1L	1L	1L	
Preserv							1	6	3	6	6	
001		TB101499	10.14.99	745	W	G	2					
002		LF04-4DWG10	10.14.99	1142	W	G	3	2	1	2		
003		DUP011WG10	10.14.99	1330	W	G	3	2	1	2		
004		WP07-10BWG10	10.14.99	1120	W	G	3	2	1		2	
005		EB101499	10.14.99	1300	W	G	3	2	1	2	2	
006		LF05-5CWG10	10.14.99	1509	W	G	3	2	1	~~2~~ NH	2	
	X	LF05-5CWG10MS	10.14.99	1509	W	G	3	2	1	~~2~~ NH	2	
	X	LF05-5CWG10MSD	10.14.99	1509	W	G	3	2	1	~~2~~ NH	2	

*All Applx VOCs should also be run for cis-1,2-DCE

One VOC has a bubble sealed formed after

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]	HGI	10-14-99	6:45 pm	[signature]	STL	10-15-99	1545
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O = _____

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other _____

Preservative Key
1 HCl, Cool to 4°
2 H2SO4 Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate, Cool to 4°
6 Cool to 4°
7 None

COMMENTS
TB101499 project No. is AFC-001-023G
10 day turnaround except ~~DUP011WG10~~, MS, MSD + EB + TB

Date Received: 10/15/99
Courier: FedEx Hand Delivered ☐
8144 2173 8125
Bill of Lading

676 740

Shaded Areas For Internal [illegible]nly ___ of ___

STL
Committed To *Your* Success

Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone 708-534-5200
Fax 708-534-5211

AFCEE
CLP-Like
Int COC

Report To:
Contact: BETH SUMMERS
Company: EMCON
Address: 5701 EAST LOOP 820 SOUTH
FORT WORTH, TX 76119
Phone: 817-478-8254
Fax: 817-478-8874
E-Mail:

Bill To:
Contact: -SAME-
Company:
Address:
Phone:
Fax:
PO#: Quote:

Lab Lot # 9910G621

Package Sealed: Yes No	Samples Sealed: Yes No
Received on Ice: Yes No	Samples Intact: Yes No
Temperature °C of Cooler: 4.3°C	
Within Hold Time: Yes No	Preserv. indicated: Yes No NA
pH Check ok: Yes No NA	Res. Cl_2 Check ok: Yes No NA
Sample Labels and COC Agree: Yes No	COC not present

Sampler Name: Mark Webster
Signature: [signature]
Project Name:
Project Number:
Project Location: NAS FT. WORTH JRB
Lab PM: Bosco Ramirez
Date Required Hard Copy: 11/22/99
Fax: 11/5/99

Refrg #	5	1													
#/Cont.	1/G	2G →													
Volume	2-4oz	4oz →													
Preserv	–														

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	VOCs - App IX 8260B	SVOC App IX 8270B625N	Metals - App IX 6010/7471A	EDD							Additional Analyses / Remarks
001		WHGLTA 801-01	10-28-99	15.15	S	C	1	1	1	X							
002		WHGLTA-801-02	10-28-99	11.50	S	C	1	1	1								
003		WHGLTA-801-03	10-28-99	12.10	S	C	1	1	1								
004		WHGLTA 803-01	10-28-99	17.00	S	C	1	1	1								
005		WHGLTA 803-02	10-28-99	16:00	S	C	1	1	1								
006		TB102899	10-28-99	18.00	W	G	3										3 vials
007		EB 102899	10-28-99	18.20	W	G	3	1	1								↑

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]	Emcon	10-28-99	19:00	[signature]	STL	10/29/99	1355
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
CL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O = ___

Container Key
1 Plastic
2 VOA Vial
3 Stenle Plastic
4 Amber Glass
5 Widemouth Glass
6 Other ___

Preservative Key
1 HCl, Cool to 4°
2 H2SO4, Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate, Cool to 4°
6 Cool to 4°
7 None

COMMENTS
VOCs App IX + cis 1,2 DCE

COC# 100011

Date Received: 10/29/99
Courier: FX
Hand Delivered: ☐
Bill of Lading: see attached

STL Chicago Chain of Custody CHI-22-09-231/A 5/99

676 741

Shaded Areas For Internal Use Only 1 of 1

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AFCEE/ CLP Like Int COC EDD

Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone 708-534-5200
Fax 708-534-5211

Report To:
Contact BETH SUMMERS
Company EMCON
Address 5701 EAST LOOP 820 SOUTH
FORT WORTH, TX 76119
Phone 817-478-8254
Fax 817-478-8874
E-Mail

Bill To:
Contact BETH SUMMERS
Company EMCON
Address 5701 E. LOOP 820 SOUTH
FORT WORTH, TX 76119
Phone 817.478 8254
Fax 817 478 8874
PO# Quote

Lab Lot # 9911G676

Package Sealed: Yes (circled) No	Samples Sealed: Yes No (circled)
Received on Ice: Yes (circled) No	Samples Intact: Yes (circled) No
Temperature °C 4.3 of Cooler	
Within Hold Time: Yes (circled) No	Preserv. Indicated: Yes (circled) No NA
pH Check ok: Yes (circled) No NA	Res. Cl_2 Check ok: Yes (circled) No NA
Sample Labels and COC Agree: Yes (circled) No COC not present	

Sampler Name: MARK WEBSTER
Signature: [signature]
Project Name: NAS FORT WORTH JRB
Project Number: 776184
Project Location: FT. WORTH
Date Required Hard Copy: 11/24/99
Fax: 11/10/99
Lab PM: BOSCO RAMIREZ

Refrg #	5	1	1
# Cont.	3/9	2/6	2/8
Volume	30 ml	1L	1L
Preserv	1		3

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	VOCs - App IX 8260B	SVOCs App IX 8270B	Metals App IX 6000/7000	Additional Analyses / Remarks
001		WH6LTA80WG-01	11/2/99	1525	W	G	3	2	1	
002		EB110299	11/2/99	1650	W	G	3	2	1	
003		TB110299	11/2/99	1700	W	G	3			

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]	EMCON	11-2-99	1730	[signature]	STL	11/3/99	1400
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellan
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O = _____

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other _____

Preservative Key
1 HCl Cool to 4°
2 H2SO4, Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate, Cool to 4°
6 Cool to 4°
7 None

COMMENTS
* VOCs - App IX + cis 1,2 DCE
10day TAT required
COC # 100015

Date Received 11 / 3 / 99
Courier FX
Hand Delivered ☐
Bill of Lading See attached

676 742

Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone 708-534-5200
Fax 708-534-5211

AICEE
CU Like
Int COC

Report To.
Contact: Beth Summers
Company: Emcon
Address: 5701 East Loop 820 South, Fort Worth, TX 76119
Phone: 817.478 8254
Fax: 817 478 8874
E Mail:

Bill To:
Contact: Beth Summers
Company: Emcon
Address: 5701 East Loop 820 South, Fort Worth, TX 76119
Phone: 817 478 8254
Fax: 817 478 8874
PO#: Quote:

Shaded Areas For Internal Use Only 1 of 1

Lab Lot # 9911G687

Package Sealed: Yes No	Samples Sealed: Yes No
Received on Ice: Yes No	Samples Intact: Yes No
Temperature °C of Cooler: (18, 38, 24)	
Within Hold Time: Yes No	Preserv. Indicated: Yes No NA
pH Check ok: Yes No NA	Res. Cl_2 Check ok: Yes No NA
Sample Labels and COC Agree: Yes No	COC not present

Sampler Name: Mark Webster
Signature: [signature]
Project Name: NAS Fort Worth JRB
Project Number: 776184
Project Location: Fort Worth, Texas
Date Required Hard Copy: 11/2/99
Fax: 11/11/99
Lab PM: Bosco Ramirez

Refrg #	5	1	1
#/ Cont.	2/3G	2G	1P
Volume	1/DAL	1L	1L
Preserv	1	—	3

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	VOCs - App IV 8260B *	SVOCs App IV 8270B 8250	Metals App IV 6000/7000	EDD	Additional Analyses / Remarks
001		WH6L7A803WG01	11/3/99	1010	W	G	3	2	1	*	2 vials
002		EB110399	11/3/99	1120	W	G	3	2	1		3 vials
003		TB110399	11/3/99	0800	W	G	2				2 vials

RELINQUISHED BY	COMPANY	DATE	TIME
[signature]	Emcon	11-3-99	12:00

RECEIVED BY	COMPANY	DATE	TIME
[signature]	STL	11-4-99	1150

Matrix Key
WW = Wastewater; W = Water; S = Soil; SL = Sludge; MS = Miscellaneous; OI = Oil; A = Air; SE = Sediment; SO = Solid; DS = Drum Solid; DL = Drum Liquid; L = Leachate; WI = Wipe; O =

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other

Preservative Key
1 HCl Cool to 4°
2 H2SO4 Cool to 4°
3 HNO3 Cool to 4°
4 NaOH Cool to 4°
5 NaOH/Zn Acetate Cool to 4°
6 Cool to 4°
7 None

COMMENTS
* VOCs - App IV + cis 1, 2 DCE
10 day TAT required
COC # 190001

Date Received: 11/4/99
Courier: FV
Hand Delivered:
Bill of Lading: See Attached

STL Chicago Chain of Custody CHI 22 09 231/A

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Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone 708-534-5200
Fax. 708-534-5211

Report To:
Contact: Beth Summers
Company: ITT Lucas
Address: 5701 Earl Lucas Drive S, Ft. Worth, TX 76119
Phone: 817-475-9254
Fax: 817-475-5574
E-Mail:

Bill To:
Contact: Beth Summers
Company: ITT Lucas
Address: 5701 Earl Lucas Drive S, Ft. Worth, TX 76119
Phone: 817-475-9254
Fax: 817-475-5574
PO#: Quote:

Shaded Areas For Internal Use Only / o

Lab Lot #

Package Sealed Yes No	Samples Sealed Yes No
Received on Ice Yes No	Samples Intact Yes No
Temperature °C of Cooler	
Within Hold Time Yes No	Preserv. Indicat Yes No N
pH Check ok Yes No NA	Res. Cl_2 Check Yes No N
Sample Labels and COC Agree Yes No COC not present	

Sampler Name: Richard B Nielsen
Signature: [signature]
Project Name: Carswell AFB
Project Number: 374902
Project Location: Ft. Worth TX
Date Required: Hard Copy __/__/__ Fax __/__/__
Lab PM: Bruce Romero

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	PAH: 8310/SPLP/3510/8270	~~Lead 6010~~ ~~Sulfide 9030~~	Lead 6010B SPLP/3510/6010B								Additional Analyses / Remarks
		AA0014	1/4/00	1435	So	G	X										
		AA0023	1/4/00	1630	So	G	X										
		AA0006	1/4/00	1330	So	G	X		X								
		AA0001	1/4/00	1400	So	G	X										
		AA0002	1/4/00	1407	So	G	X										
		AA0013	1/4/00	1500	So	G	X										
		AA0022	1/4/00	1615	So	G	X										
		AA0015	1/4/00	1440	So	G	X										
		AA0012	1/4/00	1445	So	G	X										
		AA020	1/4/00	1600	So	G	X										
		AA0005	1/4/00	1405	So	G	X										
		AA8010	1/4/00	1730	W	G	X		X								

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]	[illegible]	1/4/00	1700				

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O = _____

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other _____

Preservative Key
1 HCl, Cool to 4°
2 H2SO4, Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate, Cool to 4°
6 Cool to 4°
7 None

COMMENTS:
PAHs for Appendix IX list
~~Lead for Appendix IX list~~ (N)
COC # 10700

Date Received __/__/__
Courier: FedEx Hand Delivered
Bill of Lading 8149 [illegible] 5412

676 744

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Chicago Laboratory
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University Park, IL 60466
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Report To:
Contact Will CARTER
Company IT / EMCON
Address 5701 EAST LOOP 820 S
Ft WORTH, TX 76119
Phone 817-479-8254
Fax 817-479-8874
E-Mail

Bill To:
Contact Tim Roth
Company IT / EMCON
Address 312 DIRECTORS DR
Knoxville, TN 37923
Phone 865-690-3211
Fax 865-690-3626
PO# Quote

Shaded Areas For Internal Use Only

Lab Lot #

Package Sealed Yes No	Samples Sea Yes No
Received on Ice Yes No	Samples Inta Yes No
Temperature °C	of Cooler
Within Hold Time Yes No	Preserv. Indic Yes No
pH Check ok Yes No NA	Res. Cl_2 Chec Yes No
Sample Labels and COC Agree Yes No	COC not presen

Sampler Name: DOUG JONES, BRAD NIELSEN
Signature: Douglas Jones
Project Name: CARSWELL AFB
Project Number: 774902
Project Location: Ft WORTH, TX
Date Required Hard Copy: 1/12/00
Fax: / /
Lab PM: BOSCO Ramirez

Refrg #
#/Cont.
Volume
Preserv

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	APP IX VOC SW 8260B	APP IX Sm VOC SW 8270C	APP IX Total Metals SW 6010B SW 7470A	APP IX Cr.Phos. Part SW 8141A							Additional Analyses / Remarks
		AA300 S	1-6-00	12:20	W	G	3										
		AA300 S	1-6-00	12:20	W	G		2									
		AA300 S	1-6-00	12:20	W	G			1								
		AA300 S	1-6-00	12:20	W	G				2							
		AA800 1 EQUIP BLANK	1-6-00	16:00	W	G	3	2	1	2							
		AA800 2 TRIP BLANK	1-6-00	16:30	W	G	3										

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
Douglas Jones	IT/EMCON	1-6-00	15:00				
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O = _____

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other _____

Preservative Key
1 HCl, Cool to 4°
2 H2SO4, Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate, Cool to 4°
6 Cool to 4°
7 None

COMMENTS
COC #

16[illegible]8

Date Received / /
Courier. FedEx Hand Delivered
8103705707 20
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676 745

Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone 708-534-5200
Fax 708-534-5211

Report To:
Contact Will CARTER
Company IT/EMCON
Address 312 DIRECTORS DR
Knoxville, TN 37923
Phone 423-690-3211
Fax 865-690-3626
E-Mail

Bill To:
Contact Tim Roth
Company IT/EMCON
Address 312 DIRECTORS DR
Knoxville, TN 37923
Phone 423-690-3211
Fax 865-690-3626
PO# Quote

Shaded Areas For Internal Use Only of

Lab Lot #

Package Sealed Yes No	Samples Sealed Yes No
Received on Ice Yes No	Samples Intact Yes No
Temperature °C of Cooler	
Within Hold Time Yes No	Preserv. Indicated Yes No NA
pH Check ok Yes No NA	Res. Cl_2 Check ok Yes No NA
Sample Labels and COC Agree Yes No	COC not present

Sampler Name: DOUG JONES BRAD NIELSEN
Signature: Douglas Jones
Project Name: CARSWELL AFB
Project Number: 774902
Project Location: FT WORTH TX
Date Required: TAT 5 DAYS
Hard Copy: / /
Fax: / /
Lab PM: BOSCO RAMIREZ

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	APP IX VOC SW 8260B	APP IX SVOC SW 8270C	APP IX TOTAL METALS SW 6010B/ SW 7470A								Additional Analyses / Remarks
		AA3018	1-7-00	14:10	W	G	3	2	1								
		EQUIPMENT BLANK	1-7-00	16:50	W	G	3	2	1								
		TRIP BLANK	1-7-00	10:00	W	G	3										

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
Douglas Jones	IT EMCON	1-7-00	-17:00				

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O =

Container Key
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2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other

Preservative Key
1 HCl, Cool to 4°
2 H2SO4, Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate, Cool to 4°
6 Cool to 4°
7 None

COMMENTS
COC #
~~[illegible]~~ 160011

Date Received / /
Courier Fed ex Hand Delivered
810390570650
Bill of Lading

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Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone 708-534-5200
Fax 708-534-5211

Report To:
Contact: Will CARTER
Company: IT/EMCON
Address: 312 DIRECTORS DR
Knoxville, TN 37923
Phone: 423-690-3211
Fax: 865-690-3626
E-Mail:

Bill To:
Contact: Tim Roth
Company: IT/EMCON
Address: 312 DIRECTORS DR
Knoxville, TN 37923
Phone: 423-690-3211
Fax: 865-690-3626
PO#: Quote:

Shaded Areas For Internal Use Only ___ of

Lab Lot #

Package Sealed Yes No	Samples Sealed Yes No
Received on Ice Yes No	Samples Intact Yes No
Temperature °C of Cooler	
Within Hold Time Yes No	Preserv. Indicate Yes No N
pH Check ok Yes No NA	Res. Cl_2 Check Yes No N
Sample Labels and COC Agree Yes No COC not present	

Sampler Name: DOUG JONES
Signature: Douglas Jones
Project Name: CARSWELL AFB
Project Number: 774902
Project Location: FT WORTH, TX
Date Required: TAT 5 DAYS
Hard Copy: / /
Fax: / /
Lab PM: Rosco Ramirez

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	APP IX + VOC SW8260B	APP IX SVOC SW 8270C	APP IX ORG Phos-Pest SW 8141A	APP IX metals SW6010B SW7470A							Additional Analyses / Remarks
		AA3014	1-10-00	9:30			3	2		1							
		AA3015	1-10-00	10:20			3	2		1							
		AA3016	1-10-00	11:35			3	2		1							
		AA3017	1-10-00	14:40			3	2	2	1							
	X	AA3017 MS	1-10-00	14:40			3	2	2	1							
	X	AA3017 MSD	1-10-00	14:40			3	2	2	1							
		AA8005	1-10-00	14:30			3										
		AA8006	1-10-00	16:45			3	2	2	1							
		AA8007	1-10-00	8:00			3										

FYI
MR Roth
Ambient Blank
Equipment Blank
TRIP Blank

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
Douglas Jones	IT/EMON	1-10-00					
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O = _____

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other _____

Preservative Key
1 HCl, Cool to 4°
2 H2SO4, Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate, Cool to 4°
6 Cool to 4°
7 None

COMMENTS
* App IX VOCs + cis 1,2 DCE

COC #

Date Received / /
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Bill of Lading

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Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone 708-534-5200
Fax 708-534-5211

Report To:
Contact - Will CARTER
Company IT / EMCON
Address 312 DIRECTORS DR
Knoxville, TN 37923
Phone 423-690-3211
Fax 865-690-3626
E-Mail

Bill To:
Contact Tim Roth
Company IT / EMCON
Address 312 DIRECTORS DR
Knoxville, TN 37923
Phone 423-690-3211
Fax 865-690-3626
PO# Quote

Shaded Areas For Internal Use Only of

Lab Lot #

Package Sealed Yes No	Samples Sealed Yes No
Received on Ice Yes No	Samples Intact Yes No
Temperature °C of Cooler	
Within Hold Time Yes No	Preserv. indicated Yes No NA
pH Check ok Yes No NA	Res. Cl_2 Check ok Yes No NA
Sample Labels and COC Agree Yes No COC not present	

Sampler Name Doug Jones
Signature Doug Jones
Project Name CARSWELL AFB
Project Number 774902
Project Location FT WORTH, TX
Date Required TAT 5 days
Hard Copy / /
Fax / /
Lab PM Bosco Ramires

Refrg #
#/ Cont.
Volume
Preserv

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	APP IX VOC SW 8260B CIS 1,2, DCE	APP IX SVOC SW 8270C	APP IX ORG CHLO PEST SW 8081A	APP IX ORG PHOS PEST SW 8141A	APP IX METALS SW 6010B SW 7470A						Additional Analyses / Remarks
		AA 3006	1-11-00	9:15	W	G	3	2		2	1						
		AA 3007	1-11-00	10:15	W	G	3	2		2	1						
		AA 3010	1-11-00	11:50	W	G	3	2		2	1						
		AA 3003	1-11-00	15:35	W	G	3	2	2		1						
		AA 3004	1-11-00	1630	W	G	3	2	2		1						
		AA 8008	1-11-00	8:00	W	G	3										
		AA 8009	1-11-00	17:45	W	G	3	2	2	2	1						

FYI
Tim Roth

TRIP BLANK
EQUIPMENT BLANK

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
Doug Jones	IT/EMCON	1-11-00					
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O =

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other

Preservative Key
1 HCl, Cool to 4°
2 H2SO4 Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate, Cool to 4°
6 Cool to 4°
7 None

COMMENTS
COC#

Date Received / /
Courier Fed ex
Hand Delivered
Bill of Lading

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Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone 708-534-5200
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Contact WILL CARTER
Company IT / EMCON
Address 312 DIRECTORS DR
KNOXVILLE, TN 37923
Phone 423-690-3211
Fax 865-690-3626
E-Mail

Bill To:
Contact Tim Roth
Company IT / EMCON
Address 312 DIRECTORS DR
KNOXVILLE, TN 37923
Phone 423-690-3211
Fax 865-690-3626
PO# Quote

Shaded Areas For In[illegible] Use Only of

Lab Lot #

Package Sealed Yes No	Samples Sealed Yes No
Received on Ice Yes No	Samples Intact Yes No
Temperature °C of Cooler	
Within Hold Time Yes No	Preserv. Indicated Yes No N/
pH Check ok Yes No NA	Res. Cl_2 Check o: Yes No N/
Sample Labels and COC Agree Yes No COC not present	

Sampler Name: DOUG JONES
Signature: Doug Jones
Project Name: CARSWELL AFB
Project Number: 774902
Project Location: FT WORTH TX
Date Required: TAT 5 days
Hard Copy ___/___/___
Fax ___/___/___
Lab PM: BOSCO Ramirez

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	APP IX VOC SW 8260B	APP IX SVOC SW 8270C	APP IX ORG PHOS PEST SW 8141A	APP IX METALS SW 6010B SW 7470A							Additional Analyses / Remarks
Refrg #																	
#/ Cont																	
Volume																	
Preserv							*										
		AA 3013	1-12-00	8:40	W	G	3	2	2	1			TIM ROTH				
		AA 3005	1-12-00	10:05	W	G	3	2	2	1							
		AA 3012	1-12-00	11:45	W	G	3	2	2	1			FYI				
		AA 3011	1-12-00	14:45	W	G	3	2	2	1							
		AA 3009	1-12-00	15:~~00~~	W	G	3	2	2	1							
		AA 8013	1-12-00	16:45	W	G	3	2	2	1		EQUIPMENT BLANK					
		AA 8012	1-12-00	8:00	W	G	2						TRIP BLANK				

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
Doug Jones	IT/EMCON	1-12-00					
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O = _____

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other _____

Preservative Key
1 HCl, Cool to 4°
2 H2SO4, Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate, Cool to 4°
6 Cool to 4°
7 None

COMMENTS:
*APP IX VOC's + CIS 1,2, DCE

COC # 100615

Date Received ___/___/___
Courier Fed EX Hand Delivered
810790570570
Bill of Lading 580
617

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676 749

Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone 708-534-5200
Fax 708-534-5211

Report To.
Contact: Will CARTER
Company: IT / EMCON
Address: 312 DIRECTORS DR
Knoxville, TN 37923
Phone: 423-690-3211
Fax: 865-690-3626
E-Mail:

Bill To:
Contact: Tim Roth
Company: IT / EMCON
Address: 312 Directors DR.
Knoxville, TN 37923
Phone: 423-690-3211
Fax: 865-690-3626
PO#: Quote:

Shaded Areas For Internal Use Only ___ of

Lab Lot #

Package Sealed Yes No	Samples Sealed Yes No
Received on Ice Yes No	Samples Intact Yes No
Temperature °C of Cooler	
Within Hold Time Yes No	Preserv. Indicate Yes No N
pH Check ok Yes No NA	Res. Cl_2 Check o Yes No N
Sample Labels and COC Agree Yes No COC not present	

Sampler Name: DOUG JONES
Signature: Doug Jones
Project Name: CARSWELL AFB
Project Number: 774902
Project Location: FT WORTH TX
Date Required: TAT 5 days
Hard Copy: / /
Fax: / /
Lab PM: Rosco Ramirez

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	Refrg #	#/ Cont	Volume	Preserv *	App IX VOC SW 8260B	App IX SVOC SW 8270C	App IX ORG CHLOR PEST SW 8081A	App IX METALS SW 6010B SW 7470A	Additional Analyses / Remarks
		AA 3001	1-13-00	11:55	W	G					3	2	2	1	
		AA 3002	1-13-00	14:25	W	G					3	2	2	1	
		AA 8014	1-13-00	16:00	W	G					3	2	2	1	EQUIPMENT BLANK
		AA 8015	1-13-00	10:00	W	G					2				TRIP BLANK

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
Doug Jones	IT EMCON	1-13-00					
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O = ____

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other ____

Preservative Key
1 HCl, Cool to 4°
2 H2SO4, Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate, Cool to 4°
6 Cool to 4°
7 None

COMMENTS: * APP IX VOC's + CIS 1,2 DCE

CCC# 100616

Date Received / /
Courier: Fed Ex
Hand Delivered
Bill of Lading

676 750

Committed To *Your* Success

Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone 708-534-5200
Fax: 708-534-5211

Report To:
Contact
Company
Address
Phone
Fax
E-Mail

Bill To:
Contact
Company
Address
Phone
Fax
PO# Quote

Shaded Areas For Internal Use Only of

Lab Lot #

Package Sealed Yes No	Samples Sealed Yes No
Received on Ice Yes No	Samples Intact Yes No
Temperature °C of Cooler	
Within Hold Time Yes No	Preserv. indicated Yes No NA
pH Check ok Yes No NA	Res. Cl_2 Check ok Yes No NA
Sample Labels and COC Agree Yes No COC not present	

Sampler Name: J. Dale Holman
Signature: J. Dale Holman
Project Name:
Project Number:
Project Location:
Lab PM:
Date Required Hard Copy / / Fax / /

Refrg #
#/ Cont.
Volume
Preserv

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	VOC										Additional Analyses / Remarks
		LF05-DP059-5	4-26-00	1445	S	G	X										
		LF05-DP059-10	4-26-00	1449	S	G	X										
		LF05-DP059-15	4-26-00	1450	S	G	X										
		LF05-DP059-20	4-26-00	1515	S	G	X										
		LF05-DP059-25	4-26-00	1526	S	G	X										
		LF05-DP060-5	4-26-00	1600	S	G	X										
		LF05-DP060-10	4-26-00	1612	S	G	X										
		LF05-DP060-15	4-26-00	1625	S	G	X										
		LF05-DP060-20	4-26-00	1635	S	G	X										
		LF05-ER	4-26-00	1430	W		X										
		LF05-TB	4-26-00	1400	W		X										

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RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
J. Dale Holman	IT Corporation	4-26-00	1830	819 5411 256 931	Federal Express	4-26-00	1830
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O =

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other

Preservative Key
1 HCl, Cool to 4°
2 H2SO4 Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate, Cool to 4°
6 Cool to 4°
7 None

COMMENTS.

Date Received / /
Courier
Hand Delivered
Bill of Lading

STL Committed To *Your* Success 676 751

Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone 708-534-5200
Fax 708-534-5211

Contact [illegible]
Company [illegible]
Address [illegible]
Phone [illegible]
Fax [illegible]
E-Mail

Bill To
Contact [illegible]
Company [illegible]
Address [illegible]
Phone [illegible]
Fax [illegible]
PO# Quote

Shaded Areas For Internal Use Only

Lab Lot #

Package Sealed Yes No	Samples Sealed Yes No
Received on Ice Yes No	Samples Intact Yes No
Temperature °C of Cooler	
Within Hold Time Yes No	Preserv. Indicated Yes No NA
pH Check ok Yes No NA	Res. Cl_2 Check o Yes No NA
Sample Labels and COC Agree Yes No COC not present	

Sampler Name [illegible]
Signature [illegible]
Project Name [illegible]
Project Number [illegible]
Project Location [illegible]
Date Required Hard Copy ___/___/___ Fax ___/___/___
Lab PM

Refrg #																	
#/ Cont.																	
Volume																	
Preserv																	

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	[illegible]											Additional Analyses / Remarks
		WITCTA [illegible]	4/[illegible]	[illegible]	W	✓	✓											
		WITCTAC[illegible]	4/[illegible]	[illegible]	W	✓	✓											
		WITCTAC[illegible]	4/[illegible]	[illegible]	W	[illegible]	✓											
		WITCTA[illegible]	4/[illegible]	[illegible]	W	✓	✓											
		[illegible]/LEL5	4/[illegible]	[illegible]	W	✓	✓											
		TB-WET/LEL5	4/[illegible]	[illegible]	W	✓	✓											

Best Available Copy

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O = _____

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other _____

Preservative Key
1 HCl, Cool to 4°
2 H2SO4, Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate, Cool to 4°
6 Cool to 4°
7 None

COMMENTS
[illegible] TAT

Date Received ___/___/___
Courier
Hand Delivered ☐
Bill of Lading

Certes

Environmental Laboratories, L.L.C.
2209 Wisconsin Street, S[illegible] 200
Dallas, Texas 75229
972-620-7966 972-620-7963 Fax

Analysis(es) Requested

676 752

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Client Name	Phone No
Client Address	Fax No
Billing Address	City State Zip
Purchase Order No	To ensure proper billing, please reference quotation number
Project Manager	Site Location

Certes No.	Sample ID	Date	Time	Matrix[1]	No. & Type of Container[2] V	G	J	O	P[3]	VOC										
	WP07-DP01-SO	4-17-00	0910	S				X(1)		X										
	WP07-DP01-GW	4-17-00	1120	W	X(2)					X										
	WP07-DP06-SO	4-17-00	1135	S				X(1)		X										
	WP07-DP08-SO	4-17-00	1645	S				X(1)		X										
	WP07-ER	4-17-00	0800	W	(3)X															

Sampled By

1 Matrix: A - Air Bag, C - Charcoal Tube, L - Liquid, OL - Oil, S - Soil, SD - Solid, SL - Sludge, WP - Wipe; W - Water/Wastewater
2 Container Type: V - 40ml VOA Vial; G - Amber or Glass 1 Liter; J - 250ml Wide-mouth Glass Jar, O - Other:
3 Preservative. HCl - Hydrochloric Acid, HNO_2 - Nitric Acid; H_2SO_4 - Sulfuric Acid, O - Other.

TAT	Client Project ID	Special Instructions (including specific detection limits)	Certes Job Number
Standard Date Required			
RUSH Date Required 4/1/1			

Relinquished by Sampler	Date	Time	Received By R. [illegible]
Relinquished by	Date	Time	Received By
Relinquished by	Date	Time	Received By Laboratory

NOTE: By submitting these samples, you agree to the terms and conditions contained in Certes' Schedule of Fees. Certes cannot accept verbal changes Please FAX written changes to (972) 620-7963

Certes

Environmental Laboratories, L.L.C.
2209 Wisconsin Street, Suite 200
Dallas, Texas 75229
972-620-7966 972-620-7963 Fax

676 753

Analysis(es) Requested

Client Name

Phone No

Client Address

Fax No

Billing Address City State Zip

Purchase Order No

To ensure proper billing, please reference quotation number

Project Manager

Site Location

Certes No.	Sample ID	Date	Time	Matrix[1]	No. & Type of Container[2] V	G	J	O	P[3]	VOC
	WP07-DP04-50	4-18-00	1100	S				1		X
	WP07-DP12-50	4-18-00	1215	S				1		X
	WP07-DP13-50	4-18-00	1425	S				1		X
	WP07-DP14-50	4-18-00	1535	S				1		X
	WP07-DP05-50	4-18-00	1645	S				1		X
	WP07-DP10-50	4-18-00	1740	S				1		X
	WP07-ER	4-18-00	0815	W	3					X
	WP07-DP03-50	4-19-00	0930	S				1		X
	WP07-DP02-50	4-19-00	1030	S				1		X
	WP07-DP07-50	4-19-00	1345	S				1		X

Sampled By
J. Dale Holman

1 Matrix A - Air Bag, C - Charcoal Tube, L - Liquid, OL - Oil, S - Soil, SD - Solid, SL - Sludge, WP - Wipe, W - Water/Wastewa
2 Container Type. V - 40ml VOA Vial; G - Amber or Glass 1 Liter; J - 250ml Wide-mouth Glass Jar; O - Other_____
3 Preservative. HCl - Hydrochloric Acid, HNO_2 - Nitric Acid; H_2SO_4 - Sulfuric Acid, O - Other:_____

TAT
Standard Date Required _____
RUSH Date Required 24 hrs.

Client Project ID

Special Instructions (including specific detection limits)

Certes Job Number

Relinquished by Sampler	Date	Time	Received By
Relinquished by	Date	Time	Received By
Relinquished by	Date	Time	Received By Laboratory

NOTE: By submitting these samples, you agree to the terms and conditions contained in Certes' Schedule of Fees. Certes cannot accept verbal changes Please FAX written changes to (972) 620-7963

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Certes

Environmental Laboratories, L.L.C.
2209 Wisconsin Street, Suite 200
Dallas, Texas 75229
972-620-7966 972-620-7963 Fax

676 751

Analysis(es) Requested

Client Name: IT Corporation	Phone No: (423) 690-3211
Client Address: 312 Directors Drive	Fax No: (423) 690-3626
Billing Address: 312 Directors Drive	City: Knoxville State: TN Zip: 37923
Purchase Order No	To ensure proper billing, please reference quotation number
Project Manager	Site Location

Certes No.	Sample ID	Date	Time	Matrix[1]	No. & Type of Container[2] V	G	J	O	P[3]	VOC
	WP07-DP09-50	4-19-00	1525	S				1		X
	WP07-DP11-50	4-19-00	1620	S				1		X
	WP07-ER2	4-19-00	0820	[illegible]	3					X
	WP07-TB	[illegible]	[illegible]	[illegible]	3					X

Best Available Copy

Sampled By: J. Dale Hilton

1 Matrix: A - Air Bag, C - Charcoal Tube, L - Liquid, OL - Oil, S - Soil, SD - Solid, SL - Sludge, WP - Wipe, W - Water/Wastew
2 Container Type: V - 40ml VOA Vial; G - Amber or Glass 1 Liter; J - 250ml Wide-mouth Glass Jar, O - Other.
3 Preservative: HCl - Hydrochloric Acid, HNO_3 - Nitric Acid, H_2SO_4 - Sulfuric Acid, O - Other.

TAT	Client Project ID	Special Instructions (including specific detection limits)	Certes Job Number
Standard Date Required _____ RUSH Date Required 24 hrs			

Relinquished by Sampler: [signature]	Date: 4/19/00	Time	Received By
Relinquished by	Date	Time	Received By
Relinquished by	Date	Time	Received By Laboratory

NOTE: By submitting these samples, you agree to the terms and conditions contained in Certes' Schedule of Fees. Certes cannot accept verbal changes. Please FAX written changes to (972) 620-7963

676 755

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY REC RD*

Reference Document No. [illegible]
Page 1 of [illegible]

Project Name/No. 1 [illegible]
Sample Team Members 2 [illegible]
Profit Center No. 3
Project Manager 4 [illegible]
Purchase Order No 6
Required Report Date 11

Samples Shipment Date 7 6-14-00
Lab Destination 8 STL CHARLOTTE
Lab Contact 9 [illegible]
Project Contact/Phone 12 [illegible]
Carrier/Waybill No. 13 [illegible]

Bill to 5 [illegible]
Report to 10 [illegible]

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-servative 19	Requested Testing Program 20	Condition on Receipt 21	Disposal Record No. 22
[illegible]	[illegible]	6-14-00 14:30	[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	6-14-00 11:29	[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	6-14-00 11:10	[illegible]	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		
[illegible]	[illegible]	6-14-00 11:40				[illegible]		
[illegible]		6-14-00 10:25				[illegible]		
[illegible]		6-14-00 [illegible]				[illegible]		
[illegible]		6-14-00 10:00				[illegible]		

Best Available Copy

Special Instructions: 23

Possible Hazard Identification: 24
Non-hazard ☑ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal: 25
Return to Client ☐ Disposal by Lab ☐ Archive [illegible] (mos.)

Turnaround Time Required: 26
Normal ☐ Rush ☑ [illegible]

QC Level: 27
I. ☐ II. ☐ III ☐ Project Specific (specify)

1. Relinquished by 28 (Signature/Affiliation) [illegible] Date: 6-14-00 Time:	1. Received by 28 (Signature/Affiliation) Date: Time:
2. Relinquished by (Signature/Affiliation) Date: Time:	2. Received by (Signature/Affiliation) Date: Time:
3. Relinquished by (Signature/Affiliation) Date: Time:	3. Received by (Signature/Affiliation) Date: Time:

Comments: 29

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions

676 756

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[50] _____

Page 2 of 2

Project Name [illegible]

Project No [illegible]

Samples Shipment Date [illegible]

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
[illegible]	[illegible]	6-14-00 10:00	[illegible]	[illegible]	ICE	Pb SW 6010 B		
[illegible]	↑	6-14-00 10:00	↑	↑	↑	Pb SW 6010 B	[illegible]	[illegible]
[illegible]		6-14-00 [illegible]				Pb SW 6010 B	[illegible]	[illegible]
[illegible]		6-14-00 13:45				Pb SW 6010 B	[illegible]	[illegible]
[illegible]		6-14-00 [illegible]				Pb SW 6010 B	[illegible]	[illegible]
[illegible]		6-14-00 11:00				Pb SW 6010 B		
[illegible]		6-14-00 11:05				Pb SW 6010 B	[illegible]	[illegible]
[illegible]		6-14-00 11:05				Pb SW 6010 B	[illegible]	[illegible]
[illegible]		6-14-00 [illegible]				Ba SW 6010 B		
[illegible]		6-14-00 14:00				Ba SW 6010 B	[illegible]	[illegible]
[illegible]		6-14-00 13:40				Pb SW 6010 B		
[illegible]		6-14-00 13:45				Be SW 6010 B	[illegible]	[illegible]
[illegible]		6-14-00 [illegible]				Pb SW 6010 B	[illegible]	[illegible]
[illegible]		6-14-00 13:15				Be SW 6010 B	[illegible]	[illegible]
[illegible]	↓	6-14-00 13:15	↓	↓	↓	Be SW 6010 B	[illegible]	[illegible]
[illegible]	H_2O	6-14-00 [illegible]	PL 500 ml	500 ml	HNO_3	Aluminum, Ba Be, Cr, Pb, Cd, Se SW6010B/SW1312	[illegible]	[illegible]

COPY

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IT CORPORATION
A Member of The IT Group

676 757

Sample Collection Log

Project: 774902 **Carswell AFB**

Manager: Mr. Will Carter

RFA / COC Number 472043

Site: LF04, LF05, LF08 & Waste Pile 7

Location Code: BHGLTA815

Sample Number: AA0148

Sample Name: BHGLTA815-SS-AA0148-REG

Sampling Method: G

Collection Date: 5-14-00

Collection Time: 9:30

Start Depth: 0'

End Depth: 2'

Sample Team: D. JONES

QC Partners

Trip Blank

Rinsate

Field Blank

ERPIMS Values:

Sacode:

Lot Control#:

Sample Matrix: SOIL

Containers

Analytical Suite	Flt	Frtn	Qty	Size	Units	Type
BECR	N	A	1	8	oz	CWM
SPLP-BECR	N	A	1	8	oz	CWM

Comments:

Sketch Location:

DC AA8037

Logged By / Date:

Reviewed By / Date:

INTERNATIONAL TECHNOLOGY CORPORATION

676 758

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. [illegible]
Page 1 of [illegible]

Project Name/No. 1 [illegible]
Sample Team Members 2 [illegible]
Profit Center No. 3
Project Manager 4 [illegible]
Purchase Order No 6
Required Report Date 11

Samples Shipment Date 7 [illegible]
Lab Destination 8 [illegible]
Lab Contact 9 Eric Long
Project Contact/Phone 12 Tim Roth 916 690-[illegible]
Carrier/Waybill No. 13 [illegible]

Bill to 5 [illegible]
Report to 10 [illegible]

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-servative 19	Requested Testing Program 20	Condition on Receipt 21	Disposal Record No. 22
[illegible]	Soil	6-15-00 9:05	Jar	8 oz	ICE	Cr, SW6010B SPLP Cr, SW1312/[illegible]	[illegible]	
[illegible]	↑	6-15-00 9:15	2 Jars	16 oz	ICE	PAH SW3510C SPLP Cd, Pb, Cr, SW6010B	PAH SW1312/[illegible] SPLP Cd Pb [illegible]	
[illegible]		6-15-00 9:16	2 Jars	16 oz	↑	same as above		
[illegible]		6-15-00 9:16	2 Jars	16 oz		same as above		
[illegible]		6-15-00 10:15	2 Jars	16 oz		PAH SW3510C SPLP Ba, SW6010B SPLP Ba SW1312/[illegible]		
[illegible]		6-15-00 9:25	Jar	8 oz		Ag, Cd, Pb, Ni SW6010B		
[illegible]	↓	6-15-00 9:30	Jar	8 oz	↓	Ba, Be, Cr, Pb, Zn, SW6010B		
[illegible]	Soil	6-15-00 12:20	Jar	8 oz	ICE	Pb, Zn, SW6010B		

Best Available Copy

Special Instructions: 23

Possible Hazard Identification: 24
Non-hazard ☒ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal: 25
Return to Client ☐ Disposal by Lab ☐ Archive [illegible] (mos)

Turnaround Time Required: 26
Normal ☐ Rush ☒ 3 days

QC Level: 27
I ☐ II ☐ III ☐ Project Specific (specify) Level [illegible]

1. Relinquished by 28 (Signature/Affiliation) [illegible]	Date: 6-15-00 Time:	1. Received by 28 (Signature/Affiliation)	Date: Time:
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: 29

White: To accompany samples
Yellow: Field copy
*See back of form for special ins

MCA 3/15/9

INTERNATIONAL TECHNOLOGY CORPORATION

676 759

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No [30] _____
Page 2 of 2

Project Name [illegible] Project No. [illegible] Samples Shipment Date [illegible]

ONE CONTAINER PER LINE

Sample [14] Number	Sample [15] Description/Type	Date/Time [16] Collected	Container [17] Type	Sample [18] Volume	Pre-[19] servative	Requested Testing [20] Program	Condition on [21] Receipt	Disposal [22] Record No.
[illegible]	SOIL	6-15-00 12:35	SLEEVE	8 oz	ICE	TCLP SW 8260B		
[illegible]	[illegible]	6-15-00 [illegible]	JAR	8 oz	[illegible]	Pb, Zn [illegible]		
[illegible]		6-15-00 10:40	SLEEVE	8 oz		TCLP [illegible]		
[illegible]		6-15-00 9:25	JAR	8 oz		Pb, Zn [illegible]		
[illegible]		6-15-00 9:05	JAR	8 oz		Pb, Zn [illegible]		
[illegible]		6-15-00 9:15	JAR	8 oz		Pb, Zn, SW [illegible]		
[illegible]		6-15-00 13:30	JAR			Pb, Zn SW [illegible]		
[illegible]		6-15-00 15:3[illegible]	JAR			Pb, Zn SW [illegible]		
[illegible]		6-15-00 13:[illegible]	JAR			[illegible] SW [illegible]		
[illegible]		[illegible] 3:00	JAR			Zn SW [illegible]		
[illegible]		6-15-00 12:00	JAR			Pb, Zn SW [illegible]		
[illegible]		6-15-00 2:45	JAR			Pb Zn SW [illegible]		
[illegible]		6-15-00 12:45	JAR			Pb, Zn, SW [illegible]		
[illegible]		6-15-00 10:20	JAR			Pb, Zn SW [illegible]		
[illegible]		6-15-00 10:25	JAR			Pb, Zn SW [illegible]		
[illegible]		6-15-00 10:27	JAR			Bis(2-ethylhexyl) phthalate SW [illegible]	[illegible]	
[illegible]		6-15-00 10:27	JAR			Bis 2-ethylhexyl phthalate [illegible]	[illegible]	
[illegible]		6-15-00 6:30	JAR			Bis 2-ethylhexyl phthalate [illegible]		
[illegible]		6-15-00 6:32	JAR			Bis 2-ethylhexyl phthalate SW [illegible]		
[illegible]	SOIL	6-15-00 12:00	JAR		ICE	Pb, SW [illegible]		

COPY

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White: To accompany samples Yellow: Field copy *See back of form for special instructions

Sep. 6. 2000 3:29PM No. 0822 P. 3/16

MCA 3/ 5 91

Sep. 6. 2000 3:30PM No. 0822 P. 4/10

IT INTERNATIONAL TECHNOLOGY CORPORATION

676 760

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30]

Page 3 of 3

Samples Shipment Date [illegible]

Project Name [illegible]

Project No. 774902

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
[illegible]	[illegible]	6-15-00 11:10	Sleeve	8 oz	ICE	VOC SW 8260B		
[illegible]	[illegible]	6-15-00 11:30	Sleeve	8 oz	ICE	VOC SW 8260B		
[illegible]	Soil	6-15-00 11:20	Sleeve	8 oz	ICE	VOC SW 8260B		
[illegible]	[illegible]	6-15-00 11:20	Sleeve	8 oz	ICE	VOC SW 8260B		
[illegible]	H_2O	6-15-00 09:30	VOA	40 ml	HCl	VOC SW 8260B		
[illegible]	H_2O	6-15-00 09:30	Pb	500 ml	HNO_3	Metals SW 6010B Pb, Be, Cd, Cr, Zn, Hg, Ag		
[illegible]	H_2O	6-15-00 09:30	Amb 2	1 L	ICE	PAH SW 8310		
[illegible]	H_2O	6-15-00 09:30	VOA	40 ml	HCl	VOC SW 8260		

COPY

Rest Available Copy

White To accompany samples Yellow Field copy

*See back of form for special instructions

MCA 5 1591

676 761

TAB

APPENDIX F

APPENDIX F

CHRONOLOGY OF LABORATORY ANALYSES

676 763

Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	A2540G	D2216	E160.3	SM2540	SW6010	SW7041	SW7191	SW7421	SW7470	SW7471
LF04	SO	THGLTA001	00 ft	21-Aug-97	N1	B7H250117004	1			26-Aug-97		29-Aug-97					28-Aug-97
LF04	SO	THGLTA001	08 ft	27-Aug-97	N1	B7H280161001	1			02-Sep-97		10-Sep-97					02-Sep-97
LF04	SO	THGLTA002	00 ft	21-Aug-97	N1	B7H250117003	1			26-Aug-97		29-Aug-97					28-Aug-97
LF04	SO	THGLTA002	00 ft	21-Aug-97	FD1	B7H250117005	1			26-Aug-97		29-Aug-97					28-Aug-97
LF04	SO	THGLTA002	12 5 ft	02-Sep-97	N1	0568700005SA	1		13-Sep-97								
LF04	SO	THGLTA002	12 5 ft	02-Sep-97	N1	B7I040101005	1			04-Sep-97		11-Sep-97					09-Sep-97
LF04	SO	THGLTA003	00 ft	21-Aug-97	N1	B7H250117002	1			26-Aug-97		29-Aug-97					28-Aug-97
LF04	SO	THGLTA003	13 ft	03-Sep-97	N1	0568710006SA	1		20-Sep-97								
LF04	SO	THGLTA003	13 ft	03-Sep-97	N1	B7I040138011	1			05-Sep-97		11-Sep-97					09-Sep-97
LF04	SO	THGLTA004	00 ft	21-Aug-97	N1	B7H250117006	1			26-Aug-97		29-Aug-97					28-Aug-97
LF04	SO	THGLTA004	12 5 ft	03-Sep-97	N1	0568710007SA	1		20-Sep-97								
LF04	SO	THGLTA004	12 5 ft	03-Sep-97	N1	B7I040138012	1			05-Sep-97		11-Sep-97					09-Sep-97
LF04	SO	THGLTA005	00 ft	22-Aug-97	N1	B7H250123001	1			26-Aug-97		29-Aug-97					28-Aug-97
LF04	SO	THGLTA005	09 5 ft	03-Sep-97	N1	0568710008SA	1		20-Sep-97								
LF04	SO	THGLTA005	09 5 ft	03-Sep-97	N1	B7I040138013	1			05-Sep-97		11-Sep-97					09-Sep-97
LF04	SO	THGLTA006	00 ft	22-Aug-97	N1	B7H250123002	1			26-Aug-97		29-Aug-97					28-Aug-97
LF04	SO	THGLTA006	12 ft	04-Sep-97	N1	0568760003SA	1		16-Sep-97								
LF04	SO	THGLTA006	12 ft	04-Sep-97	N1	B7I060129003	1			09-Sep-97		11-Sep-97					09-Sep-97
LF04	SO	THGLTA007	00 ft	22-Aug-97	N1	B7H250123003	1			26-Aug-97		29-Aug-97					28-Aug-97
LF04	SO	THGLTA007	05 ft	04-Sep-97	N1	0568760002SA	1		16-Sep-97								
LF04	SO	THGLTA007	05 ft	04-Sep-97	N1	B7I060129002	1			09-Sep-97		11-Sep-97					09-Sep-97
LF04	SO	THGLTA007	05 ft	04-Sep-97	FD1	0568760005FD	1		16-Sep-97								
LF04	SO	THGLTA007	05 ft	04-Sep-97	FD1	B7I060129004	1			09-Sep-97		11-Sep-97					09-Sep-97
LF04	SO	THGLTA008	00 ft	22-Aug-97	N1	B7H250123006	1			26-Aug-97		29-Aug-97					28-Aug-97
LF04	SO	THGLTA008	05 ft	04-Sep-97	N1	0568760001SA	1		16-Sep-97								
LF04	SO	THGLTA008	05 ft	04-Sep-97	N1	B7I060129001	1			09-Sep-97		11-Sep-97					09-Sep-97
LF04	SO	THGLTA009	00 ft	25-Aug-97	N1	B7H270104001	1			28-Aug-97		10-Sep-97					02-Sep-97
LF04	SO	THGLTA009	12 5 ft	05-Sep-97	N1	0568980001SA	1		20-Sep-97								
LF04	SO	THGLTA009	12.5 ft	05-Sep-97	N1	B7I060135001	1			09-Sep-97		11-Sep-97					09-Sep-97
LF04	SO	THGLTA010	00 ft	25-Aug-97	N1	B7H270104002	1			28-Aug-97		10-Sep-97					02-Sep-97
LF04	SO	THGLTA010	11 ft	05-Sep-97	N1	0568980002SA	1		20-Sep-97								
LF04	SO	THGLTA010	11 ft	05-Sep-97	N1	B7I060135002	1			09-Sep-97		11-Sep-97					09-Sep-97
LF04	SO	BHGLTA401	00 ft	21-May-98	N	9805G791-010	1		27-May-98			10-Jun-98					05-Jun-98
LF04	SO	BHGLTA401	05 ft	21-May-98	N	9805G791-011	1		27-May-98			10-Jun-98					05-Jun-98
LF04	SO	BHGLTA401	10 ft	21-May-98	N	9805G791-012	1		27-May-98			10-Jun-98					05-Jun-98
LF04	SO	BHGLTA401	15 ft	21-May-98	N	9805G791-013	1		27-May-98			10-Jun-98					05-Jun-98
LF04	SO	BHGLTA402	00 ft	26-May-98	N	9805G833-013	1		01-Jun-98			10-Jun-98					11-Jun-98
LF04	SO	BHGLTA402	05 ft	26-May-98	N	9805G833-010	1		01-Jun-98			10-Jun-98					11-Jun-98
LF04	SO	BHGLTA402	10 ft	26-May-98	N	9805G833-011	1		01-Jun-98			10-Jun-98					11-Jun-98
LF04	SO	BHGLTA402	15 ft	26-May-98	N	9805G833-012	1		01-Jun-98			10-Jun-98					11-Jun-98
LF04	SO	BHGLTA403	05 ft	20-May-98	N	9805G744-017	1		26-May-98			27-May-98					05-Jun-98
LF04	SO	BHGLTA403	20 ft	03-Jun-98	N	9806G980-013	1				07-Jun-98	20-Jun-98					19-Jun-98
LF04	SO	BHGLTA403	25 ft	03-Jun-98	N	9806G980-014	1				07-Jun-98	19-Jun-98					19-Jun-98
LF04	SO	BHGLTA404	00 ft	20-May-98	N	9805G744-012	1		26-May-98			27-May-98					05-Jun-98
LF04	SO	BHGLTA404	05 ft	20-May-98	N	9805G744-013	1		26-May-98			27-May-98					05-Jun-98
LF04	SO	BHGLTA404	10 ft	20-May-98	N	9805G744-014	1		26-May-98			27-May-98					05-Jun-98
LF04	SO	BHGLTA404	15 ft	20-May-98	N	9805G744-015	1		26-May-98			27-May-98					05-Jun-98
LF04	SO	BHGLTA404	20 ft	20-May-98	N	9805G744-016	1		26-May-98			27-May-98					05-Jun-98

Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	A2540G	D2216	E160_3	SM2540	SW6010	SW7041	SW7191	SW7421	SW7470	SW7471
LF04	SO	BHGLTA405	00 ft	21-May-98	N	9805G791-014	1		27-May-98			10-Jun-98					05-Jun-98
LF04	SO	BHGLTA405	05 ft	21-May-98	N	9805G791-015	1		27-May-98			10-Jun-98					05-Jun-98
LF04	SO	BHGLTA405	10 ft	21-May-98	N	9805G791-016	1		27-May-98			10-Jun-98					05-Jun-98
LF04	SO	BHGLTA405	15 ft	21-May-98	N	9805G791-017	1		27-May-98			11-Jun-98					05-Jun-98
LF04	SO	BHGLTA405	20 ft	21-May-98	N	9805G791-018	1		27-May-98			11-Jun-98					05-Jun-98
LF04	SO	BHGLTA405	25 ft	04-Jun-98	N	9806G031-003	1				09-Jun-98	19-Jun-98					19-Jun-98
LF04	SO	BHGLTA406	00 ft	21-May-98	N	9805G791-019	1		27-May-98			11-Jun-98					05-Jun-98
LF04	SO	BHGLTA406	00 ft	21-May-98	FD	9805G791-020	1		27-May-98			11-Jun-98					05-Jun-98
LF04	SO	BHGLTA406	05 ft	22-May-98	N	9805G833-001	1		27-May-98			11-Jun-98					11-Jun-98
LF04	SO	BHGLTA406	10 ft	22-May-98	N	9805G833-002	1		27-May-98			10-Jun-98					11-Jun-98
LF04	SO	BHGLTA406	15 ft	22-May-98	N	9805G833-003	1		27-May-98			10-Jun-98					11-Jun-98
LF04	SO	BHGLTA406	20 ft	22-May-98	N	9805G833-004	1		27-May-98			10-Jun-98					11-Jun-98
LF04	SO	BHGLTA406	25 ft	22-May-98	N	9805G833-005	1		27-May-98			10-Jun-98					11-Jun-98
LF04	SO	BHGLTA407	00 ft	07-Oct-99	N	9911G906-009	1				06-Dec-99				07-Dec-99		
LF04	SO	BHGLTA407	05 ft	05-Oct-99	N	9910G245-005	1				12-Oct-99						
LF04	SO	BHGLTA407	05 ft	05-Oct-99	FD	9910G245-004	1				12-Oct-99						
LF04	SO	BHGLTA407	10 ft	05-Oct-99	N	9910G245-003	1				12-Oct-99						
LF04	SO	BHGLTA407	15 ft	05-Oct-99	N	9910G245-002	1				12-Oct-99						
LF04	SO	BHGLTA407	20 ft	05-Oct-99	N	9910G245-001	1				12-Oct-99						
LF04	SO	BHGLTA408	00 ft	04-Oct-99	N	9910G245-009	1				18-Oct-99						
LF04	SO	BHGLTA408	00 ft	04-Oct-99	N	9910G245-009	2										
LF04	SO	BHGLTA408	00 ft	04-Oct-99	N	9910G245-009	3										
LF04	SO	BHGLTA408	00 ft	04-Oct-99	N	9910G245-009	4										
LF04	SO	BHGLTA408	00 ft	04-Oct-99	FD	9910G245-010	1				18-Oct-99						
LF04	SO	BHGLTA408	00 ft	04-Oct-99	FD	9910G245-010	2										
LF04	SO	BHGLTA408	00 ft	04-Oct-99	FD	9910G245-010	3										
LF04	SO	BHGLTA408	00 ft	04-Oct-99	FD	9910G245-010	4										
LF04	SO	BHGLTA403	05 ft	05-Jan-00	N	9A01G513-007	1		07-Jan-00								
LF04	SO	BHGLTA406	00 ft	04-Jan-00	N	9A01G449-005	1		07-Jan-00			11-Jan-00					
LF04	SO	BHGLTA406	05 ft	05-Jan-00	N	9A01G513-011	1		07-Jan-00								
LF04	SO	BHGLTA406	10 ft	05-Jan-00	N	9A01G513-017	1		07-Jan-00								
LF04	SO	BHGLTA406	16 ft	05-Jan-00	N	9A01G513-013	1		07-Jan-00								
LF04	SO	BHGLTA406	21 ft	05-Jan-00	N	9A01G513-001	1		07-Jan-00								
LF04	SO	BHGLTA406	21 ft	05-Jan-00	N	9A01G513-001	2										
LF04	SO	BHGLTA407	05 ft	15-Jun-00	N	9A06G782-023	1	19-Jun-00							19-Jun-00		
LF04	SO	BHGLTA408	00 ft	04-Jan-00	N	9A01G449-017	1		07-Jan-00								
LF04	SO	BHGLTA408	00 ft	04-Jan-00	N	9A01G449-017	2										
LF04	SO	BHGLTA408	03 ft	04-Jan-00	N	9A01G449-011	1		07-Jan-00								
LF04	SO	BHGLTA408	05 ft	01-Mar-00	N	9A03G146-003	1										
LF04	SO	BHGLTA408	05 ft	01-Mar-00	FD	9A03G146-004	1										
LF04	SO	BHGLTA408	05 ft	01-Mar-00	FD	9A03G146-004	2										
LF04	SO	BHGLTA409	00 ft	04-Jan-00	N	9A01G449-001	1		07-Jan-00								
LF04	SO	BHGLTA409	00 ft	04-Jan-00	N	9A01G449-001	2										
LF04	SO	BHGLTA409	00 ft	04-Jan-00	N	9A01G449-001	3										
LF04	SO	BHGLTA409	03 ft	04-Jan-00	N	9A01G449-015	1		07-Jan-00								
LF04	SO	BHGLTA409	05 ft	01-Mar-00	N	9A03G146-005	1										
LF04	SO	BHGLTA410	00 ft	10-Mar-00	N	9A03G273-005	1		14-Mar-00								
LF04	SO	BHGLTA410	05 ft	10-Mar-00	N	9A03G273-006	1		14-Mar-00								

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Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	A2540G	D2216	E160_3	SM2540	SW6010	SW7041	SW7191	SW7421	SW7470	SW7471
LF04	SO	BHGLTA411	00 ft	10-Mar-00	N	9A03G273-007	1		14-Mar-00								
LF04	SO	BHGLTA411	05 ft	10-Mar-00	N	9A03G273-008	1		14-Mar-00								
LF04	SO	BHGLTA412	00 ft	10-Mar-00	N	9A03G273-009	1		14-Mar-00								
LF04	SO	BHGLTA412	05 ft	10-Mar-00	N	9A03G273-010	1		14-Mar-00								
LF04	SO	THGLTA002	00 ft	04-Jan-00	N	9A01G449-021	1		07-Jan-00								
LF04	SO	THGLTA003	00 ft	04-Jan-00	N	9A01G449-009	1		07-Jan-00								
LF04	SO	THGLTA003	13 ft	05-Jan-00	N	9A01G513-005	1		07-Jan-00			11-Jan-00					
LF04	SO	THGLTA003	13 ft	05-Jan-00	FD	9A01G513-003	1		07-Jan-00			11-Jan-00					
LF04	SO	THGLTA008	00 ft	04-Jan-00	N	9A01G449-007	1		07-Jan-00						07-Jan-00		
LF04	SPLP	BHGLTA407	NA	07-Oct-99	N	9912G245-010	1										
LF04	SPLP	BHGLTA403	NA	05-Jan-00	N	9A01G513-008	1					11-Jan-00					
LF04	SPLP	BHGLTA406	NA	04-Jan-00	N	9A01G449-006	1										
LF04	SPLP	BHGLTA406	NA	05-Jan-00	N	9A01G513-012	1										
LF04	SPLP	BHGLTA406	NA	05-Jan-00	N	9A01G513-018	1										
LF04	SPLP	BHGLTA406	NA	05-Jan-00	N	9A01G513-014	1										
LF04	SPLP	BHGLTA406	NA	05-Jan-00	N	9A01G513-002	1										
LF04	SPLP	BHGLTA408	NA	04-Jan-00	N	9A01G449-018	1										
LF04	SPLP	BHGLTA408	NA	04-Jan-00	N	9A01G449-012	1										
LF04	SPLP	BHGLTA409	NA	04-Jan-00	N	9A01G449-002	1										
LF04	SPLP	BHGLTA409	NA	04-Jan-00	N	9A01G449-016	1										
LF04	SPLP	THGLTA002	NA	04-Jan-00	N	9A01G449-022	1										
LF04	SPLP	THGLTA003	NA	04-Jan-00	N	9A01G449-010	1					11-Jan-00					
LF04	SPLP	THGLTA003	NA	05-Jan-00	N	9A01G513-006	1					11-Jan-00					
LF04	SPLP	THGLTA003	NA	05-Jan-00	FD	9A01G513-004	1										
LF04	SPLP	THGLTA008	NA	04-Jan-00	N	9A01G449-008	1										
LF04	WG	LF04-04	NA	08-Sep-97	N1	0569030005SA	1					12-Sep-97				11-Sep-97	
LF04	WG	LF04-04	NA	08-Sep-97	N1	B7I090113005	1										
LF04	WG	LF04-04	NA	08-Sep-97	FD1	0569030004FD	1					12-Sep-97				11-Sep-97	
LF04	WG	LF04-04	NA	08-Sep-97	FD1	B7I090113004	1										
LF04	WG	LF04-4B	NA	08-Sep-97	N1	0569030003SA	1					12-Sep-97				11-Sep-97	
LF04	WG	LF04-4B	NA	08-Sep-97	N1	B7I090113003	1					24-Oct-99		26-Oct-99	22-Oct-99	18-Oct-99	
LF04	WG	LF04-4D	NA	14-Oct-99	N	9910G388-002	1										
LF04	WG	LF04-4D	NA	14-Oct-99	N	9910G388-002	2					24-Oct-99		26-Oct-99	22-Oct-99	18-Oct-99	
LF04	WG	LF04-4D	NA	14-Oct-99	FD	9910G388-003	1										
LF04	WG	LF04-4D	NA	14-Oct-99	FD	9910G388-003	2										
LF04	WG	FT09-12D	NA	06-Mar-00	N	9A03G192-001	1					17-Jan-00	18-Jan-00	17-Jan-00	14-Jan-00	13-Jan-00	
LF04	WG	FT09-12E	NA	11-Jan-00	N	9A01G578-011	1					17-Jan-00	18-Jan-00	17-Jan-00	14-Jan-00	13-Jan-00	
LF04	WG	FT09-12E	NA	11-Jan-00	FD	9A01G578-012	1					19-Jan-00	20-Jan-00	17-Jan-00	17-Jan-00	17-Jan-00	
LF04	WG	LF04-04	NA	13-Jan-00	N	9A01G611-008	1										
LF04	WG	LF04-04	NA	13-Jan-00	N	9A01G611-008	2										
LF04	WG	LF04-10	NA	29-Feb-00	N	9A03G127-001	1					19-Jan-00	20-Jan-00	17-Jan-00	17-Jan-00	17-Jan-00	
LF04	WG	LF04-4D	NA	13-Jan-00	N	9A01G611-009	1										
LF04	WG	LF04-4D	NA	13-Jan-00	N	9A01G611-009	2										
LF04	WG	LF04-4F	NA	06-Mar-00	N	9A03G192-005	1										
LF04	WG	LF04-4F	NA	06-Mar-00	N	9A03G284-020	1										
LF04	WG	LF04-4F	NA	06-Mar-00	FD	9A03G192-006	1										
LF04	WG	LF04-4F	NA	06-Mar-00	FD	9A03G284-021	1										
LF05	SO	THGLTA011	00 ft	25-Aug-97	N1	B7H270104003	1			28-Aug-97		10-Sep-97					02-Sep-97

Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	A2540G	D2216	E160_3	SM2540	SW6010	SW7041	SW7191	SW7421	SW7470	SW7471
LF05	SO	THGLTA012	00 ft	25-Aug-97	N1	B7H270104004	1			28-Aug-97		10-Sep-97					02-Sep-9
LF05	SO	THGLTA012	00 ft	25-Aug-97	FD1	B7H270104005	1			28-Aug-97		10-Sep-97					02-Sep-9
LF05	SO	THGLTA013	00 ft	25-Aug-97	N1	B7H270104008	1			28-Aug-97		10-Sep-97					02-Sep-9
LF05	SO	THGLTA013	15 ft	09-Sep-97	N1	0569030006SA	1		16-Sep-97								
LF05	SO	THGLTA013	15 ft	09-Sep-97	N1	B7I100121001	1			10-Sep-97		17-Sep-97					12-Sep-9
LF05	SO	THGLTA014	00 ft	25-Aug-97	N1	B7H270104009	1			28-Aug-97		10-Sep-97					02-Sep-9
LF05	SO	THGLTA015	00 ft	25-Aug-97	N1	B7H270104010	1			28-Aug-97		10-Sep-97					02-Sep-97
LF05	SO	THGLTA016	00 ft	25-Aug-97	N1	B7H270104011	1			28-Aug-97		10-Sep-97					02-Sep-97
LF05	SO	THGLTA017	00 ft	25-Aug-97	N1	B7H270104012	1			28-Aug-97		10-Sep-97					02-Sep-97
LF05	SO	THGLTA017	12 ft	08-Sep-97	N1	0569030001SA	1		16-Sep-97								
LF05	SO	THGLTA017	12 ft	08-Sep-97	N1	B7I090113001	1			10-Sep-97		17-Sep-97					12-Sep-97
LF05	SO	THGLTA018	00 ft	02-Sep-97	N1	0568700003SA	1		13-Sep-97								
LF05	SO	THGLTA018	00 ft	02-Sep-97	N1	B7I040101003	1			04-Sep-97		11-Sep-97					09-Sep-97
LF05	SO	THGLTA019	00 ft	02-Sep-97	N1	0568700002SA	1		13-Sep-97								
LF05	SO	THGLTA019	00 ft	02-Sep-97	N1	B7I040101002	1			04-Sep-97		11-Sep-97					09-Sep-97
LF05	SO	THGLTA019	10 5 ft	09-Sep-97	N1	0569030007SA	1		16-Sep-97								
LF05	SO	THGLTA019	10 5 ft	09-Sep-97	N1	B7I100121002	1			10-Sep-97		17-Sep-97					12-Sep-97
LF05	SO	THGLTA020	00 ft	02-Sep-97	N1	0568700001SA	1		13-Sep-97								
LF05	SO	THGLTA020	00 ft	02-Sep-97	N1	B7I040101001	1			04-Sep-97		11-Sep-97					09-Sep-97
LF05	SO	THGLTA020	00 ft	02-Sep-97	FD1	0568700004FD	1		13-Sep-97								
LF05	SO	THGLTA020	00 ft	02-Sep-97	FD1	B7I040101004	1			04-Sep-97		11-Sep-97					09-Sep-97
LF05	SO	THGLTA020	13 ft	09-Sep-97	N1	0569030008SA	1		16-Sep-97								
LF05	SO	THGLTA020	13 ft	09-Sep-97	N1	B7I100121003	1			10-Sep-97		17-Sep-97					12-Sep-97
LF05	SO	BHGLTA504	00 ft	14-May-98	N	9805G688-004	1		21-May-98			27-May-98					18-May-98
LF05	SO	BHGLTA504	05 ft	14-May-98	N	9805G688-005	1		21-May-98			27-May-98					18-May-98
LF05	SO	BHGLTA505	00 ft	14-May-98	N	9805G688-007	1		21-May-98			27-May-98					29-May-98
LF05	SO	BHGLTA505	05 ft	18-May-98	N	9805G744-001	1		26-May-98			27-May-98					29-May-98
LF05	SO	BHGLTA505	10 ft	18-May-98	N	9805G744-002	1		26-May-98			27-May-98					29-May-98
LF05	SO	BHGLTA505	15 ft	18-May-98	N	9805G744-003	1		26-May-98			27-May-98					29-May-98
LF05	SO	BHGLTA505	20 ft	18-May-98	N	9805G744-004	1		26-May-98			27-May-98					29-May-98
LF05	SO	BHGLTA506	00 ft	13-May-98	N	9805G655-008	1		20-May-98			27-May-98					18-May-98
LF05	SO	BHGLTA506	00 ft	13-May-98	N	9805G655-008	2										
LF05	SO	BHGLTA506	05 ft	13-May-98	N	9805G655-009	1		20-May-98			27-May-98					18-May-98
LF05	SO	BHGLTA506	05 ft	13-May-98	N	9805G655-009	2										
LF05	SO	BHGLTA506	05 ft	13-May-98	FD	9805G655-017	1		20-May-98			27-May-98					18-May-98
LF05	SO	BHGLTA506	05 ft	13-May-98	FD	9805G655-017	2										
LF05	SO	BHGLTA506	10 ft	13-May-98	N	9805G655-010	1		20-May-98			27-May-98					18-May-98
LF05	SO	BHGLTA506	10 ft	13-May-98	N	9805G655-010	2										
LF05	SO	BHGLTA507	00 ft	13-May-98	N	9805G655-011	1		20-May-98			27-May-98					18-May-98
LF05	SO	BHGLTA507	00 ft	13-May-98	N	9805G655-011	2										
LF05	SO	BHGLTA507	05 ft	13-May-98	N	9805G655-012	1		20-May-98			27-May-98					18-May-98
LF05	SO	BHGLTA507	05 ft	13-May-98	N	9805G655-012	2										
LF05	SO	BHGLTA507	10 ft	13-May-98	N	9805G655-013	1		20-May-98			27-May-98					18-May-98
LF05	SO	BHGLTA507	10 ft	13-May-98	N	9805G655-013	2										
LF05	SO	BHGLTA508	00 ft	13-May-98	N	9805G655-014	1		20-May-98			27-May-98					18-May-98
LF05	SO	BHGLTA508	00 ft	13-May-98	N	9805G655-014	2										
LF05	SO	BHGLTA508	05 ft	13-May-98	N	9805G655-015	1		20-May-98			27-May-98					18-May-98
LF05	SO	BHGLTA508	05 ft	13-May-98	N	9805G655-015	2										

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Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	A2540G	D2216	E160.3	SM2540	SW6010	SW7041	SW7191	SW7421	SW7470	SW7471
LF05	SO	BHGLTA508	10 ft	13-May-98	N	9805G655-016	1		20-May-98			27-May-98					18-May-98
LF05	SO	BHGLTA508	10 ft	13-May-98	N	9805G655-016	2										
LF05	SO	BHGLTA509	00 ft	14-May-98	N	9805G688-006	1		21-May-98			27-May-98					19-May-98
LF05	SO	BHGLTA509	05 ft	15-May-98	N	9805G688-012	1		21-May-98			27-May-98					29-May-98
LF05	SO	BHGLTA509	05 ft	15-May-98	N	9805G688-012	2										
LF05	SO	BHGLTA509	10 ft	15-May-98	N	9805G688-013	1		21-May-98			27-May-98					29-May-98
LF05	SO	BHGLTA509	15 ft	15-May-98	N	9805G688-014	1		21-May-98			27-May-98					29-May-98
LF05	SO	BHGLTA510	00 ft	08-Oct-99	N	9910G320-001	1				26-Oct-99				14-Nov-99		
LF05	SO	BHGLTA511	05 ft	08-Oct-99	N	9910G320-002	1				26-Oct-99				14-Nov-99		
LF05	SO	BHGLTA506	05 ft	05-Jan-00	N	9A01G513-015	1		07-Jan-00			11-Jan-00					
LF05	SO	BHGLTA509	05 ft	05-Jan-00	N	9A01G512-003	1		07-Jan-00			11-Jan-00					
LF05	SO	BHGLTA509	10 ft	05-Jan-00	N	9A01G512-005	1		07-Jan-00			11-Jan-00					
LF05	SO	BHGLTA509	16 ft	05-Jan-00	N	9A01G513-009	1		07-Jan-00								
LF05	SO	BHGLTA512	15 ft	10-Mar-00	N	9A03G273-001	1		14-Mar-00								
LF05	SO	BHGLTA513	15 ft	10-Mar-00	N	9A03G273-002	1		14-Mar-00								
LF05	SO	BHGLTA514	15 ft	10-Mar-00	N	9A03G273-003	1		14-Mar-00								
LF05	SO	BHGLTA514	15 ft	10-Mar-00	FD	9A03G273-004	1		14-Mar-00								
LF05	SO	BHGLTA515	05 ft	15-Jun-00	N	9A06G782-024	1	19-Jun-00									
LF05	SO	BHGLTA515	10 ft	15-Jun-00	N	9A06G782-025	1	19-Jun-00									
LF05	SO	LF05-DP059	05 ft	26-Apr-00	N	9A04G979-001	1	10-May-00									
LF05	SO	LF05-DP059	10 ft	26-Apr-00	N	9A04G979-002	1	10-May-00									
LF05	SO	LF05-DP059	15 ft	26-Apr-00	N	9A04G979-003	1	10-May-00									
LF05	SO	LF05-DP059	20 ft	26-Apr-00	N	9A04G979-004	1	10-May-00									
LF05	SO	LF05-DP059	25 ft	26-Apr-00	N	9A04G979-005	1	10-May-00									
LF05	SO	LF05-DP060	05 ft	26-Apr-00	N	9A04G979-006	1	10-May-00									
LF05	SO	LF05-DP060	10 ft	26-Apr-00	N	9A04G979-007	1	10-May-00									
LF05	SO	LF05-DP060	15 ft	26-Apr-00	N	9A04G979-008	1	10-May-00									
LF05	SO	LF05-DP060	20 ft	26-Apr-00	N	9A04G979-009	1	10-May-00									
LF05	SO	THGLTA017	00 ft	04-Jan-00	N	9A01G449-019	1		07-Jan-00								
LF05	SO	THGLTA017	13 ft	05-Jan-00	N	9A01G512-001	1		07-Jan-00								
LF05	SPLP	BHGLTA506	NA	05-Jan-00	N	9A01G513-016	1					11-Jan-00					
LF05	SPLP	BHGLTA509	NA	05-Jan-00	N	9A01G512-004	1					11-Jan-00					
LF05	SPLP	BHGLTA509	NA	05-Jan-00	N	9A01G512-006	1					11-Jan-00					
LF05	SPLP	BHGLTA509	NA	05-Jan-00	N	9A01G513-010	1										
LF05	SPLP	THGLTA017	NA	04-Jan-00	N	9A01G449-020	1										
LF05	SPLP	THGLTA017	NA	05-Jan-00	N	9A01G512-002	1										
LF05	WG	WHGLTA003	NA	05-Sep-97	N1	0568980003RE	1										
LF05	WG	WHGLTA003	NA	05-Sep-97	N1	0568980003SA	1					11-Sep-97				11-Sep-97	
LF05	WG	WHGLTA003	NA	05-Sep-97	N1	B7I060135003	1					24-Oct-99		26-Oct-99	22-Oct-99	18-Oct-99	
LF05	WG	LF05-5C	NA	14-Oct-99	N	9910G388-006	1										
LF05	WG	LF05-5C	NA	14-Oct-99	N	9910G388-006	2					13-Jan-00		13-Jan-00	14-Jan-00	10-Jan-00	
LF05	WG	LF05-02	NA	07-Jan-00	N	9A01G549-001	1										
LF05	WG	LF05-02	NA	07-Jan-00	N	9A01G549-001	2										
LF05	WG	LF05-02	NA	07-Jan-00	N	9A01G549-001	3										
LF05	WG	LF05-18	NA	29-Feb-00	N	9A03G127-002	1										
LF05	WG	LF05-18	NA	29-Feb-00	N	9A03G284-003	1					19-Jan-00	20-Jan-00	17-Jan-00	19-Jan-00	14-Jan-00	
LF05	WG	LF05-19	NA	12-Jan-00	N	9A01G611-005	1										
LF05	WG	LF05-19	NA	12-Jan-00	N	9A01G611-005	2										

Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	A2540G	D2216	E160_3	SM2540	SW6010	SW7041	SW7191	SW7421	SW7470	SW7471
LF05	WG	LF05-19	NA	01-Mar-00	N	9A03G146-001	1										
LF05	WG	LF05-19	NA	01-Mar-00	N	9A03G284-006	1										
LF05	WG	LF05-5A	NA	02-Mar-00	N	9A03G162-001	1										
LF05	WG	LF05-5A	NA	02-Mar-00	N	9A03G284-010	1										
LF05	WG	LF05-5B	NA	12-Jan-00	N	9A01G611-002	1					19-Jan-00	20-Jan-00	17-Jan-00	17-Jan-00	14-Jan-00	
LF05	WG	LF05-5B	NA	12-Jan-00	N	9A01G611-002	2										
LF05	WG	LF05-5B	NA	03-Mar-00	N	9A03G177-001	1										
LF05	WG	LF05-5B	NA	03-Mar-00	N	9A03G284-012	1										
LF05	WG	LF05-5C	NA	11-Jan-00	N	9A01G578-008	1					17-Jan-00	18-Jan-00	13-Jan-00	14-Jan-00	13-Jan-00	
LF05	WG	LF05-5C	NA	11-Jan-00	N	9A01G578-008	2										
LF05	WG	LF05-5C	NA	11-Jan-00	FD	9A01G578-009	1					17-Jan-00	18-Jan-00	13-Jan-00	14-Jan-00	13-Jan-00	
LF05	WG	LF05-5C	NA	11-Jan-00	FD	9A01G578-009	2										
LF05	WG	LF05-5C	NA	07-Mar-00	N	9A03G223-001	1										
LF05	WG	LF05-5C	NA	07-Mar-00	N	9A03G284-024	1										
LF05	WG	LF05-5E	NA	06-Mar-00	N	9A03G192-007	1										
LF05	WG	LF05-5E	NA	06-Mar-00	N	9A03G284-022	1										
LF05	WG	LF05-5E	NA	06-Mar-00	FD	9A03G192-008	1										
LF05	WG	LF05-5E	NA	06-Mar-00	FD	9A03G284-023	1										
LF05	WG	WHGLTA003	NA	28-Feb-00	N	9A02G112-001	1										
LF05	WG	WHGLTA003	NA	28-Feb-00	N	9A03G284-001	1										
LF05	WG	WHGLTA003	NA	06-Mar-00	N	9A03G284-019	1										
LF05	WG	WHGLTA701	NA	01-Mar-00	N	9A03G146-008	1										
LF05	WG	WHGLTA701	NA	01-Mar-00	N	9A03G284-009	1										
LF05	WG	WHGLTA702	NA	06-Mar-00	N	9A03G192-002	1										
LF05	WG	WHGLTA702	NA	06-Mar-00	N	9A03G284-017	1										
LF05	WG	WHGLTA703	NA	06-Jan-00	N	9A01G543-001	1					13-Jan-00		13-Jan-00	14-Jan-00	10-Jan-00	
LF05	WG	WHGLTA703	NA	06-Jan-00	N	9A01G543-001	2										
LF05	WG	WHGLTA703	NA	06-Mar-00	N	9A03G192-004	1										
LF05	WG	WHGLTA704	NA	01-Mar-00	N	9A03G146-007	1										
LF05	WG	WITCTA059	NA	26-Apr-00	N	9A04G979-014	1										
LF05	WG	WITCTA059	NA	26-Apr-00	N	9A04G979-014	2										
LF05	WG	WITCTA059	NA	26-Apr-00	N	9A04G979-014	3										
LF05	WG	WITCTA060	NA	26-Apr-00	N	9A04G979-015	1										
LF05	WG	WITCTA060	NA	26-Apr-00	N	9A04G979-015	2										
LF08	SO	THGLTA021	09 5 ft	27-Aug-97	N1	B7H280161011	1			02-Sep-97		10-Sep-97					02-Sep-97
LF08	SO	THGLTA022	00 ft	28-Aug-97	N1	B7H290134003	1			03-Sep-97		10-Sep-97					02-Sep-97
LF08	SO	THGLTA022	00 ft	28-Aug-97	FD1	B7H290134004	1			03-Sep-97		10-Sep-97					02-Sep-97
LF08	SO	THGLTA022	11 ft	28-Aug-97	N1	B7H290134005	1			03-Sep-97		10-Sep-97					02-Sep-97
LF08	SO	THGLTA023	00 ft	28-Aug-97	N1	B7H290134006	1			03-Sep-97		10-Sep-97					02-Sep-97
LF08	SO	THGLTA023	09 5 ft	28-Aug-97	N1	B7H290134007	1			03-Sep-97		10-Sep-97					02-Sep-97
LF08	SO	THGLTA024	00 ft	10-Sep-97	N1	0569330003SA	1		23-Sep-97								
LF08	SO	THGLTA024	00 ft	10-Sep-97	N1	B7I110141003	1			12-Sep-97		17-Sep-97					12-Sep-97
LF08	SO	THGLTA024	14 5 ft	10-Sep-97	N1	0569330004RE	1		23-Sep-97								
LF08	SO	THGLTA024	14 5 ft	10-Sep-97	N1	0569330004SA	1		23-Sep-97								
LF08	SO	THGLTA024	14 5 ft	10-Sep-97	N1	B7I110141004	1			12-Sep-97		17-Sep-97					12-Sep-97
LF08	SO	THGLTA025	00 ft	10-Sep-97	N1	0569330005SA	1		23-Sep-97								
LF08	SO	THGLTA025	00 ft	10-Sep-97	N1	B7I110141006	1			12-Sep-97		17-Sep-97					12-Sep-97
LF08	SO	THGLTA025	10 5 ft	10-Sep-97	N1	0569330006SA	1		23-Sep-97								

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Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	A2540G	D2216	E160_3	SM2540	SW6010	SW7041	SW7191	SW7421	SW7470	SW7471
LF08	SO	THGLTA025	10 5 ft	10-Sep-97	N1	B7I110141007	1			12-Sep-97		17-Sep-97					12-Sep-97
LF08	SO	THGLTA026	00 ft	11-Sep-97	N1	0569330007SA	1		23-Sep-97								
LF08	SO	THGLTA026	00 ft	11-Sep-97	N1	B7I120127001	1			16-Sep-97		17-Sep-97					12-Sep-97
LF08	SO	THGLTA026	04 5 ft	11-Sep-97	N1	0569330008SA	1		23-Sep-97								
LF08	SO	THGLTA026	04 5 ft	11-Sep-97	N1	B7I120127002	1			16-Sep-97		17-Sep-97					12-Sep-97
LF08	SO	THGLTA027	00 ft	11-Sep-97	N1	0569330009SA	1		23-Sep-97								
LF08	SO	THGLTA027	00 ft	11-Sep-97	N1	B7I120127003	1			16-Sep-97		17-Sep-97					12-Sep-97
LF08	SO	THGLTA027	03 ft	11-Sep-97	N1	0569330010SA	1		23-Sep-97								
LF08	SO	THGLTA027	03 ft	11-Sep-97	N1	B7I120127004	1			16-Sep-97		17-Sep-97					12-Sep-97
LF08	SO	THGLTA027	03 ft	11-Sep-97	FD1	0569330011FD	1		23-Sep-97								
LF08	SO	THGLTA027	03 ft	11-Sep-97	FD1	B7I120127005	1			16-Sep-97		17-Sep-97					12-Sep-97
LF08	SO	THGLTA028	00 ft	11-Sep-97	N1	0569330012SA	1		23-Sep-97								
LF08	SO	THGLTA028	00 ft	11-Sep-97	N1	B7I120127006	1			16-Sep-97		17-Sep-97					12-Sep-97
LF08	SO	THGLTA028	08 5 ft	11-Sep-97	N1	0569330013SA	1		23-Sep-97								
LF08	SO	THGLTA028	08 5 ft	11-Sep-97	N1	B7I120127007	1			16-Sep-97		17-Sep-97					12-Sep-97
LF08	SO	BHGLTA812	00 ft	02-Jun-98	N	9806G959-008	1				07-Jun-98	20-Jun-98					17-Jun-98
LF08	SO	BHGLTA812	00 ft	02-Jun-98	FD	9806G959-016	1				07-Jun-98	25-Jun-98					17-Jun-98
LF08	SO	BHGLTA812	00 ft	02-Jun-98	FD	9806G959-016	2										
LF08	SO	BHGLTA812	00 ft	02-Jun-98	FD	9806G959-016	3										
LF08	SO	BHGLTA812	05 ft	02-Jun-98	N	9806G959-009	1				07-Jun-98	20-Jun-98					17-Jun-98
LF08	SO	BHGLTA812	10 ft	02-Jun-98	N	9806G959-010	1				07-Jun-98	20-Jun-98					17-Jun-98
LF08	SO	BHGLTA812	15 ft	02-Jun-98	N	9806G959-011	1				07-Jun-98	20-Jun-98					17-Jun-98
LF08	SO	BHGLTA812	20 ft	02-Jun-98	N	9806G959-012	1				07-Jun-98	20-Jun-98					17-Jun-98
LF08	SO	BHGLTA813	00 ft	12-May-98	N	9805G655-003	1		20-May-98			27-May-98					18-May-98
LF08	SO	BHGLTA813	00 ft	12-May-98	N	9805G655-003	2										
LF08	SO	BHGLTA813	05 ft	12-May-98	N	9805G655-004	1		20-May-98			27-May-98					18-May-98
LF08	SO	BHGLTA813	05 ft	12-May-98	N	9805G655-004	2										
LF08	SO	BHGLTA813	10 ft	12-May-98	N	9805G655-005	1		20-May-98			27-May-98					18-May-98
LF08	SO	BHGLTA813	10 ft	12-May-98	N	9805G655-005	2										
LF08	SO	BHGLTA813	15 ft	01-Jun-98	N	9806G959-002	1				03-Jun-98	19-Jun-98					17-Jun-98
LF08	SO	BHGLTA813	20 ft	01-Jun-98	N	9806G959-003	1				03-Jun-98	20-Jun-98					17-Jun-98
LF08	SO	BHGLTA814	00 ft	18-May-98	N	9805G744-006	1		26-May-98			27-May-98					29-May-98
LF08	SO	BHGLTA814	00 ft	18-May-98	FD	9805G744-011	1		26-May-98			27-May-98					29-May-98
LF08	SO	BHGLTA814	05 ft	18-May-98	N	9805G744-007	1		26-May-98			27-May-98					29-May-98
LF08	SO	BHGLTA814	10 ft	18-May-98	N	9805G744-008	1		26-May-98			27-May-98					29-May-98
LF08	SO	BHGLTA815	00 ft	12-May-98	N	9805G655-001	1		20-May-98			27-May-98					18-May-98
LF08	SO	BHGLTA815	00 ft	12-May-98	N	9805G655-001	2										
LF08	SO	BHGLTA815	05 ft	12-May-98	N	9805G655-002	1		20-May-98			27-May-98					18-May-98
LF08	SO	BHGLTA815	05 ft	12-May-98	N	9805G655-002	2										
LF08	SO	BHGLTA815	10 ft	02-Jun-98	N	9806G959-013	1				07-Jun-98	19-Jun-98					17-Jun-98
LF08	SO	BHGLTA815	15 ft	02-Jun-98	N	9806G959-014	1				07-Jun-98	19-Jun-98					17-Jun-98
LF08	SO	BHGLTA815	20 ft	02-Jun-98	N	9806G959-015	1				07-Jun-98	20-Jun-98					17-Jun-98
LF08	SO	BHGLTA816	00 ft	02-Jun-98	N	9806G980-003	1				09-Jun-98	20-Jun-98					19-Jun-98
LF08	SO	BHGLTA816	00 ft	02-Jun-98	N	9806G980-003	2										
LF08	SO	BHGLTA816	05 ft	02-Jun-98	N	9806G980-004	1				07-Jun-98	20-Jun-98					19-Jun-98
LF08	SO	BHGLTA816	05 ft	02-Jun-98	N	9806G980-004	2										
LF08	SO	BHGLTA816	10 ft	02-Jun-98	N	9806G980-005	1				07-Jun-98	19-Jun-98					19-Jun-98
LF08	SO	BHGLTA816	10 ft	02-Jun-98	FD	9806G980-007	1				07-Jun-98	20-Jun-98					19-Jun-98

Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	A2540G	D2216	E160_3	SM2540	SW6010	SW7041	SW7191	SW7421	SW7470	SW7471
LF08	SO	BHGLTA816	15 ft	02-Jun-98	N	9806G980-006	1				07-Jun-98	20-Jun-98					19-Jun-9
LF08	SO	BHGLTA816	15 ft	02-Jun-98	N	9806G980-006	2										
LF08	SO	BHGLTA817	00 ft	01-Jun-98	N	9806G959-004	1				03-Jun-98	20-Jun-98					17-Jun-98
LF08	SO	BHGLTA817	00 ft	01-Jun-98	N	9806G959-004	2										
LF08	SO	BHGLTA817	00 ft	01-Jun-98	FD	9806G959-005	1				03-Jun-98	20-Jun-98					17-Jun-98
LF08	SO	BHGLTA817	00 ft	01-Jun-98	FD	9806G959-005	2										
LF08	SO	BHGLTA818	00 ft	03-Jun-98	N	9806G980-008	1				07-Jun-98	19-Jun-98					19-Jun-98
LF08	SO	BHGLTA818	05 ft	19-May-98	N	9805G744-020	1		26-May-98			27-May-98					05-Jun-98
LF08	SO	BHGLTA818	10 ft	03-Jun-98	N	9806G980-009	1				07-Jun-98	20-Jun-98					19-Jun-98
LF08	SO	BHGLTA818	15 ft	03-Jun-98	N	9806G980-010	1				07-Jun-98	20-Jun-98					19-Jun-98
LF08	SO	BHGLTA819	05 ft	07-Oct-99	N	9910G290-007	1				14-Oct-99						
LF08	SO	BHGLTA820	00 ft	07-Oct-99	N	9910G290-006	1				14-Oct-99	08-Nov-99			16-Nov-99		
LF08	SO	BHGLTA820	00 ft	07-Oct-99	N	9A02G019-002	1					28-Feb-00					
LF08	SO	BHGLTA820	15 ft	07-Oct-99	N	9910G290-005	1				14-Oct-99						
LF08	SO	BHGLTA821	00 ft	07-Oct-99	N	9910G290-003	1				14-Oct-99	08-Nov-99			17-Nov-99		
LF08	SO	BHGLTA821	00 ft	07-Oct-99	N	9A02G019-001	1					28-Feb-00					
LF08	SO	BHGLTA821	15 ft	07-Oct-99	N	9910G290-004	1				14-Oct-99						
LF08	SO	BHGLTA822	00 ft	08-Oct-99	N	9910G320-003	1				26-Oct-99	08-Nov-99			14-Nov-99		18-Oct-99
LF08	SO	BHGLTA822	00 ft	08-Oct-99	N	9910G320-003	2										
LF08	SO	BHGLTA822	05 ft	08-Oct-99	N	9910G320-004	1				26-Oct-99	08-Nov-99			14-Nov-99		18-Oct-99
LF08	SO	BHGLTA822	05 ft	08-Oct-99	N	9910G320-004	2										
LF08	SO	BHGLTA822	10 ft	08-Oct-99	N	9910G320-005	1				26-Oct-99	08-Nov-99			14-Nov-99		18-Oct-99
LF08	SO	BHGLTA822	10 ft	08-Oct-99	N	9910G320-005	2										
LF08	SO	BHGLTA822	15 ft	08-Oct-99	N	9910G320-006	1				26-Oct-99	08-Nov-99			14-Nov-99		18-Oct-99
LF08	SO	BHGLTA822	15 ft	08-Oct-99	N	9910G320-006	2										
LF08	SO	BHGLTA822	20 ft	08-Oct-99	N	9910G320-007	1				26-Oct-99	08-Nov-99			14-Nov-99		18-Oct-99
LF08	SO	BHGLTA822	20 ft	08-Oct-99	N	9910G320-007	2										
LF08	SO	BHGLTA829	00 ft	07-Oct-99	N	9911G906-005	1				06-Dec-99				07-Dec-99		
LF08	SO	BHGLTA829	00 ft	07-Oct-99	N	9A02G019-004	1					29-Feb-00	02-Mar-00				
LF08	SO	BHGLTA830	00 ft	07-Oct-99	N	9911G906-007	1				06-Dec-99				07-Dec-99		
LF08	SO	BHGLTA830	00 ft	07-Oct-99	N	9A02G019-006	1					28-Feb-00	02-Mar-00				
LF08	SO	BHGLTA831	00 ft	08-Oct-99	N	9910G320-008	1				26-Oct-99	08-Nov-99			14-Nov-99		18-Oct-99
LF08	SO	BHGLTA831	00 ft	08-Oct-99	N	9910G320-008	2										
LF08	SO	BHGLTA831	00 ft	08-Oct-99	FD	9910G320-013	1				26-Oct-99	08-Nov-99			14-Nov-99		18-Oct-99
LF08	SO	BHGLTA831	00 ft	08-Oct-99	FD	9910G320-013	2										
LF08	SO	BHGLTA831	05 ft	08-Oct-99	N	9910G320-009	1				26-Oct-99	08-Nov-99			14-Nov-99		18-Oct-99
LF08	SO	BHGLTA831	05 ft	08-Oct-99	N	9910G320-009	2										
LF08	SO	BHGLTA831	10 ft	08-Oct-99	N	9910G320-010	1				26-Oct-99	08-Nov-99			14-Nov-99		18-Oct-99
LF08	SO	BHGLTA831	10 ft	08-Oct-99	N	9910G320-010	2										
LF08	SO	BHGLTA831	15 ft	08-Oct-99	N	9910G320-011	1				26-Oct-99	08-Nov-99			14-Nov-99		18-Oct-99
LF08	SO	BHGLTA831	15 ft	08-Oct-99	N	9910G320-011	2										
LF08	SO	BHGLTA831	20 ft	08-Oct-99	N	9910G320-012	1				26-Oct-99	08-Nov-99			14-Nov-99		18-Oct-99
LF08	SO	BHGLTA831	20 ft	08-Oct-99	N	9910G320-012	2										
LF08	SO	WHGLTA801	00 ft	28-Oct-99	N	9910G621-001	1				01-Nov-99						
LF08	SO	WHGLTA801	05 ft	28-Oct-99	N	9910G621-002	1				01-Nov-99						
LF08	SO	WHGLTA801	05 ft	28-Oct-99	N	9910G621-002	2										
LF08	SO	WHGLTA801	10 ft	28-Oct-99	N	9910G621-003	1				01-Nov-99						
LF08	SO	WHGLTA803	00 ft	28-Oct-99	N	9910G621-004	1				01-Nov-99						

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Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	A2540G	D2216	E160.3	SM2540	SW6010	SW7041	SW7191	SW7421	SW7470	SW7471
LF08	SO	WHGLTA803	05 ft	28-Oct-99	N	9910G621-005	1				01-Nov-99						
LF08	SO	BHGLTA815	00 ft	08-Mar-00	N	9A03G241-010	1	13-Mar-00				14-Mar-00					
LF08	SO	BHGLTA815	00 ft	14-Jun-00	N	9A06G748-001	1	16-Jun-00				19-Jun-00					
LF08	SO	BHGLTA816	00 ft	09-Mar-00	N	9A03G261-002	1					14-Mar-00					
LF08	SO	BHGLTA816	00 ft	09-Mar-00	FD	9A03G261-004	1					14-Mar-00					
LF08	SO	BHGLTA816	00 ft	14-Jun-00	N	9A06G748-003	1	16-Jun-00				19-Jun-00			21-Jun-00		
LF08	SO	BHGLTA816	10 ft	14-Jun-00	N	9A06G748-005	1	16-Jun-00				19-Jun-00					
LF08	SO	BHGLTA817	00 ft	09-Mar-00	N	9A03G261-009	1					14-Mar-00					
LF08	SO	BHGLTA829	00 ft	15-Jun-00	N	9A06G781-001	1					19-Jun-00					
LF08	SO	BHGLTA829	15 ft	13-Mar-00	N	9A03G261-024	1										
LF08	SO	BHGLTA829	20 ft	13-Mar-00	N	9A03G261-025	1										
LF08	SO	BHGLTA831	00 ft	09-Mar-00	N	9A03G261-010	1					14-Mar-00					
LF08	SO	BHGLTA832	00 ft	08-Mar-00	N	9A03G241-004	1	13-Mar-00				14-Mar-00			16-Mar-00		
LF08	SO	BHGLTA832	05 ft	13-Mar-00	N	9A03G286-001	1	15-Mar-00							17-Mar-00		
LF08	SO	BHGLTA832	10 ft	13-Mar-00	N	9A03G286-002	1	15-Mar-00				18-Mar-00					
LF08	SO	BHGLTA832	10 ft	14-Jun-00	N	9A06G748-007	1	16-Jun-00				19-Jun-00					
LF08	SO	BHGLTA832	15 ft	13-Mar-00	N	9A03G287-001	1		15-Mar-00			18-Mar-00					
LF08	SO	BHGLTA832	20 ft	08-Mar-00	N	9A03G241-005	1	13-Mar-00				14-Mar-00					
LF08	SO	BHGLTA833	00 ft	08-Mar-00	N	9A03G241-006	1	13-Mar-00				14-Mar-00			15-Mar-00		
LF08	SO	BHGLTA833	05 ft	13-Mar-00	N	9A03G286-003	1	15-Mar-00									
LF08	SO	BHGLTA833	10 ft	13-Mar-00	N	9A03G288-001	1										
LF08	SO	BHGLTA833	15 ft	13-Mar-00	N	9A03G289-001	1										
LF08	SO	BHGLTA833	20 ft	13-Mar-00	N	9A03G289-002	1										
LF08	SO	BHGLTA834	00 ft	08-Mar-00	N	9A03G241-007	1	13-Mar-00				14-Mar-00			15-Mar-00		
LF08	SO	BHGLTA834	00 ft	08-Mar-00	N	9A03G241-007	2										
LF08	SO	BHGLTA834	05 ft	13-Mar-00	N	9A03G286-004	1	15-Mar-00									
LF08	SO	BHGLTA834	10 ft	13-Mar-00	N	9A03G288-002	1										
LF08	SO	BHGLTA834	15 ft	13-Mar-00	N	9A03G289-003	1										
LF08	SO	BHGLTA834	20 ft	13-Mar-00	N	9A03G289-004	1										
LF08	SO	BHGLTA835	00 ft	09-Mar-00	N	9A03G261-012	1					14-Mar-00			15-Mar-00		
LF08	SO	BHGLTA835	00 ft	09-Mar-00	FD	9A03G261-013	1					14-Mar-00			15-Mar-00		
LF08	SO	BHGLTA835	00 ft	14-Jun-00	N	9A06G748-009	1	16-Jun-00							21-Jun-00		
LF08	SO	BHGLTA835	05 ft	14-Jun-00	N	9A06G748-011	1	16-Jun-00							21-Jun-00		
LF08	SO	BHGLTA836	00 ft	09-Mar-00	N	9A03G261-014	1										15-Mar-00
LF08	SO	BHGLTA837	00 ft	09-Mar-00	N	9A03G261-016	1					14-Mar-00					
LF08	SO	BHGLTA837	00 ft	09-Mar-00	FD	9A03G261-018	1					14-Mar-00					
LF08	SO	BHGLTA838	00 ft	13-Mar-00	N	9A03G286-005	1	20-Mar-00									
LF08	SO	BHGLTA839	03 ft	08-Mar-00	N	9A03G241-008	1	13-Mar-00									
LF08	SO	BHGLTA840	00 ft	13-Mar-00	N	9A03G286-011	1	16-Mar-00									
LF08	SO	BHGLTA840	00 ft	13-Mar-00	N	9A03G286-011	2										
LF08	SO	BHGLTA840	00 ft	13-Mar-00	N	9A03G286-011	3										
LF08	SO	BHGLTA841	00 ft	13-Mar-00	N	9A03G286-013	1	16-Mar-00									
LF08	SO	BHGLTA841	00 ft	13-Mar-00	N	9A03G286-013	2										
LF08	SO	BHGLTA842	00 ft	09-Mar-00	N	9A03G261-006	1					14-Mar-00	15-Mar-00		15-Mar-00		
LF08	SO	BHGLTA842	10 ft	09-Mar-00	N	9A03G261-007	1										
LF08	SO	BHGLTA842	10 ft	09-Mar-00	N	9A03G261-008	1										
LF08	SO	BHGLTA843	10 ft	09-Mar-00	N	9A03G261-001	1										
LF08	SO	BHGLTA844	00 ft	14-Jun-00	N	9A06G748-012	1	16-Jun-00							21-Jun-00		

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Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	A2540G	D2216	E160_3	SM2540	SW6010	SW7041	SW7191	SW7421	SW7470	SW7471
LF08	SO	BHGLTA844	05 ft	14-Jun-00	N	9A06G748-013	1	16-Jun-00							22-Jun-00		
LF08	SO	BHGLTA845	00 ft	14-Jun-00	N	9A06G748-014	1	16-Jun-00							22-Jun-00		
LF08	SO	BHGLTA845	05 ft	14-Jun-00	N	9A06G748-015	1	16-Jun-00							22-Jun-00		
LF08	SO	BHGLTA846	00 ft	14-Jun-00	N	9A06G748-016	1	16-Jun-00							22-Jun-00		
LF08	SO	BHGLTA846	05 ft	14-Jun-00	N	9A06G748-017	1	16-Jun-00							22-Jun-00		
LF08	SO	BHGLTA846	05 ft	14-Jun-00	FD	9A06G748-018	1	16-Jun-00							22-Jun-00		
LF08	SO	BHGLTA847	00 ft	14-Jun-00	N	9A06G748-019	1	16-Jun-00				19-Jun-00					
LF08	SO	BHGLTA848	00 ft	14-Jun-00	N	9A06G748-020	1	16-Jun-00				19-Jun-00					
LF08	SO	BHGLTA849	05 ft	14-Jun-00	N	9A06G748-021	1	16-Jun-00							22-Jun-00		
LF08	SO	BHGLTA849	10 ft	14-Jun-00	N	9A06G748-022	1	16-Jun-00				19-Jun-00					
LF08	SO	BHGLTA850	05 ft	14-Jun-00	N	9A06G748-023	1	16-Jun-00							22-Jun-00		
LF08	SO	BHGLTA850	10 ft	14-Jun-00	N	9A06G748-024	1	16-Jun-00				19-Jun-00					
LF08	SO	BHGLTA850	10 ft	14-Jun-00	FD	9A06G748-025	1	16-Jun-00				19-Jun-00					
LF08	SPLP	BHGLTA829	NA	07-Oct-99	N	9912G245-006	1								07-Jan-00		
LF08	SPLP	BHGLTA829	NA	07-Oct-99	N	9A02G019-005	1					29-Feb-00	28-Feb-00	01-Mar-00			
LF08	SPLP	BHGLTA830	NA	07-Oct-99	N	9912G245-008	1								07-Jan-00		
LF08	SPLP	BHGLTA830	NA	07-Oct-99	N	9A02G019-007	1					29-Feb-00	28-Feb-00	01-Mar-00			
LF08	SPLP	BHGLTA815	NA	08-Mar-00	N	9A03G241-011	1					15-Mar-00					
LF08	SPLP	BHGLTA815	NA	14-Jun-00	N	9A06G748-002	1					20-Jun-00		21-Jun-00			
LF08	SPLP	BHGLTA816	NA	09-Mar-00	N	9A03G261-003	1					15-Mar-00					
LF08	SPLP	BHGLTA816	NA	09-Mar-00	FD	9A03G261-005	1					15-Mar-00					
LF08	SPLP	BHGLTA816	NA	14-Jun-00	N	9A06G748-004	1					20-Jun-00			21-Jun-00		
LF08	SPLP	BHGLTA816	NA	14-Jun-00	N	9A06G748-006	1					20-Jun-00					
LF08	SPLP	BHGLTA829	NA	15-Jun-00	N	9A06G781-002	1							22-Jun-00			
LF08	SPLP	BHGLTA831	NA	09-Mar-00	N	9A03G261-011	1							17-Mar-00			
LF08	SPLP	BHGLTA832	NA	14-Jun-00	N	9A06G748-008	1					20-Jun-00					
LF08	SPLP	BHGLTA835	NA	14-Jun-00	N	9A06G748-010	1								21-Jun-00		
LF08	SPLP	BHGLTA836	NA	09-Mar-00	N	9A03G261-015	1									15-Mar-00	
LF08	SPLP	BHGLTA837	NA	09-Mar-00	N	9A03G261-017	1					15-Mar-00					
LF08	SPLP	BHGLTA837	NA	09-Mar-00	FD	9A03G261-019	1					15-Mar-00					
LF08	SPLP	BHGLTA838	NA	13-Mar-00	N	9A03G286-006	1										
LF08	SPLP	BHGLTA839	NA	08-Mar-00	N	9A03G241-009	1										
LF08	SPLP	BHGLTA840	NA	13-Mar-00	N	9A03G286-012	1										
LF08	WG	FT08-11A	NA	09-Sep-97	N1	0569030011SA	1										
LF08	WG	FT08-11A	NA	09-Sep-97	N1	B7I100121007	1					12-Sep-97				11-Sep-97	
LF08	WG	WHGLTA002	NA	10-Sep-97	N1	0569330001SA	1										
LF08	WG	WHGLTA002	NA	10-Sep-97	N1	B7I110141001	1					17-Sep-97				17-Sep-97	
LF08	WG	WHGLTA004	NA	09-Sep-97	N1	0569030009SA	1										
LF08	WG	WHGLTA004	NA	09-Sep-97	N1	B7I100121004	1					12-Sep-97				11-Sep-97	
LF08	WG	WHGLTA801	NA	02-Nov-99	N	9911G676-001	1					09-Nov-99		15-Nov-99	11-Nov-99	04-Nov-99	
LF08	WG	WHGLTA801	NA	02-Nov-99	N	9911G676-001	2										
LF08	WG	WHGLTA803	NA	03-Nov-99	N	9911G687-001	1					14-Nov-99		15-Nov-99	11-Nov-99	10-Nov-99	
LF08	WG	FT08-11A	NA	10-Jan-00	N	9A01G578-004	1					17-Jan-00	18-Jan-00	13-Jan-00	15-Jan-00	12-Jan-00	
LF08	WG	WHGLTA002	NA	12-Jan-00	N	9A01G611-001	1					19-Jan-00	20-Jan-00	17-Jan-00	17-Jan-00	14-Jan-00	
LF08	WG	WHGLTA002	NA	29-Feb-00	N	9A03G127-003	1										
LF08	WG	WHGLTA004	NA	10-Jan-00	N	9A01G578-001	1					17-Jan-00	17-Jan-00	13-Jan-00	14-Jan-00	12-Jan-00	
LF08	WG	WHGLTA004	NA	10-Jan-00	N	9A01G578-001	2										
LF08	WG	WHGLTA801	NA	10-Jan-00	N	9A01G578-002	1					17-Jan-00	17-Jan-00	13-Jan-00	14-Jan-00	12-Jan-00	

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Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	A2540G	D2216	E160.3	SM2540	SW6010	SW7041	SW7191	SW7421	SW7470	SW7471
LF08	WG	WHGLTA801	NA	10-Jan-00	N	9A01G578-002	2					17-Jan-00	18-Jan-00	13-Jan-00	14-Jan-00	12-Jan-00	
LF08	WG	WHGLTA803	NA	10-Jan-00	N	9A01G578-003	1										
NA	SE	EUHGLTA001	NA	04-Sep-97	N1	0568720012SA	1		20-Sep-97			11-Sep-97					09-Sep-97
NA	SE	EUHGLTA001	NA	04-Sep-97	N1	B7I050160009	1			09-Sep-97							
NA	SE	EUHGLTA002	NA	04-Sep-97	N1	0568720011FD	1		20-Sep-97			11-Sep-97					09-Sep-97
NA	SE	EUHGLTA002	NA	04-Sep-97	N1	B7I050160007	1			09-Sep-97							
NA	SE	EUHGLTA003	NA	04-Sep-97	N1	0568720009SA	1		20-Sep-97			11-Sep-97					09-Sep-97
NA	SE	EUHGLTA003	NA	04-Sep-97	N1	B7I050160004	1			09-Sep-97							
NA	SE	EUHGLTA003	NA	04-Sep-97	FD1	0568720010FD	1		20-Sep-97			11-Sep-97					09-Sep-97
NA	SE	EUHGLTA003	NA	04-Sep-97	FD1	B7I050160006	1			09-Sep-97							
NA	SE	EUHGLTA004	NA	04-Sep-97	N1	0568720016SA	1		20-Sep-97			11-Sep-97					09-Sep-97
NA	SE	EUHGLTA004	NA	04-Sep-97	N1	B7I050160002	1			09-Sep-97							
NA	SE	EUHGLTA005	NA	03-Sep-97	N1	0568710001SA	1		20-Sep-97			11-Sep-97					09-Sep-97
NA	SE	EUHGLTA005	NA	03-Sep-97	N1	B7I040138002	1			05-Sep-97							
NA	SE	EUHGLTA006	NA	03-Sep-97	N1	0568710002SA	1		20-Sep-97			11-Sep-97					09-Sep-97
NA	SE	EUHGLTA006	NA	03-Sep-97	N1	B7I040138004	1			05-Sep-97							
NA	SE	EUHGLTA007	NA	03-Sep-97	N1	0568710004SA	1		20-Sep-97			11-Sep-97					09-Sep-97
NA	SE	EUHGLTA007	NA	03-Sep-97	N1	B7I040138008	1			05-Sep-97							
NA	SE	EUHGLTA009	NA	03-Sep-97	N1	0568710003SA	1		20-Sep-97			11-Sep-97					09-Sep-97
NA	SE	EUHGLTA009	NA	03-Sep-97	N1	B7I040138006	1			05-Sep-97							
NA	SE	EUHGLTA010	NA	03-Sep-97	N1	0568710005SA	1		20-Sep-97			11-Sep-97					09-Sep-97
NA	SE	EUHGLTA010	NA	03-Sep-97	N1	B7I040138010	1			05-Sep-97							
NA	SE	EUHGLTA011	NA	04-Sep-97	N1	0568720013SA	1		20-Sep-97			11-Sep-97					09-Sep-97
NA	SE	EUHGLTA011	NA	04-Sep-97	N1	B7I050160011	1			09-Sep-97							
NA	SE	EUHGLTA012	NA	04-Sep-97	N1	0568720014SA	1		20-Sep-97			11-Sep-97					09-Sep-97
NA	SE	EUHGLTA012	NA	04-Sep-97	N1	B7I050160013	1			09-Sep-97							
NA	SE	EUHGLTA012	NA	04-Sep-97	FD1	0568720015FD	1		20-Sep-97			11-Sep-97					09-Sep-97
NA	SE	EUHGLTA012	NA	04-Sep-97	FD1	B7I050160015	1			09-Sep-97							
NA	SE	EUHGLTA013	NA	09-Sep-97	N1	0569030010SA	1		16-Sep-97			17-Sep-97					12-Sep-97
NA	SE	EUHGLTA013	NA	09-Sep-97	N1	B7I100121006	1			10-Sep-97							
NA	WG	ITMW-01T	NA	13-Mar-00	N	9A03G286-015	1										
NA	WS	EUHGLTA001	NA	04-Sep-97	N1	0568720005RE	1										
NA	WS	EUHGLTA001	NA	04-Sep-97	N1	0568720005SA	1					09-Sep-97				08-Sep-97	
NA	WS	EUHGLTA001	NA	04-Sep-97	N1	B7I050160010	1										
NA	WS	EUHGLTA002	NA	04-Sep-97	N1	0568720004RE	1										
NA	WS	EUHGLTA002	NA	04-Sep-97	N1	0568720004SA	1					09-Sep-97				08-Sep-97	
NA	WS	EUHGLTA002	NA	04-Sep-97	N1	B7I050160008	1										
NA	WS	EUHGLTA003	NA	04-Sep-97	N1	0568720002RE	1										
NA	WS	EUHGLTA003	NA	04-Sep-97	N1	0568720002SA	1					09-Sep-97				08-Sep-97	
NA	WS	EUHGLTA003	NA	04-Sep-97	N1	B7I050160003	1										
NA	WS	EUHGLTA003	NA	04-Sep-97	FD1	0568720003FD	1										
NA	WS	EUHGLTA003	NA	04-Sep-97	FD1	0568720003RE	1					09-Sep-97				08-Sep-97	
NA	WS	EUHGLTA003	NA	04-Sep-97	FD1	B7I050160005	1										
NA	WS	EUHGLTA004	NA	04-Sep-97	N1	0568720001SA	1										
NA	WS	EUHGLTA004	NA	04-Sep-97	N1	0568720017SA	1					09-Sep-97				08-Sep-97	
NA	WS	EUHGLTA004	NA	04-Sep-97	N1	B7I050160001	1					09-Sep-97				08-Sep-97	
NA	WS	EUHGLTA005	NA	03-Sep-97	N1	B7I040138001	1					09-Sep-97				08-Sep-97	
NA	WS	EUHGLTA006	NA	03-Sep-97	N1	B7I040138003	1										

Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	A2540G	D2216	E160_3	SM2540	SW6010	SW7041	SW7191	SW7421	SW7470	SW7471
NA	WS	EUHGLTA007	NA	03-Sep-97	N1	B7I040138007	1					09-Sep-97				08-Sep-97	
NA	WS	EUHGLTA009	NA	03-Sep-97	N1	B7I040138005	1					09-Sep-97				08-Sep-97	
NA	WS	EUHGLTA010	NA	03-Sep-97	N1	B7I040138009	1					09-Sep-97				08-Sep-97	
NA	WS	EUHGLTA011	NA	04-Sep-97	N1	0568720006RE	1										
NA	WS	EUHGLTA011	NA	04-Sep-97	N1	0568720006SA	1										
NA	WS	EUHGLTA011	NA	04-Sep-97	N1	B7I050160012	1					09-Sep-97				08-Sep-97	
NA	WS	EUHGLTA012	NA	04-Sep-97	N1	0568720007RE	1										
NA	WS	EUHGLTA012	NA	04-Sep-97	N1	0568720007SA	1										
NA	WS	EUHGLTA012	NA	04-Sep-97	N1	B7I050160014	1					09-Sep-97				08-Sep-97	
NA	WS	EUHGLTA012	NA	04-Sep-97	FD1	0568720008FD	1										
NA	WS	EUHGLTA012	NA	04-Sep-97	FD1	0568720008RE	1										
NA	WS	EUHGLTA012	NA	04-Sep-97	FD1	B7I050160016	1					09-Sep-97				08-Sep-97	
WP07	SO	BHGLTA001	00 ft	26-Aug-97	N1	B7H270130010	1			28-Aug-97		29-Aug-97					28-Aug-97
WP07	SO	BHGLTA001	21 ft	26-Aug-97	N1	B7H270130008	1			28-Aug-97		29-Aug-97					28-Aug-97
WP07	SO	BHGLTA002	00 ft	26-Aug-97	N1	B7H270130007	1			28-Aug-97		29-Aug-97					28-Aug-97
WP07	SO	BHGLTA002	00 ft	26-Aug-97	FD1	B7H270130009	1			28-Aug-97		29-Aug-97					28-Aug-97
WP07	SO	BHGLTA002	21 ft	26-Aug-97	N1	B7H270130011	1			28-Aug-97		29-Aug-97					28-Aug-97
WP07	SO	BHGLTA003	00 ft	26-Aug-97	N1	B7H270130005	1			28-Aug-97		29-Aug-97					28-Aug-97
WP07	SO	BHGLTA003	19 ft	26-Aug-97	N1	B7H270130006	1			28-Aug-97		29-Aug-97					28-Aug-97
WP07	SO	BHGLTA004	00 ft	26-Aug-97	N1	B7H270130003	1			28-Aug-97		29-Aug-97					28-Aug-97
WP07	SO	BHGLTA004	19 ft	26-Aug-97	N1	B7H270130004	1			28-Aug-97		29-Aug-97					28-Aug-97
WP07	SO	BHGLTA005	00 ft	27-Aug-97	N1	B7H280161006	1			02-Sep-97		10-Sep-97					02-Sep-97
WP07	SO	BHGLTA005	13 ft	27-Aug-97	N1	B7H280161002	1			02-Sep-97		10-Sep-97					02-Sep-97
WP07	SO	BHGLTA006	00 ft	27-Aug-97	N1	B7H280161008	1			02-Sep-97		10-Sep-97					02-Sep-97
WP07	SO	BHGLTA006	00 ft	27-Aug-97	FD1	B7H280161007	1			02-Sep-97		10-Sep-97					02-Sep-97
WP07	SO	BHGLTA006	15 ft	27-Aug-97	N1	B7H280161005	1			02-Sep-97		10-Sep-97					02-Sep-97
WP07	SO	BHGLTA007	00 ft	27-Aug-97	N1	B7H280161004	1			02-Sep-97		10-Sep-97					02-Sep-97
WP07	SO	BHGLTA007	13 ft	27-Aug-97	N1	B7H280161003	1			05-Sep-97							
WP07	SO	BHGLTA071	00 ft	28-May-98	N	9805G910-015	1				02-Jun-98	11-Jun-98					12-Jun-98
WP07	SO	BHGLTA071	05 ft	28-May-98	N	9805G910-016	1				02-Jun-98	10-Jun-98					12-Jun-98
WP07	SO	BHGLTA071	10 ft	28-May-98	N	9805G910-017	1				02-Jun-98	10-Jun-98					12-Jun-98
WP07	SO	BHGLTA071	15 ft	28-May-98	N	9805G910-018	1				02-Jun-98	10-Jun-98					12-Jun-98
WP07	SO	BHGLTA071	20 ft	28-May-98	N	9805G910-019	1				02-Jun-98	10-Jun-98					12-Jun-98
WP07	SO	BHGLTA072	00 ft	27-May-98	N	9805G909-011	1					11-Jun-98					11-Jun-98
WP07	SO	BHGLTA072	05 ft	27-May-98	N	9805G909-012	1					11-Jun-98					11-Jun-98
WP07	SO	BHGLTA072	05 ft	27-May-98	N	9805G909-012	2										
WP07	SO	BHGLTA072	10 ft	27-May-98	N	9805G909-013	1					10-Jun-98					11-Jun-98
WP07	SO	BHGLTA072	15 ft	27-May-98	N	9805G909-014	1					10-Jun-98					11-Jun-98
WP07	SO	BHGLTA072	15 ft	27-May-98	N	9805G909-014	2										
WP07	SO	BHGLTA072	20 ft	27-May-98	N	9805G910-001	1				02-Jun-98	10-Jun-98					11-Jun-98
WP07	SO	BHGLTA072	20 ft	27-May-98	N	9805G910-001	2										
WP07	SO	BHGLTA073	00 ft	27-May-98	N	9805G909-006	1					10-Jun-98					11-Jun-98
WP07	SO	BHGLTA073	00 ft	27-May-98	N	9805G909-006	2										
WP07	SO	BHGLTA073	05 ft	27-May-98	N	9805G909-007	1					11-Jun-98					11-Jun-98
WP07	SO	BHGLTA073	10 ft	27-May-98	N	9805G909-008	1					10-Jun-98					11-Jun-98
WP07	SO	BHGLTA073	15 ft	27-May-98	N	9805G909-009	1					10-Jun-98					11-Jun-98
WP07	SO	BHGLTA073	15 ft	27-May-98	N	9805G909-009	2										
WP07	SO	BHGLTA073	20 ft	27-May-98	N	9805G909-010	1					10-Jun-98					11-Jun-98

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Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
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Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	A2540G	D2216	E160_3	SM2540	SW6010	SW7041	SW7191	SW7421	SW7470	SW7471
WP07	SO	BHGLTA074	00 ft	27-May-98	N	9805G909-001	1					10-Jun-98					11-Jun-98
WP07	SO	BHGLTA074	00 ft	27-May-98	N	9805G909-001	2										
WP07	SO	BHGLTA074	05 ft	27-May-98	N	9805G909-002	1					11-Jun-98					11-Jun-98
WP07	SO	BHGLTA074	10 ft	27-May-98	N	9805G909-003	1					11-Jun-98					11-Jun-98
WP07	SO	BHGLTA074	10 ft	27-May-98	N	9805G909-003	2										
WP07	SO	BHGLTA074	15 ft	27-May-98	N	9805G909-004	1					10-Jun-98					11-Jun-98
WP07	SO	BHGLTA074	20 ft	27-May-98	N	9805G909-005	1					10-Jun-98					11-Jun-98
WP07	SO	BHGLTA075	00 ft	28-May-98	N	9805G910-004	1				02-Jun-98	10-Jun-98					11-Jun-98
WP07	SO	BHGLTA075	00 ft	28-May-98	FD	9805G910-009	1				02-Jun-98	10-Jun-98					11-Jun-98
WP07	SO	BHGLTA075	05 ft	28-May-98	N	9805G910-005	1				02-Jun-98	11-Jun-98					11-Jun-98
WP07	SO	BHGLTA075	05 ft	28-May-98	N	9805G910-005	2										
WP07	SO	BHGLTA075	10 ft	28-May-98	N	9805G910-006	1				02-Jun-98	11-Jun-98					11-Jun-98
WP07	SO	BHGLTA075	10 ft	28-May-98	N	9805G910-006	2										
WP07	SO	BHGLTA075	15 ft	28-May-98	N	9805G910-007	1				02-Jun-98	10-Jun-98					11-Jun-98
WP07	SO	BHGLTA075	20 ft	28-May-98	N	9805G910-008	1				02-Jun-98	10-Jun-98					11-Jun-98
WP07	SO	BHGLTA076	00 ft	28-May-98	N	9805G910-010	1				02-Jun-98	10-Jun-98					12-Jun-98
WP07	SO	BHGLTA076	05 ft	28-May-98	N	9805G910-011	1				02-Jun-98	11-Jun-98					12-Jun-98
WP07	SO	BHGLTA076	10 ft	28-May-98	N	9805G910-012	1				02-Jun-98	10-Jun-98					12-Jun-98
WP07	SO	BHGLTA076	15 ft	28-May-98	N	9805G910-013	1				02-Jun-98	10-Jun-98					12-Jun-98
WP07	SO	BHGLTA076	20 ft	28-May-98	N	9805G910-014	1				02-Jun-98	10-Jun-98					12-Jun-98
WP07	SO	BHGLTA080	00 ft	07-Oct-99	N	9911G906-001	1				06-Dec-99				06-Dec-99		
WP07	SO	BHGLTA081	00 ft	07-Oct-99	N	9910G290-008	1				14-Oct-99				14-Nov-99		
WP07	SO	BHGLTA081	00 ft	07-Oct-99	N	9A02G019-003	1					28-Feb-00					
WP07	SO	BHGLTA082	05 ft	07-Oct-99	N	9910G290-009	1				14-Oct-99						
WP07	SO	BHGLTA082	10 ft	07-Oct-99	N	9910G290-010	1				14-Oct-99						
WP07	SO	BHGLTA082	15 ft	07-Oct-99	N	9910G290-011	1				14-Oct-99						
WP07	SO	BHGLTA083	10 ft	07-Oct-99	N	9910G290-012	1				14-Oct-99						
WP07	SO	BHGLTA083	15 ft	07-Oct-99	N	9910G290-013	1				14-Oct-99						
WP07	SO	BHGLTA083	20 ft	07-Oct-99	N	9910G290-014	1				14-Oct-99						
WP07	SO	BHGLTA084	00 ft	07-Oct-99	N	9911G906-003	1				06-Dec-99				06-Dec-99		
WP07	SO	BHGLTA001	00 ft	15-Jun-00	N	9A06G781-003	1					19-Jun-00	19-Jun-00		19-Jun-00		
WP07	SO	BHGLTA071	00 ft	15-Jun-00	N	9A06G781-005	1					19-Jun-00					
WP07	SO	BHGLTA085	00 ft	09-Mar-00	N	9A03G261-020	1					14-Mar-00					
WP07	SO	BHGLTA085	00 ft	15-Jun-00	N	9A06G782-001	1	19-Jun-00				19-Jun-00	19-Jun-00		22-Jun-00		
WP07	SO	BHGLTA085	05 ft	09-Mar-00	N	9A03G262-001	1		20-Mar-00								
WP07	SO	BHGLTA085	05 ft	15-Jun-00	N	9A06G782-002	1	19-Jun-00				19-Jun-00			22-Jun-00		
WP07	SO	BHGLTA085	10 ft	09-Mar-00	N	9A03G262-002	1		20-Mar-00								
WP07	SO	BHGLTA086	00 ft	10-Mar-00	N	9A03G273-014	1		14-Mar-00			18-Mar-00					
WP07	SO	BHGLTA086	05 ft	14-Mar-00	N	9A03G300-001	1		16-Mar-00			18-Mar-00					
WP07	SO	BHGLTA087	00 ft	10-Mar-00	N	9A03G273-011	1		14-Mar-00			18-Mar-00			20-Mar-00		
WP07	SO	BHGLTA087	05 ft	14-Mar-00	N	9A03G300-002	1		16-Mar-00			18-Mar-00					
WP07	SO	BHGLTA087	05 ft	15-Jun-00	N	9A06G782-003	1	19-Jun-00				19-Jun-00			22-Jun-00		
WP07	SO	BHGLTA087	10 ft	15-Jun-00	N	9A06G782-004	1	19-Jun-00									
WP07	SO	BHGLTA088	00 ft	14-Mar-00	N	9A03G300-003	1		16-Mar-00			18-Mar-00			20-Mar-00		
WP07	SO	BHGLTA088	05 ft	15-Jun-00	N	9A06G782-005	1	19-Jun-00				19-Jun-00			19-Jun-00		
WP07	SO	BHGLTA088	10 ft	15-Jun-00	N	9A06G782-006	1	19-Jun-00									
WP07	SO	BHGLTA089	00 ft	09-Mar-00	N	9A03G262-003	1		15-Mar-00			14-Mar-00			15-Mar-00		
WP07	SO	BHGLTA089	10 ft	09-Mar-00	N	9A03G261-021	1										

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Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	A2540G	D2216	E160_3	SM2540	SW6010	SW7041	SW7191	SW7421	SW7470	SW7471
WP07	SO	BHGLTA089	15 ft	09-Mar-00	N	9A03G261-022	1										
WP07	SO	BHGLTA090	00 ft	09-Mar-00	N	9A03G274-001	1					14-Mar-00					
WP07	SO	BHGLTA090	05 ft	09-Mar-00	N	9A03G262-007	1		20-Mar-00								
WP07	SO	BHGLTA090	10 ft	09-Mar-00	N	9A03G262-008	1		20-Mar-00								
WP07	SO	BHGLTA090	15 ft	09-Mar-00	N	9A03G261-023	1										
WP07	SO	BHGLTA091	00 ft	15-Jun-00	N	9A06G782-007	1	19-Jun-00				19-Jun-00			19-Jun-00		
WP07	SO	BHGLTA091	00 ft	15-Jun-00	N	9A06G782-008	1	19-Jun-00				19-Jun-00			19-Jun-00		
WP07	SO	BHGLTA091	05 ft	15-Jun-00	N	9A06G782-009	1	19-Jun-00				19-Jun-00			19-Jun-00		
WP07	SO	BHGLTA092	00 ft	15-Jun-00	N	9A06G782-010	1	19-Jun-00				19-Jun-00			19-Jun-00		
WP07	SO	BHGLTA092	05 ft	15-Jun-00	N	9A06G782-011	1	19-Jun-00				19-Jun-00			19-Jun-00		
WP07	SO	BHGLTA093	00 ft	15-Jun-00	N	9A06G782-012	1	19-Jun-00				19-Jun-00	19-Jun-00				
WP07	SO	BHGLTA094	00 ft	15-Jun-00	N	9A06G782-013	1	19-Jun-00				19-Jun-00					
WP07	SO	BHGLTA095	00 ft	15-Jun-00	N	9A06G782-014	1	19-Jun-00				19-Jun-00			21-Jun-00		
WP07	SO	BHGLTA095	05 ft	15-Jun-00	N	9A06G782-015	1	19-Jun-00				19-Jun-00			21-Jun-00		
WP07	SO	BHGLTA095	05 ft	15-Jun-00	N	9A06G782-016	1	19-Jun-00				19-Jun-00			21-Jun-00		
WP07	SO	BHGLTA096	00 ft	15-Jun-00	N	9A06G782-017	1	19-Jun-00				19-Jun-00			19-Jun-00		
WP07	SO	BHGLTA096	05 ft	15-Jun-00	N	9A06G782-018	1	19-Jun-00				19-Jun-00			21-Jun-00		
WP07	SO	BHGLTA096	10 ft	15-Jun-00	N	9A06G782-019	1	19-Jun-00									
WP07	SO	BHGLTA096	10 ft	15-Jun-00	N	9A06G782-020	1	19-Jun-00									
WP07	SO	BHGLTA096	15 ft	15-Jun-00	N	9A06G782-021	1	19-Jun-00									
WP07	SO	BHGLTA096	20 ft	15-Jun-00	N	9A06G782-022	1	19-Jun-00									
WP07	SPLP	BHGLTA080	NA	07-Oct-99	N	9912G245-002	1								06-Jan-00		
WP07	SPLP	BHGLTA084	NA	07-Oct-99	N	9912G245-004	1								06-Jan-00		
WP07	SPLP	BHGLTA001	NA	15-Jun-00	N	9A06G781-004	1					23-Jun-00	23-Jun-00		23-Jun-00		
WP07	SPLP	BHGLTA071	NA	15-Jun-00	N	9A06G781-006	1					23-Jun-00					
WP07	WG	WHGLTA003	NA	05-Sep-97	N1	0568980003RE	1										
WP07	WG	WHGLTA003	NA	05-Sep-97	N1	0568980003SA	1										
WP07	WG	WHGLTA003	NA	05-Sep-97	N1	B7I060135003	1					11-Sep-97				11-Sep-97	
WP07	WG	WP07-10B	NA	14-Oct-99	N	9910G388-004	1					24-Oct-99		26-Oct-99	22-Oct-99	18-Oct-99	
WP07	WG	WP07-10B	NA	14-Oct-99	N	9910G388-004	2										
WP07	WG	WP07-10B	NA	14-Oct-99	N	9910G388-004	3										
WP07	WG	WHGLTA003	NA	28-Feb-00	N	9A02G112-001	1										
WP07	WG	WHGLTA003	NA	28-Feb-00	N	9A03G284-001	1										
WP07	WG	WHGLTA003	NA	06-Mar-00	N	9A03G284-019	1										
WP07	WG	WITCTA057	NA	26-Apr-00	N	9A04G979-012	1										
WP07	WG	WITCTA057	NA	26-Apr-00	N	9A04G979-012	2										
WP07	WG	WITCTA057	NA	26-Apr-00	N	9A04G979-012	3										
WP07	WG	WITCTA058	NA	26-Apr-00	N	9A04G979-013	1										
WP07	WG	WITCTA058	NA	26-Apr-00	N	9A04G979-013	2										
WP07	WG	WP07-10A	NA	11-Jan-00	N	9A01G578-010	1					17-Jan-00	18-Jan-00	17-Jan-00	14-Jan-00	13-Jan-00	
WP07	WG	WP07-10A	NA	11-Jan-00	N	9A01G578-010	2										
WP07	WG	WP07-10A	NA	07-Mar-00	N	9A03G223-002	1										
WP07	WG	WP07-10A	NA	07-Mar-00	N	9A03G284-025	1										
WP07	WG	WP07-10B	NA	12-Jan-00	N	9A01G611-004	1					19-Jan-00	20-Jan-00	17-Jan-00	17-Jan-00	14-Jan-00	
WP07	WG	WP07-10B	NA	12-Jan-00	N	9A01G611-004	2										
WP07	WG	WP07-10B	NA	03-Mar-00	N	9A03G177-003	1										
WP07	WG	WP07-10B	NA	03-Mar-00	N	9A03G284-014	1										
WP07	WG	WP07-10C	NA	12-Jan-00	N	9A01G611-003	1					19-Jan-00	20-Jan-00	17-Jan-00	17-Jan-00	14-Jan-00	

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RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	A2540G	D2216	E160.3	SM2540	SW6010	SW7041	SW7191	SW7421	SW7470	SW7471
WP07	WG	WP07-10C	NA	12-Jan-00	N	9A01G611-003	2										
WP07	WG	WP07-10C	NA	12-Jan-00	N	9A01G611-003	3										
WP07	WG	WP07-10C	NA	03-Mar-00	N	9A03G177-002	1										
WP07	WG	WP07-10C	NA	03-Mar-00	N	9A03G284-013	1										

Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW7740	SW7761	SW7841	SW8080	SW8081	SW8082	SW8141	SW8150	SW8151	SW8260	SW8270
LF04	SO	THGLTA001	00 ft	21-Aug-97	N1	B7H250117004	1										02-Sep-97	11-Sep-97
LF04	SO	THGLTA001	08 ft	27-Aug-97	N1	B7H280161001	1										05-Sep-97	21-Sep-97
LF04	SO	THGLTA002	00 ft	21-Aug-97	N1	B7H250117003	1										02-Sep-97	10-Sep-97
LF04	SO	THGLTA002	00 ft	21-Aug-97	FD1	B7H250117005	1										02-Sep-97	11-Sep-97
LF04	SO	THGLTA002	12 5 ft	02-Sep-97	N1	0568700005SA	1											16-Sep-97
LF04	SO	THGLTA002	12 5 ft	02-Sep-97	N1	B7I040101005	1										10-Sep-97	
LF04	SO	THGLTA003	00 ft	21-Aug-97	N1	B7H250117002	1										02-Sep-97	10-Sep-97
LF04	SO	THGLTA003	13 ft	03-Sep-97	N1	0568710006SA	1											17-Sep-97
LF04	SO	THGLTA003	13 ft	03-Sep-97	N1	B7I040138011	1										06-Sep-97	
LF04	SO	THGLTA004	00 ft	21-Aug-97	N1	B7H250117006	1										02-Sep-97	11-Sep-97
LF04	SO	THGLTA004	12 5 ft	03-Sep-97	N1	0568710007SA	1											17-Sep-97
LF04	SO	THGLTA004	12 5 ft	03-Sep-97	N1	B7I040138012	1										10-Sep-97	
LF04	SO	THGLTA005	00 ft	22-Aug-97	N1	B7H250123001	1										03-Sep-97	11-Sep-97
LF04	SO	THGLTA005	09 5 ft	03-Sep-97	N1	0568710008SA	1											17-Sep-97
LF04	SO	THGLTA005	09 5 ft	03-Sep-97	N1	B7I040138013	1										06-Sep-97	
LF04	SO	THGLTA006	00 ft	22-Aug-97	N1	B7H250123002	1										03-Sep-97	10-Sep-97
LF04	SO	THGLTA006	12 ft	04-Sep-97	N1	0568760003SA	1											18-Sep-97
LF04	SO	THGLTA006	12 ft	04-Sep-97	N1	B7I060129003	1										10-Sep-97	
LF04	SO	THGLTA007	00 ft	22-Aug-97	N1	B7H250123003	1										03-Sep-97	10-Sep-97
LF04	SO	THGLTA007	05 ft	04-Sep-97	N1	0568760002SA	1											18-Sep-97
LF04	SO	THGLTA007	05 ft	04-Sep-97	N1	B7I060129002	1										10-Sep-97	
LF04	SO	THGLTA007	05 ft	04-Sep-97	FD1	0568760005FD	1											18-Sep-97
LF04	SO	THGLTA007	05 ft	04-Sep-97	FD1	B7I060129004	1										10-Sep-97	
LF04	SO	THGLTA008	00 ft	22-Aug-97	N1	B7H250123006	1										03-Sep-97	10-Sep-97
LF04	SO	THGLTA008	05 ft	04-Sep-97	N1	0568760001SA	1											18-Sep-97
LF04	SO	THGLTA008	05 ft	04-Sep-97	N1	B7I060129001	1										16-Sep-97	
LF04	SO	THGLTA009	00 ft	25-Aug-97	N1	B7H270104001	1										03-Sep-97	12-Sep-97
LF04	SO	THGLTA009	12 5 ft	05-Sep-97	N1	0568980001SA	1											19-Sep-97
LF04	SO	THGLTA009	12 5 ft	05-Sep-97	N1	B7I060135001	1										11-Sep-97	
LF04	SO	THGLTA010	00 ft	25-Aug-97	N1	B7H270104002	1										03-Sep-97	12-Sep-97
LF04	SO	THGLTA010	11 ft	05-Sep-97	N1	0568980002SA	1											19-Sep-97
LF04	SO	THGLTA010	11 ft	05-Sep-97	N1	B7I060135002	1										11-Sep-97	
LF04	SO	BHGLTA401	00 ft	21-May-98	N	9805G791-010	1					18-Jun-98		24-Jun-98		22-Jun-98	29-May-98	10-Jul-98
LF04	SO	BHGLTA401	05 ft	21-May-98	N	9805G791-011	1					18-Jun-98		24-Jun-98		22-Jun-98	29-May-98	07-Jul-98
LF04	SO	BHGLTA401	10 ft	21-May-98	N	9805G791-012	1					18-Jun-98		24-Jun-98		22-Jun-98	29-May-98	07-Jul-98
LF04	SO	BHGLTA401	15 ft	21-May-98	N	9805G791-013	1					18-Jun-98		24-Jun-98		22-Jun-98	29-May-98	07-Jul-98
LF04	SO	BHGLTA402	00 ft	26-May-98	N	9805G833-013	1					19-Jun-98		25-Jun-98		24-Jun-98	04-Jun-98	10-Jul-98
LF04	SO	BHGLTA402	05 ft	26-May-98	N	9805G833-010	1					19-Jun-98		25-Jun-98		23-Jun-98	04-Jun-98	13-Jul-98
LF04	SO	BHGLTA402	10 ft	26-May-98	N	9805G833-011	1					19-Jun-98		25-Jun-98		23-Jun-98	04-Jun-98	13-Jul-98
LF04	SO	BHGLTA402	15 ft	26-May-98	N	9805G833-012	1					19-Jun-98		25-Jun-98		24-Jun-98	04-Jun-98	13-Jul-98
LF04	SO	BHGLTA403	05 ft	20-May-98	N	9805G744-017	1					07-Jun-98		15-Jun-98		11-Jun-98	29-May-98	01-Jul-98
LF04	SO	BHGLTA403	20 ft	03-Jun-98	N	9806G980-013	1				28-Jun-98			08-Jul-98	22-Jul-98		17-Jun-98	22-Jul-98
LF04	SO	BHGLTA403	25 ft	03-Jun-98	N	9806G980-014	1				28-Jun-98			08-Jul-98	22-Jul-98		17-Jun-98	23-Jul-98
LF04	SO	BHGLTA404	00 ft	20-May-98	N	9805G744-012	1					06-Jun-98		15-Jun-98		11-Jun-98	29-May-98	02-Jul-98
LF04	SO	BHGLTA404	05 ft	20-May-98	N	9805G744-013	1					06-Jun-98		16-Jun-98		11-Jun-98	29-May-98	02-Jul-98
LF04	SO	BHGLTA404	10 ft	20-May-98	N	9805G744-014	1					06-Jun-98		15-Jun-98		11-Jun-98	29-May-98	02-Jul-98
LF04	SO	BHGLTA404	15 ft	20-May-98	N	9805G744-015	1					06-Jun-98		15-Jun-98		11-Jun-98	29-May-98	02-Jul-98
LF04	SO	BHGLTA404	20 ft	20-May-98	N	9805G744-016	1					06-Jun-98		15-Jun-98		11-Jun-98	29-May-98	02-Jul-98

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Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW7740	SW7761	SW7841	SW8080	SW8081	SW8082	SW8141	SW8150	SW8151	SW8260	SW8270
LF04	SO	BHGLTA405	00 ft	21-May-98	N	9805G791-014	1					18-Jun-98		24-Jun-98		22-Jun-98	29-May-98	08-Jul-98
LF04	SO	BHGLTA405	05 ft	21-May-98	N	9805G791-015	1					18-Jun-98		25-Jun-98		22-Jun-98	31-May-98	07-Jul-98
LF04	SO	BHGLTA405	10 ft	21-May-98	N	9805G791-016	1					18-Jun-98		25-Jun-98		22-Jun-98	31-May-98	07-Jul-98
LF04	SO	BHGLTA405	15 ft	21-May-98	N	9805G791-017	1					18-Jun-98		25-Jun-98		22-Jun-98	31-May-98	07-Jul-98
LF04	SO	BHGLTA405	20 ft	21-May-98	N	9805G791-018	1					18-Jun-98		25-Jun-98		22-Jun-98	31-May-98	09-Jul-98
LF04	SO	BHGLTA405	25 ft	04-Jun-98	N	9806G031-003	1				28-Jun-98			08-Jul-98	22-Jul-98		18-Jun-98	25-Jul-98
LF04	SO	BHGLTA406	00 ft	21-May-98	N	9805G791-019	1					18-Jun-98		25-Jun-98		22-Jun-98	31-May-98	09-Jul-98
LF04	SO	BHGLTA406	00 ft	21-May-98	FD	9805G791-020	1					18-Jun-98		25-Jun-98		22-Jun-98	31-May-98	08-Jul-98
LF04	SO	BHGLTA406	05 ft	22-May-98	N	9805G833-001	1					18-Jun-98		25-Jun-98		22-Jun-98	03-Jun-98	10-Jul-98
LF04	SO	BHGLTA406	10 ft	22-May-98	N	9805G833-002	1					18-Jun-98		25-Jun-98		22-Jun-98	03-Jun-98	10-Jul-98
LF04	SO	BHGLTA406	15 ft	22-May-98	N	9805G833-003	1					18-Jun-98		25-Jun-98		22-Jun-98	04-Jun-98	13-Jul-98
LF04	SO	BHGLTA406	20 ft	22-May-98	N	9805G833-004	1					18-Jun-98		25-Jun-98		22-Jun-98	04-Jun-98	13-Jul-98
LF04	SO	BHGLTA406	25 ft	22-May-98	N	9805G833-005	1					18-Jun-98		25-Jun-98		22-Jun-98	03-Jun-98	13-Jul-98
LF04	SO	BHGLTA407	00 ft	07-Oct-99	N	9911G906-009	1											
LF04	SO	BHGLTA407	05 ft	05-Oct-99	N	9910G245-005	1										15-Oct-99	15-Oct-99
LF04	SO	BHGLTA407	05 ft	05-Oct-99	FD	9910G245-004	1										14-Oct-99	
LF04	SO	BHGLTA407	10 ft	05-Oct-99	N	9910G245-003	1										14-Oct-99	15-Oct-99
LF04	SO	BHGLTA407	15 ft	05-Oct-99	N	9910G245-002	1										14-Oct-99	15-Oct-99
LF04	SO	BHGLTA407	20 ft	05-Oct-99	N	9910G245-001	1										14-Oct-99	15-Oct-99
LF04	SO	BHGLTA408	00 ft	04-Oct-99	N	9910G245-009	1											19-Oct-99
LF04	SO	BHGLTA408	00 ft	04-Oct-99	N	9910G245-009	2											19-Oct-99
LF04	SO	BHGLTA408	00 ft	04-Oct-99	N	9910G245-009	3											19-Oct-99
LF04	SO	BHGLTA408	00 ft	04-Oct-99	N	9910G245-009	4											21-Oct-99
LF04	SO	BHGLTA408	00 ft	04-Oct-99	FD	9910G245-010	1											19-Oct-99
LF04	SO	BHGLTA408	00 ft	04-Oct-99	FD	9910G245-010	2											19-Oct-99
LF04	SO	BHGLTA408	00 ft	04-Oct-99	FD	9910G245-010	3											19-Oct-99
LF04	SO	BHGLTA408	00 ft	04-Oct-99	FD	9910G245-010	4											21-Oct-99
LF04	SO	BHGLTA403	05 ft	05-Jan-00	N	9A01G513-007	1					10-Jan-00						
LF04	SO	BHGLTA406	00 ft	04-Jan-00	N	9A01G449-005	1											08-Jan-00
LF04	SO	BHGLTA406	05 ft	05-Jan-00	N	9A01G513-011	1											08-Jan-00
LF04	SO	BHGLTA406	10 ft	05-Jan-00	N	9A01G513-017	1											08-Jan-00
LF04	SO	BHGLTA406	16 ft	05-Jan-00	N	9A01G513-013	1											08-Jan-00
LF04	SO	BHGLTA406	21 ft	05-Jan-00	N	9A01G513-001	1											08-Jan-00
LF04	SO	BHGLTA406	21 ft	05-Jan-00	N	9A01G513-001	2											10-Jan-00
LF04	SO	BHGLTA407	05 ft	15-Jun-00	N	9A06G782-023	1											
LF04	SO	BHGLTA408	00 ft	04-Jan-00	N	9A01G449-017	1											09-Jan-00
LF04	SO	BHGLTA408	00 ft	04-Jan-00	N	9A01G449-017	2											10-Jan-00
LF04	SO	BHGLTA408	03 ft	04-Jan-00	N	9A01G449-011	1											08-Jan-00
LF04	SO	BHGLTA408	05 ft	01-Mar-00	N	9A03G146-003	1											
LF04	SO	BHGLTA408	05 ft	01-Mar-00	FD	9A03G146-004	1											
LF04	SO	BHGLTA408	05 ft	01-Mar-00	FD	9A03G146-004	2											08-Jan-00
LF04	SO	BHGLTA409	00 ft	04-Jan-00	N	9A01G449-001	1											10-Jan-00
LF04	SO	BHGLTA409	00 ft	04-Jan-00	N	9A01G449-001	2											10-Jan-00
LF04	SO	BHGLTA409	00 ft	04-Jan-00	N	9A01G449-001	3											08-Jan-00
LF04	SO	BHGLTA409	03 ft	04-Jan-00	N	9A01G449-015	1											
LF04	SO	BHGLTA409	05 ft	01-Mar-00	N	9A03G146-005	1											
LF04	SO	BHGLTA410	00 ft	10-Mar-00	N	9A03G273-005	1											
LF04	SO	BHGLTA410	05 ft	10-Mar-00	N	9A03G273-006	1											

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Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW7740	SW7761	SW7841	SW8080	SW8081	SW8082	SW8141	SW8150	SW8151	SW8260	SW8270
LF04	SO	BHGLTA411	00 ft	10-Mar-00	N	9A03G273-007	1											
LF04	SO	BHGLTA411	05 ft	10-Mar-00	N	9A03G273-008	1											
LF04	SO	BHGLTA412	00 ft	10-Mar-00	N	9A03G273-009	1											
LF04	SO	BHGLTA412	05 ft	10-Mar-00	N	9A03G273-010	1											
LF04	SO	THGLTA002	00 ft	04-Jan-00	N	9A01G449-021	1											08-Jan-00
LF04	SO	THGLTA003	00 ft	04-Jan-00	N	9A01G449-009	1											08-Jan-00
LF04	SO	THGLTA003	13 ft	05-Jan-00	N	9A01G513-005	1											
LF04	SO	THGLTA003	13 ft	05-Jan-00	FD	9A01G513-003	1											
LF04	SO	THGLTA008	00 ft	04-Jan-00	N	9A01G449-007	1											08-Jan-00
LF04	SPLP	BHGLTA407	NA	07-Oct-99	N	9912G245-010	1											
LF04	SPLP	BHGLTA403	NA	05-Jan-00	N	9A01G513-008	1					11-Jan-00						
LF04	SPLP	BHGLTA406	NA	04-Jan-00	N	9A01G449-006	1											10-Jan-00
LF04	SPLP	BHGLTA406	NA	05-Jan-00	N	9A01G513-012	1											11-Jan-00
LF04	SPLP	BHGLTA406	NA	05-Jan-00	N	9A01G513-018	1											11-Jan-00
LF04	SPLP	BHGLTA406	NA	05-Jan-00	N	9A01G513-014	1											11-Jan-00
LF04	SPLP	BHGLTA406	NA	05-Jan-00	N	9A01G513-002	1											11-Jan-00
LF04	SPLP	BHGLTA408	NA	04-Jan-00	N	9A01G449-018	1											10-Jan-00
LF04	SPLP	BHGLTA408	NA	04-Jan-00	N	9A01G449-012	1											10-Jan-00
LF04	SPLP	BHGLTA409	NA	04-Jan-00	N	9A01G449-002	1											10-Jan-00
LF04	SPLP	BHGLTA409	NA	04-Jan-00	N	9A01G449-016	1											10-Jan-00
LF04	SPLP	THGLTA002	NA	04-Jan-00	N	9A01G449-022	1											10-Jan-00
LF04	SPLP	THGLTA003	NA	04-Jan-00	N	9A01G449-010	1											10-Jan-00
LF04	SPLP	THGLTA003	NA	05-Jan-00	N	9A01G513-006	1											
LF04	SPLP	THGLTA003	NA	05-Jan-00	FD	9A01G513-004	1											
LF04	SPLP	THGLTA008	NA	04-Jan-00	N	9A01G449-008	1											10-Jan-00
LF04	WG	LF04-04	NA	08-Sep-97	N1	0569030005SA	1											24-Sep-97
LF04	WG	LF04-04	NA	08-Sep-97	N1	B7I090113005	1		15-Sep-97								18-Sep-97	
LF04	WG	LF04-04	NA	08-Sep-97	FD1	0569030004FD	1											24-Sep-97
LF04	WG	LF04-04	NA	08-Sep-97	FD1	B7I090113004	1		15-Sep-97								14-Sep-97	
LF04	WG	LF04-4B	NA	08-Sep-97	N1	0569030003SA	1											24-Sep-97
LF04	WG	LF04-4B	NA	08-Sep-97	N1	B7I090113003	1		15-Sep-97								14-Sep-97	
LF04	WG	LF04-4D	NA	14-Oct-99	N	9910G388-002	1	19-Oct-99			02-Nov-99						22-Oct-99	20-Oct-99
LF04	WG	LF04-4D	NA	14-Oct-99	N	9910G388-002	2										25-Oct-99	
LF04	WG	LF04-4D	NA	14-Oct-99	FD	9910G388-003	1	19-Oct-99			02-Nov-99						22-Oct-99	20-Oct-99
LF04	WG	LF04-4D	NA	14-Oct-99	FD	9910G388-003	2										25-Oct-99	
LF04	WG	FT09-12D	NA	06-Mar-00	N	9A03G192-001	1							10-Mar-00				
LF04	WG	FT09-12E	NA	11-Jan-00	N	9A01G578-011	1	17-Jan-00		21-Jan-00	20-Jan-00	18-Jan-00					13-Jan-00	14-Jan-00
LF04	WG	FT09-12E	NA	11-Jan-00	FD	9A01G578-012	1	17-Jan-00		21-Jan-00	20-Jan-00	18-Jan-00					13-Jan-00	14-Jan-00
LF04	WG	LF04-04	NA	13-Jan-00	N	9A01G611-008	1	18-Jan-00				18-Jan-00	22-Jan-00				20-Jan-00	19-Jan-00
LF04	WG	LF04-04	NA	13-Jan-00	N	9A01G611-008	2										21-Jan-00	
LF04	WG	LF04-10	NA	29-Feb-00	N	9A03G127-001	1							07-Mar-00				
LF04	WG	LF04-4D	NA	13-Jan-00	N	9A01G611-009	1	18-Jan-00				18-Jan-00	22-Jan-00				20-Jan-00	19-Jan-00
LF04	WG	LF04-4D	NA	13-Jan-00	N	9A01G611-009	2										24-Jan-00	
LF04	WG	LF04-4F	NA	06-Mar-00	N	9A03G192-005	1							10-Mar-00				
LF04	WG	LF04-4F	NA	06-Mar-00	N	9A03G284-020	1											17-Mar-00
LF04	WG	LF04-4F	NA	06-Mar-00	FD	9A03G192-006	1							10-Mar-00				
LF04	WG	LF04-4F	NA	06-Mar-00	FD	9A03G284-021	1											17-Mar-00
LF05	SO	THGLTA011	00 ft	25-Aug-97	N1	B7H270104003	1										03-Sep-97	12-Sep-97

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Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW7740	SW7761	SW7841	SW8080	SW8081	SW8082	SW8141	SW8150	SW8151	SW8260	SW8270
LF05	SO	THGLTA012	00 ft	25-Aug-97	N1	B7H270104004	1										03-Sep-97	12-Sep-97
LF05	SO	THGLTA012	00 ft	25-Aug-97	FD1	B7H270104005	1										03-Sep-97	12-Sep-97
LF05	SO	THGLTA013	00 ft	25-Aug-97	N1	B7H270104008	1										04-Sep-97	12-Sep-97
LF05	SO	THGLTA013	15 ft	09-Sep-97	N1	0569030006SA	1											29-Sep-97
LF05	SO	THGLTA013	15 ft	09-Sep-97	N1	B7I100121001	1										15-Sep-97	
LF05	SO	THGLTA014	00 ft	25-Aug-97	N1	B7H270104009	1										04-Sep-97	12-Sep-97
LF05	SO	THGLTA015	00 ft	25-Aug-97	N1	B7H270104010	1										04-Sep-97	12-Sep-97
LF05	SO	THGLTA016	00 ft	25-Aug-97	N1	B7H270104011	1										04-Sep-97	12-Sep-97
LF05	SO	THGLTA017	00 ft	25-Aug-97	N1	B7H270104012	1										04-Sep-97	12-Sep-97
LF05	SO	THGLTA017	12 ft	08-Sep-97	N1	0569030001SA	1											29-Sep-97
LF05	SO	THGLTA017	12 ft	08-Sep-97	N1	B7I090113001	1										15-Sep-97	
LF05	SO	THGLTA018	00 ft	02-Sep-97	N1	0568700003SA	1											16-Sep-97
LF05	SO	THGLTA018	00 ft	02-Sep-97	N1	B7I040101003	1										06-Sep-97	
LF05	SO	THGLTA019	00 ft	02-Sep-97	N1	0568700002SA	1											16-Sep-97
LF05	SO	THGLTA019	00 ft	02-Sep-97	N1	B7I040101002	1										06-Sep-97	
LF05	SO	THGLTA019	10 5 ft	09-Sep-97	N1	0569030007SA	1											30-Sep-97
LF05	SO	THGLTA019	10 5 ft	09-Sep-97	N1	B7I100121002	1										15-Sep-97	
LF05	SO	THGLTA020	00 ft	02-Sep-97	N1	0568700001SA	1											15-Sep-97
LF05	SO	THGLTA020	00 ft	02-Sep-97	N1	B7I040101001	1										06-Sep-97	
LF05	SO	THGLTA020	00 ft	02-Sep-97	FD1	0568700004FD	1											16-Sep-97
LF05	SO	THGLTA020	00 ft	02-Sep-97	FD1	B7I040101004	1										06-Sep-97	
LF05	SO	THGLTA020	13 ft	09-Sep-97	N1	0569030008SA	1											30-Sep-97
LF05	SO	THGLTA020	13 ft	09-Sep-97	N1	B7I100121003	1										15-Sep-97	
LF05	SO	BHGLTA504	00 ft	14-May-98	N	9805G688-004	1					04-Jun-98		16-Jun-98		02-Jun-98	28-May-98	04-Jun-98
LF05	SO	BHGLTA504	05 ft	14-May-98	N	9805G688-005	1					04-Jun-98		16-Jun-98		02-Jun-98	28-May-98	04-Jun-98
LF05	SO	BHGLTA505	00 ft	14-May-98	N	9805G688-007	1					04-Jun-98		16-Jun-98		02-Jun-98	28-May-98	04-Jun-98
LF05	SO	BHGLTA505	05 ft	18-May-98	N	9805G744-001	1					05-Jun-98		15-Jun-98		10-Jun-98	29-May-98	01-Jul-98
LF05	SO	BHGLTA505	10 ft	18-May-98	N	9805G744-002	1					05-Jun-98		15-Jun-98		10-Jun-98	29-May-98	01-Jul-98
LF05	SO	BHGLTA505	15 ft	18-May-98	N	9805G744-003	1					05-Jun-98		15-Jun-98		10-Jun-98	29-May-98	01-Jul-98
LF05	SO	BHGLTA505	20 ft	18-May-98	N	9805G744-004	1					05-Jun-98		15-Jun-98		10-Jun-98	29-May-98	01-Jul-98
LF05	SO	BHGLTA506	00 ft	13-May-98	N	9805G655-008	1					27-May-98		29-May-98		22-May-98	26-May-98	22-May-98
LF05	SO	BHGLTA506	00 ft	13-May-98	N	9805G655-008	2							20-Jun-98				
LF05	SO	BHGLTA506	05 ft	13-May-98	N	9805G655-009	1					27-May-98		29-May-98		22-May-98	27-May-98	22-May-98
LF05	SO	BHGLTA506	05 ft	13-May-98	N	9805G655-009	2							20-Jun-98				
LF05	SO	BHGLTA506	05 ft	13-May-98	FD	9805G655-017	1					27-May-98		30-May-98		22-May-98	27-May-98	28-May-98
LF05	SO	BHGLTA506	05 ft	13-May-98	FD	9805G655-017	2							20-Jun-98			27-May-98	
LF05	SO	BHGLTA506	10 ft	13-May-98	N	9805G655-010	1					27-May-98		29-May-98		22-May-98	27-May-98	22-May-98
LF05	SO	BHGLTA506	10 ft	13-May-98	N	9805G655-010	2							20-Jun-98				
LF05	SO	BHGLTA507	00 ft	13-May-98	N	9805G655-011	1					27-May-98		29-May-98		22-May-98	27-May-98	22-May-98
LF05	SO	BHGLTA507	00 ft	13-May-98	N	9805G655-011	2							20-Jun-98				
LF05	SO	BHGLTA507	05 ft	13-May-98	N	9805G655-012	1					27-May-98		30-May-98		22-May-98	27-May-98	22-May-98
LF05	SO	BHGLTA507	05 ft	13-May-98	N	9805G655-012	2							20-Jun-98				
LF05	SO	BHGLTA507	10 ft	13-May-98	N	9805G655-013	1					27-May-98		30-May-98		22-May-98	27-May-98	22-May-98
LF05	SO	BHGLTA507	10 ft	13-May-98	N	9805G655-013	2							20-Jun-98				
LF05	SO	BHGLTA508	00 ft	13-May-98	N	9805G655-014	1					27-May-98		30-May-98		22-May-98	27-May-98	28-May-98
LF05	SO	BHGLTA508	00 ft	13-May-98	N	9805G655-014	2							20-Jun-98				
LF05	SO	BHGLTA508	05 ft	13-May-98	N	9805G655-015	1					27-May-98		30-May-98		22-May-98	27-May-98	28-May-98
LF05	SO	BHGLTA508	05 ft	13-May-98	N	9805G655-015	2							20-Jun-98				

Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW7740	SW7761	SW7841	SW8080	SW8081	SW8082	SW8141	SW8150	SW8151	SW8260	SW8270
LF05	SO	BHGLTA508	10 ft	13-May-98	N	9805G655-016	1					27-May-98		30-May-98		22-May-98	27-May-98	29-May-98
LF05	SO	BHGLTA508	10 ft	13-May-98	N	9805G655-016	2							20-Jun-98			27-May-98	
LF05	SO	BHGLTA509	00 ft	14-May-98	N	9805G688-006	1					04-Jun-98		16-Jun-98		02-Jun-98	28-May-98	04-Jun-98
LF05	SO	BHGLTA509	05 ft	15-May-98	N	9805G688-012	1					04-Jun-98		16-Jun-98		02-Jun-98	28-May-98	04-Jun-98
LF05	SO	BHGLTA509	05 ft	15-May-98	N	9805G688-012	2											10-Jun-98
LF05	SO	BHGLTA509	10 ft	15-May-98	N	9805G688-013	1					04-Jun-98		16-Jun-98		02-Jun-98	28-May-98	04-Jun-98
LF05	SO	BHGLTA509	15 ft	15-May-98	N	9805G688-014	1					04-Jun-98		16-Jun-98		05-Jun-98	28-May-98	04-Jun-98
LF05	SO	BHGLTA510	00 ft	08-Oct-99	N	9910G320-001	1											
LF05	SO	BHGLTA511	05 ft	08-Oct-99	N	9910G320-002	1										15-Oct-99	27-Oct-99
LF05	SO	BHGLTA506	05 ft	05-Jan-00	N	9A01G513-015	1											
LF05	SO	BHGLTA509	05 ft	05-Jan-00	N	9A01G512-003	1											07-Jan-00
LF05	SO	BHGLTA509	10 ft	05-Jan-00	N	9A01G512-005	1											07-Jan-00
LF05	SO	BHGLTA509	16 ft	05-Jan-00	N	9A01G513-009	1							10-Jan-00				
LF05	SO	BHGLTA512	15 ft	10-Mar-00	N	9A03G273-001	1							16-Mar-00				
LF05	SO	BHGLTA513	15 ft	10-Mar-00	N	9A03G273-002	1							22-Mar-00				
LF05	SO	BHGLTA514	15 ft	10-Mar-00	N	9A03G273-003	1							17-Mar-00				
LF05	SO	BHGLTA514	15 ft	10-Mar-00	FD	9A03G273-004	1							17-Mar-00				
LF05	SO	BHGLTA515	05 ft	15-Jun-00	N	9A06G782-024	1										23-Jun-00	
LF05	SO	BHGLTA515	10 ft	15-Jun-00	N	9A06G782-025	1										24-Jun-00	
LF05	SO	LF05-DP059	05 ft	26-Apr-00	N	9A04G979-001	1										05-May-00	
LF05	SO	LF05-DP059	10 ft	26-Apr-00	N	9A04G979-002	1										05-May-00	
LF05	SO	LF05-DP059	15 ft	26-Apr-00	N	9A04G979-003	1										05-May-00	
LF05	SO	LF05-DP059	20 ft	26-Apr-00	N	9A04G979-004	1										05-May-00	
LF05	SO	LF05-DP059	25 ft	26-Apr-00	N	9A04G979-005	1										05-May-00	
LF05	SO	LF05-DP060	05 ft	26-Apr-00	N	9A04G979-006	1										06-May-00	
LF05	SO	LF05-DP060	10 ft	26-Apr-00	N	9A04G979-007	1										06-May-00	
LF05	SO	LF05-DP060	15 ft	26-Apr-00	N	9A04G979-008	1										06-May-00	
LF05	SO	LF05-DP060	20 ft	26-Apr-00	N	9A04G979-009	1										08-May-00	
LF05	SO	THGLTA017	00 ft	04-Jan-00	N	9A01G449-019	1											08-Jan-00
LF05	SO	THGLTA017	13 ft	05-Jan-00	N	9A01G512-001	1											08-Jan-00
LF05	SPLP	BHGLTA506	NA	05-Jan-00	N	9A01G513-016	1											
LF05	SPLP	BHGLTA509	NA	05-Jan-00	N	9A01G512-004	1											11-Jan-00
LF05	SPLP	BHGLTA509	NA	05-Jan-00	N	9A01G512-006	1											11-Jan-00
LF05	SPLP	BHGLTA509	NA	05-Jan-00	N	9A01G513-010	1							11-Jan-00				
LF05	SPLP	THGLTA017	NA	04-Jan-00	N	9A01G449-020	1											10-Jan-00
LF05	SPLP	THGLTA017	NA	05-Jan-00	N	9A01G512-002	1											11-Jan-00
LF05	WG	WHGLTA003	NA	05-Sep-97	N1	0568980003RE	1											23-Sep-97
LF05	WG	WHGLTA003	NA	05-Sep-97	N1	0568980003SA	1											12-Sep-97
LF05	WG	WHGLTA003	NA	05-Sep-97	N1	B7I060135003	1		15-Sep-97								14-Sep-97	
LF05	WG	LF05-5C	NA	14-Oct-99	N	9910G388-006	1	19-Oct-99						27-Oct-99			25-Oct-99	21-Oct-99
LF05	WG	LF05-5C	NA	14-Oct-99	N	9910G388-006	2										26-Oct-99	
LF05	WG	LF05-02	NA	07-Jan-00	N	9A01G549-001	1	14-Jan-00									10-Jan-00	12-Jan-00
LF05	WG	LF05-02	NA	07-Jan-00	N	9A01G549-001	2										11-Jan-00	
LF05	WG	LF05-02	NA	07-Jan-00	N	9A01G549-001	3										11-Jan-00	
LF05	WG	LF05-18	NA	29-Feb-00	N	9A03G127-002	1							07-Mar-00				
LF05	WG	LF05-18	NA	29-Feb-00	N	9A03G284-003	1											16-Mar-00
LF05	WG	LF05-19	NA	12-Jan-00	N	9A01G611-005	1	18-Jan-00						19-Jan-00			18-Jan-00	18-Jan-00
LF05	WG	LF05-19	NA	12-Jan-00	N	9A01G611-005	2										20-Jan-00	

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Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
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Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW7740	SW7761	SW7841	SW8080	SW8081	SW8082	SW8141	SW8150	SW8151	SW8260	SW8270
LF05	WG	LF05-19	NA	01-Mar-00	N	9A03G146-001	1							08-Mar-00				
LF05	WG	LF05-19	NA	01-Mar-00	N	9A03G284-006	1											16-Mar-00
LF05	WG	LF05-5A	NA	02-Mar-00	N	9A03G162-001	1							08-Mar-00				
LF05	WG	LF05-5A	NA	02-Mar-00	N	9A03G284-010	1											16-Mar-00
LF05	WG	LF05-5B	NA	12-Jan-00	N	9A01G611-002	1	18-Jan-00						19-Jan-00			18-Jan-00	17-Jan-00
LF05	WG	LF05-5B	NA	12-Jan-00	N	9A01G611-002	2										20-Jan-00	
LF05	WG	LF05-5B	NA	03-Mar-00	N	9A03G177-001	1							08-Mar-00				
LF05	WG	LF05-5B	NA	03-Mar-00	N	9A03G284-012	1											16-Mar-00
LF05	WG	LF05-5C	NA	11-Jan-00	N	9A01G578-008	1	17-Jan-00		21-Jan-00				19-Jan-00			13-Jan-00	14-Jan-00
LF05	WG	LF05-5C	NA	11-Jan-00	N	9A01G578-008	2										13-Jan-00	
LF05	WG	LF05-5C	NA	11-Jan-00	FD	9A01G578-009	1	17-Jan-00		21-Jan-00				19-Jan-00			13-Jan-00	14-Jan-00
LF05	WG	LF05-5C	NA	11-Jan-00	FD	9A01G578-009	2										13-Jan-00	
LF05	WG	LF05-5C	NA	07-Mar-00	N	9A03G223-001	1							13-Mar-00				
LF05	WG	LF05-5C	NA	07-Mar-00	N	9A03G284-024	1											17-Mar-00
LF05	WG	LF05-5E	NA	06-Mar-00	N	9A03G192-007	1							10-Mar-00				
LF05	WG	LF05-5E	NA	06-Mar-00	N	9A03G284-022	1											17-Mar-00
LF05	WG	LF05-5E	NA	06-Mar-00	FD	9A03G192-008	1							10-Mar-00				
LF05	WG	LF05-5E	NA	06-Mar-00	FD	9A03G284-023	1											17-Mar-00
LF05	WG	WHGLTA003	NA	28-Feb-00	N	9A02G112-001	1							07-Mar-00				
LF05	WG	WHGLTA003	NA	28-Feb-00	N	9A03G284-001	1											16-Mar-00
LF05	WG	WHGLTA003	NA	06-Mar-00	N	9A03G284-019	1											17-Mar-00
LF05	WG	WHGLTA701	NA	01-Mar-00	N	9A03G146-008	1							08-Mar-00				
LF05	WG	WHGLTA701	NA	01-Mar-00	N	9A03G284-009	1											16-Mar-00
LF05	WG	WHGLTA702	NA	06-Mar-00	N	9A03G192-002	1							10-Mar-00				
LF05	WG	WHGLTA702	NA	06-Mar-00	N	9A03G284-017	1											17-Mar-00
LF05	WG	WHGLTA703	NA	06-Jan-00	N	9A01G543-001	1	14-Jan-00						11-Jan-00			10-Jan-20	12-Jan-00
LF05	WG	WHGLTA703	NA	06-Jan-00	N	9A01G543-001	2										11-Jan-20	
LF05	WG	WHGLTA703	NA	06-Mar-00	N	9A03G192-004	1							10-Mar-00				
LF05	WG	WHGLTA704	NA	01-Mar-00	N	9A03G146-007	1							08-Mar-00				
LF05	WG	WITCTA059	NA	26-Apr-00	N	9A04G979-014	1										10-May-00	
LF05	WG	WITCTA059	NA	26-Apr-00	N	9A04G979-014	2										11-May-00	
LF05	WG	WITCTA059	NA	26-Apr-00	N	9A04G979-014	3										11-May-00	
LF05	WG	WITCTA060	NA	26-Apr-00	N	9A04G979-015	1										10-May-00	
LF05	WG	WITCTA060	NA	26-Apr-00	N	9A04G979-015	2										11-May-00	
LF08	SO	THGLTA021	09 5 ft	27-Aug-97	N1	B7H280161011	1										05-Sep-97	21-Sep-97
LF08	SO	THGLTA022	00 ft	28-Aug-97	N1	B7H290134003	1										05-Sep-97	21-Sep-97
LF08	SO	THGLTA022	00 ft	28-Aug-97	FD1	B7H290134004	1										05-Sep-97	21-Sep-97
LF08	SO	THGLTA022	11 ft	28-Aug-97	N1	B7H290134005	1										05-Sep-97	21-Sep-97
LF08	SO	THGLTA023	00 ft	28-Aug-97	N1	B7H290134006	1										05-Sep-97	21-Sep-97
LF08	SO	THGLTA023	09 5 ft	28-Aug-97	N1	B7H290134007	1										05-Sep-97	21-Sep-97
LF08	SO	THGLTA024	00 ft	10-Sep-97	N1	0569330003SA	1											08-Oct-97
LF08	SO	THGLTA024	00 ft	10-Sep-97	N1	B7I110141003	1										11-Sep-97	
LF08	SO	THGLTA024	14 5 ft	10-Sep-97	N1	0569330004RE	1											16-Oct-97
LF08	SO	THGLTA024	14 5 ft	10-Sep-97	N1	0569330004SA	1											07-Oct-97
LF08	SO	THGLTA024	14 5 ft	10-Sep-97	N1	B7I110141004	1										11-Sep-97	
LF08	SO	THGLTA025	00 ft	10-Sep-97	N1	0569330005SA	1											08-Oct-97
LF08	SO	THGLTA025	00 ft	10-Sep-97	N1	B7I110141006	1										11-Sep-97	
LF08	SO	THGLTA025	10 5 ft	10-Sep-97	N1	0569330006SA	1											08-Oct-97

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Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW7740	SW7761	SW7841	SW8080	SW8081	SW8082	SW8141	SW8150	SW8151	SW8260	SW8270
LF08	SO	THGLTA025	10 5 ft	10-Sep-97	N1	B7I110141007	1										11-Sep-97	
LF08	SO	THGLTA026	00 ft	11-Sep-97	N1	0569330007SA	1											08-Oct-97
LF08	SO	THGLTA026	00 ft	11-Sep-97	N1	B7I120127001	1										15-Sep-97	
LF08	SO	THGLTA026	04 5 ft	11-Sep-97	N1	0569330008SA	1											07-Oct-97
LF08	SO	THGLTA026	04 5 ft	11-Sep-97	N1	B7I120127002	1										15-Sep-97	
LF08	SO	THGLTA027	00 ft	11-Sep-97	N1	0569330009SA	1											09-Oct-97
LF08	SO	THGLTA027	00 ft	11-Sep-97	N1	B7I120127003	1										15-Sep-97	
LF08	SO	THGLTA027	03 ft	11-Sep-97	N1	0569330010SA	1											07-Oct-97
LF08	SO	THGLTA027	03 ft	11-Sep-97	N1	B7I120127004	1										15-Sep-97	
LF08	SO	THGLTA027	03 ft	11-Sep-97	FD1	0569330011FD	1											09-Oct-97
LF08	SO	THGLTA027	03 ft	11-Sep-97	FD1	B7I120127005	1										15-Sep-97	
LF08	SO	THGLTA028	00 ft	11-Sep-97	N1	0569330012SA	1											08-Oct-97
LF08	SO	THGLTA028	00 ft	11-Sep-97	N1	B7I120127006	1										15-Sep-97	
LF08	SO	THGLTA028	08 5 ft	11-Sep-97	N1	0569330013SA	1											06-Oct-97
LF08	SO	THGLTA028	08 5 ft	11-Sep-97	N1	B7I120127007	1										15-Sep-97	
LF08	SO	BHGLTA812	00 ft	02-Jun-98	N	9806G959-008	1				25-Jun-98			29-Jun-98		21-Jul-98	16-Jun-98	21-Jul-98
LF08	SO	BHGLTA812	00 ft	02-Jun-98	FD	9806G959-016	1				25-Jun-98			30-Jun-98		22-Jul-98	12-Jun-98	21-Jul-98
LF08	SO	BHGLTA812	00 ft	02-Jun-98	FD	9806G959-016	2											30-Jul-98
LF08	SO	BHGLTA812	00 ft	02-Jun-98	FD	9806G959-016	3											30-Jul-98
LF08	SO	BHGLTA812	05 ft	02-Jun-98	N	9806G959-009	1				25-Jun-98			29-Jun-98		21-Jul-98	16-Jun-98	21-Jul-98
LF08	SO	BHGLTA812	10 ft	02-Jun-98	N	9806G959-010	1				25-Jun-98			29-Jun-98		21-Jul-98	12-Jun-98	21-Jul-98
LF08	SO	BHGLTA812	15 ft	02-Jun-98	N	9806G959-011	1				25-Jun-98			29-Jun-98		21-Jul-98	12-Jun-98	21-Jul-98
LF08	SO	BHGLTA812	20 ft	02-Jun-98	N	9806G959-012	1				25-Jun-98			29-Jun-98		21-Jul-98	12-Jun-98	21-Jul-98
LF08	SO	BHGLTA813	00 ft	12-May-98	N	9805G655-003	1					26-May-98		28-May-98		22-May-98	26-May-98	22-May-98
LF08	SO	BHGLTA813	00 ft	12-May-98	N	9805G655-003	2							20-Jun-98				
LF08	SO	BHGLTA813	05 ft	12-May-98	N	9805G655-004	1					26-May-98		29-May-98		22-May-98	26-May-98	22-May-98
LF08	SO	BHGLTA813	05 ft	12-May-98	N	9805G655-004	2							20-Jun-98			26-May-98	
LF08	SO	BHGLTA813	10 ft	12-May-98	N	9805G655-005	1					27-May-98		29-May-98		22-May-98	26-May-98	22-May-98
LF08	SO	BHGLTA813	10 ft	12-May-98	N	9805G655-005	2							20-Jun-98				
LF08	SO	BHGLTA813	15 ft	01-Jun-98	N	9806G959-002	1				24-Jun-98			29-Jun-98		21-Jul-98	11-Jun-98	21-Jul-98
LF08	SO	BHGLTA813	20 ft	01-Jun-98	N	9806G959-003	1				24-Jun-98			29-Jun-98		21-Jul-98	11-Jun-98	21-Jul-98
LF08	SO	BHGLTA814	00 ft	18-May-98	N	9805G744-006	1					06-Jun-98		15-Jun-98		10-Jun-98	29-May-98	02-Jul-98
LF08	SO	BHGLTA814	00 ft	18-May-98	FD	9805G744-011	1					06-Jun-98		15-Jun-98		11-Jun-98	29-May-98	02-Jul-98
LF08	SO	BHGLTA814	05 ft	18-May-98	N	9805G744-007	1					06-Jun-98		15-Jun-98		11-Jun-98	29-May-98	01-Jul-98
LF08	SO	BHGLTA814	10 ft	18-May-98	N	9805G744-008	1					06-Jun-98		15-Jun-98		11-Jun-98	29-May-98	01-Jul-98
LF08	SO	BHGLTA815	00 ft	12-May-98	N	9805G655-001	1					26-May-98		28-May-98		22-May-98	26-May-98	22-May-98
LF08	SO	BHGLTA815	00 ft	12-May-98	N	9805G655-001	2							20-Jun-98			26-May-98	
LF08	SO	BHGLTA815	05 ft	12-May-98	N	9805G655-002	1					26-May-98		28-May-98		22-May-98	26-May-98	22-May-98
LF08	SO	BHGLTA815	05 ft	12-May-98	N	9805G655-002	2							20-Jun-98			27-May-98	
LF08	SO	BHGLTA815	10 ft	02-Jun-98	N	9806G959-013	1				25-Jun-98			29-Jun-98		21-Jul-98	12-Jun-98	21-Jul-98
LF08	SO	BHGLTA815	15 ft	02-Jun-98	N	9806G959-014	1				25-Jun-98			29-Jun-98		21-Jul-98	12-Jun-98	21-Jul-98
LF08	SO	BHGLTA815	20 ft	02-Jun-98	N	9806G959-015	1				25-Jun-98			30-Jun-98		22-Jul-98	12-Jun-98	21-Jul-98
LF08	SO	BHGLTA816	00 ft	02-Jun-98	N	9806G980-003	1				28-Jun-98			01-Jul-98	22-Jul-98		16-Jun-98	23-Jul-98
LF08	SO	BHGLTA816	00 ft	02-Jun-98	N	9806G980-003	2										17-Jun-98	25-Jul-98
LF08	SO	BHGLTA816	05 ft	02-Jun-98	N	9806G980-004	1				28-Jun-98			01-Jul-98	22-Jul-98		16-Jun-98	23-Jul-98
LF08	SO	BHGLTA816	05 ft	02-Jun-98	N	9806G980-004	2										17-Jun-98	
LF08	SO	BHGLTA816	10 ft	02-Jun-98	N	9806G980-005	1				28-Jun-98			01-Jul-98	22-Jul-98		16-Jun-98	25-Jul-98
LF08	SO	BHGLTA816	10 ft	02-Jun-98	FD	9806G980-007	1				28-Jun-98			01-Jul-98	22-Jul-98		17-Jun-98	23-Jul-98

Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

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Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW7740	SW7761	SW7841	SW8080	SW8081	SW8082	SW8141	SW8150	SW8151	SW8260	SW8270
LF08	SO	BHGLTA816	15 ft	02-Jun-98	N	9806G980-006	1				28-Jun-98			01-Jul-98	22-Jul-98		16-Jun-98	22-Jul-98
LF08	SO	BHGLTA816	15 ft	02-Jun-98	N	9806G980-006	2											30-Jul-98
LF08	SO	BHGLTA817	00 ft	01-Jun-98	N	9806G959-004	1				24-Jun-98			29-Jun-98		21-Jul-98	11-Jun-98	21-Jul-98
LF08	SO	BHGLTA817	00 ft	01-Jun-98	N	9806G959-004	2										17-Jun-98	30-Jul-98
LF08	SO	BHGLTA817	00 ft	01-Jun-98	FD	9806G959-005	1				24-Jun-98			29-Jun-98		21-Jul-98	11-Jun-98	21-Jul-98
LF08	SO	BHGLTA817	00 ft	01-Jun-98	FD	9806G959-005	2										17-Jun-98	30-Jul-98
LF08	SO	BHGLTA818	00 ft	03-Jun-98	N	9806G980-008	1				28-Jun-98			01-Jul-98	22-Jul-98		17-Jun-98	23-Jul-98
LF08	SO	BHGLTA818	05 ft	19-May-98	N	9805G744-020	1					06-Jun-98		16-Jun-98		11-Jun-98	29-May-98	08-Jul-98
LF08	SO	BHGLTA818	10 ft	03-Jun-98	N	9806G980-009	1				28-Jun-98			08-Jul-98	22-Jul-98		17-Jun-98	22-Jul-98
LF08	SO	BHGLTA818	15 ft	03-Jun-98	N	9806G980-010	1				28-Jun-98			01-Jul-98	22-Jul-98		17-Jun-98	22-Jul-98
LF08	SO	BHGLTA819	05 ft	07-Oct-99	N	9910G290-007	1											27-Oct-99
LF08	SO	BHGLTA820	00 ft	07-Oct-99	N	9910G290-006	1											02-Nov-99
LF08	SO	BHGLTA820	00 ft	07-Oct-99	N	9A02G019-002	1											
LF08	SO	BHGLTA820	15 ft	07-Oct-99	N	9910G290-005	1											27-Oct-99
LF08	SO	BHGLTA821	00 ft	07-Oct-99	N	9910G290-003	1											27-Oct-99
LF08	SO	BHGLTA821	00 ft	07-Oct-99	N	9A02G019-001	1											
LF08	SO	BHGLTA821	15 ft	07-Oct-99	N	9910G290-004	1											27-Oct-99
LF08	SO	BHGLTA822	00 ft	08-Oct-99	N	9910G320-003	1	10-Nov-99	10-Nov-99	16-Nov-99	03-Nov-99			31-Oct-99	30-Oct-99		18-Oct-99	02-Nov-99
LF08	SO	BHGLTA822	00 ft	08-Oct-99	N	9910G320-003	2							06-Nov-99				
LF08	SO	BHGLTA822	05 ft	08-Oct-99	N	9910G320-004	1	11-Nov-99	10-Nov-99	15-Nov-99	03-Nov-99			31-Oct-99	30-Oct-99		15-Oct-99	27-Oct-99
LF08	SO	BHGLTA822	05 ft	08-Oct-99	N	9910G320-004	2							06-Nov-99				
LF08	SO	BHGLTA822	10 ft	08-Oct-99	N	9910G320-005	1	11-Nov-99	10-Nov-99	16-Nov-99	03-Nov-99			31-Oct-99	30-Oct-99		15-Oct-99	27-Oct-99
LF08	SO	BHGLTA822	10 ft	08-Oct-99	N	9910G320-005	2							06-Nov-99				
LF08	SO	BHGLTA822	15 ft	08-Oct-99	N	9910G320-006	1	10-Nov-99	10-Nov-99	15-Nov-99	03-Nov-99			31-Oct-99	01-Nov-99		18-Oct-99	27-Oct-99
LF08	SO	BHGLTA822	15 ft	08-Oct-99	N	9910G320-006	2							06-Nov-99				
LF08	SO	BHGLTA822	20 ft	08-Oct-99	N	9910G320-007	1	11-Nov-99	10-Nov-99	15-Nov-99	03-Nov-99			01-Nov-99	30-Oct-99		18-Oct-99	03-Nov-99
LF08	SO	BHGLTA822	20 ft	08-Oct-99	N	9910G320-007	2							06-Nov-99				
LF08	SO	BHGLTA829	00 ft	07-Oct-99	N	9911G906-005	1											
LF08	SO	BHGLTA829	00 ft	07-Oct-99	N	9A02G019-004	1											
LF08	SO	BHGLTA830	00 ft	07-Oct-99	N	9911G906-007	1											
LF08	SO	BHGLTA830	00 ft	07-Oct-99	N	9A02G019-006	1											
LF08	SO	BHGLTA831	00 ft	08-Oct-99	N	9910G320-008	1	11-Nov-99	10-Nov-99	15-Nov-99	03-Nov-99			01-Nov-99	30-Oct-99		18-Oct-99	27-Oct-99
LF08	SO	BHGLTA831	00 ft	08-Oct-99	N	9910G320-008	2							06-Nov-99				
LF08	SO	BHGLTA831	00 ft	08-Oct-99	FD	9910G320-013	1	11-Nov-99	10-Nov-99	15-Nov-99	03-Nov-99			01-Nov-99	30-Oct-99		22-Oct-99	02-Nov-99
LF08	SO	BHGLTA831	00 ft	08-Oct-99	FD	9910G320-013	2							06-Nov-99				
LF08	SO	BHGLTA831	05 ft	08-Oct-99	N	9910G320-009	1	11-Nov-99	10-Nov-99	15-Nov-99	03-Nov-99			01-Nov-99	30-Oct-99		18-Oct-99	02-Nov-99
LF08	SO	BHGLTA831	05 ft	08-Oct-99	N	9910G320-009	2							06-Nov-99				
LF08	SO	BHGLTA831	10 ft	08-Oct-99	N	9910G320-010	1	11-Nov-99	10-Nov-99	16-Nov-99	03-Nov-99			01-Nov-99	30-Oct-99		18-Oct-99	03-Nov-99
LF08	SO	BHGLTA831	10 ft	08-Oct-99	N	9910G320-010	2							06-Nov-99				
LF08	SO	BHGLTA831	15 ft	08-Oct-99	N	9910G320-011	1	11-Nov-99	10-Nov-99	15-Nov-99	03-Nov-99			01-Nov-99	30-Oct-99		22-Oct-99	02-Nov-99
LF08	SO	BHGLTA831	15 ft	08-Oct-99	N	9910G320-011	2							06-Nov-99				
LF08	SO	BHGLTA831	20 ft	08-Oct-99	N	9910G320-012	1	10-Nov-99	10-Nov-99	16-Nov-99	03-Nov-99			01-Nov-99	30-Oct-99		22-Oct-99	02-Nov-99
LF08	SO	BHGLTA831	20 ft	08-Oct-99	N	9910G320-012	2							06-Nov-99				
LF08	SO	WHGLTA801	00 ft	28-Oct-99	N	9910G621-001	1										05-Nov-99	03-Nov-99
LF08	SO	WHGLTA801	05 ft	28-Oct-99	N	9910G621-002	1										04-Nov-99	03-Nov-99
LF08	SO	WHGLTA801	05 ft	28-Oct-99	N	9910G621-002	2										05-Nov-99	
LF08	SO	WHGLTA801	10 ft	28-Oct-99	N	9910G621-003	1										04-Nov-99	03-Nov-99
LF08	SO	WHGLTA803	00 ft	28-Oct-99	N	9910G621-004	1										05-Nov-99	03-Nov-99

Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
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Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW7740	SW7761	SW7841	SW8080	SW8081	SW8082	SW8141	SW8150	SW8151	SW8260	SW8270
LF08	SO	WHGLTA803	05 ft	28-Oct-99	N	9910G621-005	1										05-Nov-99	03-Nov-99
LF08	SO	BHGLTA815	00 ft	08-Mar-00	N	9A03G241-010	1											
LF08	SO	BHGLTA815	00 ft	14-Jun-00	N	9A06G748-001	1											
LF08	SO	BHGLTA816	00 ft	09-Mar-00	N	9A03G261-002	1											
LF08	SO	BHGLTA816	00 ft	09-Mar-00	FD	9A03G261-004	1											
LF08	SO	BHGLTA816	00 ft	14-Jun-00	N	9A06G748-003	1											
LF08	SO	BHGLTA816	10 ft	14-Jun-00	N	9A06G748-005	1	21-Jun-00										
LF08	SO	BHGLTA817	00 ft	09-Mar-00	N	9A03G261-009	1											
LF08	SO	BHGLTA829	00 ft	15-Jun-00	N	9A06G781-001	1											
LF08	SO	BHGLTA829	15 ft	13-Mar-00	N	9A03G261-024	1											
LF08	SO	BHGLTA829	20 ft	13-Mar-00	N	9A03G261-025	1										18-Mar-00	
LF08	SO	BHGLTA831	00 ft	09-Mar-00	N	9A03G261-010	1										18-Mar-00	
LF08	SO	BHGLTA832	00 ft	08-Mar-00	N	9A03G241-004	1											
LF08	SO	BHGLTA832	05 ft	13-Mar-00	N	9A03G286-001	1											
LF08	SO	BHGLTA832	10 ft	13-Mar-00	N	9A03G286-002	1										18-Mar-00	
LF08	SO	BHGLTA832	10 ft	14-Jun-00	N	9A06G748-007	1										18-Mar-00	
LF08	SO	BHGLTA832	15 ft	13-Mar-00	N	9A03G287-001	1											
LF08	SO	BHGLTA832	20 ft	08-Mar-00	N	9A03G241-005	1										18-Mar-00	
LF08	SO	BHGLTA833	00 ft	08-Mar-00	N	9A03G241-006	1											
LF08	SO	BHGLTA833	05 ft	13-Mar-00	N	9A03G286-003	1											
LF08	SO	BHGLTA833	10 ft	13-Mar-00	N	9A03G288-001	1										18-Mar-00	
LF08	SO	BHGLTA833	15 ft	13-Mar-00	N	9A03G289-001	1										18-Mar-00	
LF08	SO	BHGLTA833	20 ft	13-Mar-00	N	9A03G289-002	1										18-Mar-00	
LF08	SO	BHGLTA834	00 ft	08-Mar-00	N	9A03G241-007	1										20-Mar-00	
LF08	SO	BHGLTA834	00 ft	08-Mar-00	N	9A03G241-007	2											
LF08	SO	BHGLTA834	05 ft	13-Mar-00	N	9A03G286-004	1											
LF08	SO	BHGLTA834	10 ft	13-Mar-00	N	9A03G288-002	1										18-Mar-00	
LF08	SO	BHGLTA834	15 ft	13-Mar-00	N	9A03G289-003	1										18-Mar-00	
LF08	SO	BHGLTA834	20 ft	13-Mar-00	N	9A03G289-004	1										19-Mar-00	
LF08	SO	BHGLTA835	00 ft	09-Mar-00	N	9A03G261-012	1										19-Mar-00	
LF08	SO	BHGLTA835	00 ft	09-Mar-00	FD	9A03G261-013	1											
LF08	SO	BHGLTA835	00 ft	14-Jun-00	N	9A06G748-009	1											
LF08	SO	BHGLTA835	05 ft	14-Jun-00	N	9A06G748-011	1											
LF08	SO	BHGLTA836	00 ft	09-Mar-00	N	9A03G261-014	1											
LF08	SO	BHGLTA837	00 ft	09-Mar-00	N	9A03G261-016	1											
LF08	SO	BHGLTA837	00 ft	09-Mar-00	FD	9A03G261-018	1											
LF08	SO	BHGLTA838	00 ft	13-Mar-00	N	9A03G286-005	1											
LF08	SO	BHGLTA839	03 ft	08-Mar-00	N	9A03G241-008	1											17-Mar-00
LF08	SO	BHGLTA840	00 ft	13-Mar-00	N	9A03G286-011	1											14-Mar-00
LF08	SO	BHGLTA840	00 ft	13-Mar-00	N	9A03G286-011	2											18-Mar-00
LF08	SO	BHGLTA840	00 ft	13-Mar-00	N	9A03G286-011	3											18-Mar-00
LF08	SO	BHGLTA841	00 ft	13-Mar-00	N	9A03G286-013	1											18-Mar-00
LF08	SO	BHGLTA841	00 ft	13-Mar-00	N	9A03G286-013	2											
LF08	SO	BHGLTA842	00 ft	09-Mar-00	N	9A03G261-006	1											
LF08	SO	BHGLTA842	10 ft	09-Mar-00	N	9A03G261-007	1											
LF08	SO	BHGLTA842	10 ft	09-Mar-00	N	9A03G261-008	1										17-Mar-00	
LF08	SO	BHGLTA843	10 ft	09-Mar-00	N	9A03G261-001	1										17-Mar-00	
LF08	SO	BHGLTA844	00 ft	14-Jun-00	N	9A06G748-012	1										17-Mar-00	

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Chronology of Laboratory Analyses
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NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW7740	SW7761	SW7841	SW8080	SW8081	SW8082	SW8141	SW8150	SW8151	SW8260	SW8270
LF08	SO	BHGLTA844	05 ft	14-Jun-00	N	9A06G748-013	1											
LF08	SO	BHGLTA845	00 ft	14-Jun-00	N	9A06G748-014	1											
LF08	SO	BHGLTA845	05 ft	14-Jun-00	N	9A06G748-015	1											
LF08	SO	BHGLTA846	00 ft	14-Jun-00	N	9A06G748-016	1											
LF08	SO	BHGLTA846	05 ft	14-Jun-00	N	9A06G748-017	1											
LF08	SO	BHGLTA846	05 ft	14-Jun-00	FD	9A06G748-018	1											
LF08	SO	BHGLTA847	00 ft	14-Jun-00	N	9A06G748-019	1											
LF08	SO	BHGLTA848	00 ft	14-Jun-00	N	9A06G748-020	1											
LF08	SO	BHGLTA849	05 ft	14-Jun-00	N	9A06G748-021	1											
LF08	SO	BHGLTA849	10 ft	14-Jun-00	N	9A06G748-022	1											
LF08	SO	BHGLTA850	05 ft	14-Jun-00	N	9A06G748-023	1											
LF08	SO	BHGLTA850	10 ft	14-Jun-00	N	9A06G748-024	1											
LF08	SO	BHGLTA850	10 ft	14-Jun-00	FD	9A06G748-025	1											
LF08	SPLP	BHGLTA829	NA	07-Oct-99	N	9912G245-006	1											
LF08	SPLP	BHGLTA829	NA	07-Oct-99	N	9A02G019-005	1											
LF08	SPLP	BHGLTA830	NA	07-Oct-99	N	9912G245-008	1											
LF08	SPLP	BHGLTA830	NA	07-Oct-99	N	9A02G019-007	1											
LF08	SPLP	BHGLTA815	NA	08-Mar-00	N	9A03G241-011	1											
LF08	SPLP	BHGLTA815	NA	14-Jun-00	N	9A06G748-002	1											
LF08	SPLP	BHGLTA816	NA	09-Mar-00	N	9A03G261-003	1											
LF08	SPLP	BHGLTA816	NA	09-Mar-00	FD	9A03G261-005	1											
LF08	SPLP	BHGLTA816	NA	14-Jun-00	N	9A06G748-004	1											
LF08	SPLP	BHGLTA816	NA	14-Jun-00	N	9A06G748-006	1	21-Jun-00										
LF08	SPLP	BHGLTA829	NA	15-Jun-00	N	9A06G781-002	1											
LF08	SPLP	BHGLTA831	NA	09-Mar-00	N	9A03G261-011	1											
LF08	SPLP	BHGLTA832	NA	14-Jun-00	N	9A06G748-008	1											
LF08	SPLP	BHGLTA835	NA	14-Jun-00	N	9A06G748-010	1											
LF08	SPLP	BHGLTA836	NA	09-Mar-00	N	9A03G261-015	1											
LF08	SPLP	BHGLTA837	NA	09-Mar-00	N	9A03G261-017	1											
LF08	SPLP	BHGLTA837	NA	09-Mar-00	FD	9A03G261-019	1											
LF08	SPLP	BHGLTA838	NA	13-Mar-00	N	9A03G286-006	1											
LF08	SPLP	BHGLTA839	NA	08-Mar-00	N	9A03G241-009	1											
LF08	SPLP	BHGLTA840	NA	13-Mar-00	N	9A03G286-012	1											
LF08	WG	FT08-11A	NA	09-Sep-97	N1	0569030011SA	1											24-Sep-97
LF08	WG	FT08-11A	NA	09-Sep-97	N1	B7I100121007	1		15-Sep-97								17-Sep-97	
LF08	WG	WHGLTA002	NA	10-Sep-97	N1	0569330001SA	1											24-Sep-97
LF08	WG	WHGLTA002	NA	10-Sep-97	N1	B7I110141001	1		17-Sep-97								17-Sep-97	
LF08	WG	WHGLTA004	NA	09-Sep-97	N1	0569030009SA	1											24-Sep-97
LF08	WG	WHGLTA004	NA	09-Sep-97	N1	B7I100121004	1		15-Sep-97								17-Sep-97	
LF08	WG	WHGLTA801	NA	02-Nov-99	N	9911G676-001	1	14-Nov-99									08-Nov-99	08-Nov-99
LF08	WG	WHGLTA801	NA	02-Nov-99	N	9911G676-001	2										11-Nov-99	
LF08	WG	WHGLTA803	NA	03-Nov-99	N	9911G687-001	1	14-Nov-99									12-Nov-99	09-Nov-99
LF08	WG	FT08-11A	NA	10-Jan-00	N	9A01G578-004	1	17-Jan-00		21-Jan-00				12-Jan-00			12-Jan-00	13-Jan-00
LF08	WG	WHGLTA002	NA	12-Jan-00	N	9A01G611-001	1	18-Jan-00						19-Jan-00			18-Jan-00	17-Jan-00
LF08	WG	WHGLTA002	NA	29-Feb-00	N	9A03G127-003	1							07-Mar-00				
LF08	WG	WHGLTA004	NA	10-Jan-00	N	9A01G578-001	1	17-Jan-00		21-Jan-00							12-Jan-00	13-Jan-00
LF08	WG	WHGLTA004	NA	10-Jan-00	N	9A01G578-001	2										12-Jan-00	
LF08	WG	WHGLTA801	NA	10-Jan-00	N	9A01G578-002	1	17-Jan-00		21-Jan-00							12-Jan-00	13-Jan-00

Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
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Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW7740	SW7761	SW7841	SW8080	SW8081	SW8082	SW8141	SW8150	SW8151	SW8260	SW8270
LF08	WG	WHGLTA801	NA	10-Jan-00	N	9A01G578-002	2										13-Jan-00	
LF08	WG	WHGLTA803	NA	10-Jan-00	N	9A01G578-003	1	17-Jan-00		21-Jan-00							12-Jan-00	13-Jan-00
NA	SE	EUHGLTA001	NA	04-Sep-97	N1	0568720012SA	1											18-Sep-97
NA	SE	EUHGLTA001	NA	04-Sep-97	N1	B7I050160009	1										11-Sep-97	
NA	SE	EUHGLTA002	NA	04-Sep-97	N1	0568720011FD	1											18-Sep-97
NA	SE	EUHGLTA002	NA	04-Sep-97	N1	B7I050160007	1										11-Sep-97	
NA	SE	EUHGLTA003	NA	04-Sep-97	N1	0568720009SA	1											18-Sep-97
NA	SE	EUHGLTA003	NA	04-Sep-97	N1	B7I050160004	1										11-Sep-97	
NA	SE	EUHGLTA003	NA	04-Sep-97	FD1	0568720010FD	1											18-Sep-97
NA	SE	EUHGLTA003	NA	04-Sep-97	FD1	B7I050160006	1										11-Sep-97	
NA	SE	EUHGLTA004	NA	04-Sep-97	N1	0568720016SA	1											19-Sep-97
NA	SE	EUHGLTA004	NA	04-Sep-97	N1	B7I050160002	1										11-Sep-97	
NA	SE	EUHGLTA005	NA	03-Sep-97	N1	0568710001SA	1											17-Sep-97
NA	SE	EUHGLTA005	NA	03-Sep-97	N1	B7I040138002	1										06-Sep-97	
NA	SE	EUHGLTA006	NA	03-Sep-97	N1	0568710002SA	1											17-Sep-97
NA	SE	EUHGLTA006	NA	03-Sep-97	N1	B7I040138004	1										06-Sep-97	
NA	SE	EUHGLTA007	NA	03-Sep-97	N1	0568710004SA	1											17-Sep-97
NA	SE	EUHGLTA007	NA	03-Sep-97	N1	B7I040138008	1										06-Sep-97	
NA	SE	EUHGLTA009	NA	03-Sep-97	N1	0568710003SA	1											18-Sep-97
NA	SE	EUHGLTA009	NA	03-Sep-97	N1	B7I040138006	1										06-Sep-97	
NA	SE	EUHGLTA010	NA	03-Sep-97	N1	0568710005SA	1											17-Sep-97
NA	SE	EUHGLTA010	NA	03-Sep-97	N1	B7I040138010	1										06-Sep-97	
NA	SE	EUHGLTA011	NA	04-Sep-97	N1	0568720013SA	1											18-Sep-97
NA	SE	EUHGLTA011	NA	04-Sep-97	N1	B7I050160011	1										11-Sep-97	
NA	SE	EUHGLTA012	NA	04-Sep-97	N1	0568720014SA	1											19-Sep-97
NA	SE	EUHGLTA012	NA	04-Sep-97	N1	B7I050160013	1										11-Sep-97	
NA	SE	EUHGLTA012	NA	04-Sep-97	FD1	0568720015FD	1											19-Sep-97
NA	SE	EUHGLTA012	NA	04-Sep-97	FD1	B7I050160015	1										11-Sep-97	
NA	SE	EUHGLTA013	NA	09-Sep-97	N1	0569030010SA	1											30-Sep-97
NA	SE	EUHGLTA013	NA	09-Sep-97	N1	B7I100121006	1										15-Sep-97	
NA	WG	ITMW-01T	NA	13-Mar-00	N	9A03G286-015	1							17-Mar-00				
NA	WS	EUHGLTA001	NA	04-Sep-97	N1	0568720005RE	1											23-Sep-97
NA	WS	EUHGLTA001	NA	04-Sep-97	N1	0568720005SA	1											13-Sep-97
NA	WS	EUHGLTA001	NA	04-Sep-97	N1	B7I050160010	1		10-Sep-97								14-Sep-97	
NA	WS	EUHGLTA002	NA	04-Sep-97	N1	0568720004RE	1											23-Sep-97
NA	WS	EUHGLTA002	NA	04-Sep-97	N1	0568720004SA	1											12-Sep-97
NA	WS	EUHGLTA002	NA	04-Sep-97	N1	B7I050160008	1		10-Sep-97								14-Sep-97	
NA	WS	EUHGLTA003	NA	04-Sep-97	N1	0568720002RE	1											22-Sep-97
NA	WS	EUHGLTA003	NA	04-Sep-97	N1	0568720002SA	1											12-Sep-97
NA	WS	EUHGLTA003	NA	04-Sep-97	N1	B7I050160003	1		10-Sep-97								17-Sep-97	
NA	WS	EUHGLTA003	NA	04-Sep-97	FD1	0568720003FD	1											12-Sep-97
NA	WS	EUHGLTA003	NA	04-Sep-97	FD1	0568720003RE	1											22-Sep-97
NA	WS	EUHGLTA003	NA	04-Sep-97	FD1	B7I050160005	1		10-Sep-97								14-Sep-97	
NA	WS	EUHGLTA004	NA	04-Sep-97	N1	0568720001SA	1											12-Sep-97
NA	WS	EUHGLTA004	NA	04-Sep-97	N1	0568720017SA	1											22-Sep-97
NA	WS	EUHGLTA004	NA	04-Sep-97	N1	B7I050160001	1		10-Sep-97								14-Sep-97	
NA	WS	EUHGLTA005	NA	03-Sep-97	N1	B7I040138001	1		10-Sep-97								13-Sep-97	20-Sep-97
NA	WS	EUHGLTA006	NA	03-Sep-97	N1	B7I040138003	1		10-Sep-97								13-Sep-97	20-Sep-97

Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

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Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW7740	SW7761	SW7841	SW8080	SW8081	SW8082	SW8141	SW8150	SW8151	SW8260	SW8270
NA	WS	EUHGLTA007	NA	03-Sep-97	N1	B7I040138007	1		10-Sep-97								14-Sep-97	19-Sep-97
NA	WS	EUHGLTA009	NA	03-Sep-97	N1	B7I040138005	1		10-Sep-97								13-Sep-97	19-Sep-97
NA	WS	EUHGLTA010	NA	03-Sep-97	N1	B7I040138009	1		10-Sep-97								13-Sep-97	19-Sep-97
NA	WS	EUHGLTA011	NA	04-Sep-97	N1	0568720006RE	1											23-Sep-97
NA	WS	EUHGLTA011	NA	04-Sep-97	N1	0568720006SA	1											15-Sep-97
NA	WS	EUHGLTA011	NA	04-Sep-97	N1	B7I050160012	1		10-Sep-97								14-Sep-97	
NA	WS	EUHGLTA012	NA	04-Sep-97	N1	0568720007RE	1											23-Sep-97
NA	WS	EUHGLTA012	NA	04-Sep-97	N1	0568720007SA	1											13-Sep-97
NA	WS	EUHGLTA012	NA	04-Sep-97	N1	B7I050160014	1		10-Sep-97								14-Sep-97	
NA	WS	EUHGLTA012	NA	04-Sep-97	FD1	0568720008FD	1											13-Sep-97
NA	WS	EUHGLTA012	NA	04-Sep-97	FD1	0568720008RE	1											23-Sep-97
NA	WS	EUHGLTA012	NA	04-Sep-97	FD1	B7I050160016	1		10-Sep-97								14-Sep-97	
WP07	SO	BHGLTA001	00 ft	26-Aug-97	N1	B7H270130010	1										04-Sep-97	20-Sep-97
WP07	SO	BHGLTA001	21 ft	26-Aug-97	N1	B7H270130008	1										04-Sep-97	19-Sep-97
WP07	SO	BHGLTA002	00 ft	26-Aug-97	N1	B7H270130007	1										04-Sep-97	20-Sep-97
WP07	SO	BHGLTA002	00 ft	26-Aug-97	FD1	B7H270130009	1										04-Sep-97	19-Sep-97
WP07	SO	BHGLTA002	21 ft	26-Aug-97	N1	B7H270130011	1										04-Sep-97	20-Sep-97
WP07	SO	BHGLTA003	00 ft	26-Aug-97	N1	B7H270130005	1										04-Sep-97	19-Sep-97
WP07	SO	BHGLTA003	19 ft	26-Aug-97	N1	B7H270130006	1										04-Sep-97	19-Sep-97
WP07	SO	BHGLTA004	00 ft	26-Aug-97	N1	B7H270130003	1										04-Sep-97	19-Sep-97
WP07	SO	BHGLTA004	19 ft	26-Aug-97	N1	B7H270130004	1										04-Sep-97	19-Sep-97
WP07	SO	BHGLTA005	00 ft	27-Aug-97	N1	B7H280161006	1										05-Sep-97	21-Sep-97
WP07	SO	BHGLTA005	13 ft	27-Aug-97	N1	B7H280161002	1										05-Sep-97	21-Sep-97
WP07	SO	BHGLTA006	00 ft	27-Aug-97	N1	B7H280161008	1										05-Sep-97	21-Sep-97
WP07	SO	BHGLTA006	00 ft	27-Aug-97	FD1	B7H280161007	1										05-Sep-97	21-Sep-97
WP07	SO	BHGLTA006	15 ft	27-Aug-97	N1	B7H280161005	1										05-Sep-97	21-Sep-97
WP07	SO	BHGLTA007	00 ft	27-Aug-97	N1	B7H280161004	1										05-Sep-97	21-Sep-97
WP07	SO	BHGLTA007	13 ft	27-Aug-97	N1	B7H280161003	1										05-Sep-97	
WP07	SO	BHGLTA071	00 ft	28-May-98	N	9805G910-015	1				01-Jul-98			29-Jun-98	27-Jun-98		05-Jun-98	21-Jul-98
WP07	SO	BHGLTA071	05 ft	28-May-98	N	9805G910-016	1				01-Jul-98			29-Jun-98	27-Jun-98		11-Jun-98	21-Jul-98
WP07	SO	BHGLTA071	10 ft	28-May-98	N	9805G910-017	1				01-Jul-98			29-Jun-98	27-Jun-98		11-Jun-98	21-Jul-98
WP07	SO	BHGLTA071	15 ft	28-May-98	N	9805G910-018	1				01-Jul-98			29-Jun-98	27-Jun-98		11-Jun-98	21-Jul-98
WP07	SO	BHGLTA071	20 ft	28-May-98	N	9805G910-019	1				01-Jul-98			29-Jun-98	27-Jun-98		11-Jun-98	20-Jul-98
WP07	SO	BHGLTA072	00 ft	27-May-98	N	9805G909-011	1					21-Jun-98		26-Jun-98		25-Jun-98	05-Jun-98	17-Jul-98
WP07	SO	BHGLTA072	05 ft	27-May-98	N	9805G909-012	1					22-Jun-98		26-Jun-98			05-Jun-98	16-Jul-98
WP07	SO	BHGLTA072	05 ft	27-May-98	N	9805G909-012	2											29-Jul-98
WP07	SO	BHGLTA072	10 ft	27-May-98	N	9805G909-013	1					22-Jun-98		26-Jun-98		25-Jun-98	05-Jun-98	30-Jul-98
WP07	SO	BHGLTA072	15 ft	27-May-98	N	9805G909-014	1					22-Jun-98		26-Jun-98		25-Jun-98	05-Jun-98	16-Jul-98
WP07	SO	BHGLTA072	15 ft	27-May-98	N	9805G909-014	2											29-Jul-98
WP07	SO	BHGLTA072	20 ft	27-May-98	N	9805G910-001	1				20-Jun-98			25-Jun-98	27-Jun-98		05-Jun-98	10-Jul-98
WP07	SO	BHGLTA072	20 ft	27-May-98	N	9805G910-001	2											23-Jul-98
WP07	SO	BHGLTA073	00 ft	27-May-98	N	9805G909-006	1					21-Jun-98		26-Jun-98		25-Jun-98	04-Jun-98	17-Jul-98
WP07	SO	BHGLTA073	00 ft	27-May-98	N	9805G909-006	2											29-Jul-98
WP07	SO	BHGLTA073	05 ft	27-May-98	N	9805G909-007	1					21-Jun-98		26-Jun-98		25-Jun-98	04-Jun-98	15-Jul-98
WP07	SO	BHGLTA073	10 ft	27-May-98	N	9805G909-008	1					21-Jun-98		26-Jun-98		27-Jun-98	04-Jun-98	15-Jul-98
WP07	SO	BHGLTA073	15 ft	27-May-98	N	9805G909-009	1					21-Jun-98		26-Jun-98		27-Jun-98	04-Jun-98	15-Jul-98
WP07	SO	BHGLTA073	15 ft	27-May-98	N	9805G909-009	2											30-Jul-98
WP07	SO	BHGLTA073	20 ft	27-May-98	N	9805G909-010	1					21-Jun-98		26-Jun-98		25-Jun-98	04-Jun-98	15-Jul-98

Chronology of Laboratory Analyses
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Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW7740	SW7761	SW7841	SW8080	SW8081	SW8082	SW8141	SW8150	SW8151	SW8260	SW8270
WP07	SO	BHGLTA074	00 ft	27-May-98	N	9805G909-001	1					21-Jun-98		26-Jun-98		25-Jun-98	04-Jun-98	17-Jul-98
WP07	SO	BHGLTA074	00 ft	27-May-98	N	9805G909-001	2											29-Jul-98
WP07	SO	BHGLTA074	05 ft	27-May-98	N	9805G909-002	1					21-Jun-98		26-Jun-98		25-Jun-98	04-Jun-98	15-Jul-98
WP07	SO	BHGLTA074	10 ft	27-May-98	N	9805G909-003	1					21-Jun-98		26-Jun-98		25-Jun-98	04-Jun-98	15-Jul-98
WP07	SO	BHGLTA074	10 ft	27-May-98	N	9805G909-003	2											17-Jul-98
WP07	SO	BHGLTA074	15 ft	27-May-98	N	9805G909-004	1					21-Jun-98		26-Jun-98		25-Jun-98	04-Jun-98	15-Jul-98
WP07	SO	BHGLTA074	20 ft	27-May-98	N	9805G909-005	1					21-Jun-98		26-Jun-98		25-Jun-98	04-Jun-98	15-Jul-98
WP07	SO	BHGLTA075	00 ft	28-May-98	N	9805G910-004	1				20-Jun-98			25-Jun-98	27-Jun-98		05-Jun-98	21-Jul-98
WP07	SO	BHGLTA075	00 ft	28-May-98	FD	9805G910-009	1				20-Jun-98			25-Jun-98	27-Jun-98		11-Jun-98	21-Jul-98
WP07	SO	BHGLTA075	05 ft	28-May-98	N	9805G910-005	1				20-Jun-98			25-Jun-98	27-Jun-98		05-Jun-98	16-Jul-98
WP07	SO	BHGLTA075	05 ft	28-May-98	N	9805G910-005	2											29-Jul-98
WP07	SO	BHGLTA075	10 ft	28-May-98	N	9805G910-006	1				20-Jun-98			25-Jun-98	27-Jun-98		05-Jun-98	16-Jul-98
WP07	SO	BHGLTA075	10 ft	28-May-98	N	9805G910-006	2											29-Jul-98
WP07	SO	BHGLTA075	15 ft	28-May-98	N	9805G910-007	1				20-Jun-98			25-Jun-98	27-Jun-98		05-Jun-98	20-Jul-98
WP07	SO	BHGLTA075	20 ft	28-May-98	N	9805G910-008	1				20-Jun-98			25-Jun-98	27-Jun-98		05-Jun-98	20-Jul-98
WP07	SO	BHGLTA076	00 ft	28-May-98	N	9805G910-010	1				20-Jun-98			26-Jun-98	27-Jun-98		05-Jun-98	21-Jul-98
WP07	SO	BHGLTA076	05 ft	28-May-98	N	9805G910-011	1				20-Jun-98			26-Jun-98	27-Jun-98		11-Jun-98	21-Jul-98
WP07	SO	BHGLTA076	10 ft	28-May-98	N	9805G910-012	1				20-Jun-98			26-Jun-98	27-Jun-98		05-Jun-98	20-Jul-98
WP07	SO	BHGLTA076	15 ft	28-May-98	N	9805G910-013	1				01-Jul-98			29-Jun-98	27-Jun-98		05-Jun-98	21-Jul-98
WP07	SO	BHGLTA076	20 ft	28-May-98	N	9805G910-014	1				01-Jul-98			29-Jun-98	27-Jun-98		05-Jun-98	21-Jul-98
WP07	SO	BHGLTA080	00 ft	07-Oct-99	N	9911G906-001	1											
WP07	SO	BHGLTA081	00 ft	07-Oct-99	N	9910G290-008	1											27-Oct-99
WP07	SO	BHGLTA081	00 ft	07-Oct-99	N	9A02G019-003	1											
WP07	SO	BHGLTA082	05 ft	07-Oct-99	N	9910G290-009	1										15-Oct-99	
WP07	SO	BHGLTA082	10 ft	07-Oct-99	N	9910G290-010	1										16-Oct-99	
WP07	SO	BHGLTA082	15 ft	07-Oct-99	N	9910G290-011	1										15-Oct-99	
WP07	SO	BHGLTA083	10 ft	07-Oct-99	N	9910G290-012	1										15-Oct-99	
WP07	SO	BHGLTA083	15 ft	07-Oct-99	N	9910G290-013	1										15-Oct-99	
WP07	SO	BHGLTA083	20 ft	07-Oct-99	N	9910G290-014	1										15-Oct-99	
WP07	SO	BHGLTA084	00 ft	07-Oct-99	N	9911G906-003	1											
WP07	SO	BHGLTA001	00 ft	15-Jun-00	N	9A06G781-003	1											20-Jun-00
WP07	SO	BHGLTA071	00 ft	15-Jun-00	N	9A06G781-005	1											21-Jun-00
WP07	SO	BHGLTA085	00 ft	09-Mar-00	N	9A03G261-020	1											
WP07	SO	BHGLTA085	00 ft	15-Jun-00	N	9A06G782-001	1		21-Jun-00									
WP07	SO	BHGLTA085	05 ft	09-Mar-00	N	9A03G262-001	1										17-Mar-00	
WP07	SO	BHGLTA085	05 ft	15-Jun-00	N	9A06G782-002	1											
WP07	SO	BHGLTA085	10 ft	09-Mar-00	N	9A03G262-002	1										17-Mar-00	
WP07	SO	BHGLTA086	00 ft	10-Mar-00	N	9A03G273-014	1											
WP07	SO	BHGLTA086	05 ft	14-Mar-00	N	9A03G300-001	1											
WP07	SO	BHGLTA087	00 ft	10-Mar-00	N	9A03G273-011	1											
WP07	SO	BHGLTA087	05 ft	14-Mar-00	N	9A03G300-002	1											
WP07	SO	BHGLTA087	05 ft	15-Jun-00	N	9A06G782-003	1											
WP07	SO	BHGLTA087	10 ft	15-Jun-00	N	9A06G782-004	1										27-Jun-00	
WP07	SO	BHGLTA088	00 ft	14-Mar-00	N	9A03G300-003	1											
WP07	SO	BHGLTA088	05 ft	15-Jun-00	N	9A06G782-005	1											
WP07	SO	BHGLTA088	10 ft	15-Jun-00	N	9A06G782-006	1										19-Jun-00	
WP07	SO	BHGLTA089	00 ft	09-Mar-00	N	9A03G262-003	1											
WP07	SO	BHGLTA089	10 ft	09-Mar-00	N	9A03G261-021	1										17-Mar-00	

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Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW7740	SW7761	SW7841	SW8080	SW8081	SW8082	SW8141	SW8150	SW8151	SW8260	SW8270
WP07	SO	BHGLTA089	15 ft	09-Mar-00	N	9A03G261-022	1										17-Mar-00	
WP07	SO	BHGLTA090	00 ft	09-Mar-00	N	9A03G274-001	1										18-Mar-00	
WP07	SO	BHGLTA090	05 ft	09-Mar-00	N	9A03G262-007	1										17-Mar-00	
WP07	SO	BHGLTA090	10 ft	09-Mar-00	N	9A03G262-008	1										17-Mar-00	
WP07	SO	BHGLTA090	15 ft	09-Mar-00	N	9A03G261-023	1										17-Mar-00	
WP07	SO	BHGLTA091	00 ft	15-Jun-00	N	9A06G782-007	1											
WP07	SO	BHGLTA091	00 ft	15-Jun-00	N	9A06G782-008	1											
WP07	SO	BHGLTA091	05 ft	15-Jun-00	N	9A06G782-009	1											
WP07	SO	BHGLTA092	00 ft	15-Jun-00	N	9A06G782-010	1											
WP07	SO	BHGLTA092	05 ft	15-Jun-00	N	9A06G782-011	1											
WP07	SO	BHGLTA093	00 ft	15-Jun-00	N	9A06G782-012	1		21-Jun-00									
WP07	SO	BHGLTA094	00 ft	15-Jun-00	N	9A06G782-013	1											
WP07	SO	BHGLTA095	00 ft	15-Jun-00	N	9A06G782-014	1											
WP07	SO	BHGLTA095	05 ft	15-Jun-00	N	9A06G782-015	1											
WP07	SO	BHGLTA095	05 ft	15-Jun-00	N	9A06G782-016	1											
WP07	SO	BHGLTA096	00 ft	15-Jun-00	N	9A06G782-017	1											
WP07	SO	BHGLTA096	05 ft	15-Jun-00	N	9A06G782-018	1											
WP07	SO	BHGLTA096	10 ft	15-Jun-00	N	9A06G782-019	1											20-Jun-00
WP07	SO	BHGLTA096	10 ft	15-Jun-00	N	9A06G782-020	1											20-Jun-00
WP07	SO	BHGLTA096	15 ft	15-Jun-00	N	9A06G782-021	1											20-Jun-00
WP07	SO	BHGLTA096	20 ft	15-Jun-00	N	9A06G782-022	1											20-Jun-00
WP07	SPLP	BHGLTA080	NA	07-Oct-99	N	9912G245-002	1											
WP07	SPLP	BHGLTA084	NA	07-Oct-99	N	9912G245-004	1											
WP07	SPLP	BHGLTA001	NA	15-Jun-00	N	9A06G781-004	1											
WP07	SPLP	BHGLTA071	NA	15-Jun-00	N	9A06G781-006	1											
WP07	WG	WHGLTA003	NA	05-Sep-97	N1	0568980003RE	1											23-Sep-97
WP07	WG	WHGLTA003	NA	05-Sep-97	N1	0568980003SA	1											12-Sep-97
WP07	WG	WHGLTA003	NA	05-Sep-97	N1	B7I060135003	1		15-Sep-97								14-Sep-97	
WP07	WG	WP07-10B	NA	14-Oct-99	N	9910G388-004	1	19-Oct-99						27-Oct-99			22-Oct-99	20-Oct-99
WP07	WG	WP07-10B	NA	14-Oct-99	N	9910G388-004	2										25-Oct-99	
WP07	WG	WP07-10B	NA	14-Oct-99	N	9910G388-004	3										25-Oct-99	
WP07	WG	WHGLTA003	NA	28-Feb-00	N	9A02G112-001	1							07-Mar-00				
WP07	WG	WHGLTA003	NA	28-Feb-00	N	9A03G284-001	1											16-Mar-00
WP07	WG	WHGLTA003	NA	06-Mar-00	N	9A03G284-019	1											17-Mar-00
WP07	WG	WITCTA057	NA	26-Apr-00	N	9A04G979-012	1										10-May-00	
WP07	WG	WITCTA057	NA	26-Apr-00	N	9A04G979-012	2										10-May-00	
WP07	WG	WITCTA057	NA	26-Apr-00	N	9A04G979-012	3										10-May-00	
WP07	WG	WITCTA058	NA	26-Apr-00	N	9A04G979-013	1										10-May-00	
WP07	WG	WITCTA058	NA	26-Apr-00	N	9A04G979-013	2										11-May-00	
WP07	WG	WP07-10A	NA	11-Jan-00	N	9A01G578-010	1	17-Jan-00		21-Jan-00				19-Jan-00			13-Jan-00	14-Jan-00
WP07	WG	WP07-10A	NA	11-Jan-00	N	9A01G578-010	2										13-Jan-00	
WP07	WG	WP07-10A	NA	07-Mar-00	N	9A03G223-002	1							13-Mar-00				
WP07	WG	WP07-10A	NA	07-Mar-00	N	9A03G284-025	1											17-Mar-00
WP07	WG	WP07-10B	NA	12-Jan-00	N	9A01G611-004	1	18-Jan-00						19-Jan-00			18-Jan-00	18-Jan-20
WP07	WG	WP07-10B	NA	12-Jan-00	N	9A01G611-004	2										21-Jan-00	
WP07	WG	WP07-10B	NA	03-Mar-00	N	9A03G177-003	1							08-Mar-00				
WP07	WG	WP07-10B	NA	03-Mar-00	N	9A03G284-014	1											16-Mar-00
WP07	WG	WP07-10C	NA	12-Jan-00	N	9A01G611-003	1	18-Jan-00						19-Jan-00			18-Jan-00	18-Jan-00

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Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW7740	SW7761	SW7841	SW8080	SW8081	SW8082	SW8141	SW8150	SW8151	SW8260	SW8270
WP07	WG	WP07-10C	NA	12-Jan-00	N	9A01G611-003	2										20-Jan-00	
WP07	WG	WP07-10C	NA	12-Jan-00	N	9A01G611-003	3										23-Jan-00	
WP07	WG	WP07-10C	NA	03-Mar-00	N	9A03G177-002	1							08-Mar-00				
WP07	WG	WP07-10C	NA	03-Mar-00	N	9A03G284-013	1											16-Mar-00

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Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW8280	SW8310	SW9010	SW9030
LF04	SO	THGLTA001	00 ft	21-Aug-97	N1	B7H250117004	1				
LF04	SO	THGLTA001	08 ft	27-Aug-97	N1	B7H280161001	1				
LF04	SO	THGLTA002	00 ft	21-Aug-97	N1	B7H250117003	1				
LF04	SO	THGLTA002	00 ft	21-Aug-97	FD1	B7H250117005	1				
LF04	SO	THGLTA002	12 5 ft	02-Sep-97	N1	0568700005SA	1				
LF04	SO	THGLTA002	12 5 ft	02-Sep-97	N1	B7I040101005	1				
LF04	SO	THGLTA003	00 ft	21-Aug-97	N1	B7H250117002	1				
LF04	SO	THGLTA003	13 ft	03-Sep-97	N1	0568710006SA	1				
LF04	SO	THGLTA003	13 ft	03-Sep-97	N1	B7I040138011	1				
LF04	SO	THGLTA004	00 ft	21-Aug-97	N1	B7H250117006	1				
LF04	SO	THGLTA004	12 5 ft	03-Sep-97	N1	0568710007SA	1				
LF04	SO	THGLTA004	12 5 ft	03-Sep-97	N1	B7I040138012	1				
LF04	SO	THGLTA005	00 ft	22-Aug-97	N1	B7H250123001	1				
LF04	SO	THGLTA005	09 5 ft	03-Sep-97	N1	0568710008SA	1				
LF04	SO	THGLTA005	09 5 ft	03-Sep-97	N1	B7I040138013	1				
LF04	SO	THGLTA006	00 ft	22-Aug-97	N1	B7H250123002	1				
LF04	SO	THGLTA006	12 ft	04-Sep-97	N1	0568760003SA	1				
LF04	SO	THGLTA006	12 ft	04-Sep-97	N1	B7I060129003	1				
LF04	SO	THGLTA007	00 ft	22-Aug-97	N1	B7H250123003	1				
LF04	SO	THGLTA007	05 ft	04-Sep-97	N1	0568760002SA	1				
LF04	SO	THGLTA007	05 ft	04-Sep-97	N1	B7I060129002	1				
LF04	SO	THGLTA007	05 ft	04-Sep-97	FD1	0568760005FD	1				
LF04	SO	THGLTA007	05 ft	04-Sep-97	FD1	B7I060129004	1				
LF04	SO	THGLTA008	00 ft	22-Aug-97	N1	B7H250123006	1				
LF04	SO	THGLTA008	05 ft	04-Sep-97	N1	0568760001SA	1				
LF04	SO	THGLTA008	05 ft	04-Sep-97	N1	B7I060129001	1				
LF04	SO	THGLTA009	00 ft	25-Aug-97	N1	B7H270104001	1				
LF04	SO	THGLTA009	12 5 ft	05-Sep-97	N1	0568980001SA	1				
LF04	SO	THGLTA009	12 5 ft	05-Sep-97	N1	B7I060135001	1				
LF04	SO	THGLTA010	00 ft	25-Aug-97	N1	B7H270104002	1				
LF04	SO	THGLTA010	11 ft	05-Sep-97	N1	0568980002SA	1				
LF04	SO	THGLTA010	11 ft	05-Sep-97	N1	B7I060135002	1				
LF04	SO	BHGLTA401	00 ft	21-May-98	N	9805G791-010	1	08-Jun-98		04-Jun-98	27-May-98
LF04	SO	BHGLTA401	05 ft	21-May-98	N	9805G791-011	1	06-Jun-98		04-Jun-98	27-May-98
LF04	SO	BHGLTA401	10 ft	21-May-98	N	9805G791-012	1	06-Jun-98		04-Jun-98	27-May-98
LF04	SO	BHGLTA401	15 ft	21-May-98	N	9805G791-013	1	06-Jun-98		04-Jun-98	27-May-98
LF04	SO	BHGLTA402	00 ft	26-May-98	N	9805G833-013	1	08-Jun-98		04-Jun-98	01-Jun-98
LF04	SO	BHGLTA402	05 ft	26-May-98	N	9805G833-010	1	06-Jun-98		04-Jun-98	29-May-98
LF04	SO	BHGLTA402	10 ft	26-May-98	N	9805G833-011	1	08-Jun-98		04-Jun-98	29-May-98
LF04	SO	BHGLTA402	15 ft	26-May-98	N	9805G833-012	1	08-Jun-98		04-Jun-98	29-May-98
LF04	SO	BHGLTA403	05 ft	20-May-98	N	9805G744-017	1	04-Jun-98		02-Jun-98	27-May-98
LF04	SO	BHGLTA403	20 ft	03-Jun-98	N	9806G980-013	1	19-Jun-98		17-Jun-98	09-Jun-98
LF04	SO	BHGLTA403	25 ft	03-Jun-98	N	9806G980-014	1	19-Jun-98		17-Jun-98	10-Jun-98
LF04	SO	BHGLTA404	00 ft	20-May-98	N	9805G744-012	1	04-Jun-98		02-Jun-98	27-May-98
LF04	SO	BHGLTA404	05 ft	20-May-98	N	9805G744-013	1	04-Jun-98		02-Jun-98	27-May-98
LF04	SO	BHGLTA404	10 ft	20-May-98	N	9805G744-014	1	04-Jun-98		02-Jun-98	27-May-98
LF04	SO	BHGLTA404	15 ft	20-May-98	N	9805G744-015	1	04-Jun-98		02-Jun-98	27-May-98
LF04	SO	BHGLTA404	20 ft	20-May-98	N	9805G744-016	1	04-Jun-98		02-Jun-98	27-May-98

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Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW8280	SW8310	SW9010	SW9030
LF04	SO	BHGLTA405	00 ft	21-May-98	N	9805G791-014	1	08-Jun-98		04-Jun-98	27-May-98
LF04	SO	BHGLTA405	05 ft	21-May-98	N	9805G791-015	1	06-Jun-98		04-Jun-98	27-May-98
LF04	SO	BHGLTA405	10 ft	21-May-98	N	9805G791-016	1	06-Jun-98		04-Jun-98	27-May-98
LF04	SO	BHGLTA405	15 ft	21-May-98	N	9805G791-017	1	06-Jun-98		04-Jun-98	27-May-98
LF04	SO	BHGLTA405	20 ft	21-May-98	N	9805G791-018	1	06-Jun-98		04-Jun-98	28-May-98
LF04	SO	BHGLTA405	25 ft	04-Jun-98	N	9806G031-003	1	17-Jun-98		18-Jun-98	10-Jun-98
LF04	SO	BHGLTA406	00 ft	21-May-98	N	9805G791-019	1	08-Jun-98		04-Jun-98	28-May-98
LF04	SO	BHGLTA406	00 ft	21-May-98	FD	9805G791-020	1	08-Jun-98		04-Jun-98	28-May-98
LF04	SO	BHGLTA406	05 ft	22-May-98	N	9805G833-001	1	06-Jun-98		04-Jun-98	28-May-98
LF04	SO	BHGLTA406	10 ft	22-May-98	N	9805G833-002	1	06-Jun-98		04-Jun-98	28-May-98
LF04	SO	BHGLTA406	15 ft	22-May-98	N	9805G833-003	1	06-Jun-98		04-Jun-98	28-May-98
LF04	SO	BHGLTA406	20 ft	22-May-98	N	9805G833-004	1	-06-Jun-98		04-Jun-98	29-May-98
LF04	SO	BHGLTA406	25 ft	22-May-98	N	9805G833-005	1	06-Jun-98		04-Jun-98	29-May-98
LF04	SO	BHGLTA407	00 ft	07-Oct-99	N	9911G906-009	1				
LF04	SO	BHGLTA407	05 ft	05-Oct-99	N	9910G245-005	1				
LF04	SO	BHGLTA407	05 ft	05-Oct-99	FD	9910G245-004	1				
LF04	SO	BHGLTA407	10 ft	05-Oct-99	N	9910G245-003	1				
LF04	SO	BHGLTA407	15 ft	05-Oct-99	N	9910G245-002	1				
LF04	SO	BHGLTA407	20 ft	05-Oct-99	N	9910G245-001	1				
LF04	SO	BHGLTA408	00 ft	04-Oct-99	N	9910G245-009	1				
LF04	SO	BHGLTA408	00 ft	04-Oct-99	N	9910G245-009	2				
LF04	SO	BHGLTA408	00 ft	04-Oct-99	N	9910G245-009	3				
LF04	SO	BHGLTA408	00 ft	04-Oct-99	N	9910G245-009	4				
LF04	SO	BHGLTA408	00 ft	04-Oct-99	FD	9910G245-010	1				
LF04	SO	BHGLTA408	00 ft	04-Oct-99	FD	9910G245-010	2				
LF04	SO	BHGLTA408	00 ft	04-Oct-99	FD	9910G245-010	3				
LF04	SO	BHGLTA408	00 ft	04-Oct-99	FD	9910G245-010	4				
LF04	SO	BHGLTA403	05 ft	05-Jan-00	N	9A01G513-007	1				
LF04	SO	BHGLTA406	00 ft	04-Jan-00	N	9A01G449-005	1				
LF04	SO	BHGLTA406	05 ft	05-Jan-00	N	9A01G513-011	1				
LF04	SO	BHGLTA406	10 ft	05-Jan-00	N	9A01G513-017	1				
LF04	SO	BHGLTA406	16 ft	05-Jan-00	N	9A01G513-013	1				
LF04	SO	BHGLTA406	21 ft	05-Jan-00	N	9A01G513-001	1				
LF04	SO	BHGLTA406	21 ft	05-Jan-00	N	9A01G513-001	2				
LF04	SO	BHGLTA407	05 ft	15-Jun-00	N	9A06G782-023	1				
LF04	SO	BHGLTA408	00 ft	04-Jan-00	N	9A01G449-017	1				
LF04	SO	BHGLTA408	00 ft	04-Jan-00	N	9A01G449-017	2				
LF04	SO	BHGLTA408	03 ft	04-Jan-00	N	9A01G449-011	1				
LF04	SO	BHGLTA408	05 ft	01-Mar-00	N	9A03G146-003	1		09-Mar-00		
LF04	SO	BHGLTA408	05 ft	01-Mar-00	FD	9A03G146-004	1		09-Mar-00		
LF04	SO	BHGLTA408	05 ft	01-Mar-00	FD	9A03G146-004	2		10-Mar-00		
LF04	SO	BHGLTA409	00 ft	04-Jan-00	N	9A01G449-001	1				
LF04	SO	BHGLTA409	00 ft	04-Jan-00	N	9A01G449-001	2				
LF04	SO	BHGLTA409	00 ft	04-Jan-00	N	9A01G449-001	3				
LF04	SO	BHGLTA409	03 ft	04-Jan-00	N	9A01G449-015	1				
LF04	SO	BHGLTA409	05 ft	01-Mar-00	N	9A03G146-005	1		09-Mar-00		
LF04	SO	BHGLTA410	00 ft	10-Mar-00	N	9A03G273-005	1		16-Mar-00		
LF04	SO	BHGLTA410	05 ft	10-Mar-00	N	9A03G273-006	1		17-Mar-00		

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Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW8280	SW8310	SW9010	SW9030
LF04	SO	BHGLTA411	00 ft	10-Mar-00	N	9A03G273-007	1		17-Mar-00		
LF04	SO	BHGLTA411	05 ft	10-Mar-00	N	9A03G273-008	1		17-Mar-00		
LF04	SO	BHGLTA412	00 ft	10-Mar-00	N	9A03G273-009	1		17-Mar-00		
LF04	SO	BHGLTA412	05 ft	10-Mar-00	N	9A03G273-010	1		17-Mar-00		
LF04	SO	THGLTA002	00 ft	04-Jan-00	N	9A01G449-021	1				
LF04	SO	THGLTA003	00 ft	04-Jan-00	N	9A01G449-009	1				
LF04	SO	THGLTA003	13 ft	05-Jan-00	N	9A01G513-005	1				
LF04	SO	THGLTA003	13 ft	05-Jan-00	FD	9A01G513-003	1				
LF04	SO	THGLTA008	00 ft	04-Jan-00	N	9A01G449-007	1				
LF04	SPLP	BHGLTA407	NA	07-Oct-99	N	9912G245-010	1				
LF04	SPLP	BHGLTA403	NA	05-Jan-00	N	9A01G513-008	1				
LF04	SPLP	BHGLTA406	NA	04-Jan-00	N	9A01G449-006	1				
LF04	SPLP	BHGLTA406	NA	05-Jan-00	N	9A01G513-012	1				
LF04	SPLP	BHGLTA406	NA	05-Jan-00	N	9A01G513-018	1				
LF04	SPLP	BHGLTA406	NA	05-Jan-00	N	9A01G513-014	1				
LF04	SPLP	BHGLTA406	NA	05-Jan-00	N	9A01G513-002	1				
LF04	SPLP	BHGLTA408	NA	04-Jan-00	N	9A01G449-018	1				
LF04	SPLP	BHGLTA408	NA	04-Jan-00	N	9A01G449-012	1				
LF04	SPLP	BHGLTA409	NA	04-Jan-00	N	9A01G449-002	1				
LF04	SPLP	BHGLTA409	NA	04-Jan-00	N	9A01G449-016	1				
LF04	SPLP	THGLTA002	NA	04-Jan-00	N	9A01G449-022	1				
LF04	SPLP	THGLTA003	NA	04-Jan-00	N	9A01G449-010	1				
LF04	SPLP	THGLTA003	NA	05-Jan-00	N	9A01G513-006	1				
LF04	SPLP	THGLTA003	NA	05-Jan-00	FD	9A01G513-004	1				
LF04	SPLP	THGLTA008	NA	04-Jan-00	N	9A01G449-008	1				
LF04	WG	LF04-04	NA	08-Sep-97	N1	0569030005SA	1				
LF04	WG	LF04-04	NA	08-Sep-97	N1	B7I090113005	1				
LF04	WG	LF04-04	NA	08-Sep-97	FD1	0569030004FD	1				
LF04	WG	LF04-04	NA	08-Sep-97	FD1	B7I090113004	1				
LF04	WG	LF04-4B	NA	08-Sep-97	N1	0569030003SA	1				
LF04	WG	LF04-4B	NA	08-Sep-97	N1	B7I090113003	1				
LF04	WG	LF04-4D	NA	14-Oct-99	N	9910G388-002	1				
LF04	WG	LF04-4D	NA	14-Oct-99	N	9910G388-002	2				
LF04	WG	LF04-4D	NA	14-Oct-99	FD	9910G388-003	1				
LF04	WG	LF04-4D	NA	14-Oct-99	FD	9910G388-003	2				
LF04	WG	FT09-12D	NA	06-Mar-00	N	9A03G192-001	1				
LF04	WG	FT09-12E	NA	11-Jan-00	N	9A01G578-011	1				
LF04	WG	FT09-12E	NA	11-Jan-00	FD	9A01G578-012	1				
LF04	WG	LF04-04	NA	13-Jan-00	N	9A01G611-008	1				
LF04	WG	LF04-04	NA	13-Jan-00	N	9A01G611-008	2				
LF04	WG	LF04-10	NA	29-Feb-00	N	9A03G127-001	1				
LF04	WG	LF04-4D	NA	13-Jan-00	N	9A01G611-009	1				
LF04	WG	LF04-4D	NA	13-Jan-00	N	9A01G611-009	2				
LF04	WG	LF04-4F	NA	06-Mar-00	N	9A03G192-005	1				
LF04	WG	LF04-4F	NA	06-Mar-00	N	9A03G284-020	1				
LF04	WG	LF04-4F	NA	06-Mar-00	FD	9A03G192-006	1				
LF04	WG	LF04-4F	NA	06-Mar-00	FD	9A03G284-021	1				
LF05	SO	THGLTA011	00 ft	25-Aug-97	N1	B7H270104003	1				

Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW8280	SW8310	SW9010	SW9030
LF05	SO	THGLTA012	00 ft	25-Aug-97	N1	B7H270104004	1				
LF05	SO	THGLTA012	00 ft	25-Aug-97	FD1	B7H270104005	1				
LF05	SO	THGLTA013	00 ft	25-Aug-97	N1	B7H270104008	1				
LF05	SO	THGLTA013	15 ft	09-Sep-97	N1	0569030006SA	1				
LF05	SO	THGLTA013	15 ft	09-Sep-97	N1	B7I100121001	1				
LF05	SO	THGLTA014	00 ft	25-Aug-97	N1	B7H270104009	1				
LF05	SO	THGLTA015	00 ft	25-Aug-97	N1	B7H270104010	1				
LF05	SO	THGLTA016	00 ft	25-Aug-97	N1	B7H270104011	1				
LF05	SO	THGLTA017	00 ft	25-Aug-97	N1	B7H270104012	1				
LF05	SO	THGLTA017	12 ft	08-Sep-97	N1	0569030001SA	1				
LF05	SO	THGLTA017	12 ft	08-Sep-97	N1	B7I090113001	1				
LF05	SO	THGLTA018	00 ft	02-Sep-97	N1	0568700003SA	1				
LF05	SO	THGLTA018	00 ft	02-Sep-97	N1	B7I040101003	1				
LF05	SO	THGLTA019	00 ft	02-Sep-97	N1	0568700002SA	1				
LF05	SO	THGLTA019	00 ft	02-Sep-97	N1	B7I040101002	1				
LF05	SO	THGLTA019	10 5 ft	09-Sep-97	N1	0569030007SA	1				
LF05	SO	THGLTA019	10 5 ft	09-Sep-97	N1	B7I100121002	1				
LF05	SO	THGLTA020	00 ft	02-Sep-97	N1	0568700001SA	1				
LF05	SO	THGLTA020	00 ft	02-Sep-97	N1	B7I040101001	1				
LF05	SO	THGLTA020	00 ft	02-Sep-97	FD1	0568700004FD	1				
LF05	SO	THGLTA020	00 ft	02-Sep-97	FD1	B7I040101004	1				
LF05	SO	THGLTA020	13 ft	09-Sep-97	N1	0569030008SA	1				
LF05	SO	THGLTA020	13 ft	09-Sep-97	N1	B7I100121003	1				
LF05	SO	BHGLTA504	00 ft	14-May-98	N	9805G688-004	1	29-May-98		27-May-98	20-May-98
LF05	SO	BHGLTA504	05 ft	14-May-98	N	9805G688-005	1	29-May-98		27-May-98	20-May-98
LF05	SO	BHGLTA505	00 ft	14-May-98	N	9805G688-007	1	29-May-98		27-May-98	20-May-98
LF05	SO	BHGLTA505	05 ft	18-May-98	N	9805G744-001	1	03-Jun-98		01-Jun-98	22-May-98
LF05	SO	BHGLTA505	10 ft	18-May-98	N	9805G744-002	1	03-Jun-98		01-Jun-98	22-May-98
LF05	SO	BHGLTA505	15 ft	18-May-98	N	9805G744-003	1	03-Jun-98		01-Jun-98	22-May-98
LF05	SO	BHGLTA505	20 ft	18-May-98	N	9805G744-004	1	03-Jun-98		01-Jun-98	22-May-98
LF05	SO	BHGLTA506	00 ft	13-May-98	N	9805G655-008	1	27-May-98		18-May-98	20-May-98
LF05	SO	BHGLTA506	00 ft	13-May-98	N	9805G655-008	2				
LF05	SO	BHGLTA506	05 ft	13-May-98	N	9805G655-009	1	27-May-98		18-May-98	20-May-98
LF05	SO	BHGLTA506	05 ft	13-May-98	N	9805G655-009	2				
LF05	SO	BHGLTA506	05 ft	13-May-98	FD	9805G655-017	1	28-May-98		18-May-98	20-May-98
LF05	SO	BHGLTA506	05 ft	13-May-98	FD	9805G655-017	2				
LF05	SO	BHGLTA506	10 ft	13-May-98	N	9805G655-010	1	27-May-98		18-May-98	20-May-98
LF05	SO	BHGLTA506	10 ft	13-May-98	N	9805G655-010	2				
LF05	SO	BHGLTA507	00 ft	13-May-98	N	9805G655-011	1	28-May-98		18-May-98	20-May-98
LF05	SO	BHGLTA507	00 ft	13-May-98	N	9805G655-011	2				
LF05	SO	BHGLTA507	05 ft	13-May-98	N	9805G655-012	1	28-May-98		18-May-98	20-May-98
LF05	SO	BHGLTA507	05 ft	13-May-98	N	9805G655-012	2				
LF05	SO	BHGLTA507	10 ft	13-May-98	N	9805G655-013	1	28-May-98		18-May-98	20-May-98
LF05	SO	BHGLTA507	10 ft	13-May-98	N	9805G655-013	2				
LF05	SO	BHGLTA508	00 ft	13-May-98	N	9805G655-014	1	28-May-98		18-May-98	20-May-98
LF05	SO	BHGLTA508	00 ft	13-May-98	N	9805G655-014	2				
LF05	SO	BHGLTA508	05 ft	13-May-98	N	9805G655-015	1	28-May-98		18-May-98	20-May-98
LF05	SO	BHGLTA508	05 ft	13-May-98	N	9805G655-015	2				

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Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW8280	SW8310	SW9010	SW9030
LF05	SO	BHGLTA508	10 ft	13-May-98	N	9805G655-016	1	28-May-98		18-May-98	20-May-98
LF05	SO	BHGLTA508	10 ft	13-May-98	N	9805G655-016	2				
LF05	SO	BHGLTA509	00 ft	14-May-98	N	9805G688-006	1	29-May-98		27-May-98	20-May-98
LF05	SO	BHGLTA509	05 ft	15-May-98	N	9805G688-012	1	29-May-98		29-May-98	22-May-98
LF05	SO	BHGLTA509	05 ft	15-May-98	N	9805G688-012	2				
LF05	SO	BHGLTA509	10 ft	15-May-98	N	9805G688-013	1	29-May-98		27-May-98	22-May-98
LF05	SO	BHGLTA509	15 ft	15-May-98	N	9805G688-014	1	29-May-98		27-May-98	22-May-98
LF05	SO	BHGLTA510	00 ft	08-Oct-99	N	9910G320-001	1				
LF05	SO	BHGLTA511	05 ft	08-Oct-99	N	9910G320-002	1				
LF05	SO	BHGLTA506	05 ft	05-Jan-00	N	9A01G513-015	1				
LF05	SO	BHGLTA509	05 ft	05-Jan-00	N	9A01G512-003	1				
LF05	SO	BHGLTA509	10 ft	05-Jan-00	N	9A01G512-005	1				
LF05	SO	BHGLTA509	16 ft	05-Jan-00	N	9A01G513-009	1				
LF05	SO	BHGLTA512	15 ft	10-Mar-00	N	9A03G273-001	1				
LF05	SO	BHGLTA513	15 ft	10-Mar-00	N	9A03G273-002	1				
LF05	SO	BHGLTA514	15 ft	10-Mar-00	N	9A03G273-003	1				
LF05	SO	BHGLTA514	15 ft	10-Mar-00	FD	9A03G273-004	1				
LF05	SO	BHGLTA515	05 ft	15-Jun-00	N	9A06G782-024	1				
LF05	SO	BHGLTA515	10 ft	15-Jun-00	N	9A06G782-025	1				
LF05	SO	LF05-DP059	05 ft	26-Apr-00	N	9A04G979-001	1				
LF05	SO	LF05-DP059	10 ft	26-Apr-00	N	9A04G979-002	1				
LF05	SO	LF05-DP059	15 ft	26-Apr-00	N	9A04G979-003	1				
LF05	SO	LF05-DP059	20 ft	26-Apr-00	N	9A04G979-004	1				
LF05	SO	LF05-DP059	25 ft	26-Apr-00	N	9A04G979-005	1				
LF05	SO	LF05-DP060	05 ft	26-Apr-00	N	9A04G979-006	1				
LF05	SO	LF05-DP060	10 ft	26-Apr-00	N	9A04G979-007	1				
LF05	SO	LF05-DP060	15 ft	26-Apr-00	N	9A04G979-008	1				
LF05	SO	LF05-DP060	20 ft	26-Apr-00	N	9A04G979-009	1				
LF05	SO	THGLTA017	00 ft	04-Jan-00	N	9A01G449-019	1				
LF05	SO	THGLTA017	13 ft	05-Jan-00	N	9A01G512-001	1				
LF05	SPLP	BHGLTA506	NA	05-Jan-00	N	9A01G513-016	1				
LF05	SPLP	BHGLTA509	NA	05-Jan-00	N	9A01G512-004	1				
LF05	SPLP	BHGLTA509	NA	05-Jan-00	N	9A01G512-006	1				
LF05	SPLP	BHGLTA509	NA	05-Jan-00	N	9A01G513-010	1				
LF05	SPLP	THGLTA017	NA	04-Jan-00	N	9A01G449-020	1				
LF05	SPLP	THGLTA017	NA	05-Jan-00	N	9A01G512-002	1				
LF05	WG	WHGLTA003	NA	05-Sep-97	N1	0568980003RE	1				
LF05	WG	WHGLTA003	NA	05-Sep-97	N1	0568980003SA	1				
LF05	WG	WHGLTA003	NA	05-Sep-97	N1	B7I060135003	1				
LF05	WG	LF05-5C	NA	14-Oct-99	N	9910G388-006	1				
LF05	WG	LF05-5C	NA	14-Oct-99	N	9910G388-006	2				
LF05	WG	LF05-02	NA	07-Jan-00	N	9A01G549-001	1				
LF05	WG	LF05-02	NA	07-Jan-00	N	9A01G549-001	2				
LF05	WG	LF05-02	NA	07-Jan-00	N	9A01G549-001	3				
LF05	WG	LF05-18	NA	29-Feb-00	N	9A03G127-002	1				
LF05	WG	LF05-18	NA	29-Feb-00	N	9A03G284-003	1				
LF05	WG	LF05-19	NA	12-Jan-00	N	9A01G611-005	1				
LF05	WG	LF05-19	NA	12-Jan-00	N	9A01G611-005	2				

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Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW8280	SW8310	SW9010	SW9030
LF05	WG	LF05-19	NA	01-Mar-00	N	9A03G146-001	1				
LF05	WG	LF05-19	NA	01-Mar-00	N	9A03G284-006	1				
LF05	WG	LF05-5A	NA	02-Mar-00	N	9A03G162-001	1				
LF05	WG	LF05-5A	NA	02-Mar-00	N	9A03G284-010	1				
LF05	WG	LF05-5B	NA	12-Jan-00	N	9A01G611-002	1				
LF05	WG	LF05-5B	NA	12-Jan-00	N	9A01G611-002	2				
LF05	WG	LF05-5B	NA	03-Mar-00	N	9A03G177-001	1				
LF05	WG	LF05-5B	NA	03-Mar-00	N	9A03G284-012	1				
LF05	WG	LF05-5C	NA	11-Jan-00	N	9A01G578-008	1				
LF05	WG	LF05-5C	NA	11-Jan-00	N	9A01G578-008	2				
LF05	WG	LF05-5C	NA	11-Jan-00	FD	9A01G578-009	1				
LF05	WG	LF05-5C	NA	11-Jan-00	FD	9A01G578-009	2				
LF05	WG	LF05-5C	NA	07-Mar-00	N	9A03G223-001	1				
LF05	WG	LF05-5C	NA	07-Mar-00	N	9A03G284-024	1				
LF05	WG	LF05-5E	NA	06-Mar-00	N	9A03G192-007	1				
LF05	WG	LF05-5E	NA	06-Mar-00	N	9A03G284-022	1				
LF05	WG	LF05-5E	NA	06-Mar-00	FD	9A03G192-008	1				
LF05	WG	LF05-5E	NA	06-Mar-00	FD	9A03G284-023	1				
LF05	WG	WHGLTA003	NA	28-Feb-00	N	9A02G112-001	1				
LF05	WG	WHGLTA003	NA	28-Feb-00	N	9A03G284-001	1				
LF05	WG	WHGLTA003	NA	06-Mar-00	N	9A03G284-019	1				
LF05	WG	WHGLTA701	NA	01-Mar-00	N	9A03G146-008	1				
LF05	WG	WHGLTA701	NA	01-Mar-00	N	9A03G284-009	1				
LF05	WG	WHGLTA702	NA	06-Mar-00	N	9A03G192-002	1				
LF05	WG	WHGLTA702	NA	06-Mar-00	N	9A03G284-017	1				
LF05	WG	WHGLTA703	NA	06-Jan-00	N	9A01G543-001	1				
LF05	WG	WHGLTA703	NA	06-Jan-00	N	9A01G543-001	2				
LF05	WG	WHGLTA703	NA	06-Mar-00	N	9A03G192-004	1				
LF05	WG	WHGLTA704	NA	01-Mar-00	N	9A03G146-007	1				
LF05	WG	WITCTA059	NA	26-Apr-00	N	9A04G979-014	1				
LF05	WG	WITCTA059	NA	26-Apr-00	N	9A04G979-014	2				
LF05	WG	WITCTA059	NA	26-Apr-00	N	9A04G979-014	3				
LF05	WG	WITCTA060	NA	26-Apr-00	N	9A04G979-015	1				
LF05	WG	WITCTA060	NA	26-Apr-00	N	9A04G979-015	2				
LF08	SO	THGLTA021	09 5 ft	27-Aug-97	N1	B7H280161011	1				
LF08	SO	THGLTA022	00 ft	28-Aug-97	N1	B7H290134003	1				
LF08	SO	THGLTA022	00 ft	28-Aug-97	FD1	B7H290134004	1				
LF08	SO	THGLTA022	11 ft	28-Aug-97	N1	B7H290134005	1				
LF08	SO	THGLTA023	00 ft	28-Aug-97	N1	B7H290134006	1				
LF08	SO	THGLTA023	09 5 ft	28-Aug-97	N1	B7H290134007	1				
LF08	SO	THGLTA024	00 ft	10-Sep-97	N1	0569330003SA	1				
LF08	SO	THGLTA024	00 ft	10-Sep-97	N1	B7I110141003	1				
LF08	SO	THGLTA024	14 5 ft	10-Sep-97	N1	0569330004RE	1				
LF08	SO	THGLTA024	14 5 ft	10-Sep-97	N1	0569330004SA	1				
LF08	SO	THGLTA024	14 5 ft	10-Sep-97	N1	B7I110141004	1				
LF08	SO	THGLTA025	00 ft	10-Sep-97	N1	0569330005SA	1				
LF08	SO	THGLTA025	00 ft	10-Sep-97	N1	B7I110141006	1				
LF08	SO	THGLTA025	10 5 ft	10-Sep-97	N1	0569330006SA	1				

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Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW8280	SW8310	SW9010	SW9030
LF08	SO	THGLTA025	10 5 ft	10-Sep-97	N1	B7I110141007	1				
LF08	SO	THGLTA026	00 ft	11-Sep-97	N1	0569330007SA	1				
LF08	SO	THGLTA026	00 ft	11-Sep-97	N1	B7I120127001	1				
LF08	SO	THGLTA026	04 5 ft	11-Sep-97	N1	0569330008SA	1				
LF08	SO	THGLTA026	04 5 ft	11-Sep-97	N1	B7I120127002	1				
LF08	SO	THGLTA027	00 ft	11-Sep-97	N1	0569330009SA	1				
LF08	SO	THGLTA027	00 ft	11-Sep-97	N1	B7I120127003	1				
LF08	SO	THGLTA027	03 ft	11-Sep-97	N1	0569330010SA	1				
LF08	SO	THGLTA027	03 ft	11-Sep-97	N1	B7I120127004	1				
LF08	SO	THGLTA027	03 ft	11-Sep-97	FD1	0569330011FD	1				
LF08	SO	THGLTA027	03 ft	11-Sep-97	FD1	B7I120127005	1				
LF08	SO	THGLTA028	00 ft	11-Sep-97	N1	0569330012SA	1				
LF08	SO	THGLTA028	00 ft	11-Sep-97	N1	B7I120127006	1				
LF08	SO	THGLTA028	08 5 ft	11-Sep-97	N1	0569330013SA	1				
LF08	SO	THGLTA028	08 5 ft	11-Sep-97	N1	B7I120127007	1				
LF08	SO	BHGLTA812	00 ft	02-Jun-98	N	9806G959-008	1	18-Jun-98		15-Jun-98	05-Jun-98
LF08	SO	BHGLTA812	00 ft	02-Jun-98	FD	9806G959-016	1	19-Jun-98		15-Jun-98	09-Jun-98
LF08	SO	BHGLTA812	00 ft	02-Jun-98	FD	9806G959-016	2				
LF08	SO	BHGLTA812	00 ft	02-Jun-98	FD	9806G959-016	3				
LF08	SO	BHGLTA812	05 ft	02-Jun-98	N	9806G959-009	1	18-Jun-98		15-Jun-98	05-Jun-98
LF08	SO	BHGLTA812	10 ft	02-Jun-98	N	9806G959-010	1	18-Jun-98		15-Jun-98	05-Jun-98
LF08	SO	BHGLTA812	15 ft	02-Jun-98	N	9806G959-011	1	18-Jun-98		15-Jun-98	05-Jun-98
LF08	SO	BHGLTA812	20 ft	02-Jun-98	N	9806G959-012	1	18-Jun-98		15-Jun-98	05-Jun-98
LF08	SO	BHGLTA813	00 ft	12-May-98	N	9805G655-003	1	27-May-98		18-May-98	20-May-98
LF08	SO	BHGLTA813	00 ft	12-May-98	N	9805G655-003	2				
LF08	SO	BHGLTA813	05 ft	12-May-98	N	9805G655-004	1	27-May-98		18-May-98	20-May-98
LF08	SO	BHGLTA813	05 ft	12-May-98	N	9805G655-004	2				
LF08	SO	BHGLTA813	10 ft	12-May-98	N	9805G655-005	1	27-May-98		18-May-98	20-May-98
LF08	SO	BHGLTA813	10 ft	12-May-98	N	9805G655-005	2				
LF08	SO	BHGLTA813	15 ft	01-Jun-98	N	9806G959-002	1	18-Jun-98		15-Jun-98	05-Jun-98
LF08	SO	BHGLTA813	20 ft	01-Jun-98	N	9806G959-003	1	18-Jun-98		15-Jun-98	05-Jun-98
LF08	SO	BHGLTA814	00 ft	18-May-98	N	9805G744-006	1	05-Jun-98		01-Jun-98	22-May-98
LF08	SO	BHGLTA814	00 ft	18-May-98	FD	9805G744-011	1	04-Jun-98		01-Jun-98	22-May-98
LF08	SO	BHGLTA814	05 ft	18-May-98	N	9805G744-007	1	03-Jun-98		01-Jun-98	22-May-98
LF08	SO	BHGLTA814	10 ft	18-May-98	N	9805G744-008	1	03-Jun-98		01-Jun-98	22-May-98
LF08	SO	BHGLTA815	00 ft	12-May-98	N	9805G655-001	1	27-May-98		18-May-98	20-May-98
LF08	SO	BHGLTA815	00 ft	12-May-98	N	9805G655-001	2				
LF08	SO	BHGLTA815	05 ft	12-May-98	N	9805G655-002	1	27-May-98		18-May-98	20-May-98
LF08	SO	BHGLTA815	05 ft	12-May-98	N	9805G655-002	2				
LF08	SO	BHGLTA815	10 ft	02-Jun-98	N	9806G959-013	1	18-Jun-98		15-Jun-98	05-Jun-98
LF08	SO	BHGLTA815	15 ft	02-Jun-98	N	9806G959-014	1	19-Jun-98		15-Jun-98	05-Jun-98
LF08	SO	BHGLTA815	20 ft	02-Jun-98	N	9806G959-015	1	19-Jun-98		15-Jun-98	09-Jun-98
LF08	SO	BHGLTA816	00 ft	02-Jun-98	N	9806G980-003	1	19-Jun-98		16-Jun-98	10-Jun-98
LF08	SO	BHGLTA816	00 ft	02-Jun-98	N	9806G980-003	2				
LF08	SO	BHGLTA816	05 ft	02-Jun-98	N	9806G980-004	1	19-Jun-98		16-Jun-98	09-Jun-98
LF08	SO	BHGLTA816	05 ft	02-Jun-98	N	9806G980-004	2				
LF08	SO	BHGLTA816	10 ft	02-Jun-98	N	9806G980-005	1	19-Jun-98		16-Jun-98	09-Jun-98
LF08	SO	BHGLTA816	10 ft	02-Jun-98	FD	9806G980-007	1	19-Jun-98		16-Jun-98	09-Jun-98

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Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW8280	SW8310	SW9010	SW9030
LF08	SO	BHGLTA816	15 ft	02-Jun-98	N	9806G980-006	1	19-Jun-98		16-Jun-98	09-Jun-98
LF08	SO	BHGLTA816	15 ft	02-Jun-98	N	9806G980-006	2				
LF08	SO	BHGLTA817	00 ft	01-Jun-98	N	9806G959-004	1	18-Jun-98		15-Jun-98	05-Jun-98
LF08	SO	BHGLTA817	00 ft	01-Jun-98	N	9806G959-004	2				
LF08	SO	BHGLTA817	00 ft	01-Jun-98	FD	9806G959-005	1	18-Jun-98		15-Jun-98	05-Jun-98
LF08	SO	BHGLTA817	00 ft	01-Jun-98	FD	9806G959-005	2				
LF08	SO	BHGLTA818	00 ft	03-Jun-98	N	9806G980-008	1	19-Jun-98		24-Jun-98	09-Jun-98
LF08	SO	BHGLTA818	05 ft	19-May-98	N	9805G744-020	1	04-Jun-98		01-Jun-98	05-Jun-98
LF08	SO	BHGLTA818	10 ft	03-Jun-98	N	9806G980-009	1	19-Jun-98		17-Jun-98	09-Jun-98
LF08	SO	BHGLTA818	15 ft	03-Jun-98	N	9806G980-010	1	19-Jun-98		17-Jun-98	09-Jun-98
LF08	SO	BHGLTA819	05 ft	07-Oct-99	N	9910G290-007	1				
LF08	SO	BHGLTA820	00 ft	07-Oct-99	N	9910G290-006	1				
LF08	SO	BHGLTA820	00 ft	07-Oct-99	N	9A02G019-002	1				
LF08	SO	BHGLTA820	15 ft	07-Oct-99	N	9910G290-005	1				
LF08	SO	BHGLTA821	00 ft	07-Oct-99	N	9910G290-003	1				
LF08	SO	BHGLTA821	00 ft	07-Oct-99	N	9A02G019-001	1				
LF08	SO	BHGLTA821	15 ft	07-Oct-99	N	9910G290-004	1				
LF08	SO	BHGLTA822	00 ft	08-Oct-99	N	9910G320-003	1			23-Oct-99	13-Oct-99
LF08	SO	BHGLTA822	00 ft	08-Oct-99	N	9910G320-003	2				
LF08	SO	BHGLTA822	05 ft	08-Oct-99	N	9910G320-004	1			23-Oct-99	13-Oct-99
LF08	SO	BHGLTA822	05 ft	08-Oct-99	N	9910G320-004	2				
LF08	SO	BHGLTA822	10 ft	08-Oct-99	N	9910G320-005	1			23-Oct-99	13-Oct-99
LF08	SO	BHGLTA822	10 ft	08-Oct-99	N	9910G320-005	2				
LF08	SO	BHGLTA822	15 ft	08-Oct-99	N	9910G320-006	1			23-Oct-99	13-Oct-99
LF08	SO	BHGLTA822	15 ft	08-Oct-99	N	9910G320-006	2				
LF08	SO	BHGLTA822	20 ft	08-Oct-99	N	9910G320-007	1			23-Oct-99	13-Oct-99
LF08	SO	BHGLTA822	20 ft	08-Oct-99	N	9910G320-007	2				
LF08	SO	BHGLTA829	00 ft	07-Oct-99	N	9911G906-005	1				
LF08	SO	BHGLTA829	00 ft	07-Oct-99	N	9A02G019-004	1				
LF08	SO	BHGLTA830	00 ft	07-Oct-99	N	9911G906-007	1				
LF08	SO	BHGLTA830	00 ft	07-Oct-99	N	9A02G019-006	1				
LF08	SO	BHGLTA831	00 ft	08-Oct-99	N	9910G320-008	1			23-Oct-99	13-Oct-99
LF08	SO	BHGLTA831	00 ft	08-Oct-99	N	9910G320-008	2				
LF08	SO	BHGLTA831	00 ft	08-Oct-99	FD	9910G320-013	1			23-Oct-99	13-Oct-99
LF08	SO	BHGLTA831	00 ft	08-Oct-99	FD	9910G320-013	2				
LF08	SO	BHGLTA831	05 ft	08-Oct-99	N	9910G320-009	1			23-Oct-99	13-Oct-99
LF08	SO	BHGLTA831	05 ft	08-Oct-99	N	9910G320-009	2				
LF08	SO	BHGLTA831	10 ft	08-Oct-99	N	9910G320-010	1			23-Oct-99	13-Oct-99
LF08	SO	BHGLTA831	10 ft	08-Oct-99	N	9910G320-010	2				
LF08	SO	BHGLTA831	15 ft	08-Oct-99	N	9910G320-011	1			23-Oct-99	13-Oct-99
LF08	SO	BHGLTA831	15 ft	08-Oct-99	N	9910G320-011	2				
LF08	SO	BHGLTA831	20 ft	08-Oct-99	N	9910G320-012	1			23-Oct-99	13-Oct-99
LF08	SO	BHGLTA831	20 ft	08-Oct-99	N	9910G320-012	2				
LF08	SO	WHGLTA801	00 ft	28-Oct-99	N	9910G621-001	1				
LF08	SO	WHGLTA801	05 ft	28-Oct-99	N	9910G621-002	1				
LF08	SO	WHGLTA801	05 ft	28-Oct-99	N	9910G621-002	2				
LF08	SO	WHGLTA801	10 ft	28-Oct-99	N	9910G621-003	1				
LF08	SO	WHGLTA803	00 ft	28-Oct-99	N	9910G621-004	1				

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Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW8280	SW8310	SW9010	SW9030
LF08	SO	WHGLTA803	05 ft	28-Oct-99	N	9910G621-005	1				
LF08	SO	BHGLTA815	00 ft	08-Mar-00	N	9A03G241-010	1				
LF08	SO	BHGLTA815	00 ft	14-Jun-00	N	9A06G748-001	1				
LF08	SO	BHGLTA816	00 ft	09-Mar-00	N	9A03G261-002	1				
LF08	SO	BHGLTA816	00 ft	09-Mar-00	FD	9A03G261-004	1				
LF08	SO	BHGLTA816	00 ft	14-Jun-00	N	9A06G748-003	1				
LF08	SO	BHGLTA816	10 ft	14-Jun-00	N	9A06G748-005	1				
LF08	SO	BHGLTA817	00 ft	09-Mar-00	N-	9A03G261-009	1				
LF08	SO	BHGLTA829	00 ft	15-Jun-00	N	9A06G781-001	1				
LF08	SO	BHGLTA829	15 ft	13-Mar-00	N	9A03G261-024	1				
LF08	SO	BHGLTA829	20 ft	13-Mar-00	N	9A03G261-025	1				
LF08	SO	BHGLTA831	00 ft	09-Mar-00	N	9A03G261-010	1				
LF08	SO	BHGLTA832	00 ft	08-Mar-00	N	9A03G241-004	1		15-Mar-00		
LF08	SO	BHGLTA832	05 ft	13-Mar-00	N	9A03G286-001	1				
LF08	SO	BHGLTA832	10 ft	13-Mar-00	N	9A03G286-002	1				
LF08	SO	BHGLTA832	10 ft	14-Jun-00	N	9A06G748-007	1				
LF08	SO	BHGLTA832	15 ft	13-Mar-00	N	9A03G287-001	1				
LF08	SO	BHGLTA832	20 ft	08-Mar-00	N	9A03G241-005	1				
LF08	SO	BHGLTA833	00 ft	08-Mar-00	N	9A03G241-006	1		15-Mar-00		
LF08	SO	BHGLTA833	05 ft	13-Mar-00	N	9A03G286-003	1				
LF08	SO	BHGLTA833	10 ft	13-Mar-00	N	9A03G288-001	1				
LF08	SO	BHGLTA833	15 ft	13-Mar-00	N	9A03G289-001	1				
LF08	SO	BHGLTA833	20 ft	13-Mar-00	N	9A03G289-002	1				
LF08	SO	BHGLTA834	00 ft	08-Mar-00	N	9A03G241-007	1		15-Mar-00		
LF08	SO	BHGLTA834	00 ft	08-Mar-00	N	9A03G241-007	2		20-Mar-00		
LF08	SO	BHGLTA834	05 ft	13-Mar-00	N	9A03G286-004	1				
LF08	SO	BHGLTA834	10 ft	13-Mar-00	N	9A03G288-002	1				
LF08	SO	BHGLTA834	15 ft	13-Mar-00	N	9A03G289-003	1				
LF08	SO	BHGLTA834	20 ft	13-Mar-00	N	9A03G289-004	1				
LF08	SO	BHGLTA835	00 ft	09-Mar-00	N	9A03G261-012	1		16-Mar-00		
LF08	SO	BHGLTA835	00 ft	09-Mar-00	FD	9A03G261-013	1		16-Mar-00		
LF08	SO	BHGLTA835	00 ft	14-Jun-00	N	9A06G748-009	1				
LF08	SO	BHGLTA835	05 ft	14-Jun-00	N	9A06G748-011	1				
LF08	SO	BHGLTA836	00 ft	09-Mar-00	N	9A03G261-014	1				
LF08	SO	BHGLTA837	00 ft	09-Mar-00	N	9A03G261-016	1				
LF08	SO	BHGLTA837	00 ft	09-Mar-00	FD	9A03G261-018	1				
LF08	SO	BHGLTA838	00 ft	13-Mar-00	N	9A03G286-005	1				
LF08	SO	BHGLTA839	03 ft	08-Mar-00	N	9A03G241-008	1				
LF08	SO	BHGLTA840	00 ft	13-Mar-00	N	9A03G286-011	1				
LF08	SO	BHGLTA840	00 ft	13-Mar-00	N	9A03G286-011	2				
LF08	SO	BHGLTA840	00 ft	13-Mar-00	N	9A03G286-011	3				
LF08	SO	BHGLTA841	00 ft	13-Mar-00	N	9A03G286-013	1		20-Mar-00		
LF08	SO	BHGLTA841	00 ft	13-Mar-00	N	9A03G286-013	2		21-Mar-00		
LF08	SO	BHGLTA842	00 ft	09-Mar-00	N	9A03G261-006	1				
LF08	SO	BHGLTA842	10 ft	09-Mar-00	N	9A03G261-007	1				
LF08	SO	BHGLTA842	10 ft	09-Mar-00	N	9A03G261-008	1				
LF08	SO	BHGLTA843	10 ft	09-Mar-00	N	9A03G261-001	1				
LF08	SO	BHGLTA844	00 ft	14-Jun-00	N	9A06G748-012	1				

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Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW8280	SW8310	SW9010	SW9030
LF08	SO	BHGLTA844	05 ft	14-Jun-00	N	9A06G748-013	1				
LF08	SO	BHGLTA845	00 ft	14-Jun-00	N	9A06G748-014	1				
LF08	SO	BHGLTA845	05 ft	14-Jun-00	N	9A06G748-015	1				
LF08	SO	BHGLTA846	00 ft	14-Jun-00	N	9A06G748-016	1				
LF08	SO	BHGLTA846	05 ft	14-Jun-00	N	9A06G748-017	1				
LF08	SO	BHGLTA846	05 ft	14-Jun-00	FD	9A06G748-018	1				
LF08	SO	BHGLTA847	00 ft	14-Jun-00	N	9A06G748-019	1				
LF08	SO	BHGLTA848	00 ft	14-Jun-00	N	9A06G748-020	1				
LF08	SO	BHGLTA849	05 ft	14-Jun-00	N	9A06G748-021	1				
LF08	SO	BHGLTA849	10 ft	14-Jun-00	N	9A06G748-022	1				
LF08	SO	BHGLTA850	05 ft	14-Jun-00	N	9A06G748-023	1				
LF08	SO	BHGLTA850	10 ft	14-Jun-00	N	9A06G748-024	1				
LF08	SO	BHGLTA850	10 ft	14-Jun-00	FD	9A06G748-025	1				
LF08	SPLP	BHGLTA829	NA	07-Oct-99	N	9912G245-006	1				
LF08	SPLP	BHGLTA829	NA	07-Oct-99	N	9A02G019-005	1				
LF08	SPLP	BHGLTA830	NA	07-Oct-99	N	9912G245-008	1				
LF08	SPLP	BHGLTA830	NA	07-Oct-99	N	9A02G019-007	1				
LF08	SPLP	BHGLTA815	NA	08-Mar-00	N	9A03G241-011	1				
LF08	SPLP	BHGLTA815	NA	14-Jun-00	N	9A06G748-002	1				
LF08	SPLP	BHGLTA816	NA	09-Mar-00	N	9A03G261-003	1				
LF08	SPLP	BHGLTA816	NA	09-Mar-00	FD	9A03G261-005	1				
LF08	SPLP	BHGLTA816	NA	14-Jun-00	N	9A06G748-004	1				
LF08	SPLP	BHGLTA816	NA	14-Jun-00	N	9A06G748-006	1				
LF08	SPLP	BHGLTA829	NA	15-Jun-00	N	9A06G781-002	1				
LF08	SPLP	BHGLTA831	NA	09-Mar-00	N	9A03G261-011	1				
LF08	SPLP	BHGLTA832	NA	14-Jun-00	N	9A06G748-008	1				
LF08	SPLP	BHGLTA835	NA	14-Jun-00	N	9A06G748-010	1				
LF08	SPLP	BHGLTA836	NA	09-Mar-00	N	9A03G261-015	1				
LF08	SPLP	BHGLTA837	NA	09-Mar-00	N	9A03G261-017	1				
LF08	SPLP	BHGLTA837	NA	09-Mar-00	FD	9A03G261-019	1				
LF08	SPLP	BHGLTA838	NA	13-Mar-00	N	9A03G286-006	1		21-Mar-00		
LF08	SPLP	BHGLTA839	NA	08-Mar-00	N	9A03G241-009	1		16-Mar-00		
LF08	SPLP	BHGLTA840	NA	13-Mar-00	N	9A03G286-012	1		21-Mar-00		
LF08	WG	FT08-11A	NA	09-Sep-97	N1	0569030011SA	1				
LF08	WG	FT08-11A	NA	09-Sep-97	N1	B7I100121007	1				
LF08	WG	WHGLTA002	NA	10-Sep-97	N1	0569330001SA	1				
LF08	WG	WHGLTA002	NA	10-Sep-97	N1	B7I110141001	1				
LF08	WG	WHGLTA004	NA	09-Sep-97	N1	0569030009SA	1				
LF08	WG	WHGLTA004	NA	09-Sep-97	N1	B7I100121004	1				
LF08	WG	WHGLTA801	NA	02-Nov-99	N	9911G676-001	1				
LF08	WG	WHGLTA801	NA	02-Nov-99	N	9911G676-001	2				
LF08	WG	WHGLTA803	NA	03-Nov-99	N	9911G687-001	1				
LF08	WG	FT08-11A	NA	10-Jan-00	N	9A01G578-004	1				
LF08	WG	WHGLTA002	NA	12-Jan-00	N	9A01G611-001	1				
LF08	WG	WHGLTA002	NA	29-Feb-00	N	9A03G127-003	1				
LF08	WG	WHGLTA004	NA	10-Jan-00	N	9A01G578-001	1				
LF08	WG	WHGLTA004	NA	10-Jan-00	N	9A01G578-001	2				
LF08	WG	WHGLTA801	NA	10-Jan-00	N	9A01G578-002	1				

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Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW8280	SW8310	SW9010	SW9030
LF08	WG	WHGLTA801	NA	10-Jan-00	N	9A01G578-002	2				
LF08	WG	WHGLTA803	NA	10-Jan-00	N	9A01G578-003	1				
NA	SE	EUHGLTA001	NA	04-Sep-97	N1	0568720012SA	1				
NA	SE	EUHGLTA001	NA	04-Sep-97	N1	B7I050160009	1				
NA	SE	EUHGLTA002	NA	04-Sep-97	N1	0568720011FD	1				
NA	SE	EUHGLTA002	NA	04-Sep-97	N1	B7I050160007	1				
NA	SE	EUHGLTA003	NA	04-Sep-97	N1	0568720009SA	1				
NA	SE	EUHGLTA003	NA	04-Sep-97	N1	B7I050160004	1				
NA	SE	EUHGLTA003	NA	04-Sep-97	FD1	0568720010FD	1				
NA	SE	EUHGLTA003	NA	04-Sep-97	FD1	B7I050160006	1				
NA	SE	EUHGLTA004	NA	04-Sep-97	N1	0568720016SA	1				
NA	SE	EUHGLTA004	NA	04-Sep-97	N1	B7I050160002	1				
NA	SE	EUHGLTA005	NA	03-Sep-97	N1	0568710001SA	1				
NA	SE	EUHGLTA005	NA	03-Sep-97	N1	B7I040138002	1				
NA	SE	EUHGLTA006	NA	03-Sep-97	N1	0568710002SA	1				
NA	SE	EUHGLTA006	NA	03-Sep-97	N1	B7I040138004	1				
NA	SE	EUHGLTA007	NA	03-Sep-97	N1	0568710004SA	1				
NA	SE	EUHGLTA007	NA	03-Sep-97	N1	B7I040138008	1				
NA	SE	EUHGLTA009	NA	03-Sep-97	N1	0568710003SA	1				
NA	SE	EUHGLTA009	NA	03-Sep-97	N1	B7I040138006	1				
NA	SE	EUHGLTA010	NA	03-Sep-97	N1	0568710005SA	1				
NA	SE	EUHGLTA010	NA	03-Sep-97	N1	B7I040138010	1				
NA	SE	EUHGLTA011	NA	04-Sep-97	N1	0568720013SA	1				
NA	SE	EUHGLTA011	NA	04-Sep-97	N1	B7I050160011	1				
NA	SE	EUHGLTA012	NA	04-Sep-97	N1	0568720014SA	1				
NA	SE	EUHGLTA012	NA	04-Sep-97	N1	B7I050160013	1				
NA	SE	EUHGLTA012	NA	04-Sep-97	FD1	0568720015FD	1				
NA	SE	EUHGLTA012	NA	04-Sep-97	FD1	B7I050160015	1				
NA	SE	EUHGLTA013	NA	09-Sep-97	N1	0569030010SA	1				
NA	SE	EUHGLTA013	NA	09-Sep-97	N1	B7I100121006	1				
NA	WG	ITMW-01T	NA	13-Mar-00	N	9A03G286-015	1				
NA	WS	EUHGLTA001	NA	04-Sep-97	N1	0568720005RE	1				
NA	WS	EUHGLTA001	NA	04-Sep-97	N1	0568720005SA	1				
NA	WS	EUHGLTA001	NA	04-Sep-97	N1	B7I050160010	1				
NA	WS	EUHGLTA002	NA	04-Sep-97	N1	0568720004RE	1				
NA	WS	EUHGLTA002	NA	04-Sep-97	N1	0568720004SA	1				
NA	WS	EUHGLTA002	NA	04-Sep-97	N1	B7I050160008	1				
NA	WS	EUHGLTA003	NA	04-Sep-97	N1	0568720002RE	1				
NA	WS	EUHGLTA003	NA	04-Sep-97	N1	0568720002SA	1				
NA	WS	EUHGLTA003	NA	04-Sep-97	N1	B7I050160003	1				
NA	WS	EUHGLTA003	NA	04-Sep-97	FD1	0568720003FD	1				
NA	WS	EUHGLTA003	NA	04-Sep-97	FD1	0568720003RE	1				
NA	WS	EUHGLTA003	NA	04-Sep-97	FD1	B7I050160005	1				
NA	WS	EUHGLTA004	NA	04-Sep-97	N1	0568720001SA	1				
NA	WS	EUHGLTA004	NA	04-Sep-97	N1	0568720017SA	1				
NA	WS	EUHGLTA004	NA	04-Sep-97	N1	B7I050160001	1				
NA	WS	EUHGLTA005	NA	03-Sep-97	N1	B7I040138001	1				
NA	WS	EUHGLTA006	NA	03-Sep-97	N1	B7I040138003	1				

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Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW8280	SW8310	SW9010	SW9030
NA	WS	EUHGLTA007	NA	03-Sep-97	N1	B7I040138007	1				
NA	WS	EUHGLTA009	NA	03-Sep-97	N1	B7I040138005	1				
NA	WS	EUHGLTA010	NA	03-Sep-97	N1	B7I040138009	1				
NA	WS	EUHGLTA011	NA	04-Sep-97	N1	0568720006RE	1				
NA	WS	EUHGLTA011	NA	04-Sep-97	N1	0568720006SA	1				
NA	WS	EUHGLTA011	NA	04-Sep-97	N1	B7I050160012	1				
NA	WS	EUHGLTA012	NA	04-Sep-97	N1	0568720007RE	1				
NA	WS	EUHGLTA012	NA	04-Sep-97	N1	0568720007SA	1				
NA	WS	EUHGLTA012	NA	04-Sep-97	N1	B7I050160014	1				
NA	WS	EUHGLTA012	NA	04-Sep-97	FD1	0568720008FD	1				
NA	WS	EUHGLTA012	NA	04-Sep-97	FD1	0568720008RE	1				
NA	WS	EUHGLTA012	NA	04-Sep-97	FD1	B7I050160016	1				
WP07	SO	BHGLTA001	00 ft	26-Aug-97	N1	B7H270130010	1				
WP07	SO	BHGLTA001	21 ft	26-Aug-97	N1	B7H270130008	1				
WP07	SO	BHGLTA002	00 ft	26-Aug-97	N1	B7H270130007	1				
WP07	SO	BHGLTA002	00 ft	26-Aug-97	FD1	B7H270130009	1				
WP07	SO	BHGLTA002	21 ft	26-Aug-97	N1	B7H270130011	1				
WP07	SO	BHGLTA003	00 ft	26-Aug-97	N1	B7H270130005	1				
WP07	SO	BHGLTA003	19 ft	26-Aug-97	N1	B7H270130006	1				
WP07	SO	BHGLTA004	00 ft	26-Aug-97	N1	B7H270130003	1				
WP07	SO	BHGLTA004	19 ft	26-Aug-97	N1	B7H270130004	1				
WP07	SO	BHGLTA005	00 ft	27-Aug-97	N1	B7H280161006	1				
WP07	SO	BHGLTA005	13 ft	27-Aug-97	N1	B7H280161002	1				
WP07	SO	BHGLTA006	00 ft	27-Aug-97	N1	B7H280161008	1				
WP07	SO	BHGLTA006	00 ft	27-Aug-97	FD1	B7H280161007	1				
WP07	SO	BHGLTA006	15 ft	27-Aug-97	N1	B7H280161005	1				
WP07	SO	BHGLTA007	00 ft	27-Aug-97	N1	B7H280161004	1				
WP07	SO	BHGLTA007	13 ft	27-Aug-97	N1	B7H280161003	1				
WP07	SO	BHGLTA071	00 ft	28-May-98	N	9805G910-015	1	12-Jun-98		10-Jun-98	03-Jun-98
WP07	SO	BHGLTA071	05 ft	28-May-98	N	9805G910-016	1	12-Jun-98		10-Jun-98	03-Jun-98
WP07	SO	BHGLTA071	10 ft	28-May-98	N	9805G910-017	1	12-Jun-98		10-Jun-98	03-Jun-98
WP07	SO	BHGLTA071	15 ft	28-May-98	N	9805G910-018	1	12-Jun-98		10-Jun-98	04-Jun-98
WP07	SO	BHGLTA071	20 ft	28-May-98	N	9805G910-019	1	12-Jun-98		10-Jun-98	04-Jun-98
WP07	SO	BHGLTA072	00 ft	27-May-98	N	9805G909-011	1	15-Jun-98		08-Jun-98	01-Jun-98
WP07	SO	BHGLTA072	05 ft	27-May-98	N	9805G909-012	1	12-Jun-98		08-Jun-98	02-Jun-98
WP07	SO	BHGLTA072	05 ft	27-May-98	N	9805G909-012	2				
WP07	SO	BHGLTA072	10 ft	27-May-98	N	9805G909-013	1	12-Jun-98		08-Jun-98	02-Jun-98
WP07	SO	BHGLTA072	15 ft	27-May-98	N	9805G909-014	1	12-Jun-98		08-Jun-98	02-Jun-98
WP07	SO	BHGLTA072	15 ft	27-May-98	N	9805G909-014	2				
WP07	SO	BHGLTA072	20 ft	27-May-98	N	9805G910-001	1	12-Jun-98		08-Jun-98	02-Jun-98
WP07	SO	BHGLTA072	20 ft	27-May-98	N	9805G910-001	2				
WP07	SO	BHGLTA073	00 ft	27-May-98	N	9805G909-006	1	12-Jun-98		08-Jun-98	01-Jun-98
WP07	SO	BHGLTA073	00 ft	27-May-98	N	9805G909-006	2				
WP07	SO	BHGLTA073	05 ft	27-May-98	N	9805G909-007	1	12-Jun-98		08-Jun-98	01-Jun-98
WP07	SO	BHGLTA073	10 ft	27-May-98	N	9805G909-008	1	12-Jun-98		08-Jun-98	01-Jun-98
WP07	SO	BHGLTA073	15 ft	27-May-98	N	9805G909-009	1	12-Jun-98		08-Jun-98	02-Jun-98
WP07	SO	BHGLTA073	15 ft	27-May-98	N	9805G909-009	2				
WP07	SO	BHGLTA073	20 ft	27-May-98	N	9805G909-010	1	12-Jun-98		08-Jun-98	02-Jun-98

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Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW8280	SW8310	SW9010	SW9030
WP07	SO	BHGLTA074	00 ft	27-May-98	N	9805G909-001	1	12-Jun-98		08-Jun-98	01-Jun-98
WP07	SO	BHGLTA074	00 ft	27-May-98	N	9805G909-001	2				
WP07	SO	BHGLTA074	05 ft	27-May-98	N	9805G909-002	1	12-Jun-98		08-Jun-98	01-Jun-98
WP07	SO	BHGLTA074	10 ft	27-May-98	N	9805G909-003	1	12-Jun-98		08-Jun-98	01-Jun-98
WP07	SO	BHGLTA074	10 ft	27-May-98	N	9805G909-003	2				
WP07	SO	BHGLTA074	15 ft	27-May-98	N	9805G909-004	1	12-Jun-98		08-Jun-98	01-Jun-98
WP07	SO	BHGLTA074	20 ft	27-May-98	N	9805G909-005	1	12-Jun-98		08-Jun-98	01-Jun-98
WP07	SO	BHGLTA075	00 ft	28-May-98	N	9805G910-004	1	12-Jun-98		08-Jun-98	02-Jun-98
WP07	SO	BHGLTA075	00 ft	28-May-98	FD	9805G910-009	1	12-Jun-98		08-Jun-98	02-Jun-98
WP07	SO	BHGLTA075	05 ft	28-May-98	N	9805G910-005	1	12-Jun-98		08-Jun-98	02-Jun-98
WP07	SO	BHGLTA075	05 ft	28-May-98	N	9805G910-005	2				
WP07	SO	BHGLTA075	10 ft	28-May-98	N	9805G910-006	1	12-Jun-98		08-Jun-98	02-Jun-98
WP07	SO	BHGLTA075	10 ft	28-May-98	N	9805G910-006	2				
WP07	SO	BHGLTA075	15 ft	28-May-98	N	9805G910-007	1	12-Jun-98		08-Jun-98	02-Jun-98
WP07	SO	BHGLTA075	20 ft	28-May-98	N	9805G910-008	1	12-Jun-98		08-Jun-98	02-Jun-98
WP07	SO	BHGLTA076	00 ft	28-May-98	N	9805G910-010	1	12-Jun-98		08-Jun-98	02-Jun-98
WP07	SO	BHGLTA076	05 ft	28-May-98	N	9805G910-011	1	12-Jun-98		10-Jun-98	02-Jun-98
WP07	SO	BHGLTA076	10 ft	28-May-98	N	9805G910-012	1	15-Jun-98		10-Jun-98	03-Jun-98
WP07	SO	BHGLTA076	15 ft	28-May-98	N	9805G910-013	1	15-Jun-98		10-Jun-98	03-Jun-98
WP07	SO	BHGLTA076	20 ft	28-May-98	N	9805G910-014	1	15-Jun-98		10-Jun-98	03-Jun-98
WP07	SO	BHGLTA080	00 ft	07-Oct-99	N	9911G906-001	1				
WP07	SO	BHGLTA081	00 ft	07-Oct-99	N	9910G290-008	1				
WP07	SO	BHGLTA081	00 ft	07-Oct-99	N	9A02G019-003	1				
WP07	SO	BHGLTA082	05 ft	07-Oct-99	N	9910G290-009	1				
WP07	SO	BHGLTA082	10 ft	07-Oct-99	N	9910G290-010	1				
WP07	SO	BHGLTA082	15 ft	07-Oct-99	N	9910G290-011	1				
WP07	SO	BHGLTA083	10 ft	07-Oct-99	N	9910G290-012	1				
WP07	SO	BHGLTA083	15 ft	07-Oct-99	N	9910G290-013	1				
WP07	SO	BHGLTA083	20 ft	07-Oct-99	N	9910G290-014	1				
WP07	SO	BHGLTA084	00 ft	07-Oct-99	N	9911G906-003	1				
WP07	SO	BHGLTA001	00 ft	15-Jun-00	N	9A06G781-003	1				
WP07	SO	BHGLTA071	00 ft	15-Jun-00	N	9A06G781-005	1				
WP07	SO	BHGLTA085	00 ft	09-Mar-00	N	9A03G261-020	1				
WP07	SO	BHGLTA085	00 ft	15-Jun-00	N	9A06G782-001	1				
WP07	SO	BHGLTA085	05 ft	09-Mar-00	N	9A03G262-001	1				
WP07	SO	BHGLTA085	05 ft	15-Jun-00	N	9A06G782-002	1				
WP07	SO	BHGLTA085	10 ft	09-Mar-00	N	9A03G262-002	1				
WP07	SO	BHGLTA086	00 ft	10-Mar-00	N	9A03G273-014	1				
WP07	SO	BHGLTA086	05 ft	14-Mar-00	N	9A03G300-001	1				
WP07	SO	BHGLTA087	00 ft	10-Mar-00	N	9A03G273-011	1				
WP07	SO	BHGLTA087	05 ft	14-Mar-00	N	9A03G300-002	1				
WP07	SO	BHGLTA087	05 ft	15-Jun-00	N	9A06G782-003	1				
WP07	SO	BHGLTA087	10 ft	15-Jun-00	N	9A06G782-004	1				
WP07	SO	BHGLTA088	00 ft	14-Mar-00	N	9A03G300-003	1				
WP07	SO	BHGLTA088	05 ft	15-Jun-00	N	9A06G782-005	1				
WP07	SO	BHGLTA088	10 ft	15-Jun-00	N	9A06G782-006	1				
WP07	SO	BHGLTA089	00 ft	09-Mar-00	N	9A03G262-003	1				
WP07	SO	BHGLTA089	10 ft	09-Mar-00	N	9A03G261-021	1				

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Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW8280	SW8310	SW9010	SW9030
WP07	SO	BHGLTA089	15 ft	09-Mar-00	N	9A03G261-022	1				
WP07	SO	BHGLTA090	00 ft	09-Mar-00	N	9A03G274-001	1				
WP07	SO	BHGLTA090	05 ft	09-Mar-00	N	9A03G262-007	1				
WP07	SO	BHGLTA090	10 ft	09-Mar-00	N	9A03G262-008	1				
WP07	SO	BHGLTA090	15 ft	09-Mar-00	N	9A03G261-023	1				
WP07	SO	BHGLTA091	00 ft	15-Jun-00	N	9A06G782-007	1				
WP07	SO	BHGLTA091	00 ft	15-Jun-00	N	9A06G782-008	1				
WP07	SO	BHGLTA091	05 ft	15-Jun-00	N	9A06G782-009	1				
WP07	SO	BHGLTA092	00 ft	15-Jun-00	N	9A06G782-010	1				
WP07	SO	BHGLTA092	05 ft	15-Jun-00	N	9A06G782-011	1				
WP07	SO	BHGLTA093	00 ft	15-Jun-00	N	9A06G782-012	1				
WP07	SO	BHGLTA094	00 ft	15-Jun-00	N	9A06G782-013	1				
WP07	SO	BHGLTA095	00 ft	15-Jun-00	N	9A06G782-014	1				
WP07	SO	BHGLTA095	05 ft	15-Jun-00	N	9A06G782-015	1				
WP07	SO	BHGLTA095	05 ft	15-Jun-00	N	9A06G782-016	1				
WP07	SO	BHGLTA096	00 ft	15-Jun-00	N	9A06G782-017	1				
WP07	SO	BHGLTA096	05 ft	15-Jun-00	N	9A06G782-018	1				
WP07	SO	BHGLTA096	10 ft	15-Jun-00	N	9A06G782-019	1				
WP07	SO	BHGLTA096	10 ft	15-Jun-00	N	9A06G782-020	1				
WP07	SO	BHGLTA096	15 ft	15-Jun-00	N	9A06G782-021	1				
WP07	SO	BHGLTA096	20 ft	15-Jun-00	N	9A06G782-022	1				
WP07	SPLP	BHGLTA080	NA	07-Oct-99	N	9912G245-002	1				
WP07	SPLP	BHGLTA084	NA	07-Oct-99	N	9912G245-004	1				
WP07	SPLP	BHGLTA001	NA	15-Jun-00	N	9A06G781-004	1		23-Jun-00		
WP07	SPLP	BHGLTA071	NA	15-Jun-00	N	9A06G781-006	1		23-Jun-00		
WP07	WG	WHGLTA003	NA	05-Sep-97	N1	0568980003RE	1				
WP07	WG	WHGLTA003	NA	05-Sep-97	N1	0568980003SA	1				
WP07	WG	WHGLTA003	NA	05-Sep-97	N1	B7I060135003	1				
WP07	WG	WP07-10B	NA	14-Oct-99	N	9910G388-004	1				
WP07	WG	WP07-10B	NA	14-Oct-99	N	9910G388-004	2				
WP07	WG	WP07-10B	NA	14-Oct-99	N	9910G388-004	3				
WP07	WG	WHGLTA003	NA	28-Feb-00	N	9A02G112-001	1				
WP07	WG	WHGLTA003	NA	28-Feb-00	N	9A03G284-001	1				
WP07	WG	WHGLTA003	NA	06-Mar-00	N	9A03G284-019	1				
WP07	WG	WITCTA057	NA	26-Apr-00	N	9A04G979-012	1				
WP07	WG	WITCTA057	NA	26-Apr-00	N	9A04G979-012	2				
WP07	WG	WITCTA057	NA	26-Apr-00	N	9A04G979-012	3				
WP07	WG	WITCTA058	NA	26-Apr-00	N	9A04G979-013	1				
WP07	WG	WITCTA058	NA	26-Apr-00	N	9A04G979-013	2				
WP07	WG	WP07-10A	NA	11-Jan-00	N	9A01G578-010	1				
WP07	WG	WP07-10A	NA	11-Jan-00	N	9A01G578-010	2				
WP07	WG	WP07-10A	NA	07-Mar-00	N	9A03G223-002	1				
WP07	WG	WP07-10A	NA	07-Mar-00	N	9A03G284-025	1				
WP07	WG	WP07-10B	NA	12-Jan-00	N	9A01G611-004	1				
WP07	WG	WP07-10B	NA	12-Jan-00	N	9A01G611-004	2				
WP07	WG	WP07-10B	NA	03-Mar-00	N	9A03G177-003	1				
WP07	WG	WP07-10B	NA	03-Mar-00	N	9A03G284-014	1				
WP07	WG	WP07-10C	NA	12-Jan-00	N	9A01G611-003	1				

676 806

Chronology of Laboratory Analyses
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Site	Matrix	LOCID	Depth	LOGDATE	SACODE	LABSAMPID	Run	SW8280	SW8310	SW9010	SW9030
WP07	WG	WP07-10C	NA	12-Jan-00	N	9A01G611-003	2				
WP07	WG	WP07-10C	NA	12-Jan-00	N	9A01G611-003	3				
WP07	WG	WP07-10C	NA	03-Mar-00	N	9A03G177-002	1				
WP07	WG	WP07-10C	NA	03-Mar-00	N	9A03G284-013	1				

676 807

676 808

TAB

APPENDIX Q

APPENDIX G

EXCEPTIONS TO THE QAPP

HYDRO GeoLogic INC.

676 810

February 17, 1998

Mr. Joseph Dunkle
HQ AFCEE / ERD
3207 North Road, Bldg. 532
Brooks AFB, TX 78235-5363

Ref: Final NAS Fort Worth JRB Basewide QAPP and Variances

Dear Mr. Dunkle:

Attached are HydroGeoLogic's responses to issues that need resolution in order to finalize the Draft Basewide QAPP for NAS Fort Worth JRB. If the resolution of these issues is acceptable, they will be incorporated into the Final Basewide QAPP.

Also attached are the specific exceptions to the Basewide QAPP requested by Quanterra and Recra LabNet. If the requested variances are granted, they will be incorporated into project-specific QAPPs, but will not be incorporated into the Final Basewide QAPP. Due to the tight field sampling schedule, HydroGeoLogic would appreciate a faxed response to these issues by the close of business on February 18 in order to implement our planned mobilization on February 23.

If you have any questions or comments, please call me at (703) 736-4507.

Sincerely,

James P. Costello
Program Manager

Attachments

cc: R. Belan (BAH)
K. Rapuano (HydroGeoLogic)
L. Penfold (Quanterra)
J. Huber (Recra)
Project File

HydroGeoLogic, Inc.
1155 Herndon Parkway • Suite 900 • Herndon, Virginia 20170 • USA
(703) 478-5186 • Fax (703) 471-4180 • http://www.access.digex.net/~hgl

During the conference call between HydroGeoLogic and AFCEE on February 12, 1998, AFCEE requested further clarification on the following three issues prior to finalizing the Carswell Basewide QAPP.

Negative Metals Blanks

Version 2.0 of the AFCEE QAPP does not include any corrective action or validation criteria for negative results in inorganic analysis blanks. The EPA CLP Functional Guidelines do not require any validator action in the case of negative blanks. They only state that the data should be qualified using validator judgment. HydroGeoLogic proposes to include the following items in the final QAPP to address the issue of negative inorganic blanks.

The Summary of Calibration and QC Procedures tables in Section 7 will include a statement to the effect that if a blank shows a negative value with an absolute value greater than the PQL, then the analysis should be terminated and the effected samples reanalyzed (and be re-prepared if the blank in question is a method blank).

The following clarifications will be made to Table 8.2-3 (inorganic methods flagging criteria):

1) If a blank shows a negative value which has an absolute value less than the PQL, then the following steps are taken: J-flag any associated detects which are less than 5X the absolute value of the negative blank (after converting for matrix, dilution, and % solids), and UJ-flag any associated non-detects. [This is consistent with guidance from EPA Region VI, which uses a 15% criterion instead of the "5X rule." HydroGeoLogic believes that using a 5X criterion (equivalent of 20%) is more consistent with CLP's general approach to qualifying data based on blank contamination.]

[Example: A continuing calibration blank has a result of -0.04 F mg/L for nickel (PQL = 0.15 mg/L). Associated nickel non-detects in water samples would have validated results of (MDL) UJ. An associated nickel detect of 0.17 mg/L in a water sample would have a validated result of 0.17 J mg/L. A water sample nickel detect below the PQL would normally be F-flagged as F flags are more severe than J flags.]

2) If a blank shows a negative value which has an absolute value greater than the PQL, then the analysis should be stopped and the system checked (the same as with a positive blank result >PQL in Section 7) and affected samples re-run. If corrective action is not done or is ineffective, then J-flag associated detects by the rules above, but R-flag associated non-detects for the analyte in question.

[Example: A CCB shows a result of -0.19 mg/L for nickel. The analysis should have been terminated, the instrument recalibrated, and the affected samples reanalyzed. Any associated nickel non-detects reported under these conditions should be R-flagged. Any associated nickel detects reported between 0.15 and 0.95 mg/L should be J-flagged. F-flag detects below the PQL as usual.]

HydroGeoLogic believes that this approach is consistent with current practices and will ensure that data of acceptable quality are produced without requiring excessive reanalyses or rejection of data.

Appendix IX Calibration

The current initial calibration criterion for those compounds listed in Appendix A.4-1 (VOCs) and A.5-1 (SVOCs) is 50% RSD. The original 50% comes from a number suggested by Law's laboratory as what could probably be achieved. It was suggested by Law that reducing the calibration range for these compounds might make a lower %RSD criterion (such as 30%) more achievable. Quanterra has pointed out that reducing the calibration range would not help for many compounds because the problem is not a loss of linearity at one end or another, but erratic results which can occur at any point along the curve and affect the %RSD. Region VI does not perform data validation on Appendix IX compounds, and did not provide any official guidance. Neither of the proposed contract laboratories currently control their calibrations for these compounds, but they have agreed to the 50% RSD criterion.

HydroGeoLogic thinks that the %RSD criterion is Sections A.4 and A.5 should remain at 50% as there is no statistical evidence that either laboratory can meet a lower criterion on a consistent basis for the compounds in question. In general, the main impact of poor linearity is on detects. There is some effect on the precision of the MDL/PQL for non-detects.

TPH Methods

The current TPH method in the Basewide QAPP is EPA Method 418.1. This method is no longer favored by TNRCC due to the use of Freon in the extraction process. It is HydroGeoLogic's understanding that the current method is usable at Carswell for all projects which already have regulator approval, but this method will not receive automatic approval from TNRCC for any project work plans received for review after March 1, 1998. HydroGeoLogic has information on the replacement method, referenced as 1005 by the TNRCC directive. Method 1005 will be added to Sections 5 and 7 of the Final Basewide QAPP.

Quanterra has taken the following exceptions to the Draft Carswell Basewide QAPP. They request that the following variances be granted. These variances were discussed with AFCEE on February 12, 1998, and verbal approval was granted, pending formal application.

1) Quanterra originally requested a variance for the continuing calibration acceptance criterion of 20% for eight SW8270 compounds. The variance was approved and raises the criterion for these eight compounds to 30%. Two compounds, 4-nitroaniline and benzoic acid, were inadvertently left off this list. Quanterra requests that these compounds also have the criterion set at 30%.

Justification: These two compounds are poor performers with characteristics similar to those compounds contained in previously accepted variance 19.

2) Quanterra requests a variance for the initial calibration acceptance criterion of 20% RSD for kepone by SW8080A. The variance raises the criterion for this compound to 30% RSD.

Justification: The criterion of 20% RSD is not routinely achievable for this compound. There is a potential for multiple recalibrations being the rule for this compound. The variance should make it possible to deliver kepone results in a timely fashion. There is a potential effect on project DQOs as kepone accuracy, if detected, will be less than that of other compounds if 20% < RSD < 30%.

3) The following Appendix IX analytes will be determined by Method SW8140: disolfoton, phorate, ethyl parathion, famphur, and methyl parathion. Quanterra proposes to use an ICAL acceptance criterion of 20% RSD for these compounds. The acceptance criterion for all 8140 compound CCVs and second-source verification will be 45%D.

Justification: The criterion of 15% RSD is not routinely achievable for these compounds. There is a potential for multiple recalibrations being the rule for this method. The variance should make it possible to deliver results in a timely fashion. There is a potential effect on project DQOs as the accuracy for these compounds, if detected, will be less than that of other compounds if 15% < %RSD < 20% or 15% < %D < 45%.

4) Quanterra proposes to use an acceptance criterion of 35% D for all 8150 compound second-source verification.

Justification: The criterion of 15%D is not routinely achievable for these compounds. There is a potential for multiple recalibrations being the rule for this method. The variance should make it possible to deliver results in a timely fashion. There is a potential effect on project DQOs as the accuracy for these compounds, if detected, will be less than that of other compounds if 15% < %D < 35%.

Recra LabNet has taken the following exceptions to the Draft Carswell Basewide QAPP. They request that the following variances be granted.

1) Recra requires variance on the water recovery limits for the SW8270 surrogate terphenyl-*d14*. The current QAPP control limits are 42-126%, but Recra's statistical studies show that their recovery range is 10-123%. If this variance is not granted, Recra believes that a significant number of samples will have to be reextracted and reanalyzed.

Justification: If this variance is not granted, Recra believes that a significant number of samples will have to be reextracted and reanalyzed. There is some impact on project DQOs as the proposed acceptance range is less accurate than the range in the QAPP. However, the range requested by Recra is not unusual for SW8270 surrogate compounds.

2) Currently, Recra's MDLs are above the QAPP PQLs for three analytes: 1-naphthylamine, 2-naphthylamine, and sulfide. Recra requests a variance to use the PQLs proposed below for these analytes. In addition, although Recra's MDL for isobutyl alcohol supports lower PQLs for this compound, Recra advises that based on historical performance, accuracy for this compound is not achieved until the requested PQL is reached, and that an F-flag is warranted up to 400 μg/L and 0.4 mg/kg. If denied, Recra can use the QAPP PQLs for isobutyl alcohol.

Analyte	Matrix	QAPP PQL	Requested PQL	Recra MDL	Appendix IX Suggested PQL
Method SW8260					
Isobutyl alcohol	Water	200 μg/L	400 μg/L	22.19 μg/L	50 μg/L[1]
Isobutyl alcohol	Soil	0.2 mg/kg	0.4 mg/kg	Not provided	NA[2]
Method 8270					
1-Naphthylamine	Water	10 μg/L	20 μg/L	11.0 μg/L	10 μg/L
2-Naphthylamine	Water	10 μg/L	25 μg/L	16.6 μg/L	10 μg/L
Method 9030					
Sulfide	Water	0.050 mg/L	1.0 mg/L	NA	10 mg/L

[1]The TNRCC water limit for this compound is 1100 μg/L.
[2]The TNRCC soil limit for this compound is 3070 mg/kg.

Justification: The PQLs originally proposed in the QAPP were from Quanterra, and are not based on AFCEE requirements. Recra's MDL studies do not support Quanterra's PQLs as presented in the Draft Basewide QAPP Appendix A for the naphthylamines and sulfide. There are no TNRCC or EPA regulatory limits applicable to these analytes. The proposed PQLs for

isobutyl alcohol are based on Recra's technical experience with this compound and meet regulatory requirements. Note that the Appendix IX PQLs are generally based on estimates and are not considered by the EPA to be a part of the regulation. Raising these PQLs should have minimal impact on project DQOs.

3) Recra LabNet intends to run some compounds listed in Appendix A of the Draft Basewide QAPP by alternate methods. In all cases where the laboratory proposes an alternate method, it can meet the PQLs and QC limits listed in the QAPP.

Analyte	Proposed Method	Recra PQL (μg/L)		PQL in QAPP (μg/L)	
		Water (μg/L)	Soil (μg/kg)	Water (μg/L)	Soil (μg/kg)
Compounds listed in Method 8270 (Table A.5-1)					
Dimethoate	8141	2	67	20	660
Parathion	8141	2	67	50	1600
Sulfotepp	8141	2	67	50	1600
O,O,O-TEPA	8141	2	67	50	1600
Isodrin	8080	0.05	4	10	330
Pentachloro-ethane	8260	2	TBD (but lab agrees to meet PQL)	50	1600
Other compounds (Table A.4-1)					
1,4-Dioxane (by 8260)	8270	20	330	500	500

Justification: The methods analyte lists in Appendix A of the QAPP are from Quanterra. This variance is the result of differences in method use between Quanterra and Recra. There is no effect on project DQOs as all QAPP PQL and QC criteria will be met and the methods proposed are appropriate for the affected analytes.

Request for Variances from Quality Assurance Project Plan
NAS Forth Worth JRB, Fort Worth, Texas

1. Analyte Practical Quantitation Limits, Water and Soil - Appendix A

Request. Specific analyte PQL variances are presented in the following table.

Recra LabNet performed an annual MDL study on SVOCs in water in January 1998 The results were not finalized until after Recra's variance requests had been submitted. Note that all the SVOCs for which the MDLs exceed QAPP PQLs are compounds listed in Appendix A of the Basewide QAPP These compounds are not on AFCEE's analyte list for Method 8270B (Model QAPP, version 2.0) and AFCEE has not established PQLs for these compounds The PQLs in Appendix A of the Basewide QAPP were taken from the PQLs internally derived by only one laboratory for their Appendix IX analyses. Recra has not yet performed their annual soil SVOC MDL study, but Recra is requesting a variance for the soil PQLs for these compounds as well in anticipation that similar elevated MDLs will be calculated based on that study

Justification: Proposed PQLs are elevated for these analytes to reflect better the laboratory's ability to quantitate them. The proposed laboratory PQLs are able to meet the applicable TNRCC regulatory requirements, except for nitrosamines. In the case of the three nitrosamine compounds, the applicable regulatory requirement is not met by either the laboratory or the QAPP PQL. Although there is no impact relative to regulatory requirements, there is some overall impact on project DQOs as each analyte PQL is considered the action level which, if exceeded, will mandate continued sampling for that analyte. Raising an analyte PQL will raise that analyte's action level.

Analyte	Recra MDL (Water)	Recra Proposed PQL (Water)	Basewide QAPP PQL (Water)	Recra Proposed PQL (Soil)	Basewide QAPP PQL (Water)	TNRCC Limit (Soil)	TNRCC Limit (Water)
SVOCs by SW8270B							
Acetophenone	12.2 µg/l	20 µg/l	10 µg/l	670 µg/kg	330 µg/kg	365,000 µg/kg	3650 µg/l
2,6-Dichlorophenol	13.8 µg/l	20 µg/l	10 µg/l	670 µg/kg	330 µg/kg	Not regulated	Not regulated
Ethyl methanesulfonate	15 4 µg/l	20 µg/l	10 µg/l	670 µg/kg	330 µg/kg	Not regulated	Not regulated
Methyl methanesulfonate	15.5 µg/l	20 µg/l	10 µg/l	670 µg/kg	330 µg/kg	Not regulated	Not regulated
1,4-Naphthoquinone	87.9 µg/l	100 µg/l	50 µg/l	3300 µg/kg	1600 µg/kg	Not regulated	Not regulated
N-Nitrosodiethylamine	12 7 µg/l	20 µg/l	10 µg/l	670 µg/kg	330 µg/kg	0.0568 µg/kg	0 000568 µg/l
N-Nitrosodimethylamine	17.1 µg/l	20 µg/l	10 µg/l	670 µg/kg	330 µg/kg	0 167 µg/kg	0 00167 µg/l
N-Nitrosomorpholine	14.3 µg/l	20 µg/l	10 µg/l	670 µg/kg	330 µg/kg	Not regulated	Not regulated
N-Nitrosopyrrolidine	14.2 µg/l	20 µg/l	10 µg/l	670 µg/kg	330 µg/kg	4 06 µg/kg	0.0406 µg/l
p-Phenylenediamine	135.1 µg/l	150 µg/l	100 µg/l	5000 µg/kg	3300 µg/kg	Not regulated	Not regulated
o-Toluidine	14.7 µg/l	20 µg/l	10 µg/l	670 µg/kg	330 µg/kg	Not regulated	Not regulated

2 Analyte Practical Quantitation Limits, Water and Soil - Section 7 and Appendix A

Request. Specific analyte PQL variances are presented in the following table.

In February 1998, Recra submitted a preliminary variance request to use PQLs of 2 µg/L (5 µg/L for phorate) and 67 µg/kg for organophosphorus pesticides by Method SW8141A. When Recra submitted their final variance request, this request was inadvertently omitted. Recra requests these PQLs (see table below). It should be noted that the the PQLs for OP pesticide compounds in Appendix A (famphur and thionazin) are not on AFCEE's analyte list for Method 8141A (Model QAPP) and AFCEE has not established PQLs for these compounds. The PQLs in Appendix A of the Basewide QAPP were taken from the PQLs internally derived by only one laboratory for their Appendix IX analyses.

Analyte	Recra MDL	Recra Proposed PQL	Basewide QAPP PQL	TNRCC Limit
Organophosphorus pesticides by SW-8141A				
Disulfoton	0.70 µg/l	2 µg/l	0.7 µg/l	1.46 µg/l
Disulfoton	28.3 µg/kg	67 µg/kg	40 µg/kg	146 µg/kg
Famphur	0.99 µg/l	2 µg/l	1 µg/l	Not regulated
Famphur	16.0 µg/kg	67 µg/kg	33 µg/kg	Not regulated
Methyl parathion	0.70 µg/l	2 µg/l	1.2 µg/l	Not regulated
Methyl parathion	14.0 µg/kg	67 µg/kg	60 µg/l	Not regulated
Phorate	2 4 µg/l	5 µg/l	0.4 µg/l	Not regulated
Phorate	18.7 µg/kg	67 µg/kg	20 µg/kg	Not regulated
Thionazin	0.68 µg/l	2 µg/l	0.5 µg/l	Not regulated
Thionazin	21.8 µg/kg	67 µg/kg	8.0 µg/kg	Not regulated

Justification: Proposed PQLs are elevated for these analytes to ensure that the laboratory is able to meet the AFCEE calibration linearity requirements and to reflect better the laboratory's ability to quantitate these analytes. The proposed laboratory PQLs are able

to meet the applicable TNRCC regulatory requirements, with the exception of disulfoton in water (Recra's MDL is below the TNRCC limit). Although there is minimal impact relative to regulatory requirements, there is some overall impact on project DQOs as each analyte PQL is considered the action level which, if exceeded, will mandate continued sampling for that analyte. Raising an analyte PQL will raise that analyte's action level.

3. QC Accuracy Limits - Section 7.2.14-2

Request. Recra wishes to use the aqueous 10-135% control limits for hexachlorocyclopentadiene (by Method 8270) as advisory only (this is Recra's current procedure). When LCS recoveries for this compound fall below 10%, Recra will note the occurrence, but will not reextract and reanalyze the affected analytical batch. The soil control limits will be unchanged.

Justification: The change in the QC approach to hexachlorocyclopentadiene in water is proposed in order to reflect the laboratory's historical data from analyzing this compound The laboratory can calibrate for this compound, but the water extraction process causes significant breakdown and recoveries are regularly between 0-10%. There is some impact on project DQOs, as the accuracy criteria for this analyte will be less rigorous than specified in the Basewide QAPP.

4. Alternative Surrogate Compounds - Sections 7 2.3 and 7.2.16

Request: Recra requests a variance to use alternative surrogate compounds for gasoline range organics (GRO) and diesel range organics (DRO) by Method 8015M and polynuclear aromatic hydrocarbons (PAHs) by Method 8310. Recra also wishes to use the QC criterion that only one of two surrogates need to have acceptable recoveries for GRO, DRO, or PAH analysis to be in control, with reanalysis required if any one surrogate recovery is below 10% This is Recra's current procedure for GRO and DRO analyses, and Recra wishes to use it for PAH analyses in the future. [Note that Recra's current methodology still yields usable data. The Basewide QAPP requires only a J/UJ qualifier for detects/non-detects from analyses with a surrogate recovery below control limits.]

Analyte	Recra Water Limits (%)	Recra Soil Limits (%)
GRO by 8015M		
a,a,a-Trifluorotoluene	62-145	35-132
4-Bromofluorobenzene	51-140	18-123
DRO by 8015M		
o-Terphenyl (per QAPP)	57-132	47-142
2-Fluorobiphenyl	48-107	34-108
PAHs by SW-8310		
Benzo(e)pyrene	18-142	34-164
Decafluorobiphenyl	18-125	23-121

Justification: The laboratory has experience and historical control limits for these surrogates. These proposed surrogate compounds are consistent with the requirements of the methods. The control limits are not significantly different than those for the surrogates listed in the QAPP (see Tables 7.2.3-2 and 7.2.16-2). There is no effect on project DQOs. (The laboratory did not make this variance request earlier because they were not originally scheduled to receive any samples for GRO, DRO, or PAH analyses.)

5. Method 8141A (Organophosphorus Pesticides) Surrogate Recoveries - Section 7 2 9

Request: Change Table 7 2 9-2 to indicate that only one of the two surrogates are required to be in control for sample analysis to proceed without re-extraction and reanalysis (the same as the requirement stated on Table 7.2.6-2 for organochlorine pesticides by Method 8080). This is Recra's current practice It will be stipulated (both in Method 8080 and in Method 8141) that one surrogate recovery below 10% will require re-extraction and reanalysis of the affected sample. [Note that Recra's current methodology still yields usable data. The Basewide QAPP requires only a J/UJ qualifier for detects/non-detects from analyses with a surrogate recovery below control limits.]

Justification: The changes in the QC control limits are proposed in order to reflect the laboratory's historical data from performing these methods. The proposed changes are consistent with method requirements. There is some impact on project DQOs, as the accuracy criteria for these analytes will generally be less rigorous than specified in the Basewide QAPP. However, the laboratory should still be able to detect and quantify low levels of these analytes in environmental samples using the proposed control limits.

676 822

TAB

APPENDIX H

APPENDIX H

DATA VALIDATION REPORTS

676 824

Completness Calculation
Groundwater Analytes
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth JRB, Texas

Matrix	Parname[1]	Total	Rejected	Percent Complete
WG	1,2-DIBROMO-3-CHLOROPROPANE	35	7	80.0
WG	1,4-DIOXANE (P-DIOXANE)	24	1	95.8
WG	2,2'-OXYBIS(1-CHLORO)PROPANE	24	3	87.5
WG	2,4-DINITROPHENOL	31	9	71.0
WG	2-CHLORO-1,3-BUTADIENE	24	1	95.8
WG	2-METHYLNAPHTHALENE	31	2	93.5
WG	4,6-DINITRO-2-METHYLPHENOL	31	2	93.5
WG	ACETONITRILE	24	1	95 8
WG	ALLYL CHLORIDE (3-CHLOROPROPENE)	24	1	95.8
WG	BENZYL ALCOHOL	31	5	83.9
WG	BROMOFORM	35	1	97.1
WG	CHLOROMETHANE	35	9	74.3
WG	ETHYL METHACRYLATE	24	1	95.8
WG	HEXACHLOROCYCLOPENTADIENE	31	8	74.2
WG	INDENO(1,2,3-C,D)PYRENE	50	4	92.0
WG	KEPONE	6	2	66.7
WG	METHYLENE CHLORIDE	34	1	97 1
WG	NITROSOMETHYLETHYLAMINE	24	1	95 8
WG	P-PHENYLENEDIAMINE	24	1	95 8
WG	PARATHION, ETHYL	12	2	83.3
WG	TRICHLOROFLUOROMETHANE	35	20	42.9
WG	VINYL ACETATE	27	1	96.3
WG	VINYL CHLORIDE	21	4	81.0

Notes

[1] Only analytes with rejected data are displayed.

Shaded boxes indicate parameters for which the 90 percent soil completeness goal was not met

676 825

Completeness Calculation
Soil Analytes
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth, JRB, Texas

Matrix	Parname[1]	Total	Rejected	Percent Complete
SO	1,1,1,2-TETRACHLOROETHANE	222	11	95.0
SO	1,1,1-TRICHLOROETHANE	222	5	97.7
SO	1,1,2,2-TETRACHLOROETHANE	222	13	94.1
SO	1,1,2-TRICHLOROETHANE	222	20	91.0
SO	1,1-DICHLOROETHANE	222	5	97.7
SO	1,1-DICHLOROETHENE	222	5	97.7
SO	1,1-DICHLOROPROPENE	82	4	95 1
SO	1,2,3-TRICHLOROBENZENE	82	18	78.0
SO	1,2,3-TRICHLOROPROPANE	222	24	89 2
SO	1,2,4,5-TETRACHLOROBENZENE	141	3	97.9
SO	1,2,4-TRICHLOROBENZENE	293	21	92.8
SO	1,2,4-TRIMETHYLBENZENE	80	17	78.8
SO	1,2-DIBROMO-3-CHLOROPROPANE	222	34	84.7
SO	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	222	28	87.4
SO	1,2-DICHLOROBENZENE	291	21	92.8
SO	1,2-DICHLOROETHANE	222	11	95.0
SO	1,2-DICHLOROPROPANE	222	5	97 7
SO	1,3,5-TRIMETHYLBENZENE (MESITYLENE)	80	17	78.8
SO	1,3,5-TRINITROBENZENE	141	3	97.9
SO	1,3-DICHLOROBENZENE	293	20	93.2
SO	1,3-DICHLOROPROPANE	82	6	92 7
SO	1,3-DINITROBENZENE	140	3	97 9
SO	1,4-DICHLOROBENZENE	288	21	92 7
SO	1,4-DIOXANE (P-DIOXANE)	141	3	97.9
SO	1,4-NAPHTHOQUINONE	140	3	97.9
SO	1-CHLOROHEXANE	82	6	92 7
SO	1-NAPHTHYLAMINE	140	3	97 9
SO	2,2'-OXYBIS(1-CHLORO)PROPANE	182	3	98 4
SO	2,2-DICHLOROPROPANE	82	4	95.1
SO	2,3,4,6-TETRACHLOROPHENOL	141	4	97.2
SO	2,4,5-T (TRICHLOROPHENOXYACETIC ACID)	122	19	84.4
SO	2,4,5-TRICHLOROPHENOL	211	5	97 6
SO	2,4,6-TRICHLOROPHENOL	211	5	97.6
SO	2,4-DICHLOROPHENOL	211	4	98.1
SO	2,4-DIMETHYLPHENOL	211	4	98.1
SO	2,4-DINITROPHENOL	211	31	85.3
SO	2,4-DINITROTOLUENE	211	4	98 1
SO	2,6-DICHLOROPHENOL	141	4	97.2
SO	2,6-DINITROTOLUENE	211	4	98.1
SO	2-ACETYLAMINOFLUORENE	141	3	97 9
SO	2-AMINONAPHTHALENE (BETA NAPHTHYLAMINE)	141	3	97.9
SO	2-CHLORO-1,3-BUTADIENE	140	1	99.3
SO	2-CHLORONAPHTHALENE	211	3	98.6
SO	2-CHLOROPHENOL	211	4	98.1
SO	2-CHLOROTOLUENE	82	17	79.3
SO	2-HEXANONE	133	1	99.2
SO	2-METHYLNAPHTHALENE	210	3	98.6
SO	2-METHYLPHENOL (O-CRESOL)	211	4	98.1
SO	2-NITROANILINE	211	4	98.1
SO	2-NITROPHENOL	211	4	98.1
SO	2-PICOLINE (ALPHA-PICOLINE)	141	3	97 9

Completeness Calculation
Soil Analytes
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth, JRB, Texas

Matrix	Parname[1]	Total	Rejected	Percent Complete
SO	3,3'-DICHLOROBENZIDINE	211	22	89.6
SO	3,3'-DIMETHYLBENZIDINE	141	3	97.9
SO	3-METHYLCHOLANTHRENE	141	3	97.9
SO	3-NITROANILINE	211	65	69.2
SO	4,6-DINITRO-2-METHYLPHENOL	211	7	96 7
SO	4-AMINOBIPHENYL (4-BIPHENYLAMINE)	141	3	97.9
SO	4-BROMOPHENYL PHENYL ETHER	211	4	98.1
SO	4-CHLORO-3-METHYLPHENOL	211	4	98 1
SO	4-CHLOROANILINE	211	62	70.6
SO	4-CHLOROPHENYL PHENYL ETHER	211	4	98.1
SO	4-CHLOROTOLUENE	82	17	79.3
SO	4-NITROANILINE	211	40	81.0
SO	4-NITROPHENOL	211	20	90.5
SO	4-NITROQUINOLINE-N-OXIDE	141	3	97.9
SO	5-NITRO-O-TOLUIDINE	141	3	97 9
SO	7,12-DIMETHYLBENZ(A)ANTHRACENE	141	3	97 9
SO	ACENAPHTHENE	228	4	98.2
SO	ACENAPHTHYLENE	231	4	98 3
SO	ACETONITRILE	140	1	99 3
SO	ACETOPHENONE	141	3	97 9
SO	ACROLEIN	140	1	99.3
SO	ACRYLONITRILE	140	1	99 3
SO	ALLYL CHLORIDE (3-CHLOROPROPENE)	140	1	99 3
SO	ALPHA, ALPHA DIMETHYLPHENETHYLAMINE	141	3	97.9
SO	ANILINE (PHENYLAMINE, AMINOBENZENE)	141	3	97.9
SO	ANTHRACENE	227	4	98.2
SO	ANTIMONY	199	3	98.5
SO	ARAMITE (TOTAL)	141	3	97.9
SO	BENZENE	222	5	97 7
SO	BENZO(A)ANTHRACENE	213	3	98.6
SO	BENZO(A)PYRENE	213	4	98.1
SO	BENZO(B)FLUORANTHENE	206	6	97.1
SO	BENZO(G,H,I)PERYLENE	213	6	97 2
SO	BENZO(K)FLUORANTHENE	155	3	98.1
SO	BENZOIC ACID	211	34	83.9
SO	BENZYL ALCOHOL	211	4	98.1
SO	BENZYL BUTYL PHTHALATE	210	5	97 6
SO	BETA ENDOSULFAN	123	4	96.7
SO	BIS(2-CHLOROETHOXY) METHANE	211	3	98.6
SO	BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	211	3	98.6
SO	BIS(2-ETHYLHEXYL) PHTHALATE	205	4	98.0
SO	BROMOBENZENE	82	17	79.3
SO	BROMOCHLOROMETHANE	82	4	95 1
SO	BROMODICHLOROMETHANE	222	5	97.7
SO	BROMOFORM	222	17	92.3
SO	BROMOMETHANE	222	6	97.3
SO	CARBON DISULFIDE	140	1	99.3
SO	CARBON TETRACHLORIDE	222	5	97 7
SO	CHLOROBENZENE	220	7	96 8
SO	CHLOROBENZILATE	141	3	97 9
SO	CHLOROETHANE	222	6	97 3

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Completeness Calculation
Soil Analytes
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth, JRB, Texas

Matrix	Parname[1]	Total	Rejected	Percent Complete
SO	CHLOROFORM	222	5	97.7
SO	CHLOROMETHANE	222	10	95.5
SO	CHRYSENE	211	3	98.6
SO	CIS-1,2-DICHLOROETHYLENE	220	5	97 7
SO	CIS-1,3-DICHLOROPROPENE	222	5	97.7
SO	CRESOLS, M & P	182	4	97.8
SO	CYANIDE	123	16	87.0
SO	DI-N-BUTYL PHTHALATE	211	4	98.1
SO	DI-N-OCTYLPHTHALATE	211	4	98.1
SO	DIALLATE (TOTAL OF CIS AND TRANS ISOMERS)	141	3	97.9
SO	DIBENZ(A,H)ANTHRACENE	232	4	98 3
SO	DIBENZOFURAN	211	4	98.1
SO	DIBROMOCHLOROMETHANE	222	17	92 3
SO	DIBROMOMETHANE	222	11	95.0
SO	DICHLORODIFLUOROMETHANE	221	37	83.3
SO	DIETHYL PHTHALATE	210	4	98.1
SO	DIMETHOATE	123	32	74.0
SO	DIMETHYL PHTHALATE	211	4	98 1
SO	DINOSEB	141	4	97.2
SO	DIPHENYLAMINE	141	3	97.9
SO	DISULFOTON	123	37	69.9
SO	ENDRIN	123	1	99.2
SO	ENDRIN ALDEHYDE	123	16	87.0
SO	ETHYL METHACRYLATE	140	1	99.3
SO	ETHYL METHANESULFONATE	141	3	97.9
SO	ETHYLBENZENE	216	7	96.8
SO	FAMPHUR	123	16	87.0
SO	FLUORANTHENE	199	4	98 0
SO	FLUORENE	228	4	98.2
SO	HEXACHLOROBENZENE	211	4	98.1
SO	HEXACHLOROBUTADIENE	293	21	92.8
SO	HEXACHLOROCYCLOPENTADIENE	211	19	91.0
SO	HEXACHLOROETHANE	211	3	98.6
SO	HEXACHLOROPHENE	141	3	97.9
SO	HEXACHLOROPROPENE	141	3	97 9
SO	INDENO(1,2,3-C,D)PYRENE	222	4	98 2
SO	IODOMETHANE (METHYL IODIDE)	140	1	99.3
SO	ISOBUTANOL	140	1	99.3
SO	ISOPHORONE	211	3	98 6
SO	ISOPROPYLBENZENE (CUMENE)	81	6	92 6
SO	ISOSAFROLE	141	3	97.9
SO	KEPONE	124	11	91.1
SO	M,P-XYLENE (SUM OF ISOMERS)	213	7	96.7
SO	METHAPYRILENE	141	3	97.9
SO	METHOXYCHLOR	123	7	94.3
SO	METHYL ETHYL KETONE (2-BUTANONE)	127	1	99.2
SO	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	139	1	99 3
SO	METHYL METHACRYLATE	140	1	99 3
SO	METHYL METHANESULFONATE	141	3	97.9
SO	METHYLACRYLONITRILE	140	1	99.3
SO	METHYLENE CHLORIDE	216	9	95 8

Completeness Calculation
Soil Analytes
RFI SWMUs 22, 23, 24, and 25
NAS Fort Worth, JRB, Texas

Matrix	Parname[1]	Total	Rejected	Percent Complete
SO	N-BUTYLBENZENE	82	18	78.0
SO	N-NITROSO-DI-N-BUTYLAMINE	141	3	97.9
SO	N-NITROSODI-N-PROPYLAMINE	211	3	98 6
SO	N-NITROSODIETHYLAMINE	141	3	97.9
SO	N-NITROSODIMETHYLAMINE	141	3	97.9
SO	N-NITROSODIPHENYLAMINE	211	4	98 1
SO	N-NITROSOMORPHOLINE	141	3	97.9
SO	N-NITROSOPIPERIDINE	141	3	97 9
SO	N-NITROSOPYRROLIDINE	141	3	97.9
SO	N-PROPYLBENZENE	80	17	78.8
SO	NAPHTHALENE	304	21	93.1
SO	NITROBENZENE	211	3	98.6
SO	NITROSOMETHYLETHYLAMINE	141	3	97.9
SO	O,O,O-TRIETHYL PHOSPHOROTHIOATE	128	29	77.3
SO	O-TOLUIDINE	141	3	97 9
SO	O-XYLENE (1,2-DIMETHYLBENZENE)	219	7	96 8
SO	P-CYMENE (P-ISOPROPYLTOLUENE)	82	17	79 3
SO	P-DIMETHYLAMINOAZOBENZENE	141	3	97.9
SO	P-PHENYLENEDIAMINE	141	3	97 9
SO	PARATHION, ETHYL	123	16	87.0
SO	PARATHION, METHYL	123	20	83.7
SO	PENTACHLOROBENZENE	140	3	97.9
SO	PENTACHLOROETHANE	140	4	97.1
SO	PENTACHLORONITROBENZENE	141	3	97.9
SO	PENTACHLOROPHENOL	211	5	97.6
SO	PHENACETIN	141	3	97 9
SO	PHENANTHRENE	214	4	98.1
SO	PHENOL	211	4	98 1
SO	PHORATE	123	16	87.0
SO	PRONAMIDE	141	3	97.9
SO	PROPANE NITRILE (PROPIONITRILE)	140	1	99 3
SO	PYRENE	201	3	98.5
SO	PYRIDINE	141	3	97.9
SO	SAFROLE	141	3	97.9
SO	SEC-BUTYLBENZENE	82	17	79 3
SO	STYRENE	222	7	96.8
SO	T-BUTYLBENZENE	82	17	79.3
SO	TETRACHLOROETHYLENE(PCE)	224	7	96.9
SO	THIODIPHOSPHORIC ACID TETRAETHYL ESTER	123	16	87.0
SO	TOLUENE	220	7	96 8
SO	TRANS-1,2-DICHLOROETHENE	222	5	97.7
SO	TRANS-1,3-DICHLOROPROPENE	222	10	95.5
SO	TRANS-1,4-DICHLORO-2-BUTENE	140	1	99.3
SO	TRICHLOROETHYLENE (TCE)	218	5	97.7
SO	TRICHLOROFLUOROMETHANE	222	5	97.7
SO	VINYL ACETATE	151	1	99.3
SO	VINYL CHLORIDE	222	5	97 7
SO	ZINOPHOS	123	16	87.0

Notes:

[1] Only analytes with rejected data are displayed.

Shaded boxes indicate parameters for which the 90 percent soil completeness goal was not met

DATA VALIDATION SUMMARY REPORT

PROJECT:	Carswell Air Force Base
LABORATORY:	Quanterra Environmental Services-Tampa
SDG:	1
MATRIX:	Water, soil
VALIDATION LEVEL:	C
ANALYSES, METHODS:	Volatile Organic Compounds, SW846 Method 8260A Semivolatile Organic Compounds, SW846 Method 8270B Inorganics, SW846 Method 6010

1.0 INTRODUCTION

Four (4) water samples and nine (9) soil samples were submitted to Quanterra Environmental Services for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and metals. The samples associated with SDG 1 are listed in Table 1-1 with the sampling dates, extraction/preparation dates, analytical dates, and identification of associated trip blanks, equipment rinsates, and field blanks.

The organic compounds were validated and reviewed in accordance with the Interim Draft Base-Wide Quality Assurance Project Plan (QAPP), dated August 1996, and the "Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses" (EPA, 1994).

The inorganic data were validated and reviewed in accordance with the QAPP and the "US EPA Contract Laboratory Program National Functional Guidelines for Evaluating Inorganic Data Review" (EPA, 1994).

Table 1-1. SDG 1 Sample Information

Field ID	Lab ID	Sampling date	Associated trip blank ID	Associated equipment rinsate ID	VOC Prep/analysis date	SVOC dates extract'n, analysis	ICP/GFAAS Metals prep, analysis dates	Mercury prep, analysis dates
THGLTA005-01	B7H250123-001	8/22/97	TB082297	EB082297	9/3/97	8/30, 9/11/97	8/28, 8/29/97	8/28/97
THGLTA006-01	B7H250123-002	8/22/97	TB082297	EB082297	9/3/97	8/30, RE 9/5, 9/10, RE 9/10	8/28, 8/29/97	8/28/97
THGLTA007-01	B7H250123-003	8/22/97	TB082297	EB082297	9/3/97	8/30, 9/10/97	8/28, 8/29/97	8/28/97
TB082297	B7H250123-004	8/22/97	-	-	9/3/97	-	-	-
EB082297	B7H250123-005	8/22/97	TB082297	-	9/3/97	8/26, 9/10/97	8/28, 8/29/97	8/28/97
THGLTA008-01	B7H250123-008	8/22/97	TB082297	EB082297	9/3/97	8/30, 9/10/97	8/28, 8/29/97	8/28/97
EB082197	B7H250117-001	8/21/97	TB082197	-	9/3/97	8/26, 9/3/97	8/28, 8/29/97	8/28/97
THGLTA003-01	B7H250117-002	8/21/97	TB082197	EB082197	9/2/97	8/30, 9/10/97	8/28, 8/29/97	8/28/97
THGLTA002-01	B7H250117-003	8/21/97	TB082197	EB082197	9/2/97	8/30, 9/11/97	8/28, 8/29/97	8/28/97
THLGLTA001-01	B7H250117-004	8/21/97	TB082197	EB082197	9/2/97	8/30, 9/11/97	8/28, 8/29/97	8/28/97
THGLTADUP01	B7H250117-005	8/21/97	TB082197	EB082197	9/2/97	8/30, 9/11/97	8/28, 8/29/97	8/28/97
THGLTA004-01	B7H250117-006	8/21/97	TB082197	EB082197	9/2/97	8/30, 9/11/97	8/28, 8/29/97	8/28/97
TB082197	B7H250117-007	8/21/97	-	-	9/3/97	-	-	-

Where RE = reanalysis (VOC)/ reextraction (SVOC); DL = dilution; - = analysis not requested

2.0 VOLATILE ORGANIC COMPOUNDS

2.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the samples received at cooler temperatures within the 2 – 6 degree Centigrade (°C) temperature range. Sample TB082297 had headspace. All compounds were J/UJ qualified for this reason.

2.2 Holding Times

The samples were analyzed within the 14-day holding period. No qualifiers were assigned.

2.3 Instrument Tune

The bromofluorobenzene (BFB) tunes were performed in accordance with the QAPP and the method. No qualifiers were assigned.

2.4 Calibrations

2.4.1 Initial Calibration

The samples listed above were analyzed using the instruments, B3VOA4 and B3VOA2. The instruments were initially calibrated on 6/11/97 and on 9/2/97. No problems were detected.

2.4.2 Continuing Calibration

Continuing calibrations were performed. The calibrations were performed prior to sample analysis. There were no problems detected. All calibrations met the QAPP acceptance criteria.

2.5 Blanks

2.5.1 Method/Preparation Blanks

Three method blanks were associated with the samples in this episode. No target compounds were detected. No qualifiers were assigned.

2.5.2 Trip Blank

The trip blanks associated with the samples in this episode are listed in Table 1-1. Sample TB082197 had a reported concentration for methylene chloride (0.70 μg/L); TB082297 also was reported to contain 1.2 μg/L methylene chloride. The associated rinsates had methylene chloride U-qualified for this reason. No other samples were affected.

2.5.3 Ambient Blank

No ambient blank was submitted with the samples in this SDG.

2.5.4 Equipment Rinsates

The equipment rinsates associated with the samples are listed in Table 1-1. Two rinsates had detected concentration of several target compounds after application of the method blank qualifiers. EB082297contained chloroform at 0.28 µg/L; EB082197 contained toluene at 0.86 µg/L and chloroform at 0.64 µg/L. Sample THGLTADUP01 had toluene U-qualified for this reason.

2.6 System Monitoring Compounds (surrogates)

Surrogate spike recoveries (%R) met the lab's control limits presented on the sample report forms for all samples.

2.7 Internal Standards

The areas and retention time for the internal standards spiked into all the samples, standards, and associated quality control samples were within the performance criteria set forth in the method except for samples THGLTA001-01 and THGLTA004-01.

Sample THGLTA001-01 had areas that were below the lower control limits for internal standards chlorobenzene (IS1) and 1,4-dichlorobenzene (IS2). All associated compounds, as indicated by the lab, were R-qualified in accordance with the QAPP.

Sample THGLTA004-01 had areas that were below the lower control limits for all of the internal standards. All compounds were R-qualified for this reason.

2.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

No MS/MSD samples were included in this SDG.

2.9 Laboratory Control Samples (LCSs)

Three LCSs were analyzed with this SDG. The recoveries were within the limits presented in the QAPP. No qualifiers were assigned.

2.10 Field Duplicates

There was one identifiable field duplicate in this SDG. Sample THGLTADUP01 is the field duplicate of THGLTA002-01. There was excellent correlation –no detects. No qualifiers were assigned.

2.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately. The validator kept the laboratory-assigned "F" qualifiers that indicate the reported values are below the PQL. The tentatively identified compounds were J-qualified as estimated values.

2.12 Overall Assessment of the Data

The data for the samples in this episode are acceptable as qualified.

3.0 SEMIVOLATILE ORGANIC COMPOUNDS

3.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the samples were received in good condition and within the acceptable temperature range. No qualifiers were assigned.

3.2 Holding Times

The samples were extracted within the 7-day (waters) or 14-day (soils) holding period between sampling and extraction and analyzed within the 40-day holding period between extraction and analysis. No qualifiers were assigned.

3.3 Instrument Tune

Decafluorotriphenylphosphine (DFTPP) tunes were correctly run prior to any initial and/or continuing calibration. The three tunes met the minimum acceptance criteria for ion abundance. The samples/standards associated with each tune were analyzed within a 12-hour period following the tune. No qualifiers were assigned.

3.4 Calibrations

3.4.1 Initial Calibration

The samples listed above were analyzed using an instrument initially calibrated on 9/3/97. All the target compounds met the minimum average response factor (RRF) of 0.05 and the QAPP-specified maximum of 30% Relative Standard Deviation percentage (%RSD).

3.4.2 Continuing Calibration

The target compounds for the continuing calibration were within the control limits for the RRF (0.05) and the 25% maximum for the percent deviation between the initial and continuing calibrations. No qualifiers were assigned.

3.5 Blanks

3.5.1 Method/Preparation Blanks

There were no target compounds detected in the method blanks.

3.5.2 Ambient Blank

There were no identifiable ambient blanks associated with the SDG.

3.5.3 Equipment Rinsates

The equipment rinsates associated with the samples are identified in Table 1-1. One rinsate, EB082297 contained one target compound, phenol, at a concentration of 2.7 µg/L. No qualifiers were assigned, because the associated samples did not have any phenol detects. No action was taken on the tentatively identified compounds (TICs).

3.6 System Monitoring Compounds (surrogates)

Surrogate spike recoveries (%R) for the six semivolatile compounds met the acceptance criteria for all samples except 006-01 and reanalysis, 007-01, 008-01, 002-01, and 003-

01. Samples 006-01 and re-extraction, 002-01, and 003-01 each had a low 2,4,6-tribromophenol recovery; however, two surrogates need to be out of the control limits for action, therefore, no qualifiers were assigned. Samples 007-01 and 008-01 and the LCSs had no recovery of the surrogates. The surrogates were diluted so the spiked amounts were lost. No qualifiers were assigned.

3.7 Internal Standards

The areas and retention time for the internal standards spiked into all the samples, standards, and associated quality control samples were within the performance criteria set forth in the method for all samples except DUP01. Areas for acenaphthene, phenanthrene, and perylene were below the lower control limit. All compounds associated with these three compounds were R-qualified for DUP01 only. No qualifiers were assigned to other samples for this reason.

3.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

No MS/MSD sample was analyzed in this SDG. LCSs were performed in duplicate.

3.9 Laboratory Control Sample (LCS)

The LCSs analyzed had recoveries within the acceptance criteria. No qualifiers were assigned.

3.10 Field Duplicates

There was one identifiable field duplicate in this SDG. Sample THGLTADUP01 is the field duplicate of THGLTA002-01. The same target compounds were reported as detects, but DUP01 was a 1:2 dilution and 002-01 was a 1:4 dilution affecting the reporting limits. No qualifiers were assigned.

3.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately. The validator kept the laboratory-assigned "F" qualifiers that indicate the reported values are below the PQL. The tentatively identified compounds were J-qualified as estimated values. The data associated with sample 006-01 re-extraction were Z-qualified; the original run data is recommended for use.

3.12 Overall Assessment of the Data

The data for the samples in this SDG are acceptable as qualified.

4.0 INORGANIC ANALYSES

4.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the samples were received in good condition at 4 degrees Centigrade (°C) ± 2° C. The equipment blank samples were preserved with nitric acid (HNO_3). No qualifiers were assigned.

4.2 Holding Times

The samples were analyzed within the 28-day holding time for mercury and the 180-day holding period between sample collection for ICP and GFAAS preparation/analysis. No qualifiers were assigned.

4.3 Instrument Performance

4.3.1 Instrument Standardization

The Inductively Coupled Plasma (ICP) instrument was standardized with a multiple point calibration (blank plus three standards). The check of the hi-standard following calibration was recovered within 5% of the true value. The initial standardization was performed within the criteria specified in the QAPP. No qualifiers were assigned.

4.3.2 Initial Calibration Verification

All initial calibration verifications met the acceptance criteria specified in the QAPP, i.e., 90-100% R for ICP.

4.3.3 Continuing Calibration Verification

The continuing calibrations were within the QAPP control limits of 90-110%R. No actions were required.

4.4 Blanks

4.4.1 Method/Preparation Blanks

Separate blanks were prepared for both matrices (e.g. water and solid). The following table presents the analytes detected in the method blanks. The 5X column is used to determine the maximum level allowed to report. Below this value, all reported concentrations are qualified ND due to its presence in the method blank.

Analyte	Soil Conc., (mg/kg)	Soil Conc. 5X	Water Conc. (mg/L)	Water Conc. 5X
Aluminum	2.0125	10	0.11	0.55
Barium	0.0135	0.0665	0.0013	0.0065
Cadmium	0.054	0.270		
Calcium	2.9	14.5	0.082	0.41
Chromium	0.0391	0.1995		
Copper	0.0286	0.143		
Magnesium	0.4113	2.0565	0.072	0.36
Nickel	1.961	9.805		
Potassium	7.192	35.960		
Silver	0.15	0.75		
Sodium	2.0	10.0	0.13	0.65
Vanadium	0.039	0.195		

4.4.2 Ambient Blanks

There was no ambient blank sample collected with the samples.

4.4.3 Equipment Rinsates
The equipment rinsates associated with the samples are shown on Table 1-1. The following analytes were detected in the equipment blanks: calcium, manganese, and zinc.

4.4.4 Calibration Blanks
The calibration blanks were clean and required no qualification.

4.5 Interference Check Samples (ICSA-ICSAB)
The interference check samples had recoveries within the acceptance criteria specified in the QAPP. No qualifiers were assigned.

4.6 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)
Two MS/MSD analysis sets were performed with this SDG; one water and one soil sample were used. Sample THGLTA003-01 was used as the original. The soil QC samples reported low recoveries (less than 80%) for antimony, calcium, manganese and magnesium and high recoveries (greater than 120%) for aluminum and iron. All the antimony and magnesium results for the soil samples prepared within this batch were qualified UJ/J for the previously indicated low recoveries. The four times rule (if the sample concentration is greater than four times the spike amount, the recovery is not considered for qualification) eliminated the qualification for aluminum, calcium, iron, and manganese.

4.7 Laboratory Control Sample (LCS)
One LCS sample was analyzed with this SDG. The recoveries for all reported analytes were within the control limits listed in the QAPP. No qualifiers were assigned.

4.8 Field Duplicates
Soil sample THGLTA002-01 was collected in duplicate in the field and was designated as THGLTADUP01. All applicable comparisons (omitting the F qualified data) were determined to compare within 35%. The highest reported % difference was 23.6, which was reported for the determination of manganese. No qualifiers were assigned.

4.9 Graphite Furnace Analyses
Graphite furnace analyses were performed for the determination of silver for the two equipment blank samples. All reported results were non-detect.

4.10 Serial Dilution Analysis
A serial dilution analysis was performed on a water and a soil sample. There were no detects found in the water at a sufficiently high enough concentration to be evaluated. The determination of arsenic by trace ICP for sample TAHGLTA003-01 reported a %D of 13.2%. All the soil arsenic results for this SDG were qualified UJ/J for the out-of-control serial dilution.

4.11 Compound Quantitation and Project Reporting Limits
Based on a Level C validation, the samples were identified and quantified appropriately.

4.12 Overall Assessment of the Data

The data are accepted as qualified.

DATA VALIDATION SUMMARY REPORT

PROJECT:	Carswell Air Force Base
LABORATORY:	Quanterra Environmental Services-Tampa
SDG:	2
MATRIX:	Water, soil
VALIDATION LEVEL:	C
ANALYSES, METHODS:	Volatile Organic Compounds, SW846 Method 8260A Semivolatile Organic Compounds, SW846 Method 8270B Inorganics, SW846 Method 6010

1.0 INTRODUCTION

Two (2) water samples and ten (10) soil samples were submitted to Quanterra Environmental Services for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and metals. The samples associated with SDG 2 are listed in Table 1-1 with the sampling dates, extraction/preparation dates, analytical dates, and identification of associated trip blanks, equipment rinsates, and field blanks.

The organic compounds were validated and reviewed in accordance with the Interim Draft Base-Wide Quality Assurance Project Plan (QAPP), dated August 1996, and the "Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses" (EPA, 1994).

The inorganic data were validated and reviewed in accordance with the QAPP and the "US EPA Contract Laboratory Program National Functional Guidelines for Evaluating Inorganic Data Review" (EPA, 1994).

Table 1-1. SDG 2 Sample Information

Field ID	Lab ID	Sampling date	Associated trip blank ID	Associated equipment rinsate ID	VOC Prep/analysis date	SVOC dates extract'n, analysis	ICP/GFAAS Metals prep, analysis dates	Mercury prep, analysis dates
THGLTA009-01	B7H270104-001	8/25/97	TB082597	EB082597	9/3/97	9/3, 9/12/97		
THGLTA010-01	B7H270104-002	8/25/97	TB082597	EB082597	9/3/97	9/3, 9/12/97		
THGLTA011-01	B7H270104-003	8/25/97	TB082597	EB082597	9/3/97	9/3, 9/12/97		
THGLTA012-01	B7H270104-004	8/25/97	TB082597	EB082597	9/3/97	9/3, 9/12/97	-	
THGLTADUP06	B7H270104-005	8/25/97	TB082597	EB082597	9/3/97	9/3, 9/12/97		
EB082597	B7H270104-006	8/25/97	TB082597	-	9/3/97	8/29, 9/11/97		
TB082597	B7H270104-007	8/25/97	-	-	9/3/97	-		
THGLTA013-01	B7H270104-008	8/25/97	TB082597	EB082597	9/4/97	9/3, 9/12/97		
THGLTA014-01	B7H270104-009	8/25/97	TB082597	EB082597	9/4/97	9/3, 9/12/97		
THLGLTA015-01	B7H270104-010	8/25/97	TB082597	EB082597	9/4/97	9/3, 9/12/97		
THGLTA016-01	B7H270104-011	8/25/97	TB082597	EB082597	9/4/97	9/3, 9/12/97		
THGLTA017-01	B7H270104-012	8/25/97	TB082597	EB082597	9/4/97	9/3, 9/12/97		

Where: RE = reanalysis (VOC)/ reextraction (SVOC), DL = dilution; - = analysis not requested, + = see Section 4.0

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2.0 VOLATILE ORGANIC COMPOUNDS

2.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the samples received at cooler temperatures within the 2 – 6 degree Centigrade (°C) temperature range. No qualifiers were assigned for this reason.

2.2 Holding Times

The samples were analyzed within the 14-day holding period. No qualifiers were assigned.

2.3 Instrument Tune

The six bromofluorobenzene (BFB) tunes were performed in accordance with the QAPP and the method. No qualifiers were assigned.

2.4 Calibrations

2.4.1 Initial Calibration

The samples listed above were analyzed using the instruments, B3VOA4 and B3VOA2. The instruments were initially calibrated on 6/11/97 and on 9/2/97. No problems were detected.

2.4.2 Continuing Calibration

Continuing calibrations were performed. The calibrations were performed prior to sample analysis. There were no problems detected. All calibrations met the QAPP acceptance criteria.

2.5 Blanks

2.5.1 Method/Preparation Blanks

Three method blanks were associated with the samples in this episode. No target compounds were detected. No qualifiers were assigned.

2.5.2 Trip Blank

The trip blank associated with the samples in this episode is listed in Table 1-1. Sample TB082597 had a reported concentration for methylene chloride (0.79 µg/L). The associated rinsate had methylene chloride U-qualified for this reason. No samples were affected.

2.5.3 Ambient Blank

No ambient blank was submitted with the samples in this SDG.

2.5.4 Equipment Rinsate

The equipment rinsate associated with the samples is listed in Table 1-1. The rinsate had detected concentration of two target compounds after application of the method blank qualifiers. EB082597contained chloroform at 0.48 µg/L and toluene at 0.36 µg/L. No qualifiers were applied for this reason.

2.6 System Monitoring Compounds (surrogates)

Surrogate spike recoveries (%R) met the lab's control limits presented on the sample report forms for all samples.

2.7 Internal Standards

The areas and retention time for the internal standards spiked into all the samples, standards, and associated quality control samples were within the performance criteria set forth in the method except for samples THGLTA009-01, THGLTA011-01, and THGLTA016-01.

Sample THGLTA009-01 had areas that were below the lower control limits for internal standard 1,4-dichlorobenzene. All associated compounds, as indicated by the lab, were R-qualified in accordance with the QAPP.

Samples THGLTA011-01 and THGLTA016-01 had areas that were below the lower control limits for all of the internal standards. All compounds for both samples were R-qualified for this reason.

2.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

No MS/MSD samples were included in this SDG.

2.9 Laboratory Control Samples (LCSs)

Three LCSs were analyzed with this SDG. The recoveries were within the limits presented in the QAPP. No qualifiers were assigned.

2.10 Field Duplicates

There was one identifiable field duplicate in this SDG. Sample THGLTADUP06 is the field duplicate of THGLTA012-01. There was excellent correlation –no detects. No qualifiers were assigned.

2.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately. The validator kept the laboratory-assigned "F" qualifiers that indicate the reported values are below the PQL. The tentatively identified compounds were J-qualified as estimated values.

2.12 Overall Assessment of the Data

The data for the samples in this episode are acceptable as qualified.

3.0 SEMIVOLATILE ORGANIC COMPOUNDS

3.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the samples were received in good condition and within the acceptable temperature range. No qualifiers were assigned.

3.2 Holding Times

The samples were extracted within the 7-day (waters) or 14-day (soils) holding period between sampling and extraction and analyzed within the 40-day holding period between extraction and analysis. No qualifiers were assigned.

3.3 Instrument Tune

Three decafluorotriphenylphosphine (DFTPP) tunes were correctly run prior to any initial and/or continuing calibration. The tunes met the minimum acceptance criteria for ion abundance. The samples/standards associated with each tune were analyzed within a 12-hour period following the tune. No qualifiers were assigned.

3.4 Calibrations

3.4.1 Initial Calibration

The samples listed above were analyzed using an instrument initially calibrated on 9/10/97. All the target compounds met the minimum average response factor (RRF) of 0.05 and the QAPP-specified maximum of 30% Relative Standard Deviation percentage (%RSD).

3.4.2 Continuing Calibration

The target compounds for the continuing calibration were within the control limits for the RRF (0.05) and the 25% maximum for the percent deviation between the initial and continuing calibrations. No qualifiers were assigned.

3.5 Blanks

3.5.1 Method/Preparation Blanks

There was one target compound detected in the method blank associated with the rinsate. The compound, bis (2-ethylhexyl)phthalate was reported at a concentration of 1.7 µg/L. No action was taken, because the rinsate did not report a detect for that compound. The soil method blank had no reported detects.

3.5.2 Ambient Blank

There were no identifiable ambient blanks associated with the SDG.

3.5.3 Equipment Rinsate

The equipment rinsate associated with the samples is identified in Table 1-1. The rinsate, contained no detected target compounds, but did report three tentatively identified compounds(TICs). No action was taken on the TICs.

3.6 System Monitoring Compounds (surrogates)

Surrogate spike recoveries (%R) for the six semivolatile compounds met the acceptance criteria for all samples. No qualifiers were assigned. No surrogate information could be found for 009-01.

3.7 Internal Standards

The areas and retention time for the internal standards spiked into all the samples, standards, and associated quality control samples were within the performance criteria set forth in the method for all samples. No qualifiers were assigned for this reason.

3.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Sample THLGTA010-01 was analyzed as the MS/MSD in this SDG. Benzoic acid had low recoveries (4% and 7%) of the spike and a high RPD (40%). This compound was J/UJ qualified for this sample only.

3.9 Laboratory Control Sample (LCS)

The two LCSs analyzed had recoveries within the acceptance criteria. No qualifiers were assigned.

3.10 Field Duplicates

There was one identifiable field duplicate in this SDG. Sample THGLTADUP06 is the field duplicate of THGLTA012-01. The same target compounds were reported as detects. There was fairly good correlation for low-level soils. No qualifiers were assigned.

3.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately. The validator kept the laboratory-assigned "F" qualifiers that indicate the reported values are below the PQL. The tentatively identified compounds were J-qualified as estimated values.

3.12 Overall Assessment of the Data

The data for the samples in this SDG are acceptable as qualified.

4.0 INORGANIC ANALYSES

Field Sample ID	Collection Date	ICP Prep	ICP (P1) Analysis	ICP Trace (P2) Analysis	Mercury prep.; analysis	GFAAS (Ag) prep; analysis
EB082597	8/25/97	8/28/97	8/29/97	8/29/97	8/28/97	8/28;8/30/97
THGLTA009-01	8/25/97	9/2/97	9/3/97	9/3/97	9/2/97	NA
THGLTA010-01	8/25/97	9/2/97	9/3/97	9/3/97	9/2/97	NA
THGLTA011-01	8/25/97	9/2/97	9/3/97	9/3/97	9/2/97	NA
THGLTA012-01	8/25/97	9/2/97	9/3/97	9/3/97	9/2/97	NA
THGLTADUP-06	8/25/97	9/2/97	9/3/97	9/3/97	9/2/97	NA
THGLTA013-01	8/25/97	9/2/97	9/3/97	9/3/97	9/2/97	NA
THGLTA014-01	8/25/97	9/2/97	9/3/97	9/3/97	9/2/97	NA
THGLTA015-01	8/25/97	9/2/97	9/3/97	9/3/97	9/2/97	NA
THGLTA016-01	8/25/97	9/2/97	9/3/97	9/3/97	9/2/97	NA
THGLTA017-01	8/25/97	9/2/97	9/3/97	9/3/97	9/2/97	NA

4.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the ten soils and one water sample were received in good condition at 4 degrees Centigrade (°C) ± 2° C. The equipment blank sample was preserved with nitric acid (HNO_3). No qualifiers were assigned.

4.2 Holding Times

The samples were analyzed within the 28-day holding time for mercury and the 180-day holding period between sample collection for ICP and GFAAS preparation/analysis. No qualifiers were assigned.

4.3 Instrument Performance

4.3.1 Instrument Standardization

The Inductively Coupled Plasma (ICP) instrument was standardized with a multiple point calibration (blank plus three standards). The check of the hi-standard following calibration was recovered within 5% of the true value. The initial standardization was performed within the criteria specified in the QAPP. No qualifiers were assigned.

4.3.2 Initial Calibration Verification

All initial calibration verifications met the acceptance criteria specified in the QAPP, i.e., 90-100% R for ICP.

4.3.3 Continuing Calibration Verification

The continuing calibrations were within the QAPP control limits of 90-110%R. No actions were required.

4.4 Blanks

4.4.1 Method/Preparation Blanks

Separate blanks were prepared for both matrices (e.g. water and solid). The following table presents the analytes detected in the method blanks. The 5X column is used to determine the maximum level allowed to be reported. Below this value, all reported concentrations are qualified ND due to its presence in the method blank.

Analyte	Soil Conc. (mg/kg)	Soil Conc. 5X	Water Conc. (mg/L)	Water Conc. 5X
Aluminum			0.11	0.55
Antimony	0.14	0.70		
Barium			0.0013	0.0065
Calcium	8.7	43.5	0.082	0.41
Magnesium	2.2	11	0.072	0.36
Selenium	0.18	0.90		
Sodium	2.0	10.0	0.13	0.65

4.4.2 Ambient Blanks

There was no ambient blank sample collected with the samples.

4.4.3 Equipment Rinsates

The equipment rinsates associated with the samples are shown on the table at the beginning of this section. The following analytes were detected in the equipment blanks: calcium, manganese, and zinc.

4.4.4 Calibration Blanks

The calibration blanks contained magnesium, calcium and molybdenum at concentrations which did not cause qualification.

4.5 Interference Check Samples (ICSA-ICSAB)

The interference check samples had recoveries within the acceptance criteria specified in the QAPP. No qualifiers were assigned.

4.6 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Two MS/MSD analysis sets were performed with this SDG; one water and one soil sample. EB082597 was spiked for the water QC sample. All analytes were recovered within control limits

The soil QC used sample THGLTA009-01 as the original. The soil QC samples reported low recoveries (less than 80%) for antimony, arsenic, calcium, iron, mercury, nickel, selenium, molybdenum and zinc and high recoveries (greater than 120%) for aluminum, calcium, potassium, iron, and zinc. All the antimony for the associated prepared samples were qualified R/J (due to recoveries less than 30%) and the arsenic, nickel, selenium, and molybdenum soil results within this batch were qualifed UJ/J for the previously indicated low recoveries. The four times rule (if the sample concentration is greater than four times the spike amount, the recovery is not considered for qualification) eliminated the qualification for aluminum, calcium, and iron.

4.7 Laboratory Control Sample (LCS)

One LCS sample was analyzed for each matrix within this SDG. The recoveries for all reported analytes were within the control limits listed in the QAPP. No qualifiers were assigned.

4.8 Field Duplicates

Soil sample THGLTA012-01 was collected in duplicate in the field and was designated as THGLTADUP-06. All applicable comparisons (omitting the F qualified data) were determined to compare within 35%, except aluminum. The aluminum results for these two samples were qualified J due to the poor precision. The next highest reported % difference was -34%, which was reported for the determination of beryllium. No further qualifiers were assigned.

4.9 Graphite Furnace Analyses

Graphite furnace analyses were performed for the determination of silver for the two equipment blank samples. All reported results were non-detect.

4.10 Serial Dilution Analysis

A serial dilution analysis was performed on a water and a soil sample. There were no detects found in the water at a sufficiently high enough concentration to be evaluated. The serial dilution of sample THGLTA009-01 reported the determination of manganese by ICP revealed a %D of 13.14%. All the soil manganese results for this SDG were qualified UJ/J for the out-of-control serial dilution.

4.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately.

4.12 Overall Assessment of the Data

The data are accepted as qualified.

DATA VALIDATION SUMMARY REPORT

PROJECT:	Carswell Air Force Base
LABORATORY:	Quanterra Environmental Services-Tampa
SDG:	3
MATRIX:	Water, soil
VALIDATION LEVEL:	C
ANALYSES, METHODS:	Volatile Organic Compounds. SW846 Method 8260A Semivolatile Organic Compounds, SW846 Method 8270B Inorganics, SW846 Method 6010

1.0 INTRODUCTION

Two (2) water samples and nine (9) soil samples were submitted to Quanterra Environmental Services for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and metals. The samples associated with SDG 3 are listed in Table 1-1 with the sampling dates, extraction/preparation dates, analytical dates, and identification of associated trip blanks, equipment rinsates. and field blanks.

The organic compounds were validated and reviewed in accordance with the Interim Draft Base-Wide Quality Assurance Project Plan (QAPP), dated August 1996, and the "Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses" (EPA, 1994).

The inorganic data were validated and reviewed in accordance with the QAPP and the "US EPA Contract Laboratory Program National Functional Guidelines for Evaluating Inorganic Data Review" (EPA, 1994).

Table 1-1. SDG 3 Sample Information

Field ID	Lab ID	Sampling date	Associated trip blank ID	Associated equipment rinsate ID	VOC Prep/analysis date	SVOC dates extract'n, analysis	ICP/GFAAS Metals prep, analysis dates	Mercury prep and analysis dates
EB082697	B7H270130-001	8/26/97	TB082697	-	9/3/97	8/29, 9/11/97	+	+
TB082697	B7H270130-002	8/26/97	-	-	9/3/97	-	-	-
BHGLTA004-01	B7H270130-003	8/26/97	TB082697	EB082697	9/4/97	9/4, 9/19/97	+	+
BHGLTA004-02	B7H270130-004	8/26/97	TB082697	EB082697	9/4/97	9/4, 9/19/97	+	+
BHGLTA003-01	B7H270130-005	8/26/97	TB082697	EB082697	9/4/97	9/4, 9/19/97	+	+
BHGLTA003-02	B7H270130-006	8/26/97	TB082697	EB082697	9/4/97	9/4, 9/19/97	+	+
BHGLTA002-01	B7H270130-007	8/26/97	TB082697	EB082697	9/4/97	9/4, 9/20/97	+	+
BHGLTA001-02	B7H270130-008	8/26/97	TB082697	EB082697	9/4/97	9/4, 9/19/97	+	+
BHGLTADUP13	B7H270130-009	8/26/97	TB082697	EB082697	9/4/97	9/4, 9/19/97	+	+
BHGLTA001-01	B7H270130-010	8/26/97	TB082697	EB082697	9/4/97	9/4, 9/20/97	+	+
BHGLTA002-02	B7H270130-011	8/26/97	TB082697	EB082697	9/4/97	9/4, 9/20/97	+	+

Where: RE = reanalysis (VOC)/ reextraction (SVOC), DL = dilution, - = analysis not requested, NA = not available, + = see Section 4.0

2.0 VOLATILE ORGANIC COMPOUNDS

2.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the samples received at cooler temperatures within the 2 – 6 degree Centigrade (°C) temperature range. No qualifiers were assigned for this reason.

2.2 Holding Times

The samples were analyzed within the 14-day holding period. No qualifiers were assigned.

2.3 Instrument Tune

The six bromofluorobenzene (BFB) tunes were performed in accordance with the QAPP and the method. No qualifiers were assigned.

2.4 Calibrations

2.4.1 Initial Calibration

The samples listed above were analyzed using the instruments, B3VOA4 and B3VOA2. The instruments were initially calibrated on 6/11/97 and on 9/2/97. All parameters were within the control limits set forth in the QAPP.

2.4.2 Continuing Calibration

Continuing calibrations were performed. The calibrations were performed prior to sample analysis. There were no problems detected. All calibrations met the QAPP acceptance criteria.

2.5 Blanks

2.5.1 Method/Preparation Blanks

Two method blanks were associated with the samples in this episode. No target compounds were detected. No qualifiers were assigned.

2.5.2 Trip Blank

The trip blank associated with the samples in this episode is listed in Table 1-1. Sample TB082697 had a reported concentration for methylene chloride (1.1 µg/L). The associated rinsate had methylene chloride U-qualified for this reason. No samples were affected.

2.5.3 Ambient Blank

No ambient blank was submitted with the samples in this SDG.

2.5.4 Equipment Rinsate

The equipment rinsate associated with the samples is listed in Table 1-1. The rinsate had detected concentration of two target compounds after application of the method blank qualifiers. EB082697contained chloroform at 0.4 µg/L and toluene at 0.26 µg/L. One tentatively identified compound(TIC) was detected, but no action was taken on the sample TICs.

2.6 System Monitoring Compounds (surrogates)

Surrogate spike recoveries (%R) met the lab's control limits for all samples.

2.7 Internal Standards

The areas and retention time for the internal standards spiked into all the samples, standards, and associated quality control samples were within the performance criteria set forth in the method except for samples BHGLTA002-01, BHGLTA003-01, and BHGLTA001-01.

Sample BHGLTA002-01 had areas that were below the lower control limits for internal standards chlorobenzene and 1,4-dichlorobenzene. All associated compounds, as indicated by the lab, were R-qualified in accordance with the QAPP.

Samples BHGLTA003-01 and BHGLTA001-01 had areas that were below the lower control limits for 1,4-dichlorobenzene. All associated compounds for both samples were R-qualified for this reason.

2.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

No MS/MSD samples were included in this SDG.

2.9 Laboratory Control Samples (LCSs)

LCSs were analyzed with this SDG. The recoveries were within the limits presented in the QAPP. No qualifiers were assigned.

2.10 Field Duplicates

There was one identifiable field duplicate in this SDG. Sample BHGLTADUP13 is the field duplicate of BHGLTA002-01. There was fair correlation –no detects in DUP13 but low level detects for naphthalene, trichloroethene, and tetrachloethene in 002-01. No qualifiers were assigned.

2.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately. The validator kept the laboratory-assigned "F" qualifiers that indicate the reported values are below the PQL. The tentatively identified compounds were J-qualified as estimated values.

2.12 Overall Assessment of the Data

The data for the samples in this episode are acceptable as qualified.

3.0 SEMIVOLATILE ORGANIC COMPOUNDS

3.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the samples were received in good condition and within the acceptable temperature range. No qualifiers were assigned.

3.2 Holding Times

The samples were extracted within the 7-day (water) or 14-day (soils) holding period between sampling and extraction and analyzed within the 40-day holding period between extraction and analysis. No qualifiers were assigned.

3.3 Instrument Tune

Seven decafluorotriphenylphosphine (DFTPP) tunes were correctly run prior to any initial and/or continuing calibration. The tunes met the minimum acceptance criteria for ion abundance. The samples/standards associated with each tune were analyzed within a 12-hour period following the tune. No qualifiers were assigned.

3.4 Calibrations

3.4.1 Initial Calibration

The samples listed above were analyzed using an instrument initially calibrated on 9/10/97 and on 9/20/97. All the target compounds met the minimum average response factor (RRF) of 0.05 and the QAPP-specified maximum of 30% Relative Standard Deviation percentage (%RSD).

3.4.2 Continuing Calibration

The target compounds for the continuing calibration were within the control limits for the RRF (0.05) and the 25% maximum for the percent deviation between the initial and continuing calibrations. No qualifiers were assigned.

3.5 Blanks

3.5.1 Method/Preparation Blanks

There was one target compound detected in the method blank associated with the rinsate. The compound, bis (2-ethylhexyl)phthalate was reported at a concentration of 1.7 µg/L. No action was taken, because the rinsate did not report a detect for that compound. The soil method blank had no reported detects.

3.5.2 Ambient Blank

There were no identifiable ambient blanks associated with the SDG.

3.5.3 Equipment Rinsate

The equipment rinsate associated with the samples is identified in Table 1-1. The rinsate contained no detected target compounds, but did report three tentatively identified compounds (TICs). No action was taken on the TICs.

3.6 System Monitoring Compounds (surrogates)

Surrogate spike recoveries (%R) for the six semivolatile compounds met the acceptance criteria for all samples. No qualifiers were assigned.

3.7 Internal Standards

The areas and retention time for the internal standards spiked into all the samples, standards, and associated quality control samples were within the performance criteria set forth in the method for all samples. No qualifiers were assigned for this reason.

3.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Sample BHLGTA004-01 was analyzed as the MS/MSD in this SDG. The outliers are presented in the table below:

Compound spike	MS%R	MSD%R	%RPD	Action
Benzyl alcohol	0	-	200	J-/UJ all soil samples
Benzo(g,h,i)perylene	-	-	42	J detects all soils
Dibenz(a,h)anthracene	-	-	33	J detects all soils
Fluoranthene	-	-	40	J detects all soils
Indeno(1,2,3-cd)pyrene	-	-	41	J detects all soils
Phenanthrene	-	-	34	J detects all soils
Pyrene	-	-	42	J detects all soils
2-methylphenol	-	-	31	J detects all soils
3 & 4-methylphenol	-	-	71	J detects all soils
pentachlorophenol	-	27	38	J-/UJ all soil samples

3.9 Laboratory Control Sample (LCS)

The two LCSs analyzed had recoveries within the acceptance criteria. No qualifiers were assigned.

3.10 Field Duplicates

There was one identifiable field duplicate in this SDG. Sample BHGLTADUP13 is the field duplicate of BHGLTA002-01. The same target compounds were reported as detects. RPD percentages ranged from 21-37%. No qualifiers were assigned.

3.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately. The validator kept the laboratory-assigned "F" qualifiers that indicate the reported values are below the PQL. The tentatively identified compounds were J-qualified as estimated values.

3.12 Overall Assessment of the Data

The data for the samples in this SDG are acceptable as qualified.

4.0 INORGANIC ANALYSES

Field Sample ID	Collection Date	ICP Prep	ICP (P1) Analysis	ICP Trace (P2) Analysis	Mercury prep.; analysis	GFAAS (Ag) prep; analysis
EB082697	8/26/97	8/28/97	8/29,9/8/97	8/29/97	8/28/97	8/28;8/30/97
BHGLTA004-01	8/26/97	8/28/97	8/29;9/8/97	8/29/97	8/28/97	NA
BHGLTA004-02	8/26/97	8/28/97	8/29;9/8/97	8/29/97	8/28/97	NA
BHGLTA003-01	8/26/97	8/28/97	8/29;9/8/97	8/29/97	8/28/97	NA
BHGLTA003-02	8/26/97	8/28/97	8/29,9/8/97	8/29/97	8/28/97	NA
BHGLTA002-01	8/26/97	8/28/97	8/29,9/8/97	8/29/97	8/28/97	NA
BHGLTA001-02	8/26/97	8/28/97	8/29;9/8/97	8/29/97	8/28/97	NA
BHGLTADUP-13	8/26/97	8/28/97	8/29;9/8/97	8/29/97	8/28/97	NA
BHGLTA001-01	8/26/97	8/28/97	8/29,9/8/97	8/29/97	8/28/97	NA
BHGLTA002-02	8/26/97	8/28/97	8/29;9/8/97	8/29/97	8/28/97	NA

4.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the nine soils and one water sample were received in good condition at 4 degrees Centigrade (°C) ± 2° C. The equipment blank sample was preserved with nitric acid (HNO_3). No qualifiers were assigned.

4.2 Holding Times

The samples were analyzed within the 28-day holding time for mercury and the 180-day holding period between sample collection for ICP and GFAAS preparation/analysis. No qualifiers were assigned.

4.3 Instrument Performance

4.3.1 Instrument Standardization

The Inductively Coupled Plasma (ICP) instrument was standardized with a multiple point calibration (blank plus three standards). The check of the hi-standard following calibration was recovered within 5% of the true value. The initial standardization was performed within the criteria specified in the QAPP. No qualifiers were assigned.

4.3.2 Initial Calibration Verification

All initial calibration verifications met the acceptance criteria specified in the QAPP, i.e., 90-100% R for ICP.

4.3.3 Continuing Calibration Verification

The continuing calibrations were within the QAPP control limits of 90-110%R. No actions were required.

4.4 Blanks

4.4.1 Method/Preparation Blanks

Separate blanks were prepared for both matrices (e.g. water and solid). The following table presents the analytes detected in the method blanks. The 5X column is used to determine the maximum level allowed to report. Below this value, all reported concentrations are qualified ND due to its presence in the method blank.

Analyte	Soil Conc. (mg/kg)	Soil Conc. 5X	Water Conc. (mg/L)	Water Conc. 5X
Aluminum	2.0	10.0	0.11	0.55
Barium			0.0013	0.0065
Cadmium	0.054	0.27		
Calcium	2.9	14.5	0.082	0.41
Manganese			0.072	0.36
Silver	0.15	0.75		
Sodium	2.0	10.0	0.13	0.65

The calcium and sodium in the method blank resulted in qualification of the corresponding elements in the equipment blank as U. The cadmium and silver detects in the blank caused the qualification of these elements as U, in many of the associated samples.

4.4.2 Ambient Blanks

There was no ambient blank sample collected with the samples.

4.4.3 Equipment Rinsates

The equipment rinsates associated with the samples are shown on Table 1-1. The following analytes were detected in the equipment blanks: lead, calcium, and iron.

4.4.4 Calibration Blanks

The calibration blanks contained a few analytes at concentrations which did not cause qualification.

4.5 Interference Check Samples (ICSA-ICSAB)

The interference check samples had recoveries within the acceptance criteria specified in the QAPP. No qualifiers were assigned.

4.6 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Two MS/MSD analysis sets were performed with this SDG; one water and one soil sample. EB082597 was spiked for the water QC sample. All analytes were recovered within control limits

The soil QC used sample THGLTA003-01 (from SDG 1) as the original. The soil QC samples reported low recoveries (less than 80%) for antimony, calcium, manganese, and magnesium and high recoveries (greater than 120%) for aluminum, and iron. All the antimony and magnesium for the associated prepared samples were qualified UJ/J for the previously indicated low recoveries. The four times rule (if the sample concentration is greater than four times the spike amount, the recovery is not considered for qualification) eliminated the qualification for aluminum, calcium, manganese, and iron.

4.7 Laboratory Control Sample (LCS)

One LCS sample was analyzed for each matrix within this SDG. The recoveries for all reported analytes were within the control limits listed in the QAPP. No qualifiers were assigned.

4.8 Field Duplicates

Soil sample BHGLTA002-01 was collected in duplicate in the field and was designated as BHGLTADUP-13. All applicable comparisons (omitting the F qualified data) were determined to compare within 35%, except barium, lead, and manganese. The results for the three elements for these two samples were qualified J due to the poor precision.

4.9 Graphite Furnace Analyses

Graphite furnace analyses were performed for the determination of silver for the two equipment blank samples. All reported results were non-detect.

4.10 Serial Dilution Analysis

A serial dilution analysis was performed on a water and a soil sample. There were no detects found in the water at a sufficiently high enough concentration to be evaluated. The serial dilution of a soil sample reported the determination of arsenic by ICP revealed a %D of 14.1%. All the soil arsenic results for this SDG were qualified UJ/J for the out-of-control serial dilution.

4.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately.

4.12 Overall Assessment of the Data

The data are accepted as qualified.

DATA VALIDATION SUMMARY REPORT

PROJECT:	Carswell Air Force Base
LABORATORY:	Quanterra Environmental Services-Tampa
SDG:	4
MATRIX:	Water, soil
VALIDATION LEVEL:	C
ANALYSES, METHODS:	Volatile Organic Compounds, SW846 Method 8260A Semivolatile Organic Compounds, SW846 Method 8270B Inorganics, SW846 Method 6010

1.0 INTRODUCTION

Four (4) water samples and fourteen (14) soil samples were submitted to Quanterra Environmental Services for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and metals. The samples associated with SDG 4 are listed in Table 1-1 with the sampling dates, extraction/preparation dates, analytical dates, and identification of associated trip blanks, equipment rinsates, and field blanks.

The organic compounds were validated and reviewed in accordance with the Interim Draft Base-Wide Quality Assurance Project Plan (QAPP), dated August 1996, and the "Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses" (EPA, 1994).

The inorganic data were validated and reviewed in accordance with the QAPP and the "US EPA Contract Laboratory Program National Functional Guidelines for Evaluating Inorganic Data Review" (EPA, 1994).

Table 1-1. SDG 4 Sample Information

Field ID	Lab ID	Sampling date	Associated trip blank ID	Associated equipment rinsate ID	VOC Prep/analysis date	SVOC dates extract'n, analysis	ICP/GFAAS Metals prep, analysis dates	Mercury prep, analysis dates
THGLTA001-02	B7H280161-001	8/27/97	TB082797	EB082797	RE 9/5/97*	9/5, 9/21/97	+	+
BHGLTA005-02	B7H280161-002	8/27/97	TB082797	EB082797	RE 9/5/97*	9/5, 9/21/97	+	+
BHGLTA007-02	B7H280161-003	8/27/97	TB082797	EB082797	9/5/97	[A]	+	+
BHGLTA007-01	B7H280161-004	8/27/97	TB082797	EB082797	9/5/97	9/5, 9/21/97	+	+
BHGLTA006-02	B7H280161-005	8/27/97	TB082797	EB082797	9/5/97	9/5, 9/21/97	+	+
BHGLTA005-01	B7H280161-006	8/27/97	TB082797	EB082797	9/5/97	9/5, 9/21/97	+	+
BHGLTADUP14	B7H280161-007	8/27/97	TB082797	EB082797	9/5/97	9/5, 9/21/97	+	+
BHGLTA006-01	B7H280161-008	8/27/97	TB082797	EB082797	9/5/97	9/5, 9/21/97	+	+
TB082797	B7H280161-009	8/27/97	-	-	9/3/97	-	-	-
EB082797	B7H280161-010	8/27/97	TB082797	-	9/3/97	8/29, 9/11/97	+	+
THGLTA021-02	B7H280161-011	8/27/97	TB082797	EB082797	9/5/97	9/5, 9/21/97	+	+
EB082897	B7H290134-001	8/28/97	TB082897	-	9/3/97	8/31, 9/11/97 RE 9/9, 9/19/97	+	+
TB082897	B7H290134-002	8/28/97	-	-	9/3/97	-	-	-
THGLTA022-01	B7H290134-003	8/28/97	TB082897	EB082897	9/5/97	9/9, 9/21/97	+	+
THGLTADUP11	B7H290134-004	8/28/97	TB082897	EB082897	9/5/97	9/9, 9/21/97	+	+
THGLTA022-02	B7H290134-005	8/28/97	TB082897	EB082897	9/5/97	9/9, 9/21/97	+	+
THGLTA023-01	B7H290134-006	8/28/97	TB082897	EB082897	9/5/97	9/9, 9/21/97	+	+
THGLTA023-02	B7H290134-007	8/28/97	TB082897	EB082897	9/5/97	9/9, 9/21/97	+	+

Where: RE = reanalysis (VOC)/ re-extraction (SVOC), DL = dilution, - = analysis not requested, *=only reanalysis reported, [A]=insufficient sample-not analyzed
+ = see Section 4.0

2.0 VOLATILE ORGANIC COMPOUNDS

2.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the samples received at cooler temperatures within the 2 – 6 degree Centigrade (°C) temperature range. No qualifiers were assigned for this reason. COC record indicates 021-02 as water, lab reports it as a soil.

2.2 Holding Times

The samples were analyzed within the 14-day holding period. No qualifiers were assigned.

2.3 Instrument Tune

The bromofluorobenzene (BFB) tunes were performed in accordance with the QAPP and the method. No qualifiers were assigned.

2.4 Calibrations

2.4.1 Initial Calibration

The samples listed above were analyzed using the instruments, B3VOA4 and B3VOA2. The instruments were initially calibrated on 6/11/97 and on 9/2/97. All parameters were within the control limits set forth in the QAPP.

2.4.2 Continuing Calibration

Continuing calibrations were performed. The calibrations were performed prior to sample analysis. There were no problems detected. All calibrations met the QAPP acceptance criteria.

2.5 Blanks

2.5.1 Method/Preparation Blanks

Two method blanks were associated with the samples in this episode. No target compounds were detected. No qualifiers were assigned.

2.5.2 Trip Blanks

The trip blanks associated with the samples in this SDG are listed in Table 1-1. Sample TB082797 had a reported concentration for methylene chloride (1.2 µg/L). The associated rinsates had methylene chloride U-qualified for this reason. No other samples were affected.

2.5.3 Ambient Blank

No ambient blank was submitted with the samples in this SDG.

2.5.4 Equipment Rinsate

The equipment rinsates associated with the samples are listed in Table 1-1. The rinsates had detected concentrations of two target compounds after application of the method blank qualifiers. EB082797 contained chloroform at 0.38 µg/L; EB082897 contained chloroform at 0.31 µg/L. One tentatively identified compound (TIC) was detected in each rinsate sample, but no action was taken on the sample TICs.

2.6 System Monitoring Compounds (surrogates)

Surrogate spike recoveries (%R) met the lab's control limits for all samples.

2.7 Internal Standards

The areas and retention time for the internal standards spiked into all the samples, standards, and associated quality control samples were within the performance criteria set forth in the method except for samples BHGLTADUP14, BHGLTA022-01, BHGLTADUP11, and BHGLTA023-01. These samples had areas that were below the lower control limits for internal standard 1,4-dichlorobenzene. All associated compounds, as indicated by the lab, were R-qualified in accordance with the QAPP.

2.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Sample 007-01 was analyzed as an MS/MSD in this SDG. Two compounds had low MS recoveries: 1,2,3-trichlorobenzene (63%) and hexachlorobutadiene (64%). All BHGLTA samples were J-/UJ qualified for these compounds.

2.9 Laboratory Control Samples (LCSs)

LCSs were analyzed with this SDG. The recoveries were within the limits presented in the QAPP. No qualifiers were assigned.

2.10 Field Duplicates

There were two identifiable field duplicates in this SDG. Sample BHGLTADUP14 is the field duplicate of BHGLTA006-01. Sample BHGLTADUP11 is the field duplicate for BHGLTA022-01. There was good correlation, based on the levels reported. No qualifiers were assigned.

2.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately. The validator kept the laboratory-assigned "F" qualifiers that indicate the reported values are below the PQL. The tentatively identified compounds were J-qualified as estimated values.

2.12 Overall Assessment of the Data

The data for the samples in this episode are acceptable as qualified.

3.0 SEMIVOLATILE ORGANIC COMPOUNDS

3.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the samples were received in good condition and within the acceptable temperature range. No qualifiers were assigned.

3.2 Holding Times

Most of the samples were extracted within the 7-day (water) or 14-day (soils) holding period between sampling and extraction and analyzed within the 40-day holding period between extraction and analysis. EB082897RE was extracted at 12 days. The associated data were J-/UJ qualified.

3.3 Instrument Tune

Eight decafluorotriphenylphosphine (DFTPP) tunes were correctly run prior to any initial and/or continuing calibration. The tunes met the minimum acceptance criteria for ion abundance. The samples/standards associated with each tune were analyzed within a 12-hour period following the tune. No qualifiers were assigned.

3.4 Calibrations

3.4.1 Initial Calibration

The samples listed above were analyzed using an instrument initially calibrated on 9/10/97, 9/18/97, and on 9/20/97. All the non-SPCC target compounds met the minimum average response factor (RRF) of 0.05 and the QAPP-specified maximum of 30% Relative Standard Deviation percentage (%RSD). The same two compounds, 2,4-dinitrophenol and 4-nitrophenol, had mean RRFs less than 0.30 for all initial calibrations. All samples were R-qualified for these two compounds.

3.4.2 Continuing Calibration

The nonSPCC target compounds for the continuing calibration were within the control limits for the RRF (0.05) and the 25% maximum for the percent deviation between the initial and continuing calibrations. Compounds 2,4-dinitrophenol and 4-nitrophenol had RRFs <0.30. These compounds were R-qualified for samples analyzed on 9/11, 9/18, 9/20, and 9/21.

3.5 Blanks

3.5.1 Method/Preparation Blanks

There was one target compound detected in the method blank associated with the rinsate EB082797. The compound, bis (2-ethylhexyl)phthalate was reported at a concentration of 1.7 µg/L. No action was taken, because the associated rinsate did not report a detect for that compound. The soil method blanks had no reported detects. The other method blanks did not have reported concentrations of compounds.

3.5.2 Ambient Blank

There were no identifiable ambient blanks associated with the SDG.

3.5.3 Equipment Rinsate

The equipment rinsates associated with the samples are identified in Table 1-1. The rinsate, contained no detected target compounds, but did report tentatively identified compounds (TICs). No action was taken on TICs.

3.6 System Monitoring Compounds (surrogates)

Surrogate spike recoveries (%R) for the six semivolatile compounds met the acceptance criteria for all samples except for sample 021-02. All of the surrogate recoveries were below the lower control limit. All data for this sample were J-/UJ qualified.

3.7 Internal Standards

The areas and retention time for the internal standards spiked into all the samples, standards, and associated quality control samples were within the performance criteria set forth in the method for all samples. No qualifiers were assigned for this reason.

3.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Sample BHLGTA007-01 was analyzed as the MS/MSD in this SDG. The outliers are presented in the table below:

Compound spike	MS%R	MSD%R	%RPD	Action
Pentachlorophenol	1	2	-	J-/UJ all BHGLTA samples
4-chloroaniline	-	-	34	J detects all BHGLTA samples
benz(a)anthracene	-	-	38	J detects all BHGLTA samples
benzo(a)pyrene	-	-	31	J detects all BHGLTA samples
benzo(b)fluoranthene	-	-	42	J detects all BHGLTA samples
chrysene	-	-	34	J detects all BHGLTA samples
fluoranthene	-	-	56	J detects all BHGLTA samples
hexachlorocyclopentadiene	-	-	39	J detects all BHGLTA samples
phenanthrene	-	-	52	J detects all BHGLTA samples
pyrene	-	-	50	J detects all BHGLTA samples
2,4,5-trichlorophenol	-	-	34	J detects all BHGLTA samples
2,4,6-trichlorophenol	-	-	79	J detects all BHGLTA samples
benzoic acid	-	-	31	J detects all BHGLTA samples

3.9 Laboratory Control Sample (LCS)

The four of the five LCSs analyzed had recoveries within the acceptance criteria. LCS CCJGQ102 for QC batch 7243106 (EB082897) had low recoveries for hexachlorocyclopentadiene (0%) and 2,4-dimethylphenol (28%). These compounds were R-qualified for EB082897.

3.10 Field Duplicates

There were two identifiable field duplicates in this SDG. Sample BHGLTADUP14 is the field duplicate of BHGLTA006-01. There was good correlation. . Sample BHGLTADUP11 is the field duplicate of BHGLTA022-01. There was fair correlation. No qualifiers were assigned, based on the results of the field duplicates.

3.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately. The validator kept the laboratory-assigned "F" qualifiers that indicate the reported values are below the PQL. The tentatively identified compounds were J-qualified as estimated values. The original data for EB082897 were used; the re-extract run data were Z-qualified (see other, more useable data).

3.12 Overall Assessment of the Data

The data for the samples in this SDG are acceptable as qualified.

4.0 INORGANIC ANALYSES

Field Sample ID	Collection Date	ICP Prep	ICP (P1) Analysis	ICP Trace (P2) Analysis	Mercury prep.; analysis	GFAAS (Ag) prep; analysis
EB082797	8/27/97	8/28/97	8/29/97	8/29/97	8/28/97	8/28;8/30/97
THGLTA001-02	8/27/97	9/2/97	9/3,9/10/97	9/3,9/4/97	9/2/97	NA
BHGLTA005-02	8/27/97	9/2/97	9/3/97	9/3,9/10/97	9/2/97	NA
BHGLTA007-01	8/27/97	9/2/97	9/3;9/10/97	9/3,9/4/97	9/2/97	NA
BHGLTA006-02	8/27/97	9/2/97	9/3/97	9/3,9/10/97	9/2/97	NA
BHGLTA005-01	8/27/97	9/2/97	9/3;9/10/97	9/3;9/4/97	9/2/97	NA
BHGLTADUP-14	8/27/97	9/2/97	9/3;9/10/97	9/3;9/4/97	9/2/97	NA
BHGLTA006-01	8/27/97	9/2/97	9/3,9/10/97	9/3;9/4/97	9/2/97	NA
THGLTA021-02	8/27/97	9/2/97	9/3/97	9/3;9/4/97	9/2/97	NA
EB082897	8/28/97	9/8/97	9/9/97	9/9,9/10/97	9/8/97	9/8;9/10/97
THGLTA022-01	8/28/97	9/2/97	9/3/97	9/3,9/4/97	9/2/97	NA
THGLTADUP-11	8/28/97	9/2/97	9/3/97	9/3,9/4/97	9/2/97	NA
THGLTA022-02	8/28/97	9/2/97	9/3;9/10/97	9/3,9/10/97	9/2/97	NA
THGLTA023-01	8/28/97	9/2/97	9/3/97	9/3;9/4/97	9/2/97	NA
THGLTA023-02	8/28/97	9/2/97	9/3;9/4/97	9/3;9/4/97	9/2/97	NA

4.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the thirteen soils and two water sample were received in good condition at 4 degrees Centigrade (°C) ± 2° C. The equipment blank samples were preserved with nitric acid (HNO_3). No qualifiers were assigned.

4.2 Holding Times

The samples were analyzed within the 28-day holding time for mercury and the 180-day holding period between sample collection for ICP and GFAAS preparation/analysis. No qualifiers were assigned.

4.3 Instrument Performance

4.3.1 Instrument Standardization

The Inductively Coupled Plasma (ICP) instrument was standardized with a multiple point calibration (blank plus three standards). The check of the hi-standard following calibration was recovered within 5% of the true value. The initial standardization was performed within the criteria specified in the QAPP. No qualifiers were assigned.

4.3.2 Initial Calibration Verification

All initial calibration verifications met the acceptance criteria specified in the QAPP, i.e., 90-100% R for ICP.

4.3.3 Continuing Calibration Verification

The continuing calibrations were within the QAPP control limits of 90-110%R. No actions were required.

4.4 Blanks

4.4.1 Method/Preparation Blanks

Separate blanks were prepared for both matrices (e.g. water and solid). The following table presents the analytes detected in the method blanks. The 5X column is used to determine the maximum level allowed to report. Below this value, all reported concentrations are qualified ND due to its presence in the method blank.

Analyte	Soil Conc. (mg/kg)	Soil Conc. 5X	Water Conc. (mg/L)	Water Conc. 5X
Aluminum	6.1	30.5	0.11	0.55
Barium			0.0013	0.0065
Calcium	12.1	60.5	0.082	0.41
Iron	1.9	9.5		
Lead	0.19	0.95		
Manganese	8.6	43	0.072	0.36
Sodium	3.5	17.5	0.13	0.65

The calcium and sodium in the method blank resulted in qualification of the corresponding elements in the equipment blank as U.

4.4.2 Ambient Blanks

There was no ambient blank sample collected with the samples.

4.4.3 Equipment Rinsates

The equipment rinsates associated with the samples are shown on Table 1-1. The following analytes were detected in the equipment blanks: sodium, lead, and calcium. The sodium and calcium qualified U form the presence of the two elements found in the method blank.

4.4.4 Calibration Blanks

The calibration blanks contained a few analytes at concentrations which did not cause qualification.

4.5 Interference Check Samples (ICSA-ICSAB)

The interference check samples had recoveries within the acceptance criteria specified in the QAPP. No qualifiers were assigned.

4.6 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Two MS/MSD analysis sets were performed with this SDG; one water and one soil sample. EB082597 was spiked for the water QC sample. All analytes were recovered within control limits

The soil QC used sample BHGLTA007-01 (from SDG 1) as the original. The soil QC samples reported low recoveries (less than 80%) for aluminum, antimony, arsenic, calcium, copper, lead, selenium, and zinc and high recoveries (greater than 120%) for aluminum, iron, magnesium, manganese, and potassium. All the antimony, arsenic, and selenium for the associated prepared samples were qualified UJ/J for the previously indicated low recoveries. Copper, lead, and zinc were qualified R/J because the recoveries were less than 30%. Magnesium, manganese, and potassium detects were qualified J because of the high recoveries for the MS/MSD. The four times rule (if the sample concentration is greater than four times the spike amount, the recovery is not considered for qualification) eliminated the qualification for aluminum, calcium, and iron.

4.7 Laboratory Control Sample (LCS)

One LCS sample was analyzed for each matrix within this SDG. The recoveries for all reported analytes were within the control limits listed in the QAPP. No qualifiers were assigned.

4.8 Field Duplicates

Soil sample BHGLTA006-01 was collected in duplicate in the field and was designated as BHGLTADUP-14. All applicable comparisons (omitting the F qualified data) were determined to compare within 35%, except beryllium, calcium, lead, manganese and zinc. The results for the five elements for these two samples were qualified UJ/J due to the poor precision.

Soil sample THGLTA022-01 was collected in duplicate in the field and was designated as THGLTADUP-11. All applicable comparisons (omitting the F qualified data) were determined to compare within 35%, except barium, chromium, copper, lead, sodium and zinc. The results for the six elements for these two samples were qualified UJ/J due to the poor precision.

4.9 Graphite Furnace Analyses

Graphite furnace analyses were performed for the determination of silver for the two equipment blank samples. All reported results were non-detect.

4.10 Serial Dilution Analysis

A serial dilution analysis was performed on both a water and a soil sample. There were no detects found in the water at a sufficiently high enough concentration to be evaluated. The serial dilution of a soil sample reported the determination of all elements by ICP revealed acceptable %Ds.

4.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately.

4.12 Overall Assessment of the Data

The data are accepted as qualified.

DATA VALIDATION SUMMARY REPORT

PROJECT:	Carswell Air Force Base
LABORATORY:	Quanterra Environmental Services-Tampa and Denver
SDG:	5
MATRIX:	Water, soil
VALIDATION LEVEL:	C
ANALYSES, METHODS:	Volatile Organic Compounds, SW846 Method 8260A Semivolatile Organic Compounds, SW846 Method 8270B Inorganics, SW846 Method 6010

1.0 INTRODUCTION

Two (2) water samples and five (5) soil samples were submitted to Quanterra Environmental Services for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and metals. The samples associated with SDG 5 are listed in Table 1-1 with the sampling dates, extraction/preparation dates, analytical dates, and identification of associated trip blanks, equipment rinsates, and field blanks. QES Denver performed the soils semivolatile analyses.

The organic compounds were validated and reviewed in accordance with the Interim Draft Base-Wide Quality Assurance Project Plan (QAPP), dated August 1996, and the "Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses" (EPA, 1994).

The inorganic data were validated and reviewed in accordance with the QAPP and the "US EPA Contract Laboratory Program National Functional Guidelines for Evaluating Inorganic Data Review" (EPA, 1994).

Table 1-1. SDG 5 Sample Information

Field ID	Lab ID	Sampling date	Associated trip blank ID	Associated equipment rinsate ID	VOC Prep/analysis date	SVOC dates extract'n, analysis	ICP, GFAAS Metals prep, analysis dates	Mercury prep, analysis dates
THGLTA020-01	B71040101-001	9/2/97	TB090297	EB090297	9/6/97	9/10, 9/15/97	+	+
THGLTA019-01	B71040101-002	9/2/97	TB090297	EB090297	9/6/97	9/10, 9/15/97	+	+
THGLTA018-01	B71040101-003	9/2/97	TB090297	EB090297	9/6/97	9/10, 9/15/97	+	+
THGLTADUP07	B71040101-004	9/2/97	TB090297	EB090297	9/6/97	9/10, 9/15/97	+	+
THGLTA002-02	B71040101-005	9/2/97	TB090297	EB090297	9/10/97*	9/10, 9/15/97	+	+
TB090297	B71040101-006	9/2/97	-	-	9/13/97	-	-	-
EB090297	B71040101-007	9/2/97	TB090297	-	9/13/97	9/5, 9/19/97	+	+

Where: RE = reanalysis (VOC)/ re-extraction (SVOC), DL = dilution, - = analysis not requested, *=only reanalysis reported; [A]=insufficient sample-not analyzed
+= see Section 4 0

2.0 VOLATILE ORGANIC COMPOUNDS

2.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the samples received at cooler temperatures within the 2 – 6 degree Centigrade (°C) temperature range. No qualifiers were assigned for this reason.

2.2 Holding Times

The samples were analyzed within the 14-day holding period. No qualifiers were assigned.

2.3 Instrument Tune

The four bromofluorobenzene (BFB) tunes were performed in accordance with the QAPP and the method. No qualifiers were assigned.

2.4 Calibrations

2.4.1 Initial Calibration

The samples listed above were analyzed using the instruments, B3VOA4 and B3VOA2. The instruments were initially calibrated on 9/2/97, 9/10/97, and on 9/13/97. All parameters were within the control limits set forth in the QAPP except for 1,2-dibromo-3-chloropropane on 9/13/97. The compound had a mean RRF of 0.043. The TB and EB were R-qualified for this compound.

2.4.2 Continuing Calibration

Continuing calibrations were performed. The calibrations were performed prior to sample analysis. There were no problems detected. All calibrations met the QAPP acceptance criteria.

2.5 Blanks

2.5.1 Method/Preparation Blanks

Three method blanks were associated with the samples in this episode. No target compounds were detected. No qualifiers were assigned.

2.5.2 Trip Blanks

The trip blank associated with the samples in this episode is listed in Table 1-1. Sample TB090297 had a reported concentration for methylene chloride (1.2 μg/L). The associated rinsate had methylene chloride U-qualified for this reason. No samples were affected.

2.5.3 Ambient Blank

No ambient blank was submitted with the samples in this SDG.

2.5.4 Equipment Rinsate

The equipment rinsate associated with the samples is listed in Table 1-1. The rinsate had a detected concentration for one target compound after application of the method blank qualifiers. EB090297 contained chloroform at 0.27 µg/L. There were no qualifiers assigned, because the samples did not contain chloroform.

2.6 System Monitoring Compounds (surrogates)

Surrogate spike recoveries (%R) met the lab's control limits for all samples.

2.7 Internal Standards

The areas and retention time for the internal standards spiked into all the samples, standards, and associated quality control samples were within the performance criteria set forth in the method except for samples THGLTA019-01 and THGLTA018-01. Sample THGLTA019-01 had an area that was below the lower control limits for internal standard 1,4-dichlorobenzene and sample THGLTA018-01 had low area counts for all the internal standards. Sample THGLTA018-01's areas for both internal standards 1,4-dichlorobenzene and fluorobenzene were below 25%. The associated compounds, as indicated by the lab, were R-qualified in accordance with the QAPP.

2.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

No MS/MSD was in this SDG.

2.9 Laboratory Control Samples (LCSs)

LCSs were analyzed with this SDG. The recoveries were within the limits presented in the QAPP. No qualifiers were assigned.

2.10 Field Duplicates

There was one identifiable field duplicate in this SDG. Sample THGLTADUP07 is the field duplicate of THGLTA020-01. Both samples contained no detected target compounds. No qualifiers were assigned.

2.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately. The validator kept the laboratory-assigned "F" qualifiers that indicate the reported values are below the PQL. The tentatively identified compounds were J-qualified as estimated values.

2.12 Overall Assessment of the Data

The data are acceptable as qualified.

3.0 SEMIVOLATILE ORGANIC COMPOUNDS

3.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the samples were received in good condition and within the acceptable temperature range. No qualifiers were assigned. No documentation was present in the package showing the custody transfer of the soil samples to Denver for analysis.

3.2 Holding Times

Most of the samples were extracted within the 7-day (water) or 14-day (soils) holding period between sampling and extraction and analyzed within the 40-day holding period between extraction and analysis. No qualifiers were assigned.

3.3 Instrument Tune

Several decafluorotriphenylphosphine (DFTPP) tunes were correctly run prior to any initial and/or continuing calibration for the water analyses; four were analyzed prior to the soil analyses. The tunes met the minimum acceptance criteria for ion abundance. The samples/standards associated with each tune were analyzed within a 12-hour period following the tune. No qualifiers were assigned.

3.4 Calibrations

3.4.1 Initial Calibration

The samples listed above were analyzed using instruments initially calibrated on 9/18/97 (Tampa) and on 9/12/97 and 9/16/97 (Denver). All the target compounds met the minimum average response factor (RRF) of 0.05 and the QAPP-specified maximum of 30% Relative Standard Deviation percentage (%RSD).

3.4.2 Continuing Calibration

The target compounds for the continuing calibration were within the control limits for the RRF (0.05) and the 25% maximum for the percent deviation between the initial and continuing calibrations except for carbazole and benzidine on 9/17/97. No action was taken, however, because no sample results were reported from that date.

3.5 Blanks

3.5.1 Method/Preparation Blanks

There was one target compound detected in the method blank associated with the soil samples. The compound, diethylphthalate was reported at a concentration of 0.0425 mg/kg. No action was taken, because the soil samples had no reported detects for that compound. One tentatively identified compound (TIC) was identified, but no action was taken on the TICs. The other method blank did not have reported concentrations of any compound.

3.5.2 Ambient Blank

There were no identifiable ambient blanks associated with the SDG.

3.5.3 Equipment Rinsate

The equipment rinsate associated with the samples is identified in Table 1-1. The rinsate, contained one detected target compound (phenol at 4.6 µg/L) and several TICs. No action was taken on phenol, because there were no samples with phenol. No action was taken on the TICs.

3.6 System Monitoring Compounds (surrogates)

Surrogate spike recoveries (%R) for the semivolatile compounds met the acceptance criteria for all samples.

3.7 Internal Standards

The areas and retention time for the internal standards spiked into all the samples, standards, and associated quality control samples were within the performance criteria set forth in the method for all samples. No qualifiers were assigned for this reason.

3.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Sample THLGTA020-01 was analyzed as the MS/MSD in this SDG. The spikes were diluted out per the case narrative. No qualifiers were assigned.

3.9 Laboratory Control Sample (LCS)

The three LCSs analyzed had recoveries within the acceptance criteria except for one compound reported in the water LCS. LCS CCLM5102 for QC batch 7248137 (EB090297) had a low recovery for 2,4-dimethylphenol (37%). This compound was R-qualified for EB090297.

3.10 Field Duplicates

There was one identifiable field duplicate in this SDG. Sample THGLTADUP07 is the field duplicate of THGLTA020-01. There were only two detected compounds—fluoranthene (0.19 mg/kg [020-01] vs 0.33 mg/kg [DUP07]) and pyrene (not detected [020-01] vs. 0.32 mg/kg [DUP07]). No qualifiers were assigned, based on the results of the field duplicates.

3.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately. The validator kept the Tampa laboratory-assigned "F" qualifiers that indicate the reported values are below the PQL. The Denver lab did not assign the "F" qualifier; the validator assigned the qualifier. The tentatively identified compounds were J-qualified as estimated values.

3.12 Overall Assessment of the Data

The data for the samples in this SDG are acceptable as qualified.

4.0 INORGANIC ANALYSES

Field Sample ID	Collection Date	ICP Prep	ICP (P1) Analysis	ICP Trace (P2) Analysis	Mercury prep.; analysis	GFAAS (Ag) prep; analysis
EB090297	9/2/97	8/28/97	9/9/97	9/9;9/10/97	9/8/97	9/10/97
THGLTA020-01	9/2/97	9/9/97	9/11;9/12/97	9/11/97	9/9/97	NA
THGLTA019-01	9/2/97	9/9/97	9/11,9/12/97	9/11/97	9/9/97	NA
THGLTA018-01	9/2/97	9/9/97	9/11,9/12/97	9/11/97	9/9/97	NA
THGLTADUP-07	9/2/97	9/9/97	9/11;9/12/97	9/11/97	9/9/97	NA
THGLTA002-02	9/2/97	9/9/97	9/11;9/12/97	9/11/97	9/9/97	NA

4.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the five soils and one water sample were received in good condition at 4 degrees Centigrade (°C) ± 2° C. The equipment blank samples were preserved with nitric acid (HNO_3). No qualifiers were assigned.

4.2 Holding Times

The samples were analyzed within the 28-day holding time for mercury and the 180-day holding period between sample collection for ICP and GFAAS preparation/analysis. No qualifiers were assigned.

4.3 Instrument Performance

4.3.1 Instrument Standardization

The Inductively Coupled Plasma (ICP) instrument was standardized with a multiple point calibration (blank plus three standards). The check of the high standard following calibration was recovered within 5% of the true value. The initial standardization was performed within the criteria specified in the QAPP. No qualifiers were assigned.

4.3.2 Initial Calibration Verification

All initial calibration verifications met the acceptance criteria specified in the QAPP, i.e., 90-100% R for ICP.

4.3.3 Continuing Calibration Verification

The continuing calibrations were within the QAPP control limits of 90-110%R. No actions were required.

4.4 Blanks

4.4.1 Method/Preparation Blanks

Separate blanks were prepared for both matrices (e.g. water and solid). The following table presents the analytes detected in the method blanks. The 5X column is used to determine the maximum level allowed to report. Below this value, all reported concentrations are qualified ND due to its presence in the method blank.

Analyte	Soil Conc. (mg/kg)	Soil Conc. 5X	Water Conc. (mg/L)	Water Conc. 5X
Calcium	6.2	31		
Potassium	15.8	79		
Sodium	5.0	25		

4.4.2 Ambient Blanks

There was no ambient blank sample collected with the samples.

4.4.3 Equipment Rinsates

The equipment rinsates associated with the samples are shown on Table 1-1. There were no analytes reported present in the equipment blanks.

4.4.4 Calibration Blanks

The calibration blanks contained a few analytes at concentrations which did not cause qualification.

4.5 Interference Check Samples (ICSA-ICSAB)

The interference check samples had recoveries within the acceptance criteria specified in the QAPP. No qualifiers were assigned.

4.6 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Two MS/MSD analysis sets were performed with this SDG; one water and one soil sample. UHGLTA004-06 from SDG 7,was spiked for the water QC sample. The water sample which was spiked for the water QC sample recovered silver below the control limit and mercury %RPD between the MS and MSD was 16%. All analytes were qualified as estimated for the associated water samples.

The soil QC used THGLTA008-02, a sample from SDG 8, as the original. The soil QC samples reported low recoveries (less than 80%) for antimony, beryllium, cadmium, cobalt, manganese, nickel, molybdenum, and vanadium and high recoveries (greater than

120%) for aluminum, iron, magnesium, and potassium. All the antimony, beryllium, cadmium, cobalt, manganese, nickel, molybdenum, and vanadium for the associated prepared samples were qualified UJ/J for the previously indicated low recoveries. Magnesium and potassium detects were qualified J because of the high recoveries for the MS/MSD. The four times rule (if the sample concentration is greater than four times the spike amount, the recovery is not considered for qualification) eliminated the qualification for aluminum, calcium, and iron.

4.7 Laboratory Control Sample (LCS)

One LCS sample was analyzed for each matrix within this SDG. The recoveries for all reported analytes were within the control limits listed in the QAPP. No qualifiers were assigned.

4.8 Field Duplicates

Soil sample THGLTA020-01 was collected in duplicate in the field and was designated as THGLTADUP-07. All applicable comparisons (omitting the F qualified data) were determined to compare within 35%, except mercury. The results for the single element for these two samples were qualified UJ/J due to the poor precision.

4.9 Graphite Furnace Analyses

Graphite furnace analyses were performed for the determination of silver for the two equipment blank samples. All reported results were non-detect.

4.10 Serial Dilution Analysis

A serial dilution analysis was performed on both a water and a soil sample. There were no detects found in the water at a sufficiently high enough concentration to be evaluated. The serial dilution of a soil sample reported the determination of all elements by ICP revealed acceptable %Ds.

4.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately.

4.12 Overall Assessment of the Data

The data are accepted as qualified.

DATA VALIDATION SUMMARY REPORT

PROJECT:	Carswell Air Force Base
LABORATORY:	Quanterra Environmental Services-Tampa and Denver
SDG:	6
MATRIX:	Water, soil
VALIDATION LEVEL:	C
ANALYSES, METHODS:	Volatile Organic Compounds, SW846 Method 8260A Semivolatile Organic Compounds, SW846 Method 8270B Inorganics, SW846 Method 6010

1.0 INTRODUCTION

Seven (7) water samples and eight (8) soil samples were submitted to Quanterra Environmental Services for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and metals. The samples associated with SDG 6 are listed in Table 1-1 with the sampling dates, extraction/preparation dates, analytical dates, and identification of associated trip blanks, equipment rinsates, and field blanks. QES Denver performed the soils semivolatile analyses.

The organic compounds were validated and reviewed in accordance with the Interim Draft Base-Wide Quality Assurance Project Plan (QAPP), dated August 1996, and the "Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses" (EPA, 1994).

The inorganic data were validated and reviewed in accordance with the QAPP and the "US EPA Contract Laboratory Program National Functional Guidelines for Evaluating Inorganic Data Review" (EPA, 1994).

Table 1-1. SDG 6 Sample Information

Field ID	Lab ID	Sampling date	Associated trip blank ID	Associated equipment rinsate ID	VOC Prep/analysis date	SVOC dates extract'n, analysis	ICP,GFAAS Metals prep, analysis dates	Mercury prep and analysis dates
UHGLTA005-05	B7I040138-001	9/3/97	TB090397	EB090397	9/13/97	9/5, 9/20/97	+	+
EHGLTA005-05	B7I040138-002	9/3/97	TB090397	EB090397	9/6/97	9/10, 9/17/97	+	+
UHGLTA006-04	B7I040138-003	9/3/97	TB090397	EB090397	9/13/97	9/5, 9/20/97	+	+
EHGLTA006-04	B7I040138-004	9/3/97	TB090397	EB090397	9/6/97	9/10, 9/17/97	+	+
UHGLTA009-03	B7I040138-005	9/3/97	TB090397	EB090397	9/13/97	9/5, 9/19/97	+	+
EHGLTA009-03	B7I040138-006	9/3/97	TB090397	EB090397	9/6/97	9/10, 9/18/97	+	+
UHGLTA007-02	B7I040138-007	9/3/97	TB090397	EB090397	RE 9/14/97*	9/5; 9/19/97	+	+
EHGLTA007-02	B7I040138-008	9/3/97	TB090397	EB090397	9/6/97	9/10, 9/17/97	+	+
UHGLTA010-01	B7I040138-009	9/3/97	TB090397	EB090397	9/13/97	9/5, 9/19/97	+	+
EHGLTA010-01	B7I040138-010	9/3/97	TB090397	EB090397	9/6/97	9/10, 9/17/97	+	+
THGLTA003-02	B7I040138-011	9/3/97	TB090397	EB090397	9/6/97	9/10, 9/17/97	+	+
THGLTA004-02	B7I040138-012	9/3/97	TB090397	EB090397	RE 9/10/97*	9/10, 9/17/97	+	+
THGLTA005-02	B7I040138-013	9/3/97	TB090397	EB090397	9/6/97	9/10, 9/17/97	+	+
EB090397	B7I040138-014	9/3/97	TB090397	-	9/13/97	9/5, 9/19/97	+	+
TB090397	B7I040138-015	9/3/97	-	-	9/13/97	-	-	-

Where: RE = reanalysis (VOC)/ re-extraction (SVOC); DL = dilution, - = analysis not requested, *=only reanalysis reported, [A]=insufficient sample-not analyzed
+ = see Section 4.0

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2.0 VOLATILE ORGANIC COMPOUNDS

2.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the samples received at cooler temperatures within the 2 – 6 degree Centigrade (°C) temperature range. No qualifiers were assigned for this reason.

2.2 Holding Times

The samples were analyzed within the 14-day holding period. No qualifiers were assigned.

2.3 Instrument Tune

The five bromofluorobenzene (BFB) tunes were performed in accordance with the QAPP and the method. No qualifiers were assigned.

2.4 Calibrations

2.4.1 Initial Calibration

The samples listed above were analyzed using the instruments, B3VOA4 and B3VOA2. The instruments were initially calibrated on 9/2/97, 9/10/97, and on 9/13/97. All parameters were within the control limits set forth in the QAPP except 1,2-dibromo-3-chloropropane on 9/13/97. This compound had a mean RRF of 0.043. All water samples analyzed on 9/13 and 9/14 had this compound R qualified.

2.4.2 Continuing Calibration

Continuing calibrations were performed. The calibrations were performed prior to sample analysis. There were no problems detected. All calibrations met the QAPP acceptance criteria except 1,2-dibromo-3-chloropropane on 9/14/97. This compound had a mean RRF of 0.039. All water samples analyzed on 9/14 had this compound R qualified..

2.5 Blanks

2.5.1 Method/Preparation Blanks

Two method blanks were associated with the samples in this episode. No target compounds were detected. No qualifiers were assigned.

2.5.2 Trip Blanks

The trip blank associated with the samples in this episode is listed in Table 1-1. Sample TB090297 had a reported concentration for methylene chloride (1.0 μg/L). The associated rinsate had methylene chloride U-qualified for this reason. No samples were affected.

2.5.3 Ambient Blank

No ambient blank was submitted with the samples in this SDG.

2.5.4 Equipment Rinsate

The equipment rinsate associated with the samples is listed in Table 1-1. The rinsate had one detected target compound after application of the method blank qualifiers. EB090397 contained chloroform at 0.35 µg/L. There were no qualifiers assigned, because the samples did not contain chloroform. One tentatively identified compound (TIC) was also reported. No qualifications were performed on the TICs.

2.6 System Monitoring Compounds (surrogates)

Surrogate spike recoveries (%R) met the lab's control limits for all samples.

2.7 Internal Standards

The areas and retention time for the internal standards spiked into all the samples, standards, and associated quality control samples were within the performance criteria set forth in the method except for sample THGLTA003-02. The sample had a low recovery for the area associated with internal standard 1,4-dichlorobenzene. The associated compounds, as indicated by the lab, were R-qualified for this sample, in accordance with the QAPP.

2.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

No MS/MSD was in this SDG.

2.9 Laboratory Control Samples (LCSs)

LCSs were analyzed with this SDG. The recoveries were within the limits presented in the QAPP. No qualifiers were assigned.

2.10 Field Duplicates

There were no identifiable field duplicates in this SDG.

2.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately. The validator kept the laboratory-assigned "F" qualifiers that indicate the reported values are below the PQL. The tentatively identified compounds were J-qualified as estimated values.

2.12 Overall Assessment of the Data

The data for the samples in this episode are acceptable as qualified.

3.0 SEMIVOLATILE ORGANIC COMPOUNDS

3.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the samples were received in good condition and within the acceptable temperature range. No qualifiers were assigned. No

documentation was found in the package showing the custody transfer of the soil samples to Denver for analysis.

3.2 Holding Times

All of the samples were extracted within the 7-day (water) or 14-day (soils) holding period between sampling and extraction and analyzed within the 40-day holding period between extraction and analysis. No qualifiers were assigned.

3.3 Instrument Tune

Four decafluorotriphenylphosphine (DFTPP) tunes were correctly run prior to any initial and/or continuing calibration for the water analyses; four were analyzed prior to the soil analyses. The tunes met the minimum acceptance criteria for ion abundance. The samples/standards associated with each tune were analyzed within a 12-hour period following the tune. No qualifiers were assigned.

3.4 Calibrations

3.4.1 Initial Calibration

The water samples listed above were analyzed using instruments initially calibrated on 9/18/97 and on 9/20/97. All the target compounds met the minimum average response factor (RRF) of 0.05 and the QAPP-specified maximum of 30% Relative Standard Deviation percentage (%RSD).

The initial calibrations for the soil analyses were performed on 9/12/97 and 9/16/97. All the target compounds met the minimum average response factor (RRF) of 0.05 and the QAPP-specified maximum of 30% Relative Standard Deviation percentage (%RSD).

3.4.2 Continuing Calibration

The target compounds for the continuing calibration for the water analyses were within the control limits for the RRF (0.05) and the 25% maximum for the percent deviation between the initial and continuing calibrations. No water samples were qualified.

The continuing calibration for 9/15/97 had two compounds that had %D values that exceeded the maximum. Carbazole (28.3%) and benzidine (34.8%) would have been R-qualified for any sample analyzed on that day; however, no samples were analyzed.

3.5 Blanks

3.5.1 Method/Preparation Blanks

No target compounds were detected in the water method blank. One target compound was reported in the soil blank. The compound, diethylphthalate was reported at a concentration of 42.5 mg/kg. The batch was reprepped. No action was taken, because the soil samples had no reported detects for that compound..

3.5.2 Ambient Blank

There were no identifiable ambient blanks associated with the SDG.

3.5.3 Equipment Rinsate

The equipment rinsate associated with the samples is identified in Table 1-1. The rinsate, contained one detected target compound (phenol at 4.3 µg/L). No action was taken on phenol, because there were no water samples with phenol.

3.6 System Monitoring Compounds (surrogates)

Surrogate spike recoveries (%R) for the semivolatile compounds in the water samples met the acceptance criteria for all samples except for UHGLTA009-03. All surrogate recoveries were below the lower control limit for %R (0,42,0,27,0,9.5%, respectively). All compounds for UHGLTA009-03 were J/UJ qualified.

Surrogate recoveries for the soil samples were within the control limits. No soil samples were qualified for this reason.

3.7 Internal Standards

The areas and retention time for the internal standards spiked into all the water and soil samples, standards, and associated quality control samples were within the performance criteria set forth in the method for all samples. No qualifiers were assigned to the samples for this reason.

3.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Sample UHLGTA005-05 was analyzed as the MS/MSD in the water only SDG. Three compounds were out of the control limits. The outliers are presented in the table below:

MS/MSD ID	Spiked compound	MS %R	MSD %R	RPD	Action
UHGLTA005-05	2,4-dimethylphenol	36	-	23	J-/UJ all UHGLTA samples in batch
	3,3'-dichlorobenzidine	-	-	30	J detects-all UHGLTA samples in batch
	hexachlorocyclopentadiene	-	9	-	J-/UJ all UHGLTA samples in batch

Sample EHLGTA005-05 was analyzed as the MS/MSD in the soil only SDG. The spikes were diluted out. No qualifiers were assigned.

3.9 Laboratory Control Sample (LCS)

One LCS was associated with the water analyses. The compound, 2,4-dimethylphenol, had a low recovery. The water samples were J-/UJ qualified for this compound. One LCS was associated with the soil analyses. There were no outliers; no samples were qualified for this reason.

3.10 Field Duplicates

There were no field duplicates in this SDG.

3.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately. The validator kept the Tampa laboratory-assigned "F" qualifiers that indicate the reported

values are below the PQL. Any tentatively identified compounds were J-qualified as estimated values. The validator assigned the "F" qualifier to the soil samples as necessary.

3.12 Overall Assessment of the Data

The data for the samples in this SDG are acceptable as qualified.

4.0 INORGANIC ANALYSES

Field Sample ID	Collection Date	ICP Prep	ICP (P1) Analysis	ICP Trace (P2) Analysis	Mercury prep.; analysis	GFAAS (Ag) prep; analysis
EB090397	9/03/97	9/08/97	9/09/97	9/9;9/10/97	9/08/97	9/10/97
UHGLTA005-05	9/03/97	9/08/97	9/09/97	9/9;9/10/97	9/08/97	NA
EHGLTA005-05	9/03/97	9/09/97	9/9;9/11/97	9/9,9/11/97	9/09/97	NA
UHGLTA005-04	9/03/97	9/08/97	9/09/97	9/9;9/10/97	9/08/97	NA
EHGLTA006-04	9/03/97	9/09/97	9/9;9/11/97	9/9;9/11/97	9/09/97	NA
UHGLTA009-03	9/03/97	9/08/97	9/09/97	9/9,9/10/97	9/08/97	NA
EHGLTA009-03	9/03/97	9/09/97	9/9;9/11/97	9/9;9/11/97	9/09/97	NA
UHGLTA007-02	9/03/97	9/08/97	9/09/97	9/9;9/10/97	9/08/97	NA
EHGLTA007-02	9/03/97	9/09/97	9/9,9/11/97	9/9;9/11/97	9/09/97	NA
UHGLTA010-01	9/03/97	9/08/97	9/09/97	9/9,9/10/97	9/08/97	NA
EHGLTA010-01	9/03/97	9/09/97	9/9,9/11/97	9/9;9/11/97	9/09/97	NA
THGLTA003-02	9/03/97	9/09/97	9/9;9/11/97	9/9;9/11/97	9/09/97	NA
THGLTA004-02	9/03/97	9/09/97	9/9,9/11/97	9/9;9/11/97	9/09/97	NA
THGLTA005-02	9/03/97	9/09/97	9/9;9/11/97	9/9,9/11/97	9/09/97	NA

4.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the eight soils and six water sample were received in good condition at 4 degrees Centigrade (°C) ± 2° C. The equipment blank samples were preserved with nitric acid (HNO_3). No qualifiers were assigned.

4.2 Holding Times

The samples were analyzed within the 28-day holding time for mercury and the 180-day holding period between sample collection for ICP and GFAAS preparation/analysis. No qualifiers were assigned.

4.3 Instrument Performance

4.3.1 Instrument Standardization

The Inductively Coupled Plasma (ICP) instrument was standardized with a multiple point calibration (blank plus three standards). The check of the hi-standard following calibration was recovered within 5% of the true value. The initial standardization was performed within the criteria specified in the QAPP. No qualifiers were assigned.

4.3.2 Initial Calibration Verification

All initial calibration verifications met the acceptance criteria specified in the QAPP, i.e., 90-100% R for ICP.

4.3.3 Continuing Calibration Verification

The continuing calibrations were within the QAPP control limits of 90-110%R. No actions were required.

4.4 Blanks

4.4.1 Method/Preparation Blanks

Separate blanks were prepared for both matrices (e.g. water and solid). The following table presents the analytes detected in the method blanks. The 5X column is used to determine the maximum level allowed to report. Below this value, all reported concentrations are qualified ND due to its presence in the method blank.

Analyte	Soil Conc. (mg/kg)	Soil Conc. 5X	Water Conc. (mg/L)	Water Conc. 5X
Arsenic	0.12	0.60		
Calcium	12.9	64.5		
Magnesium	1.3	6.5		
Sodium	4.9	24.5		

4.4.2 Ambient Blanks

There was no ambient blank sample collected with the samples.

4.4.3 Equipment Rinsates

The equipment rinsates associated with the samples are shown on Table 1-1. Lead was present in the equipment blanks, but no concentrations were affected by qualification.

4.4.4 Calibration Blanks

The calibration blanks contained a few analytes at concentrations which did not cause qualification.

4.5 Interference Check Samples (ICSA-ICSAB)

The interference check samples had recoveries within the acceptance criteria specified in the QAPP. No qualifiers were assigned.

4.6 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Two MS/MSD analysis sets were performed with this SDG; one water and one soil sample. UHGLTA004-06 from SDG 7,was spiked for the water QC sample All analytes were recovered within control limits. The water sample which was spiked for the water QC sample recovered silver below the control limit and mercury %RPD between the MS and MSD was 16%. All analytes were qualified as estimated for the associated water samples.

The soil QC used THGLTA008-02, a sample from SDG 8, as the original. The soil QC samples reported low recoveries (less than 80%) for antimony, beryllium, cadmium, cobalt, manganese, nickel, molybdenum, and vanadium and high recoveries (greater than 120%) for aluminum, iron, magnesium, and potassium. All the antimony, beryllium, cadmium, cobalt, manganese, nickel, molybdenum, and vanadium for the associated prepared samples were qualified UJ/J for the previously indicated low recoveries. Magnesium and potassium detects were qualified J because of the high recoveries for the MS/MSD. The four times rule (if the sample concentration is greater than four times the spike amount, the recovery is not considered for qualification) eliminated the qualification for aluminum, calcium, and iron.

4.7 Laboratory Control Sample (LCS)

One LCS sample was analyzed for each matrix within this SDG. The recoveries for all reported analytes were within the control limits listed in the QAPP. No qualifiers were assigned.

4.8 Field Duplicates

There were no field duplicate samples collected with the SDG.

4.9 Graphite Furnace Analyses

Graphite furnace analyses were performed for the determination of silver for the two equipment blank samples. All reported results were non-detect.

4.10 Serial Dilution Analysis

A serial dilution analysis was performed on both a water and a soil sample. There were no detects found in the water at a sufficiently high enough concentration to be evaluated.

The serial dilution of a soil sample reported the determination of all elements by ICP revealed acceptable %Ds.

4.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately.

4.12 Overall Assessment of the Data

The data are accepted as qualified.

DATA VALIDATION SUMMARY REPORT

PROJECT:	Carswell Air Force Base
LABORATORY:	Quanterra Environmental Services-Tampa, Denver
SDG:	7
MATRIX:	Water, soil
VALIDATION LEVEL:	C with Level D QA review
ANALYSES, METHODS:	Volatile Organic Compounds, SW846 Method 8260A Semivolatile Organic Compounds, SW846 Method 8270B Inorganics, SW846 Method 6010

1.0 INTRODUCTION

Eight (8) water samples and eight (8) soil samples were submitted to Quanterra Environmental Services for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and metals. The samples associated with SDG 7 are listed in Table 1-1 with the sampling dates, extraction/preparation dates, analytical dates, and identification of associated trip blanks, equipment rinsates, and field blanks. QES Denver performed the semivolatile analyses.

The organic compounds were validated and reviewed in accordance with the Interim Draft Base-Wide Quality Assurance Project Plan (QAPP), dated August 1996, and the "Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses" (EPA, 1994).

The inorganic data were validated and reviewed in accordance with the QAPP and the "US EPA Contract Laboratory Program National Functional Guidelines for Evaluating Inorganic Data Review" (EPA, 1994).

Table 1-1. SDG 7 Sample Information

Field ID	Lab ID	Sampling date	Associated trip blank ID	Associated equipment rinsate ID	VOC Prep/analysis date	SVOC dates extract'n, analysis	ICP/GFAAS Metals prep, analysis dates	Mercury prep, analysis dates
UHGLTA004-06	B7I050160-001	9/4/97	[B]	[B]	9/14/97	9/9, 9/12/97	+	+
EHGLTA004-06	B7I050160-002	9/4/97	[B]	[B]	9/11/97	9/10, 9/19/97	+	+
UHGLTA003-07	B7I050160-003	9/4/97	[B]	[B]	9/17/97*	9/9; 9/12/97 RE 9/18, 9/22/97	+	+
EHGLTA003-07	B7I050160-004	9/4/97	[B]	[B]	9/11/97	9/10, 9/18/97	+	+
UHGLTADUP09	B7I050160-005	9/4/97	[B]	[B]	9/14/97	9/9, 9/12/97 RE 9/18, 9/22/97		
EHGLTADUP10	B7I050160-006	9/4/97	[B]	[B]	9/11/97	9/10, 9/18/97	+	+
EHGLTA002-08	B7I050160-007	9/4/97	[B]	[B]	9/11/97	9/10, 9/18/97	+	+
UHGLTA002-08	B7I050160-008	9/4/97	[B]	[B]	9/14/97	9/9, 9/12/97 RE 9/18, 9/23/97	+	+
UHGLTA001-09	B7I050160-009	9/4/97	[B]	[B]	9/14/97	9/9, 9/13/97 RE 9/18, 9/23/97	+	+
EHGLTA001-09	B7I050160-010	9/4/97	[B]	[B]	9/11/97	9/10, 9/18/97	+	+
EHGLTA011-10	B7I050160-011	9/4/97	[B]	[B]	9/11/97	9/10, 9/18/97		
UHGLTA011-10	B7I050160-012	9/4/97	[B]	[B]	9/14/97	9/9, 9/15/97 RE 9/18, 9/23/97	+	+
EHGLTA012-11	B7I050160-013	9/4/97	[B]	[B]	9/11/97	9/10, 9/19/97	+	+
UHGLTA012-11	B7I050160-014	9/4/97	[B]	[B]	9/14/97	9/9, 9/13/97, RE 9/18, 9/23/97	+	+
EHGLTADUP04	B7I050160-015	9/4/97	[B]	[B]	9/11/97	9/10, 9/19/97	+	+
UHGLTADUP03	B7I050160-016	9/4/97	[B]	[B]	9/14/97	9/9, 9/13/97, RE 9/18, 9/23/97	+	+

Where RE = reanalysis (VOC)/ re-extraction (SVOC), DL = dilution, - = analysis not requested, *=only reanalysis reported, [A]=insufficient sample-not analyzed
[B]=not provided in SDG + = see Section 4 0

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2.0 VOLATILE ORGANIC COMPOUNDS

2.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the samples received at cooler temperatures within the 2 – 6 degree Centigrade (°C) temperature range. No qualifiers were assigned for this reason. No trip blank was submitted with this SDG.

2.2 Holding Times

The samples were analyzed within the 14-day holding period. No qualifiers were assigned.

2.3 Instrument Tune

The five bromofluorobenzene (BFB) tunes were performed in accordance with the QAPP and the method. No qualifiers were assigned

2.4 Calibrations

2.4.1 Initial Calibration

The samples listed above were analyzed using the instruments, B3VOA4 and B3VOA2. The instruments were initially calibrated on 9/10/97 and on 9/13/97. All parameters were within the control limits set forth in the QAPP except for one compound, 1,2-dibromo-3-chloropropane, for the 9/13/97 calibration. This compound had a mean RRF of 0.043. All the UHGLTA waters had this compound R-qualified for this reason.

2.4.2 Continuing Calibration

Continuing calibrations were performed. The calibrations were performed prior to sample analysis. On 9/14 and 9/17, the compound, 1,2-dibromo-3-chloropropane, had RRFs of 0.039 and 0.040, respectively. The UHGLTA water samples analyzed on these days were R-qualified for this reason.

2.5 Blanks

2.5.1 Method/Preparation Blanks

Two method blanks were associated with the samples in this episode. No target compounds were detected. No qualifiers were assigned.

2.5.2 Trip Blanks

No trip blanks were submitted with this SDG.

2.5.3 Ambient Blank

No ambient blank was submitted with the samples in this SDG.

2.5.4 Equipment Rinsate

No rinsate was submitted with this SDG.

2.6 System Monitoring Compounds (surrogates)

Surrogate spike recoveries (%R) met the lab's control limits for all samples.

2.7 Internal Standards

The areas and retention time for the internal standards spiked into all the samples, standards, and associated quality control samples were within the performance criteria set forth in the method except for sample EHGLTA002-08. All of the internal standards had low area counts. All compounds were R-qualified in accordance with the QAPP.

2.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Samples EHGLTA004-06 and UHGLTA004-06 were analyzed as MS/MSDs in this SDG. The outliers are presented in the table below:

Sample ID	Compound spike	MS%R	MSD %R	%RPD	Action
UHGLTA004-06	1,1-dichloroethene	73	-	-	J-/UJ water samples
	cis-1,2-dichloroethene	66	-	-	For these compounds
	trichloroethene	61	-	-	
EHGLTA004-06	chloromethane	139	-	40	J+ detects-soil samples
	hexachlorobutadiene	-	60	-	J-/UJ soil samples

2.9 Laboratory Control Samples (LCSs)

LCSs were analyzed with this SDG. The recoveries were within the limits presented in the QAPP No qualifiers were assigned.

2.10 Field Duplicates

There were two identifiable field duplicates in this SDG. Sample UHGLTADUP09 is the field duplicate of UHGLTA003-07. Sample EHGLTADUP10 is the field duplicate of EHGLTA003-07. There was good correlation between both sets of samples, based on the levels reported. No qualifiers were assigned.

2.11 Compound Quantitation and Project Reporting Limits

Based on a Level D validation, the samples were identified and quantified appropriately. The validator kept the laboratory-assigned "F" qualifiers that indicate the reported values are below the PQL. Any tentatively identified compounds were J-qualified as estimated values.

2.12 Overall Assessment of the Data

The data for the samples in this SDG are acceptable as qualified.

3.0 SEMIVOLATILE ORGANIC COMPOUNDS

3.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the samples were received in good condition and within the acceptable temperature range. No qualifiers were assigned.

3.2 Holding Times

Most of the samples were extracted within the 7-day (water) or 14-day (soils) holding period between sampling and extraction and analyzed within the 40-day holding period between extraction and analysis. The re-extracted water samples were re-extracted on day 14 after sampling. The associated data for these samples were J-/UJ qualified.

3.3 Instrument Tune

Six decafluorotriphenylphosphine (DFTPP) tunes were correctly run prior to any initial and/or continuing calibration. The tunes met the minimum acceptance criteria for ion abundance. The samples/standards associated with each tune were analyzed within a 12-hour period following the tune. No qualifiers were assigned.

3.4 Calibrations

3.4.1 Initial Calibration

The instrument used for the analyses was initially calibrated. All calibration data met the acceptance criteria. No qualifiers were assigned.

3.4.2 Continuing Calibration

The continuing calibration data met the acceptance criteria. No qualifiers were assigned.

3.5 Blanks

3.5.1 Method/Preparation Blanks

There was one target compound detected in each of the three method blanks associated with the SDG. The compound, bis (2-ethylhexyl)phthalate was reported at a concentration of 11.8 µg/L (56876-bl), 0.37 mg/kg (56872-bl), and 1.03 µg/L (56872-bl). The associated samples were U-qualified as necessary.

3.5.2 Ambient Blank

There were no identifiable ambient blanks associated with the SDG.

3.5.3 Equipment Rinsate

There were no rinsate samples submitted with this SDG.

3.6 System Monitoring Compounds (surrogates)

Surrogate spike recoveries (%R) for the semivolatile compounds met the acceptance criteria for all samples.

3.7 Internal Standards

The areas and retention time for the internal standards spiked into all the samples, standards, and associated quality control samples were within the performance criteria set forth in the method for all samples. No qualifiers were assigned for this reason.

3.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Samples UHLGTA004-06, EHGLTA004-06, and UHLGTA004-06RE were analyzed as the MS/MSDs in this SDG. The outliers are presented in the table below:

Sample ID	Compound spike	MS%R	MSD%R	%RPD	Action
UHGLTA004-06	Hexachlorocyclopentadiene 3,3'-dichlorobenzidine	23 1 6 51	- 10	- 46	J-/UJ UHGLTA water samples for these compounds
EHGLTA004-06	Hexachloroethane Benzoic acid 4-chloroaniline hexachlorocyclopentadiene 3-nitroaniline	13 - 33 0 38	12 17 - 0 -	- 42 - - -	J-/UJ EHGLTA soil samples for these compounds
UHGLTA004-06 RE	Hexachlorocyclopentadiene 3,3'-dichlorobenzidine	12 17	15 18	22 -	J-/UJ UHGLTA water samples for these compounds

3.9 Laboratory Control Sample (LCS)

Two of the three LCSs analyzed had one compound, hexachlorocyclopentadiene, with a recovery outside the acceptance criteria. Both LCSs were for the water samples. All water samples were J-/UJ qualified for this compound.

3.10 Field Duplicates

There were two identifiable field duplicates in this SDG. Correlation was good between the samples.

3.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately. The tentatively identified compounds were J-qualified as estimated values. Data that was determined to be unuseable were Z-qualified in favor of other, more useable data. "F" qualifiers were assigned as required.

3.12 Overall Assessment of the Data

The data for the samples in this SDG are acceptable as qualified.

4.0 INORGANIC ANALYSES

Field Sample ID	Collection Date	ICP Prep	ICP (P1) Analysis	ICP Trace (P2) Analysis	Mercury prep.; analysis	GFAAS (Ag) prep; analysis
UHGLTA004-06	9/04/97	9/08/97	9/09/97	9/9;9/10/97	9/08/97	9/10/97
EHGLTA004-06	9/04/97	9/09/97	9/9,9/11/97	9/9,9/11/97	9/09/97	NA
UHGLTA003-07	9/04/97	9/08/97	9/09/97	9/9;9/10/97	9/08/97	9/10/97
EHGLTA003-07	9/04/97	9/09/97	9/9,9/11/97	9/9;9/11/97	9/09/97	NA
UHGLTADUP-09	9/04/97	9/08/97	9/09/97	9/09/97	9/08/97	9/10/97
EHGLTADUP-10	9/04/97	9/09/97	9/9;9/11/97	9/9,9/11/97	9/09/97	NA
EHGLTA002-08	9/04/97	9/09/97	9/9,9/11/97	9/9,9/11/97	9/09/97	NA
UHGLTA002-08	9/04/97	9/08/97	9/09/97	9/9;9/10/97	9/08/97	9/10/97
EHGLTA001-09	9/04/97	9/09/97	9/9;9/11/97	9/9,9/11/97	9/09/97	NA
UHGLTA001-09	9/04/97	9/08/97	9/09/97	9/9,9/10/97	9/08/97	9/10/97
EHGLTA011-10	9/04/97	9/09/97	9/9,9/11/97	9/9,9/11/97	9/09/97	NA
UHGLTA011-10	9/04/97	9/08/97	9/09/97	9/9;9/10/97	9/08/97	9/10/97
EHGLTA012-11	9/04/97	9/09/97	9/9;9/11/97	9/9,9/11/97	9/09/97	NA
UHGLTA012-11	9/04/97	9/08/97	9/09/97	9/9;9/10/97	9/08/97	9/10/97
EHGLTADUP-04	9/04/97	9/09/97	9/9;9/11/97	9/9;9/11/97	9/09/97	NA
UHGLTADUP-03	9/04/97	9/08/97	9/09/97	9/9,9/10/97	9/08/97	9/10/97

4.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the eight soils and eight water samples were received in good condition at 4 degrees Centigrade (°C) ± 2° C. The equipment blank samples were preserved with nitric acid (HNO_3). No qualifiers were assigned.

4.2 Holding Times

The samples were analyzed within the 28-day holding time for mercury and the 180-day holding period between sample collection for ICP and GFAAS preparation/analysis. No qualifiers were assigned.

4.3 Instrument Performance

4.3.1 Instrument Standardization

The Inductively Coupled Plasma (ICP) instrument was standardized with a multiple point calibration (blank plus three standards). The check of the hi-standard following

calibration was recovered within 5% of the true value. The initial standardization was performed within the criteria specified in the QAPP. No qualifiers were assigned.

4.3.2 Initial Calibration Verification

All initial calibration verifications met the acceptance criteria specified in the QAPP, i.e., 90-100% R for ICP.

4.3.3 Continuing Calibration Verification

The continuing calibrations were within the QAPP control limits of 90-110%R. No actions were required.

4.4 Blanks

4.4.1 Method/Preparation Blanks

Separate blanks were prepared for both matrices (e.g. water and solid). The following table presents the analytes detected in the method blanks. The 5X column is used to determine the maximum level allowed to report. Below this value, all reported concentrations are qualified ND due to its presence in the method blank.

Analyte	Soil Conc. (mg/kg)	Soil Conc. 5X	Water Conc. (mg/L)	Water Conc. 5X
Arsenic	0.12	0.60		
Calcium	12.9	64.5		
Magnesium	1.3	6.5		
Sodium	4.9	24.5		

4.4.2 Ambient Blanks

There was no ambient blank sample collected with the samples.

4.4.3 Equipment Rinsates

No equipment rinsate was collected the day of the associated samples' collection.

4.4.4 Calibration Blanks

The calibration blanks contained a few analytes at concentrations which did not cause qualification.

4.5 Interference Check Samples (ICSA-ICSAB)

The interference check samples had recoveries within the acceptance criteria specified in the QAPP. No qualifiers were assigned.

4.6 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Two MS/MSD analysis sets were performed with this SDG; one water and one soil sample. UHGLTA004-06 from SDG 7,was spiked for the water QC sample. The water sample which was spiked for the water QC sample recovered silver below the control limit and mercury %RPD between the MS and MSD was 16%. Calcium was recovered above the upper control limit, but the 4X rule disqualified any qualification. All analytes were qualified as estimated for the associated water samples.

The soil QC used EHGLTA004-06, as the original. The soil QC samples reported low recoveries (less than 80%) for antimony, beryllium, calcium, chromium, iron, magnesium, manganese, nickel, and vanadium and high recoveries (greater than 120%) for aluminum. All the antimony, beryllium, chromium, magnesium, manganese, nickel, and vanadium for the associated prepared samples were qualified UJ/J for the previously indicated low recoveries. The four times rule (if the sample concentration is greater than four times the spike amount, the recovery is not considered for qualification) eliminated the qualification for aluminum, calcium, and iron.

4.7 Laboratory Control Sample (LCS)

One LCS sample was analyzed for each matrix within this SDG. The recoveries for all reported analytes were within the control limits listed in the QAPP. No qualifiers were assigned.

4.8 Field Duplicates

Four separate duplicate samples were collected with this SDG; two solid and two liquid field duplicates.

Water samples UHGLTA003-07 was duplicated as UHGLTADUP-09 and sample UHGLTA012-11 was duplicated as UHGLTADUP-03. All %RPDs for all elements for both sets of samples were within control (20% maximum). No qualifications were applied to any of these four samples.

Sediment sample EHGLTA003-07 was collected in duplicate in the field and was designated as EHGLTADUP-10. All applicable comparisons (omitting the F qualified data) were determined to compare within 25%, except arsenic, barium, calcium, iron, magnesium, manganese, and vanadium. The results for these seven elements for these two samples were qualified UJ/J due to the poor precision.

Sediment sample EHGLTA012-11 was collected in duplicate in the field and was designated as EHGLTADUP-04. All applicable comparisons (omitting the F qualified data) were determined to compare within 25%, except arsenic, barium, calcium, chromium, iron, lead, magnesium, sodium, and vanadium. The results for these nine elements for these two samples were qualified UJ/J due to the poor precision.

4.9 Graphite Furnace Analyses

Graphite furnace analyses were performed for the determination of silver for the two equipment blank samples. All reported results were non-detect.

4.10 Serial Dilution Analysis

A serial dilution analysis was performed on both a water and a soil sample. There were no detects found in the water at a sufficiently high enough concentration to be evaluated. The serial dilution of a soil sample reported the determination of all elements by ICP revealed acceptable %Ds.

4.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately.

4.12 Overall Assessment of the Data

The data are accepted as qualified.

DATA VALIDATION SUMMARY REPORT

PROJECT:	Carswell Air Force Base
LABORATORY:	Quanterra Environmental Services-Tampa, Denver
SDG:	8
MATRIX:	Water, soil
VALIDATION LEVEL:	C
ANALYSES, METHODS:	Volatile Organic Compounds, SW846 Method 8260A Semivolatile Organic Compounds, SW846 Method 8270B Inorganics, SW846 Method 6010

1.0 INTRODUCTION

Five (5) water samples and six (6) soil samples were submitted to Quanterra Environmental Services for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and metals. The samples associated with SDG 8 are listed in Table 1-1 with the sampling dates, extraction/preparation dates, analytical dates, and identification of associated trip blanks, equipment rinsates, and field blanks. QES Denver performed the semivolatile analyses.

The organic compounds were validated and reviewed in accordance with the Interim Draft Base-Wide Quality Assurance Project Plan (QAPP), dated August 1996, and the "Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses" (EPA, 1994).

The inorganic data were validated and reviewed in accordance with the QAPP and the "US EPA Contract Laboratory Program National Functional Guidelines for Evaluating Inorganic Data Review" (EPA, 1994).

Table 1-1. SDG 8 Sample Information

Field ID	Lab ID	Sampling date	Associated trip blank ID	Associated equipment rinsate ID	VOC Prep/analysis date	SVOC dates extract'n, analysis	ICP, GFAAS Metals prep, analysis dates	Mercury prep, analysis dates
EB090597	B7I060135-004	9/5/97	TB090597	-	9/14/97	9/10, 9/12/97 RE 9/18, 9/23/97	+	+
TB090597	B7I060135-005	9/5/97	-	-	9/14/97	-	-	-
THGLTA009-02	B7I060135-001	9/5/97	TB090597	EB090597	9/11/97	9/10, 9/19/97	+	+
THGLTA010-02	B7I060135-002	9/5/97	TB090597	EB090597	9/11/97	9/10, 9/19/97	+	+
WHGLTA003-01	B7I060135-003	9/5/97	TB090597	EB090597	9/14/97	9/10, 9/12/97, RE 9/18, 9/23/97	+	+
THGLTA008-02	B7I060129-001	9/4/97	TB090497	EB090497	9/16/97*	9/10, 9/18/97	+	+
THGLTA007-02	B7I060129-002	9/4/97	TB090497	EB090497	9/10/97	9/10, 9/18/97	+	+
THGLTA006-02	B7I060129-003	9/4/97	TB090497	EB090497	9/10/97	9/10, 9/18/97	+	+
THGLTADUP02	B7I060129-004	9/4/97	TB090497	EB090497	9/10/97	9/10, 9/18/97	+	+
EB090497	B7I060129-005	9/4/97	TB090497	-	9/13/97	9/10, 9/12/97 RE 9/18, 9/23/97	+	+
TB090497	B7I060129-006	9/4/97	-	-	9/13/97	-	-	-

Where. RE = reanalysis (VOC)/ re-extraction (SVOC), DL = dilution, - = analysis not requested, *=only reanalysis reported, [A]=insufficient sample-not analyzed
[B]=not provided in SDG; + = see Section 4.0

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2.0 VOLATILE ORGANIC COMPOUNDS

2.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the samples received at cooler temperatures within the 2 – 6 degree Centigrade (°C) temperature range. No qualifiers were assigned for this reason.

2.2 Holding Times

The samples were analyzed within the 14-day holding period. No qualifiers were assigned.

2.3 Instrument Tune

The six bromofluorobenzene (BFB) tunes were performed in accordance with the QAPP and the method. No qualifiers were assigned.

2.4 Calibrations

2.4.1 Initial Calibration

The samples listed above were analyzed using the instruments, B3VOA4 and B3VOA2. The instruments were initially calibrated on 9/10/97, 9/13/97, and on 9/16/97. All parameters were within the control limits set forth in the QAPP except for one compound, 1,2-dibromo-3-chloropropane, for the 9/13/97 calibration. This compound had a mean RRF of 0.043. The waters had this compound R-qualified for this reason.

2.4.2 Continuing Calibration

Continuing calibrations were performed. The calibrations were performed prior to sample analysis. On 9/14, the compound, 1,2-dibromo-3-chloropropane, had an RRF of 0.039. The water samples analyzed on these days were R-qualified for this reason.

2.5 Blanks

2.5.1 Method/Preparation Blanks

Five method blanks were associated with the samples in this episode. No target compounds were detected. No qualifiers were assigned.

2.5.2 Trip Blanks

Both trip blanks contained methylene chloride. TB090497 had a reported concentration of 1.2 µg/L and TB090597 had a reported concentration of 0.65 µg/L. The 10X rule was applied, which resulted in the equipment rinsates for both days to be U-qualified for this compound.

2.5.3 Ambient Blank

No ambient blank was submitted with the samples in this SDG.

2.5.4 Equipment Rinsate

After application of the trip blanks, EB090597 contained no detected target compounds. Samples EB090497 reported chloroform at a concentration of 0.23 µg/L. No action was taken on the samples, because chloroform was not detected.

2.6 System Monitoring Compounds (surrogates)

Surrogate spike recoveries (%R) met the lab's control limits for all samples.

2.7 Internal Standards

The areas and retention time for the internal standards spiked into all the samples, standards, and associated quality control samples were within the performance criteria set forth in the method.

2.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Sample THGLTA008-02 was analyzed as an MS/MSD in this SDG. The outliers are presented in the table below:

Sample ID	Compound spike	MS%R	MSD%R	%RPD	Action
THGLTA008-02	n-butylbenzene	419	399	-	J+ all THGLTA soils
	naphthalene	39	0	-	J-/UJ all THGLTA soils
	p-isopropyltoluene	163	197	-	J+ all THGLTA soils
	1,2,4-trimethylbenzene	-	59	-	J-/UJ all THGLTA soils
	bromoform	-	56	33	J-/UJ THGLTA soils
	chloroethane	-	-	42	J detects THGLTA soils
	vinyl chloride	-	-	32	J detects THGLTA soils

2.9 Laboratory Control Samples (LCSs)

LCSs were analyzed with this SDG. The recoveries were within the limits presented in the QAPP. No qualifiers were assigned.

2.10 Field Duplicates

There was one identifiable field duplicate in this SDG. Sample THGLTADUP02 is the field duplicate of THGLTA007-02. Both samples only nondetects. No qualifiers were assigned.

2.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately. The validator kept the laboratory-assigned "F" qualifiers that indicate the reported values are below the PQL. Any tentatively identified compounds were J-qualified as estimated values.

2.12 Overall Assessment of the Data

The data for the samples in this episode are acceptable as qualified.

3.0 SEMIVOLATILE ORGANIC COMPOUNDS

3.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the samples were received in good condition and within the acceptable temperature range. No qualifiers were assigned. No custody documentation was found transferring custody to the Denver lab.

3.2 Holding Times

Most of the samples were extracted within the 7-day (water) or 14-day (soils) holding period between sampling and extraction and analyzed within the 40-day holding period between extraction and analysis. The re-extracted WHGLTA003-01 and EB samples were re-extracted on day 13 or 14 after sampling. The associated data for these samples were J-/UJ qualified, if the re-extracted data were used.

3.3 Instrument Tune

Seven decafluorotriphenylphosphine (DFTPP) tunes were correctly run prior to any initial and/or continuing calibration. The tunes met the minimum acceptance criteria for ion abundance. The samples/standards associated with each tune were analyzed within a 12-hour period following the tune. No qualifiers were assigned.

3.4 Calibrations

3.4.1 Initial Calibration

The instrument used for the analyses was initially calibrated. All calibration data met the acceptance criteria. No qualifiers were assigned.

3.4.2 Continuing Calibration

The continuing calibration data met the acceptance criteria except for carbazole on 9/15/97. The percent difference was below the acceptance limit. No qualifiers were assigned, however, because no samples were associated with this calibration.

3.5 Blanks

3.5.1 Method/Preparation Blanks

There was one target compound detected in each of the three method blanks associated with the SDG. The compound, bis (2-ethylhexyl)phthalate was reported at a concentration of 11.8 µg/L (56876-bl), 0.37 mg/kg (56872-bl), and 1.03 µg/L (56872-bl). Blank 56870B1 contained diethylphthalate at 42.5 mg/kg. No action was taken, because the associated samples did not contain detectable levels of the compounds.

3.5.2 Ambient Blank

There were no identifiable ambient blanks associated with the SDG.

3.5.3 Equipment Rinsate

There was one target compound reported for EB090407 and its re-extract. Phenol was reported at 6.8 µg/L and 7.8 µg/L, respectively. No qualifiers were assigned because phenol was not detected in the associated samples.

3.6 System Monitoring Compounds (surrogates)

Surrogate spike recoveries (%R) for the semivolatile compounds met the acceptance criteria for all samples. Sample THGLTA008-02 had the surrogates diluted out; percent recovery was not possible.

3.7 Internal Standards

The areas and retention time for the internal standards spiked into all the samples, standards, and associated quality control samples were within the performance criteria set forth in the method for all samples. No qualifiers were assigned for this reason.

3.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Samples THLGTA008-02 was analyzed as the MS/MSD in this SDG. The spiked compounds were diluted out on the 9/10/97 run, but were within acceptable limits on another run.

3.9 Laboratory Control Sample (LCS)

Two of the three LCSs analyzed had one compound, hexachlorocyclopentadiene, with a recovery outside the acceptance criteria. Both LCSs were for the water samples. All water samples were R-qualified for this compound.

3.10 Field Duplicates

There was one identifiable field duplicate in this SDG. Correlation was good between the samples; there were no detects for the target compounds.

3.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately. The tentatively identified compounds were J-qualified as estimated values. Data that was determined to be unuseable were Z-qualified in favor of other, more useable data. F-qualifiers were added to data that were reported at levels <PQL by the lab.

3.12 Overall Assessment of the Data

The data for the samples in this SDG are acceptable as qualified.

4.0 INORGANIC ANALYSES

Field Sample ID	Collection Date	ICP Prep	ICP (P1) Analysis	ICP Trace (P2) Analysis	Mercury prep.; analysis	GFAAS (Ag) prep; analysis
THGLTA008-02	9/04/97	9/09/97	9/11;9/12/97	9/11/97	9/09/97	NA
THGLTA007-02	9/04/97	9/09/97	9/11,9/12/97	9/11/97	9/09/97	NA
THGLTA006-02	9/04/97	9/09/97	9/11,9/12/97	9/11/97	9/09/97	NA
THGLTADUP-02	9/04/97	9/09/97	9/11,9/12/97	9/11/97	9/09/97	NA
EB090497	9/04/97	9/11/97	9/11,9/12/97	9/11/97	9/11/97	9/15/97
THGLTA009-02	9/05/97	9/09/97	9/11,9/12/97	9/11/97	9/09/97	NA
THGLTA010-02	9/05/97	9/09/97	9/11;9/12/97	9/11/97	9/09/97	NA
WHGLTA003-01	9/05/97	9/11/97	9/11,9/12/97	9/11/97	9/11/97	9/15/97
EB090597	9/05/97	9/11/97	9/12/97	9/12/97	9/11/97	9/15/97

4.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the six soils and one water and two equipment blank samples were received in good condition at 4 degrees Centigrade (°C) ± 2° C. The water and equipment blank samples were preserved with nitric acid (HNO_3). No qualifiers were assigned.

4.2 Holding Times

The samples were analyzed within the 28-day holding time for mercury and the 180-day holding period between sample collection for ICP and GFAAS preparation/analysis. No qualifiers were assigned.

4.3 Instrument Performance

4.3.1 Instrument Standardization

The Inductively Coupled Plasma (ICP) instrument was standardized with a multiple point calibration (blank plus three standards). The check of the hi-standard following calibration was recovered within 5% of the true value. The initial standardization was performed within the criteria specified in the QAPP. No qualifiers were assigned.

4.3.2 Initial Calibration Verification

All initial calibration verifications met the acceptance criteria specified in the QAPP, i.e., 90-100% R for ICP.

4.3.3 Continuing Calibration Verification

The continuing calibrations were within the QAPP control limits of 90-110%R. No actions were required.

4.4 Blanks

4.4.1 Method/Preparation Blanks

Separate blanks were prepared for both matrices (e.g. water and solid). The following table presents the analytes detected in the method blanks. The 5X column is used to determine the maximum level allowed to report. Below this value, all reported concentrations are qualified ND due to its presence in the method blank.

Analyte	Soil Conc. (mg/kg)	Soil Conc. 5X	Water Conc. (mg/L)	Water Conc. 5X
Calcium	6.2	31.0		
Potassium	15.8	79.0		
Sodium	5.0	25.0		

4.4.2 Ambient Blanks

There was no ambient blank sample collected with the samples.

4.4.3 Equipment Rinsates

One equipment rinsate was collected on each day of sample collection.

4.4.4 Calibration Blanks

The calibration blanks contained a few analytes at concentrations which did not cause qualification.

4.5 Interference Check Samples (ICSA-ICSAB)

The interference check samples had recoveries within the acceptance criteria specified in the QAPP. No qualifiers were assigned.

4.6 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Two MS/MSD analysis sets were performed with this SDG; one water and one soil sample. WHGLTA003-01 was spiked for the water QC sample. The spiked water sample QC recovered silver and mercury below the lower control limit and aluminum and calcium above the upper control limit. The %RPD between the MS and MSD for mercury was 21%. All silver and mercury data were qualified as estimated (UJ/J) and all the

aluminum detected results were qulified J for the associated water samples. The calcium were not qualified due the 4X rule.

The soil QC used THGLTA008-02, as the original. The soil QC samples reported low recoveries (less than 80%) for antimony, beryllium, cadmium, calcium, cobalt, manganese, nickel, molybdenum, and vanadium and high recoveries (greater than 120%) for aluminum, iron, magnesium, and potassium. All the antimony, beryllium, cadmium, cobalt, manganese, nickel, molybdenum, and vanadium for the associated prepared samples were qualified UJ/J for the previously indicated low recoveries. The four times rule (if the sample concentration is greater than four times the spike amount, the recovery is not considered for qualification) eliminated the qualification for aluminum, calcium, and iron. Magnesium, and potassium detect were qualified J for the recoveries greater than the UCL.

4.7 Laboratory Control Sample (LCS)

One LCS sample was analyzed for each matrix within this SDG. The recoveries for all reported analytes were within the control limits listed in the QAPP. No qualifiers were assigned.

4.8 Field Duplicates

Soil sample THGLTA007-02 was collected in duplicate in the field and was designated as THGLTADUP-02. All applicable comparisons (omitting the F qualified data) were determined to compare within 25%, except arsenic. The results for this element for these two samples was qualified UJ/J due to the poor precision.

4.9 Graphite Furnace Analyses

Graphite furnace analyses were performed for the determination of silver for the two equipment blank samples. All reported results were non-detect.

4.10 Serial Dilution Analysis

A serial dilution analysis was performed on both a water and a soil sample. There were no detects found in the water at a sufficiently high enough concentration to be evaluated. The serial dilution of THGLTA008-02, a soil sample, reported the determination of arsenic, barium, magnesium, manganese, iron, and aluminum % difference of greater than 10%. These six elements were qualifed J for all associated samples.

4.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately.

4.12 Overall Assessment of the Data

The data are accepted as qualified.

DATA VALIDATION SUMMARY REPORT

PROJECT:	Carswell Air Force Base
LABORATORY:	Quanterra Environmental Services-Tampa, Denver
SDG:	9
MATRIX:	Water, soil
VALIDATION LEVEL:	C
ANALYSES, METHODS:	Volatile Organic Compounds, SW846 Method 8260A Semivolatile Organic Compounds, SW846 Method 8270B Inorganics, SW846 Method 6010

1.0 INTRODUCTION

Nine (9) water samples and five (5) soil samples were submitted to Quanterra Environmental Services for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and metals. The samples associated with SDG 9 are listed in Table 1-1 with the sampling dates, extraction/preparation dates, analytical dates, and identification of associated trip blanks, equipment rinsates, and field blanks. QES Denver performed the semivolatile analyses.

The organic compounds were validated and reviewed in accordance with the Interim Draft Base-Wide Quality Assurance Project Plan (QAPP), dated August 1996, and the "Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses" (EPA, 1994).

The inorganic data were validated and reviewed in accordance with the QAPP and the "US EPA Contract Laboratory Program National Functional Guidelines for Evaluating Inorganic Data Review" (EPA, 1994).

Table 1-1. SDG 9 Sample Information

Field ID	Lab ID	Sampling date	Associated trip blank ID	Associated equipment rinsate ID	VOC Prep/analysis date	SVOC dates extract'n, analysis	ICP/GFAAS Metals prep, analysis dates	Mercury prep, analysis dates
WHGLTADUP05	B7I09113-004	9/8/97	TB090897	EB090897	9/14/97	9/14, 9/24/97	+	+
WHGLTA004-01	B7I09113-005	9/8/97	TB090897	EB090897	9/17, 9/18/97*	9/14, 9/24/97	+	+
WHGLTA04B-01	B7I09113-003	9/8/97	TB090897	EB090897	9/14/97	9/14, 9/24/97	+	+
THGLTA017-02	B7I09113-001	9/8/97	TB090897	EB090897	9/15/97	9/18, 9/29/97	+	+
EB090897	B7I09113-002	9/8/97	TB090897	-	9/14/97	9/14, 9/24/97	+	+
TB090897	B7I09113-006	9/8/97	-	-	9/14/97	-	-	-
EB090997	B7I00121-008	9/9/97	TB090997	-	9/17/97	9/14, 9/24/97	+	+
WHGLTA11A	B7I00121-007	9/9/97	TB090997	EB090997	9/17/97	9/14, 9/24/97	+	+
WHGLTA004	B7I00121-004	9/9/97	TB090997	EB090997	9/17/97	9/14, 9/24/97	+	+
EHGLTA013-12	B7I00121-006	9/9/97	TB090997	EB090997	9/15/97	9/18, 9/30/97	+	+
TB090997	B7I00121-005	9/9/97	-	-	9/17/97	-	-	-
THGLTA020-02	B7I00121-003	9/9/97	TB090997	EB090997	9/15/97	9/18, 9/30/97	+	+
THGLTA019-02	B7I00121-002	9/9/97	TB090997	EB090997	9/15/97	9/18, 9/30/97	+	+
THGLTA013-02	B7I00121-001	9/9/97	TB090997	EB090997	9/15/97	9/18, 9/29/97	+	+

Where: RE = reanalysis (VOC)/ re-extraction (SVOC), DL = dilution, - = analysis not requested, *=only reanalysis reported, [A]=insufficient sample-not analyzed [B]=not provided in SDG; + = see Section 4.0

2.0 VOLATILE ORGANIC COMPOUNDS

2.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the samples received at cooler temperatures within the 2 – 6 degree Centigrade (°C) temperature range. No qualifiers were assigned for this reason.

2.2 Holding Times

The samples were analyzed within the 14-day holding period. No qualifiers were assigned.

2.3 Instrument Tune

The seven bromofluorobenzene (BFB) tunes were performed in accordance with the QAPP and the method. No qualifiers were assigned.

2.4 Calibrations

2.4.1 Initial Calibration

The samples listed above were analyzed using the instruments, B3VOA4 and B3VOA2. The instruments were initially calibrated on 9/13/97 and on 9/10/97. All parameters were within the control limits set forth in the QAPP except for one compound, 1,2-dibromo-3-chloropropane, for the 9/13/97 calibration. This compound had a mean RRF of 0.043. The samples analyzed on B3VOA4 had this compound R-qualified for this reason.

2.4.2 Continuing Calibration

Continuing calibrations were performed. The calibrations were performed prior to sample analysis. On 9/14 and on 9/17/97, the compound, 1,2-dibromo-3-chloropropane, had an RRF of 0.039 and 0.040, respectively. The samples analyzed on these days using the instrument, B3VOA4, were R-qualified for this reason.

2.5 Blanks

2.5.1 Method/Preparation Blanks

Three method blanks were associated with the samples in this episode. No target compounds were detected. No qualifiers were assigned.

2.5.2 Trip Blanks

The trip blanks did not contain any target compounds.

2.5.3 Ambient Blank

No ambient blank was submitted with the samples in this SDG.

2.5.4 Equipment Rinsate

Sample EB090897 contained one detected target compound, methylene chloride at a concentration of 0.72 µg/L. Sample WHGLTA04B-01 had this compound U-qualified because of the rinsate.

2.6 System Monitoring Compounds (surrogates)

Surrogate spike recoveries (%R) met the lab's control limits for all samples.

2.7 Internal Standards

The areas and retention time for the internal standards spiked into all the samples, standards, and associated quality control samples were within the performance criteria set forth in the method.

2.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Sample EHGLTA013-02 was analyzed as an MS/MSD in this SDG. There were no outliers.

2.9 Laboratory Control Samples (LCSs)

LCSs were analyzed with this SDG. The recoveries were within the limits presented in the QAPP. No qualifiers were assigned.

2.10 Field Duplicates

There was one identifiable field duplicate in this SDG. Sample WHGLTADUP05 is the field duplicate of WHGLTA004-01. There was good correlation between the two detected compounds. No qualifiers were assigned.

2.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately. The validator kept the laboratory-assigned "F" qualifiers that indicate the reported values are below the PQL. Any tentatively identified compounds were J-qualified as estimated values.

2.12 Overall Assessment of the Data

The data for the samples in this episode are acceptable as qualified.

3.0 SEMIVOLATILE ORGANIC COMPOUNDS

3.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the samples were received in good condition and within the acceptable temperature range. No qualifiers were assigned. No custody documentation was found transferring custody to the Denver lab.

3.2 Holding Times

The samples were extracted within the 7-day (water) or 14-day (soils) holding period between sampling and extraction and analyzed within the 40-day holding period between extraction and analysis.

3.3 Instrument Tune

Four decafluorotriphenylphosphine (DFTPP) tunes were correctly run prior to any initial and/or continuing calibration. The tunes met the minimum acceptance criteria for ion abundance. The samples/standards associated with each tune were analyzed within a 12-hour period following the tune. No qualifiers were assigned.

3.4 Calibrations

3.4.1 Initial Calibration

The instrument used for the analyses was initially calibrated. All calibration data met the acceptance criteria. No qualifiers were assigned.

3.4.2 Continuing Calibration

The continuing calibration data met the acceptance criteria.

3.5 Blanks

3.5.1 Method/Preparation Blanks

There was one target compound detected in one of the method blanks associated with the SDG. The compound, bis (2-ethylhexyl)phthalate was reported at a concentration of 4.44 µg/L in blank 56874. No action was taken, because the associated samples did not contain detectable levels of the compounds.

3.5.2 Ambient Blank

There were no identifiable ambient blanks associated with the SDG.

3.5.3 Equipment Rinsate

There was one target compound reported for EB090407 and its re-extract. Phenol was reported at 6.8 µg/L and 7.8 µg/L, respectively. No qualifiers were assigned because phenol was not detected in the associated samples.

3.6 System Monitoring Compounds (surrogates)

Surrogate spike recoveries (%R) for the semivolatile compounds met the acceptance criteria for all samples.

3.7 Internal Standards

The areas and retention time for the internal standards spiked into all the samples, standards, and associated quality control samples were within the performance criteria set forth in the method for all samples. No qualifiers were assigned for this reason.

3.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Sample EHLGTA013-12 was analyzed as the MS/MSD in this SDG. The outliers are presented below:

Sample ID	Compound spike	MS%R	MSD%R	%RPD	Action for listed compound
EHGLTA0013-12	Benzoic acid	13	13	-	J-/UJ soils
	2,4-dinitrophenol	21	-	-	J-/UJ soils
	4-nitrophenol	-	-	43	J detects for soils
	4-nitroaniline	-	-	34	J detects for soils
	indeno(1,2,3-cd)pyrene	-	-	35	J detects for soils

3.9 Laboratory Control Sample (LCS)

One of the LCSs analyzed had one compound, hexachlorocyclopentadiene, with a recovery below the acceptance criteria. The samples analyzed on 9/24/97 were R-qualified for this compound.

3.10 Field Duplicates

There was one identifiable field duplicate in this SDG. Sample WHGLTADUP05 is the field duplicate of WHGLTA004-01. Correlation was good between the samples.

3.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately. The tentatively identified compounds were J-qualified as estimated values. Data that was determined to be unuseable were Z-qualified in favor of other, more useable data. F-qualifiers were added to data that were reported at levels <PQL by the lab.

3.12 Overall Assessment of the Data

The data for the samples in this SDG are acceptable as qualified.

4.0 INORGANIC ANALYSES

Field Sample ID	Collection Date	ICP Prep	ICP (P1) Analysis	ICP Trace (P2) Analysis	Mercury prep.; analysis	GFAAS (Ag) prep; analysis
THGLTA017-02	9/08/97	9/12/97	9/17/97	9/17/97	9/12/97	NA
EB090897	9/08/97	9/11/97	9/12/97	9/12/97	9/11/97	9/15/97
WHGLTA04B-01	9/08/97	9/11/97	9/12/97	9/12/97	9/11/97	9/15/97
WHGLTADUP-05	9/08/97	9/11/97	9/12/97	9/12/97	9/11/97	9/15/97
WHGLTA004-01	9/08/97	9/11/97	9/12/97	9/12/97	9/11/97	9/15/97
THGLTA013-02	9/09/97	9/12/97	9/17/97	9/17/97	9/12/97	NA
THGLTA019-02	9/09/97	9/12/97	9/17/97	9/17/97	9/12/97	NA
THGLTA020-02	9/09/97	9/12/97	9/17/97	9/17/97	9/12/97	NA
WHGLTA004	9/09/97	9/11/97	9/12/97	9/12/97	9/11/97	9/15/97
EHGLTA013-02	9/09/97	9/12/97	9/17/97	9/17/97	9/12/97	NA
WHGLTA011A	9/09/97	9/11/97	9/12/97	9/12/97	9/11/97	9/15/97
EB090997	9/09/97	9/11/97	9/12/97	9/12/97	9/11/97	9/15/97

4.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the four soils and five water and two equipment blank samples were received in good condition at 4 degrees Centigrade (°C) ± 2° C. The water and equipment blank samples were preserved with nitric acid (HNO_3). No qualifiers were assigned.

4.2 Holding Times

The samples were analyzed within the 28-day holding time for mercury and the 180-day holding period between sample collection for ICP and GFAAS preparation/analysis. No qualifiers were assigned.

4.3 Instrument Performance

4.3.1 Instrument Standardization

The Inductively Coupled Plasma (ICP) instrument was standardized with a multiple point calibration (blank plus three standards). The check of the hi-standard following calibration was recovered within 5% of the true value. The initial standardization was performed within the criteria specified in the QAPP. No qualifiers were assigned.

4.3.2 Initial Calibration Verification

All initial calibration verifications met the acceptance criteria specified in the QAPP, i.e., 90-100% R for ICP.

4.3.3 Continuing Calibration Verification

The continuing calibrations were within the QAPP control limits of 90-110%R. No actions were required.

4.4 Blanks

4.4.1 Method/Preparation Blanks

Separate blanks were prepared for both matrices (e.g. water and solid). The following table presents the analytes detected in the method blanks. The 5X column is used to determine the maximum level allowed to report. Below this value, all reported concentrations are qualified ND due to its presence in the method blank.

Analyte	Soil Conc. (mg/kg)	Soil Conc. 5X	Water Conc. (mg/L)	Water Conc. 5X
Calcium	7.6	38		
Lead	0.099	0.495		
Magnesium	1.4	7		
Sodium	6 6	33		

4.4.2 Ambient Blanks

There was no ambient blank sample collected with the samples.

4.4.3 Equipment Rinsates

One equipment rinsate was collected on each day of sample collection.

4.4.4 Calibration Blanks

The calibration blanks contained a few analytes at concentrations which did not cause qualification.

4.5 Interference Check Samples (ICSA-ICSAB)

The interference check samples had recoveries within the acceptance criteria specified in the QAPP. No qualifiers were assigned.

4.6 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Two MS/MSD analysis sets were performed with this SDG; one water and one soil sample. WHGLTA003-01, form SDG 8, was spiked for the water QC sample. The spiked water sample QC recovered silver and mercury below the lower control limit and aluminum and calcium above the upper control limit. The %RPD between the MS and MSD for mercury was 21%. All silver and mercury data were qualified as estimated (UJ/J) and all the aluminum detected results were qulified J for the associated water samples. The calcium were not qualified due the 4X rule.

The soil QC used THGLTA013-02, as the original. The soil QC samples reported low recoveries (less than 80%) for antimony and iron and high recoveries (greater than 120%) for aluminum. All the antimony for the associated prepared samples were qualified UJ/J for the previously indicated low recoveries. The four times rule (if the sample concentration is greater than four times the spike amount, the recovery is not considered for qualification) eliminated the qualification of iron. Aluminum detects were qualified J for the recoveries greater than the UCL.

4.7 Laboratory Control Sample (LCS)

One LCS sample was analyzed for each matrix within this SDG. The recoveries for all reported analytes were within the control limits listed in the QAPP. No qualifiers were assigned.

4.8 Field Duplicates

Water sample WHGLTA004-01 was collected in duplicate in the field and was designated as WHGLTADUP-05. All applicable comparisons (omitting the F qualified data) were determined to compare within 25% relative percent difference. No results were qualified.

4.9 Graphite Furnace Analyses

Graphite furnace analyses were performed for the determination of silver for the two equipment blank samples. All reported results were non-detect.

4.10 Serial Dilution Analysis

A serial dilution analysis was performed on both a water and a soil sample. There were no detects found in the water at a sufficiently high enough concentration to be evaluated. The serial dilution of THGLTA013-02, a soil sample, reported the determination of arsenic % difference of greater than 10%. This element was qualifed J for all associated samples.

4.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately.

4.12 Overall Assessment of the Data

The data are accepted as qualified.

DATA VALIDATION SUMMARY REPORT

PROJECT:	Carswell Air Force Base
LABORATORY:	Quanterra Environmental Services-Tampa, Denver
SDG:	10
MATRIX:	Water, soil
VALIDATION LEVEL:	C
ANALYSES, METHODS:	Volatile Organic Compounds, SW846 Method 8260A Semivolatile Organic Compounds, SW846 Method 8270B Inorganics, SW846 Method 6010

1.0 INTRODUCTION

Five (5) water samples and eleven (11) soil samples were submitted to Quanterra Environmental Services for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and metals. The samples associated with SDG 10 are listed in Table 1-1 with the sampling dates, extraction/preparation dates, analytical dates, and identification of associated trip blanks, equipment rinsates, and field blanks. QES Denver performed the semivolatile analyses.

The organic compounds were validated and reviewed in accordance with the Interim Draft Base-Wide Quality Assurance Project Plan (QAPP), dated August 1996, and the "Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses" (EPA, 1994).

The inorganic data were validated and reviewed in accordance with the QAPP and the "US EPA Contract Laboratory Program National Functional Guidelines for Evaluating Inorganic Data Review" (EPA, 1994).

Table 1-1. SDG 10 Sample Information

Field ID	Lab ID	Sampling date	Associated trip blank ID	Associated equipment rinsate ID	VOC Prep/analysis date	SVOC dates extract'n, analysis	ICP/GFAAS Metals prep, analysis dates	Mercury prep, ananlysis dates
WHGLTA002-01	B7I110141-001	9/10/97	TB091097	EB091097	9/17/97	9/14, 9/24/97	+	+
EB091097	B7I110141-002	9/10/97	TB091097	-	9/17/97	9/14, 9/24/97	+	+
THGLTA024-01	B7I110141-003	9/10/97	TB091097	EB091097	9/11/97	9/18, 10/8/97	+	+
THGLTA024-02	B7I110141-004	9/10/97	TB091097	EB091097	9/11/97	9/18, 10/7/97 RE 10/9, 10/16/97	+	+
TB091097	B7I110141-005	9/10/97	-	-	9/17/97	-	-	-
THGLTA025-01	B7I110141-006	9/10/97	TB091097	EB091097	9/11/97	9/18, 10/8/97	+	+
THGLTA025-02	B7I110141-007	9/10/97	TB091097	EB091097	9/11/97	9/18, 10/8/97	+	+
THGLTA026-01	B7I120127-001	9/11/97	TB091197	EB091197	9/15/97	9/18, 10/8/97	+	+
THGLTA026-02	B7I120127-002	9/11/97	TB091197	EB091197	9/15/97	9/18, 10/7/97	+	+
THLGTA027-01	B7I120127-003	9/11/97	TB091197	EB091197	9/15/97	9/18, 10/9/97	+	+
THLGTA027-02	B7I120127-004	9/11/97	TB091197	EB091197	9/15/97	9/18, 10/7/97	+	+
THGLTADUP12	B7I120127-005	9/11/97	TB091197	EB091197	9/15/97	9/18, 10/9/97	+	+
THGLTA028-01	B7I120127-006	9/11/97	TB091197	EB091197	9/15/97	9/18, 10/8/97	+	+
THGLTA028-02	B7I120127-007	9/11/97	TB091197	EB091197	9/15/97	9/18, 10/6/97	+	+
TB091197	B7I120127-008	9/11/97	-	-	9/17/97	-	-	-
EB091197	B7I120127-009	9/11/97	TB091197	-	9/17/97	9/14, 9/24/97 RE 9/25, 10/6/97	+	+

Where: RE = reanalysis (VOC)/ re-extraction (SVOC), DL = dilution; - = analysis not requested, *=only reanalysis reported, [A]=insufficient sample-not analyzed [B]=not provided in SDG, + = see Section 4 0

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2.0 VOLATILE ORGANIC COMPOUNDS

2.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the samples received at cooler temperatures within the 2 – 6 degree Centigrade (°C) temperature range. No qualifiers were assigned for this reason.

2.2 Holding Times

The samples were analyzed within the 14-day holding period. No qualifiers were assigned.

2.3 Instrument Tune

The seven bromofluorobenzene (BFB) tunes were performed in accordance with the QAPP and the method. No qualifiers were assigned.

2.4 Calibrations

2.4.1 Initial Calibration

The samples listed above were analyzed using the instruments, B3VOA4 and B3VOA2. The instruments were initially calibrated on 9/13/97 and on 9/10/97. All parameters were within the control limits set forth in the QAPP except for one compound, 1,2-dibromo-3-chloropropane, for the 9/13/97 calibration. This compound had a mean RRF of 0.043. The water samples analyzed on B3VOA4 had this compound R-qualified for this reason.

2.4.2 Continuing Calibration

Continuing calibrations were performed. The calibrations were performed prior to sample analysis. On 9/17/97, the compound, 1,2-dibromo-3-chloropropane, had an RRF of 0.040. The samples analyzed on these days using the instrument, B3VOA4, were R-qualified for this reason.

2.5 Blanks

2.5.1 Method/Preparation Blanks

Three method blanks were associated with the samples in this episode. No target compounds were detected. No qualifiers were assigned.

2.5.2 Trip Blanks

The trip blanks did not contain any target compounds.

2.5.3 Ambient Blank

No ambient blank was submitted with the samples in this SDG.

2.5.4 Equipment Rinsate

Sample EB091097 contained two tentatively identified compounds. No action was taken on these. The other rinsate did not have any reported target compounds.

2.6 System Monitoring Compounds (surrogates)

Surrogate spike recoveries (%R) met the lab's control limits for all samples.

2.7 Internal Standards

The areas and retention time for the internal standards spiked into all the samples, standards, and associated quality control samples were within the performance criteria set forth in the method for all samples except THGLTA024-01 and THGLTA027-01. Both samples had a low area recovery for 1,4-dichlorobenzene. All associated compounds were R-qualified for these two samples.

2.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Samples THGLTA028-02 and WHGLTA002-01 were analyzed as MS/MSDs in this SDG. There were no outliers for the former sample. The outliers identified in the latter sample are presented below:

Sample ID	Compound	MS %R	MSD %R	RPD	Action (on listed compound)
WHGLTA002-01	Naphthalene	73	-	-	J-/UJ waters
	Bromomethane	-	126	-	J+ detects, waters
	Isopropylbenzene	-	126	-	J+detects, waters

2.9 Laboratory Control Samples (LCSs)

LCSs were analyzed with this SDG. The recoveries were within the limits presented in the QAPP. No qualifiers were assigned.

2.10 Field Duplicates

There was one identifiable field duplicate in this SDG. Sample THGLTADUP12 is the field duplicate of THGLTA027-02. There were no detected target compounds in either sample.

2.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately. The validator kept the laboratory-assigned "F" qualifiers that indicate the reported values are below the PQL. Any tentatively identified compounds were J-qualified as estimated values.

2.12 Overall Assessment of the Data

The data for the samples in this episode are acceptable as qualified.

3.0 SEMIVOLATILE ORGANIC COMPOUNDS

3.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the samples were received in good condition and within the acceptable temperature range. No qualifiers were assigned. No custody documentation was found transferring custody to the Denver lab.

3.2 Holding Times

Most of the samples were extracted within the 7-day (water) or 14-day (soils) holding period between sampling and extraction and analyzed within the 40-day holding period between extraction and analysis. The re-extractions for THGLTA024-02 and EB091197 were outside of the holding time. If data from these re-extractions were used, all compounds for both samples should be J/UJ qualified.

3.3 Instrument Tune

Nine decafluorotriphenylphosphine (DFTPP) tunes were correctly run prior to any initial and/or continuing calibration. The tunes met the minimum acceptance criteria for ion abundance. The samples/standards associated with each tune were analyzed within a 12-hour period following the tune. No qualifiers were assigned.

3.4 Calibrations

3.4.1 Initial Calibration

The instruments used for the analyses were initially calibrated. All calibration data met the acceptance criteria except for benzidine on 10/2/97. The %RSD was high; however, no action was taken, because the samples from that run were not reported.

3.4.2 Continuing Calibration

The continuing calibration data met the acceptance criteria.

3.5 Blanks

3.5.1 Method/Preparation Blanks

There was one target compound detected in one of the method blanks associated with the SDG. The compound, bis (2-ethylhexyl)phthalate was reported at a concentration of 4.44 µg/L in blank 56874. The reprep yielded diethylphthalate at 5.4 µg/L. No action was taken, because the associated samples did not contain detectable levels of the compounds.

3.5.2 Ambient Blank

There were no identifiable ambient blanks associated with the SDG.

3.5.3 Equipment Rinsate

There was one target compound reported for EB010407. Phenol was reported at 8.2 µg/L. No qualifiers were assigned because phenol was not detected in the associated samples. EB091197 had reported values for all the target compounds. The sample was re-extracted and reanalyzed. Phenol was the only target compound reported from this

run. It was reported at 8.2 µg/L. The 5X rule was applied and qualifiers assigned as necessary.

3.6 System Monitoring Compounds (surrogates)

Surrogate spike recoveries (%R) for the semivolatile compounds met the acceptance criteria for all samples except THGLTA024-02. The recoveries for all the surrogate compounds were low. The re-extraction data were acceptable. If the original data were used, all the compounds should be J/UJ qualified.

3.7 Internal Standards

The areas and retention time for the internal standards spiked into all the samples, standards, and associated quality control samples were within the performance criteria set forth in the method for all samples. No qualifiers were assigned for this reason.

3.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Samples THLGTA028-02 and WHGLTA002-01 were analyzed as the MS/MSDs in this SDG The outliers are presented below:

Sample ID	Compound spike	MS%R	MSD%R	%RPD	Action for listed compound
THGLTA028-02	Benzoic acid	12	10	-	J-/UJ soils
WHGLTA002-01	Hexachlorocyclopentadiene	0	2	All	J-/UJ waters
	Phenanthrene	-	127	RPDs	J + detects water
	Butylbenzyl phthalate	-	128	are out	J + detects water
	di-n-octylphthalate	-	132	of	J + detects water
	benzo(b)fluoranthene	-	126	control –	J + detects water
	benzo(k)fluoranthene	-	118	J all	J + detects water
	dibenz(a,h)anthracene	-	141	detects	J + detects water

3.9 Laboratory Control Sample (LCS)

One of the LCSs analyzed (dcs water) had one compound in the original and duplicate analyses, hexachlorocyclopentadiene, with a recovery below the acceptance criteria. The RPD was out of control as well. The data associated with the original analysis were R-qualified for this compound. The reprep resulted in an acceptable recovery, but still very low.

3.10 Field Duplicates

There was one identifiable field duplicate in this SDG. Sample THGLTADUP12 is the field duplicate of THGLTA027-02. Correlation was not good between the samples. There were no target compounds reported as detects for 027-02, but there were 11 target compounds reported as detects in the field duplicate. The following compounds were J/UJ qualified in both samples:

anthracene	benzo(a)anthracene	benzo(b)fluoranthene
benzo(g,h,i)perylene	benzo(a)pyrene	chrysene
dibenz(a,h)anthracene	fluoranthene	indeno(1,2,3-cd)pyrene
phenanthrene	pyrene	

3.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately. The tentatively identified compounds were J-qualified as estimated values. Data that was determined to be unuseable were Z-qualified in favor of other, more useable data. F-qualifiers were added to data that were reported at levels <PQL by the lab.

3.12 Overall Assessment of the Data

The data for the samples in this SDG are acceptable as qualified.

4.0 INORGANIC ANALYSES

Field Sample ID	Collection Date	ICP Prep	ICP (P1) Analysis	ICP Trace (P2) Analysis	Mercury prep.; analysis	GFAAS (Ag) prep; analysis
WHGLTA002-01	9/10/97	9/17/97	9/17/97	9/17/97	9/17/97	9/17/97
EB091097	9/10/97	9/17/97	9/17/97	9/17/97	9/17/97	9/17/97
THGLTA024-01	9/10/97	9/12/97	9/17/97	9/18/97	9/12/97	NA
THGLTA024-02	9/10/97	9/12/97	9/17/97	9/18/97	9/12/97	NA
THGLTA025-01	9/10/97	9/12/97	9/17/97	9/18/97	9/12/97	NNA
THGLTA025-02	9/10/97	9/12/97	9/17/97	9/18/97	9/12/97	NA
THGLTA026-01	9/11/97	9/12/97	9/17/97	9/18/97	9/12/97	NA
THGLTA026-02	9/11/97	9/12/97	9/17/97	9/18/97	9/12/97	NA
THGLTA027-01	9/11/97	9/12/97	9/17/97	9/18/97	9/12/97	NA
THGLTA027-02	9/11/97	9/12/97	9/17/97	9/18/97	9/12/97	NA
THGLTADUP-12	9/11/97	9/12/97	9/17/97	9/18/97	9/12/97	NA
THGLTA028-01	9/11/97	9/12/97	9/17/97	9/18/97	9/12/97	NA
THGLTA028-02	9/11/97	9/12/97	9/17/97	9/18/97	9/12/97	NA
EB091197	9/11/97	9/17/97	9/17/97	9/17/97	9/17/97	9/17/97

4.1 Sampling Documentation

Chain-of-custody (COC) records indicate that the eleven soils and one water and two equipment blank samples were received in good condition at 4 degrees Centigrade (°C) ± 2° C. The water and equipment blank samples were preserved with nitric acid (HNO_3). No qualifiers were assigned.

4.2 Holding Times

The samples were analyzed within the 28-day holding time for mercury and the 180-day holding period between sample collection for ICP and GFAAS preparation/analysis. No qualifiers were assigned.

4.3 Instrument Performance

4.3.1 Instrument Standardization

The Inductively Coupled Plasma (ICP) instrument was standardized with a multiple point calibration (blank plus three standards). The check of the hi-standard following calibration was recovered within 5% of the true value. The initial standardization was performed within the criteria specified in the QAPP. No qualifiers were assigned.

4.3.2 Initial Calibration Verification

All initial calibration verifications met the acceptance criteria specified in the QAPP, i.e., 90-100% R for ICP.

4.3.3 Continuing Calibration Verification

The continuing calibrations were within the QAPP control limits of 90-110%R. No actions were required.

4.4 Blanks

4.4.1 Method/Preparation Blanks

Separate blanks were prepared for both matrices (e.g. water and solid). The following table presents the analytes detected in the method blanks. The 5X column is used to determine the maximum level allowed to report. Below this value, all reported concentrations are qualified ND due to its presence in the method blank.

Analyte	Soil Conc. (mg/kg)	Soil Conc. 5X	Water Conc. (mg/L)	Water Conc. 5X
Calcium	7.6	38	0.096	0.48
Lead	0.099	0.495		
Magnesium	1.4	7		
Sodium	6.6	33		

4.4.2 Ambient Blanks

There was no ambient blank sample collected with the samples.

4.4.3 Equipment Rinsates

One equipment rinsate was collected on each day of sample collection.

4.4.4 Calibration Blanks

The calibration blanks contained a few analytes at concentrations which did not cause qualification.

4.5 Interference Check Samples (ICSA-ICSAB)

The interference check samples had recoveries within the acceptance criteria specified in the QAPP. No qualifiers were assigned.

4.6 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Two MS/MSD analysis sets were performed with this SDG; one water and one soil sample. WHGLTA002-01 was spiked for the water QC sample. The spiked water sample QC recovered calcium above the upper control limit. The calcium were not qualified due the 4X rule.

The soil QC used THGLTA028-02, as the original. The soil QC samples reported low recoveries (less than 80%) for antimony, arsenic, beryllium, cadmium, calcium, cobalt, copper, magnesium, manganses, nickel, sodium, molybdenum, and vanadium and high recoveries (greater than 120%) for aluminum, barium, iron, manganese, potassium and zinc. All the antimony for the associated prepared samples were qualified R/J for the low recovery less than 30%. Arsenic, beryllium, cadmium, cobalt, copper, magnesium, manganese, nickel, sodium, vanadium, and molybdenum were qualified UJ/J for recoveries below the LCL. The four times rule (if the sample concentration is greater than four times the spike amount, the recovery is not considered for qualification) eliminated the qualification of aluminum, calcium, and iron. Barium, potassium, and zinc detects were qualified J for the recoveries greater than the UCL.

4.7 Laboratory Control Sample (LCS)

One LCS sample was analyzed for each matrix within this SDG. The recoveries for all reported analytes were within the control limits listed in the QAPP. No qualifiers were assigned.

4.8 Field Duplicates

Soil sample THGLTA027-02 was collected in duplicate in the field and was designated as THGLTADUP-12. All applicable comparisons (omitting the F qualified data) were determined to compare within 25% relative percent difference, except aluminum, iron, lead, potassium, and zinc. The results for these five elements were qualified for all associated soil samples.

4.9 Graphite Furnace Analyses

Graphite furnace analyses were performed for the determination of silver for the two equipment blank samples. All reported results were non-detect.

4.10 Serial Dilution Analysis

A serial dilution analysis was performed on both a water and a soil sample. There were no detects found in the water at a sufficiently high enough concentration to be evaluated. The serial dilution of a soil sample, reported the determination of lead % difference of greater than 10%. This element was qualifed J for all associated samples.

4.11 Compound Quantitation and Project Reporting Limits

Based on a Level C validation, the samples were identified and quantified appropriately.

4.12 Overall Assessment of the Data

The data are accepted as qualified.

Carswell AFB
Project No. 12001-7-5001 (DO 2)
SDG. 9805G688

Sample ID	Sample Date	Sample ID	Sample Date
BHGLTA504-01	5/14/98	BHGLTA509-02	5/15/98
BHGLTA504-02	5/14/98	BHGLTA509-03	5/15/98
BHGLTA505-01	5/14/98	BHGLTA509-04	5/15/98
BHGLTA509-01	5/14/98	EB051598	5/15/98
EB051498	5/14/98	AB051598	5/15/98
EB051498A	5/14/98	TB051598	5/15/98
TB051498	5/14/98		

Method of Analysis: SW8260, SW8270, SW8080, SW8150, SW8140, SW8280, SW6010A, SW7470A, sulfide (SW9030) and cyanide (SW9012).

Hierarchy of flags: "R" > "UJ > "U" > "F" > "J"

Volatile Organics (SW8260) - Sample AB051598 was analyzed outside of the 12 hour BFB tuning window by 22 minutes. The results are therefore rejected and flagged "R". The sample was reanalyzed and the reanalysis for sample AB051598 was analyzed 15 days outside of the 14 day holding time. The results are rejected and flagged "R".

The dichlorodifluoromethane results in samples BHGLTA509-04, EB051498 and TB051498 are deemed unusable and flagged "R" due to a percent difference exceedance in the continuing calibration verification. In addition, dibromochloromethane, 1,2-dibromoethane, 1,1,1,2-tetrachloroethane, bromoform and 1,2-dibromo-3-chloropropane results in samples BHGLTA509-04 are deemed unusable and flagged "R" due to a percent difference exceedance in the continuing calibration verification.

Appendix IX compounds acetonitrile, propionitrile, acrolein, iodomethane2-chloro-1,3-butadiene, trans-1,4-dichloro-2-butene, isobutanol, 2-butanone and ethylmethacrylate exceeded the 50% control limit in the continuing calibration and/or the minimum RRF limit in the initial and/or continuing calibration. Corrective action and qualification is not applied to Appendix IX calibration outliers.

The percent recovery was below the control limit for 1,1-dichloroethene in the LCS. The 1,1-dichloroethene result for sample AB051598RE is rejected and flagged "R".

The acetone results for samples BHGLTA509-03 and BHGLTA509-04 are qualified and flagged "U" due to contamination in the reanalyzed ambient blank AB051598RE. However, the original ambient blank sample results did not contain acetone.

Semi-Volatile Organics (SW8270B) - The following results in the following samples are deemed unusable and flagged "R" due to a percent difference exceedance in the continuing calibration verification.

Benzidine
EB051498
EB051498A
EB051598
BHGLTA504-01
BHGLTA504-02
BHGLTA505-01
BHGLTA509-01
BHGLTA509-02
BHGLTA509-03
BHGLTA509-04

Carbazole
BHGLTA504-01
BHGLTA504-02
BHGLTA505-01
BHGLTA509-01
BHGLTA509-02
BHGLTA509-03
BHGLTA509-04

3,3'-Dichlorobenzidine
EB051498
EB051498A
EB051598

4-Chloroaniline
EB051498
EB051498A
EB051598
BHGLTA504-01
BHGLTA504-02
BHGLTA505-01
BHGLTA509-01
BHGLTA509-02
BHGLTA509-03
BHGLTA509-04

Hexachlorocyclopentadiene	3-Nitroaniline	4-Nitroaniline
BHGLTA504-01	EB051498	EB051498
BHGLTA504-02	EB051498A	EB051498A
BHGLTA505-01	EB051598	EB051598
BHGLTA509-01	BHGLTA504-01	BHGLTA504-01
BHGLTA509-02	BHGLTA504-02	BHGLTA504-02
BHGLTA509-03	BHGLTA505-01	BHGLTA505-01
BHGLTA509-04	BHGLTA509-01	BHGLTA509-01
	BHGLTA509-02	BHGLTA509-02
Pyrene	BHGLTA509-03	BHGLTA509-03
BHGLTA509-02DL	BHGLTA509-04	BHGLTA509-04

The following Appendix IX compounds exceeded the 50% control limit in the continuing calibration: 1,4-dioxane, safrole, N-nitrosomethylethylamine, a,a-dimethylphenethylamine, p-phenylenediamine, 4-aminobiphenyl, 4-nitroquinoline-1-oxide, chlorobenzilate, 2-sec-butyl-4,6-dinitrophenol, 3,3'-dimethylbenzidine and sym-trinitrobenzene. Corrective action and qualification is not applied to Appendix IX calibration outliers for continuing calibrations

The MS/MSD RPDs were above the control limits for spiked sample BHGLTA509-01 for 4-chloroaniline, phenanthrene, fluoranthene, pyrene, benzo(a)anthracene, 3,3'-dichlorobenzidine, chrysene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene and benzo(g,h,i)perylene. The following positive results are qualified as estimated and flagged "J".

BHGLTA509-01	BHGLTA509-02	BHGLTA509-03
fluoranthene	indeno(1,2,3-cd)pyrene	fluoranthene
	benzo(g,h,i)perylene	pyrene
	BHGLTA509-02DL	
fluoranthene	benzo(a)anthracene	benzo(b)fluoranthene
phenanthrene	chrysene	benzo(a)pyrene

The pyrene result for sample BHGLTA509-02DL was previously rejected due to continuing calibration exceedances as indicated above. The other associated positive results retain the "F" qualification.

Bis(2-ethylhexyl)phthalate received "U" qualifiers for sample BHGLTA504-02 due to contamination in equipment blank EB051498.

Pesticides/PCBs (SW8080) - The endosulfan I, endrin, 4,4'-DDD, 4,4'-DDT, methoxychlor, beta-BHC, 4,4'-DDE, endosulfan sulfate, endrin ketone and gamma-chlordane results in samples BHGLTA504-01, BHGLTA504-02 and BHGLTA509-01 are deemed unusable and flagged "R" due to retention times outside of the acceptable retention time windows for the continuing calibration verification. ***However, LAW recommends that the "R" qualification not be applied because the retention times were slightly out by 0.01 minutes, the surrogate recoveries were within acceptable limits, and false positives were not identified.***

The percent difference between the initial and confirmatory analyses of EB051498A and EB051598 exceeded the 25% criteria for heptachlor Both sets of heptachlor results are qualified as estimated and flagged "J".

Herbicides (SW8150B) - The 2,4,5-TP (Silvex) results in samples BHGLTA504-02, BHGLTA505-01, BHGLTA509-01, BHGLTA509-02 and BHGLTA509-03 are deemed unusable and flagged "R" due to retention times outside of the acceptable retention time windows for the continuing calibration verification. ***However, LAW recommends that the "R" qualification not be applied because the retention times were slightly out by 0.002 minutes, the surrogate recoveries were within acceptable limits, and false positives were not identified.***

Organophosphorous Pesticides (SW8140) - The percent recovery was below the control limit for phorate in the LCS. The phorate results for samples EB051498, EB051498A and EB051598 are rejected and flagged "R".

No confirmatory analysis was performed on sample BHGLTA509-04 for o,o,o-triethylphosphorothionate; therefore, the result is qualified as estimated and flagged "J".

Dioxins/Furans (SW8280) - The dioxin/furan data are usable and do not require qualification.

ICP Metals (SW6010A) - Samples BHGLTA509-01, BHGLTA509-03 and BHGLTA509-04 received a "U" qualifier for beryllium results due to contamination in the ICB and/or CCBs Samples BHGLTA504-02, BHGLTA505-01, BHGLTA509-01, BHGLTA509-02, BHGLTA509-03 and BHGLTA509-04 received a "U" qualifier for tin results due to contamination in the preparation blank.

The MS/MSD percent recoveries were below the control limits for spiked sample BHGLTA509-01 for antimony. Therefore, the antimony results for all soil samples in this SDG are qualified as estimated and flagged "UJ".

Mercury (SW7470A) - The mercury data are usable and do not require qualification

Sulfide (SW9030) - Sulfide was analyzed by EPA screening method SW9030; therefore, all sulfide results for samples in this SDG are qualified with "S" flags

Cyanide (SW9012) - Samples BHGLTA504-01 and BHGLTA509-02 received a "U" qualifier for cyanide due to contamination in the ICB.

Carswell AFB
Project No· 12001-7-5001 (DO 2)
SDG 9805G791

Sample ID	Sample Date	Sample ID	Sample Date
BHGLTA401-01	5/21/98	BHGLTA405-03	5/21/98
BHGLTA401-02	5/21/98	BHGLTA405-04	5/21/98
BHGLTA401-03	5/21/98	BHGLTA405-05	5/21/98
BHGLTA401-04	5/21/98	BHGLTA406-01	5/21/98
BHGLTA405-01	5/21/98	DUP02 (disregard)	5/21/98
BHGLTA405-02	5/21/98	TB052198	5/21/98

Method of Analysis: SW8260, SW8270, SW8080, SW8150, SW8140. SW8280, SW6010A, SW7470A, sulfide (SW9030) and cyanide (SW9012).

Hierarchy of flags: "R" > "UJ > "U" > "F" > "J"

Volatile Organics (SW8260) - The chloromethane and 1,2-dibromo-3-chloropropane results in samples BHGLTA405-02, BHGLTA405-03, BHGLTA405-04, BHGLTA405-05 and BHGLTA406-01 are deemed unusable and flagged "R" due to a percent difference exceedance in the continuing calibration verification.

Appendix IX compound acrolein exceeded the 50% control limit in the continuing calibration. Corrective action and qualification is not applied to Appendix IX calibration outliers.

The LCS percent recovery was below the control limit for dichlorofluoromethane. The result for sample TB052198 is qualified as estimated and flagged "R".

Semi-Volatile Organics (SW8270B) - The following results in the following samples are deemed unusable and flagged "R" due to a percent difference exceedance in the continuing calibration verification.

4-Chloroaniline	3-Nitroaniline	3,3'-Dichlorobenzidine
BHGLTA401-02	BHGLTA401-02	BHGLTA405-05
BHGLTA401-03	BHGLTA401-03	BHGLTA406-01
BHGLTA401-04	BHGLTA401-04	
BHGLTA405-01	BHGLTA405-01	Hexachlorocyclopentadiene
BHGLTA405-02	BHGLTA405-02	BHGLTA405-05
BHGLTA405-03	BHGLTA405-03	BHGLTA406-01
BHGLTA405-04	BHGLTA405-04	
	BHGLTA405-05	4-Nitroaniline
	BHGLTA406-01	BHGLTA405-05
		BHGLTA406-01

The following Appendix IX compounds exceeded the 50% control limit in the continuing calibration: a,a-dimethylphenethylamine, p-phenethyldiamine, N-nitrosodimethylamine, safrole, 1,4-naphthoquinoline, methapyrilene and hexachlorophene. Corrective action and qualification is not applied to Appendix IX calibration outliers for continuing calibrations.

Pesticides/PCBs (SW8080) - The endosulfan II results for samples BHGLTA401-01, BHGLTA401-02, BHGLTA401-03 and BHGLTA401-04 are deemed unusable and flagged "R" due to a percent difference exceedance in the continuing calibration verification

Herbicides (SW8150B) - The herbicide data are usable and do not require qualification.

Organophosphorous Pesticides (SW8140) - The wrong surrogates were spiked for the soil samples in this SDG; therefore, the results are deemed unusable and flagged "R".

Dioxins/Furans (SW8280) - The dioxin/furan data are usable and do not require qualification.

ICP Metals (SW6010A) - Beryllium received a "U" qualifier for samples BHGLTA401-01, BHGLTA401-02, BHGLTA401-03, BHGLTA401-04, BHGLTA405-01. BHGLTA405-02, BHGLTA405-04 and BHGLTA405-05 due to contamination in the ICB. CCB and/or preparation blank. Lead would have received a "J" qualifier for sample BHGLTA405-03, however, lead retains the "F" qualifier. Lead received "UJ" qualifiers for samples BHGLTA401-02, BHGLTA401-03, and BHGLTA401-04 due to negative blank contamination in the CCB. Nickel would have received a "J" qualifier for sample BHGLTA401-04 due to negative blank contamination in the ICB, CCB and preparation blank; however, the nickel result was below the PQL and retains the "F" qualifier. Tin received a "U" qualifier for samples BHGLTA401-02, BHGLTA401-03, BHGLTA401-04, BHGLTA405-03 and BHGLTA405-04 due to contamination in the ICB and/or preparation blank.

Mercury (SW7470A) - The mercury data are usable and do not require qualification

Sulfide (SW9030) - Sulfide was analyzed by EPA screening method SW9030, therefore, all samples in this SDG are qualified with "S" flags.

Cyanide (SW9012) - The cyanide data are usable and do not require qualification.

Carswell AFB
Project No: 12001-7-5001 (DO 2)
SDG. 9805G833

Sample ID	Sample Date	Sample ID	Sample Date
BHGLTA406-02	5/22/98	BHGLTA402-01	5/26/98
BHGLTA406-03	5/22/98	BHGLTA402-02	5/26/98
BHGLTA406-04	5/22/98	BHGLTA402-03	5/26/98
BHGLTA406-05	5/22/98	BHGLTA402-04	5/26/98
BHGLTA406-06	5/22/98	TB052698	5/26/98
TB052298	5/22/98	EB052698	5/26/98
EB052298	5/22/98		

Method of Analysis· SW8260. SW8270, SW8080, SW8150, SW8140, SW8280, SW6010A, SW7470A, sulfide (SW9030) and cyanide (SW9012).

Hierarchy of flags: "R" > "UJ > "U" > "F" > "J"

Volatile Organics (SW8260) - The bromochloromethane (25.4%), 1,2-dichloroethane, bromoform, dibromomethane, 1,3-dichloropropane (25 2%), dibromochloromethane, 1,2-dibromoethane, 1,1,2,2-tetrachloroethane, 1,2,3-trichloropropane, naphthalene and 1,2-dibromo-3-chloropropane results in samples BHGLTA402-01, BHGLTA402-02, BHGLTA402-03, BHGLTA402-04, BHGLTA406-04 and BHGLTA406-05 are deemed unusable and flagged "R" due to a percent difference exceedance in the continuing calibration verification.

Appendix IX compounds acrolein, isobutanol, iodomethane, 2-chloro-1,3-butadiene, methacrylonitrile and 3-chloropropene exceeded the 50% control limit or the RRF limit in the continuing calibration. Corrective action and qualification is not applied to Appendix IX calibration outliers.

Semi-Volatile Organics (SW8270B) - The 3,3'-dichlorobenzidine, 3-nitroaniline, hexachlorocyclopentadiene and 4-nitroaniline results in samples EB052298 and EB052698 are deemed unusable and flagged "R" due to a percent difference exceedance in the continuing calibration verification. In addition, the 3-nitroaniline and 4-nitroaniline results for samples BHGLTA402-02, BHGLTA402-03, BHGLTA402-04, BHGLTA406-04, BHGLTA406-05 and BHGLTA406-06 are deemed unusable and flagged "R" due to a percent difference exceedance in the continuing calibration verification.

The following Appendix IX compounds exceeded the 50% control limit in the continuing calibration: a,a-dimethylphenethylamine, p-phenethyldiamine, N-nitrosodimethylamine, safrole, 1,4-naphthoquinoline, methapyrilene, hexachlorophene and 2,2'-oxybis(1-chloropropane). Corrective action and qualification is not applied to Appendix IX calibration outliers for continuing calibrations.

The extraction of sample EB052298 exceeded the extraction holding time of seven days by 4 days. The results for this sample are qualified as estimated and flagged "UJ", with the exception of the benzo(a)pyrene result, which retains the "F" qualification.

Pesticides/PCBs (SW8080) - The endrin aldehyde and methoxychlor results for samples BHGLTA406-04, BHGLTA406-05 and BHGLTA406-06 are deemed unusable and flagged "R" due to percent difference exceedances in the continuing calibration verification.

The LCS percent recovery was below the control limit for aroclor-1016. The aroclor-1016 results for samples EB052298 and EB052698 are qualified as estimated and flagged "R".

Herbicides (SW8150B) - An LCS was inadvertently not spiked; therefore. the LCS percent recoveries were below the control limits for 2,4-D, 2,4,5-T and 2,4,5-TP (Silvex) These results for samples BHGLTA402-01 and BHGLTA402-04 are qualified as estimated and flagged "R". ***However, the MS/MSD was performed within this batch and recoveries were within QC limits. Surrogate recoveries were also within QC limits. Successful recoveries of full target spikes and surrogates indicate that the samples were adequately extracted. Therefore, LAW recommends, after discussion with AFCEE, that the "R" flags be removed from the herbicide data on samples BHGLTA402-01 and BHGLTA402-04.***

Organophosphorous Pesticides (SW8140) - All organophosphorous pesticide compounds except o,o,o-TEPA are deemed unusable and flagged "R" for samples BHGLTA406-02, BHGLTA406-03, BHGLTA406-04. BHGLTA406-05 and BHGLTA406-06 due to percent difference exceedances and/or retention times outside of the QC windows in the continuing calibration verifications.

The incorrect surrogates were spiked for samples BHGLTA406-02, BHGLTA406-03, BHGLTA406-04, BHGLTA406-05 and BHGLTA406-06; therefore, the results are deemed unusable and flagged "R".

Dioxins/Furans (SW8280) - The dioxin/furan data are usable and do not require qualification.

ICP Metals (SW6010A) - Beryllium received a "U" qualifier for samples BHGLTA402-01, BHGLTA402-03, BHGLTA402-04, BHGLTA406-04, BHGLTA406-05 and BHGLTA406-06 due to contamination in the ICB, CCB and/or preparation blank. Cobalt received a "U" qualifier for samples BHGLTA402-04 and BHGLTA406-06 due to contamination in the CCB. Copper received a "U" qualifier for sample BHGLTA406-04 and BHGLTA406-05 due to contamination in the ICB and CCB. Nickel received a "U" qualifier for samples BHGLTA402-03, BHGLTA402-04, BHGLTA406-04, BHGLTA406-04, BHGLTA406-05 and BHGLTA406-06 due to contamination in the ICB and/or preparation blank. Tin received a "U" qualifier for samples BHGLTA402-01, BHGLTA402-02, BHGLTA402-03, BHGLTA402-04, BHGLTA406-03, BHGLTA406-04, BHGLTA406-05 and BHGLTA406-06 due to contamination in the ICB and/or preparation blank. Zinc received a "U" qualifier for samples EB052298 and EB052698 due to contamination in the CCB and preparation blank

The MS/MSD percent recoveries were below the control limits for spiked sample BHGLTA402-01 for antimony and chromium. In addition, the RPD between MS and MSD recoveries was above the control limit for antimony Therefore, the antimony results for the soil samples in this SDG are qualified as estimated and flagged "UJ", and the chromium results are flagged "J" for samples BHGLTA402-01 and BHGLTA402-02. The chromium results for samples BHGLTA402-02, BHGLTA402-03, BHGLTA406-02, BHGLTA406-04, BHGLTA402-05, and BHGLTA402-06 retain the "F" qualifiers

Mercury (SW7470A) - The mercury data are usable and do not require qualification.

Sulfide (SW9030) - Sulfide was analyzed by EPA screening method SW9030; therefore, all sample results in this SDG are qualified with "S" flags.

Cyanide (SW9012) - The cyanide data are usable and do not require qualification.

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APPENDIX IX PESTICIDES/PCBs
USEPA SW846 Method 8080A
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G655

Client: HydroGeoLogic, Inc. Date: September 14, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA815-01	9805G655-001	Soil
BHGLTA815-02	9805G655-002	Soil
BHGLTA813-01	9805G655-003	Soil
BHGLTA813-02	9805G655-004	Soil
BHGLTA813-03	9805G655-005	Soil
EB051298	9805G655-006	Water
BHGLTA506-01	9805G655-008	Soil
BHGLTA506-02	9805G655-009	Soil
BHGLTA506-03	9805G655-010	Soil
BHGLTA507-01	9805G655-011	Soil
BHGLTA507-02	9805G655-012	Soil
BHGLTA507-03	9805G655-013	Soil
BHGLTA508-01	9805G655-014	Soil
BHGLTA508-02	9805G655-015	Soil
BHGLTA508-03	9805G655-016	Soil
DUP01	9805G655-017	Soil
EB051398A	9805G655-018	Water
EB051398ACON	9805G655-018	Water

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soils samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 5/18/98, 5/19/98, 5/25/98, and 5/26/98 exhibited acceptable %RSD values of less than 20%. No qualifications were required.

Continuing Calibration Verification - The continuing calibration QC acceptance criteria were met with the exception of the following:

5 South State Street, Suite 2, Concord, New Hampshire 03301 • Ph 603-226-0118 • Fax 603-226-0128

The continuing calibration verification analyzed on 5/23/98 exhibited high %D values for heptachlor epoxide, endosulfan II, endrin aldehyde, alpha-chlordane, and gamma-chlordane on the following columns.

CCV	Analyte	DB-5	RTX-35
5/23/98 (0657)	heptachlor epoxide	15.2%	15 6%
	endosulfan II	16.7%	20.0%
	endrin aldehyde	17.3%	20.3%
	alpha-chlordane	15.2%	15.9%
	gamma-chlordane	15 8%	15.9%

All five compounds have been rejected in associated samples EB051298 and EB051398A.

The DDT and endrin breakdown on 5/25/98 exhibited high values for endrin of 24.6% and 23.9% for the primary and secondary columns, respectively. However, none of the samples were associated and no qualifications were required.

Method Blank - Method blanks PBLKWZ (5/14/98), PBLKXW (5/19/98), and PBLKEI (5/21/98) were free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB051298 was free of contamination. No qualifications were required.

Equipment blank EB051398A exhibited heptachlor contamination at 0.11 ug/L, however, all associated results are non-detect and no qualifications were required.

Confirmation sample EB051398ACON exhibited heptachlor contamination at 0.16 ug/L, however, all associated results are non-detect and no qualifications were required.

Surrogates - Sample BHGLTA813-01 exhibited a low %R value for surrogate compound TCX of 28%, however, no qualifications are required for only one surrogate compound which exceeds QC limits. The DCB %R value was acceptable.

Samples BHGLTA815-01 and BHGLTA813-02 were analyzed at 50X dilutions and the surrogate %R values were reported with a "D" flag to denote being diluted out. No action was taken on this basis.

Laboratory Control Samples - LCS sample PBLKXABS, PBLKXBBS, PBLKXXBS, PBLKXZBS, PBLKEJBS, and PBLKEKBS exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA509-01 (in SDG 9805G688) exhibited acceptable %R and RPD values. No qualifications were required.

MS/MSD sample BHGLTA818-04 (in SDG 9806G980) exhibited acceptable %R and RPD values. No qualifications were required.

Field Duplicates - Field duplicate results for samples BHGLTA506-02 and DUP01 are non-detect. No qualifications were required.

Compound Identification - The retention times met the QC acceptance criteria and no qualifications were required.

Compound Quantitation - Several samples received a mercury cleanup to reduce matrix interference.

All positive results above the PQL were confirmed on a second column except for multiple peak analytes such as chlordane.

Several samples were analyzed at dilutions due to matrix interference and the rporting levels were adjusted accordingly.

All results between the MDL and the PQL have been qualified "F."

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the continuing calibration and compound quantitation sections of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Pesticide/PCBs SDG. 9805G655					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
EB051298	Heptachlor Epoxide	0.80	U	0.80	R
	Endosulfan II	0.039	U	0 039	R
	Endrin Aldehyde	0.22	U	0.22	R
	Alpha-Chlordane	0 78	U	0.78	R
	Gamma-Chlordane	0.36	U	0.36	R
EB051398A	Heptachlor	0.11	J	0.11	F
	Heptachlor Epoxide	0.79	U	0 79	R
	Endosulfan II	0.038	U	0.038	R
	Endrin Aldehyde	0.22	U	0.22	R
	Alpha-Chlordane	0.76	U	0.76	R
	Gamma-Chlordane	0.35	U	0.35	R
EB051398ACON	Heptachlor	0.16	J	0 16	F

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APPENDIX IX POLYCHLORINATED DIBENZODIOXINS and POLYCHLORINATED DIBENZOFURANS (PCDD/PCDF)
USEPA SW846 Method 8280
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G655

Client: HydroGeoLogic, Inc. Date: September 15, 1998

Laboratory: RECRA LabNet - Philadelphia Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA815-01	9805G655-001	Soil
BHGLTA815-01MS	9805G655-001MS	Soil
BHGLTA815-01MSD	9805G655-001MSD	Soil
BHGLTA815-02	9805G655-002	Soil
BHGLTA813-01	9805G655-003	Soil
BHGLTA813-02	9805G655-004	Soil
BHGLTA813-03	9805G655-005	Soil
EB051298	9805G655-006	Water
BHGLTA506-01	9805G655-008	Soil
BHGLTA506-02	9805G655-009	Soil
BHGLTA506-03	9805G655-010	Soil
BHGLTA507-01	9805G655-011	Soil
BHGLTA507-02	9805G655-012	Soil
BHGLTA507-03	9805G655-013	Soil
BHGLTA508-01	9805G655-014	Soil
BHGLTA508-02	9805G655-015	Soil
BHGLTA508-03	9805G655-016	Soil
DUP01	9805G655-017	Soil
EB051398A	9805G655-018	Water

Holding Times - All samples were extracted within 30 days of collection and analyzed within the recommended holding time of 45 days as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 3/26/98 and 4/1/98 exhibited acceptable %RSD values of less than 15% for the RFs. All ICAL ion abundance ratios met QC acceptance criteria. No qualifications were required.

Continuing Calibration - The continuing calibrations analyzed on 5/27/98 and 5/28/98 exhibited acceptable %D values and ion abundance ratios within QC acceptance criteria and no qualifications were required.

Column Performance Check - Resolution check criteria were met since the valley was less than 25%.

Surrogates - All surrogate recovery values met QC acceptance criteria and no qualifications were required.

Method Blanks - The soil and water method blanks were free of contamination and no qualifications were required.

Trip, field, equipment blanks - Equipment blanks EB051298 and EB051398A were free of contamination and no qualifications were required.

Internal Standards - The internal standards met QC acceptance criteria and no qualifications were required.

MS/MSD - MS/MSD sample BHGLTA509-01 (in SDG 9805G688) exhibited acceptable %R and RPD values. No qualifications were required.

MS/MSD sample BHGLTA818-04 (in SDG 9806G980) exhibited acceptable %R and RPD values. No qualifications were required.

Laboratory Control Sample/Duplicate - The soil and water LCS samples exhibited acceptable %R values within the QC acceptance criteria and no qualifications were required.

Field Duplicates - Field duplicate samples BHGLTA506-02 and DUP01 were non-detect and no qualifications were required.

Compound Quantitation - No discrepancies were identified. All sample results were non-detect.

Comments - The analyses of environmental samples and quality control samples are valid. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Dioxins SDG: 9805G655					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
None Qualified					

676 943

APPENDIX IX ORGANOPHOPHORUS PESTICIDES
USEPA SW846 Method 8141
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G655

Client: HydroGeoLogic, Inc. Date: September 14, 1998

Laboratory: RECRA LabNet Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA815-01	9805G655-001	Soil
BHGLTA815-01RE	9805G655-001RE	Soil
BHGLTA815-02	9805G655-002	Soil
BHGLTA815-02RE	9805G655-002RE	Soil
BHGLTA813-01	9805G655-003	Soil
BHGLTA813-01RE	9805G655-003RE	Soil
BHGLTA813-02	9805G655-004	Soil
BHGLTA813-02RE	9805G655-004RE	Soil
BHGLTA813-03	9805G655-005	Soil
BHGLTA813-03RE	9805G655-005RE	Soil
EB051298	9805G655-006	Water
EB051298RE	9805G655-006RE	Water
BHGLTA506-01	9805G655-008	Soil
BHGLTA506-01RE	9805G655-008RE	Soil
BHGLTA506-02	9805G655-009	Soil
BHGLTA506-02RE	9805G655-009RE	Soil
BHGLTA506-03	9805G655-010	Soil
BHGLTA506-03RE	9805G655-010RE	Soil
BHGLTA507-01	9805G655-011	Soil
BHGLTA507-01RE	9805G655-011RE	Soil
BHGLTA507-02	9805G655-012	Soil
BHGLTA507-02RE	9805G655-012RE	Soil
BHGLTA507-03	9805G655-013	Soil
BHGLTA507-03RE	9805G655-013RE	Soil
BHGLTA508-01	9805G655-014	Soil
BHGLTA508-01RE	9805G655-014RE	Soil
BHGLTA508-02	9805G655-015	Soil
BHGLTA508-02RE	9805G655-015RE	Soil
BHGLTA508-03	9805G655-016	Soil
BHGLTA508-03RE	9805G655-016RE	Soil
DUP01	9805G655-017	Soil
DUP01RE	9805G655-017RE	Soil
EB051398A	9805G655-018	Water

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soils samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 5/22/98, 5/26/98, 5/28/98, and 6/19/98 exhibited acceptable %RSD values of less than 20% and/or correlation coefficients of >0.995. No qualifications were required.

Continuing Calibration Verification - The continuing calibration verifications analyzed on 5/22/98, 5/27/98, 5/28/98, 5/29/98, 5/30/98, and 6/19/98 exhibited acceptable %D values. No qualifications were required.

The continuing calibration verification analyzed on 6/20/98 (0739) exhibited high %D values for disulfaton, methyl parathion, phorate, and dimethoate of 16.8%, 22.0%, 15.2%, and 16.3%, respectively. All of the above compounds have been rejected "R" in associated samples BHGLTA813-02RE, BHGLTA813-03RE, BHGLTA506-01RE, BHGLTA506-02RE, BHGLTA506-03RE, BHGLTA507-01RE, BHGLTA507-02RE, BHGLTA507-03RE, BHGLTA508-01RE, BHGLTA508-02RE, BHGLTA508-03RE, and DUP01RE.

The continuing calibration verification analyzed on 6/20/98 exhibited high %D values for dimethoate and methyl parathion of 22.6% and 23.0%, respectively. Both compounds have been rejected in associated sample EB051298RE.

Method Blank - Method blanks PBLKWY (5/14/98), PBLKXV (5/19/98), and PBLKYT (5/21/98) were free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB051298 was free of contamination. No qualifications were required.

Equipment blank EB051398A was free of contamination. No qualifications were required.

Surrogates - Samples BHGLTA815-02, BHGLTA813-01, BHGLTA813-01RE, BHGLTA813-03, BHGLTA508-02, and BHGLTA508-03 exhibited low %R values for surrogate compounds TBP and TPP. All results for these samples have been qualified "UJ" since all results are non-detect.

Sample BHGLTA813-02 exhibited a low %R value for surrogate compound TBP and a high %R value for surrogate compound TPP. All results for this sample have been qualified "UJ" since all results are non-detect.

Several samples exhibited a low or high %R value for only one of the surrogate compounds, however, no qualifications are required unless both surrogates exceed QC limits.

Sample BHGLTA815-02RE exhibited acceptable surrogate %R values for both compounds and the results from this sample should be used for reporting purposes. All other reanalyzed samples have either been qualified for surrogates or have had compounds rejected due to the continuing calibrations, therefore, the original analysis results for all remaining samples should be used for reporting purposes.

Laboratory Control Samples - LCS samples PBLKWYBS and PBLKYTBS exhibited acceptable %R values. No qualifications were required.

LCS sample PBLKXVBS exhibited low %R values for phorate, o,o,o-triethyl phosphorothioate, sulfotep, and dimethoate of 26%, 43%, 70%, and 7%, respectively. All of the above compounds have been rejected "R" in associated sample EB051398A since all results are non-detect.

MS/MSD - MS/MSD sample BHGLTA509-01 (in SDG 9805G688) exhibited acceptable %R and RPD values. No qualifications were required.

MS/MSD sample BHGLTA818-04 (in SDG 9806G980) exhibited a low MSD %R value for dimethoate of 55%, however, the LCS sample results were acceptable for all associated samples and no qualifications were required.

Field Duplicates - Field duplicate results for samples BHGLTA506-02 and DUP01 are non-detect. No qualifications were required.

Compound Identification - The retention times met the QC acceptance criteria and no qualifications were required.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the continuing calibration, surrogate, and LCS sections of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - OP Pesticides SDG. 9805G655					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
BHGLTA815-02	Disulfoton	70	U	70	UJ
	Methyl parathion	70	U	70	UJ
	Phorate	70	U	70	UJ
	o,o,o-Triethyl phos	70	U	70	UJ
	Thionazin	70	U	70	UJ
	Sulfotep	70	U	70	UJ
	Dimethoate	70	U	70	UJ
	Parathion	70	U	70	UJ
	Famphur	70	U	70	UJ
BHGLTA813-01	Disulfoton	70	U	70	UJ
	Methyl parathion	70	U	70	UJ
	Phorate	70	U	70	UJ
	o,o,o-Triethyl phos	70	U	70	UJ
	Thionazin	70	U	70	UJ
	Sulfotep	70	U	70	UJ
	Dimethoate	70	U	70	UJ
	Parathion	70	U	70	UJ
	Famphur	70	U	70	UJ
BHGLTA813-01RE	Disulfoton	70	U	70	UJ
	Methyl parathion	70	U	70	UJ
	Phorate	70	U	70	UJ
	o,o,o-Triethyl phos.	70	U	70	UJ
	Thionazin	70	U	70	UJ
	Sulfotep	70	U	70	UJ
	Dimethoate	70	U	70	UJ
	Parathion	70	U	70	UJ
	Famphur	70	U	70	UJ
BHGLTA813-02	Disulfoton	73	U	73	UJ
	Methyl parathion	73	U	73	UJ
	Phorate	73	U	73	UJ
	o,o,o-Triethyl phos.	73	U	73	UJ
	Thionazin	73	U	73	UJ
	Sulfotep	73	U	73	UJ
	Dimethoate	73	U	73	UJ
	Parathion	73	U	73	UJ

	Famphur	73	U	73	UJ
BHGLTA813-02RE	Disulfoton	73	U	73	R
	Methyl parathion	73	U	73	R
	Phorate	73	U	73	R
	Dimethoate	73	U	73	R
BHGLTA813-03	Disulfoton	80	U	80	UJ
	Methyl parathion	80	U	80	UJ
	Phorate	80	U	80	UJ
	o,o,o-Triethyl phos.	80	U	80	UJ
	Thionazin	80	U	80	UJ
	Sulfotep	80	U	80	UJ
	Dimethoate	80	U	80	UJ
	Parathion	80	U	80	UJ
	Famphur	80	U	80	UJ
BHGLTA813-03RE	Disulfoton	80	U	80	R
	Methyl parathion	80	U	80	R
	Phorate	80	U	80	R
	Dimethoate	80	U	80	R
EB051298RE	Methyl parathion	1.9	U	1.9	R
	Dimethoate	1.9	U	1.9	R
BHGLTA506-01RE	Disulfoton	72	U	72	R
	Methyl parathion	72	U	72	R
	Phorate	72	U	72	R
	Dimethoate	72	U	72	R
BHGLTA506-02RE	Disulfoton	81	U	81	R
	Methyl parathion	81	U	81	R
	Phorate	81	U	81	R
	Dimethoate	81	U	81	R
BHGLTA506-03RE	Disulfoton	68	U	68	R
	Methyl parathion	68	U	68	R
	Phorate	68	U	68	R
	Dimethoate	68	U	68	R
BHGLTA507-01RE	Disulfoton	70	U	70	R
	Methyl parathion	70	U	70	R
	Phorate	70	U	70	R
	Dimethoate	70	U	70	R
BHGLTA507-02RE	Disulfoton	80	U	80	R
	Methyl parathion	80	U	80	R
	Phorate	80	U	80	R
	Dimethoate	80	U	80	R
BHGLTA507-03RE	Disulfoton	68	U	68	R
	Methyl parathion	68	U	68	R
	Phorate	68	U	68	R
	Dimethoate	68	U	68	R
BHGLTA508-01RE	Disulfoton	73	U	73	R
	Methyl parathion	73	U	73	R
	Phorate	73	U	73	R
	Dimethoate	73	U	73	R
BHGLTA508-02	Disulfoton	78	U	78	UJ
	Methyl parathion	78	U	78	UJ
	Phorate	78	U	78	UJ

	o,o,o-Triethyl phos.	78	U	78	UJ
	Thionazin	78	U	78	UJ
	Sulfotep	78	U	78	UJ
	Dimethoate	78	U	78	UJ
	Parathion	78	U	78	UJ
	Famphur	78	U	78	UJ
BHGLTA508-02RE	Disulfoton	78	U	78	R
	Methyl parathion	78	U	78	R
	Phorate	78	U	78	R
	Dimethoate	78	U	78	R
BHGLTA508-03	Disulfoton	80	U	80	UJ
	Methyl parathion	80	U	80	UJ
	Phorate	80	U	80	UJ
	o,o,o-Triethyl phos.	80	U	80	UJ
	Thionazin	80	U	80	UJ
	Sulfotep	80	U	80	UJ
	Dimethoate	80	U	80	UJ
	Parathion	80	U	80	UJ
	Famphur	80	U	80	UJ
BHGLTA508-03RE	Disulfoton	80	U	80	R
	Methyl parathion	80	U	80	R
	Phorate	80	U	80	R
	Dimethoate	80	U	80	R
DUP01RE	Disulfoton	77	U	77	R
	Methyl parathion	77	U	77	R
	Phorate	77	U	77	R
	Dimethoate	77	U	77	R
EB051398A	Phorate	4 8	U	4.8	R
	o,o,o-Triethyl phos.	1.9	U	1.9	R
	Sulfotep	1.9	U	1.9	R
	Dimethoate	1.9	U	1.9	R

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APPENDIX IX HERBICIDES
USEPA SW846 Method 8150B
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G655

Client: HydroGeoLogic, Inc. Date: September 14, 1998

Laboratory: RECRA LabNet Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA815-01	9805G655-001	Soil
BHGLTA815-02	9805G655-002	Soil
BHGLTA813-01	9805G655-003	Soil
BHGLTA813-02	9805G655-004	Soil
BHGLTA813-03	9805G655-005	Soil
EB051298	9805G655-006	Water
BHGLTA506-01	9805G655-008	Soil
BHGLTA506-02	9805G655-009	Soil
BHGLTA506-03	9805G655-010	Soil
BHGLTA507-01	9805G655-011	Soil
BHGLTA507-02	9805G655-012	Soil
BHGLTA507-03	9805G655-013	Soil
BHGLTA508-01	9805G655-014	Soil
BHGLTA508-02	9805G655-015	Soil
BHGLTA508-03	9805G655-016	Soil
DUP01	9805G655-017	Soil
EB051398A	9805G655-018	Water

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soils samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibration analyzed on 5/19/98 exhibited acceptable %RSD values less than 20%. No qualifications were required.

Continuing Calibration Verification - The continuing calibration verifications analyzed on 5/19/98, 5/20/98, and 5/21/98 exhibited acceptable %D values. No qualifications were required.

The continuing calibration verification analyzed on 5/22/98 exhibited a high %D value for 2,4,5-T of 15.1%. 2,4,5-T has been rejected "R" in associated samples BHGLTA815-01, BHGLTA815-02, BHGLTA813-01, BHGLTA813-02, BHGLTA813-03, EB051298, BHGLTA506-01, BHGLTA506-02, and BHGLTA506-03 since all results are non-detect.

Method Blank - Method blanks PBLKXG (5/14/98), PBLKYN (5/15/98), and PBLKYC (5/19/98) was free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB051298 was free of contamination. No qualifications were required.

Equipment blank EB051398A was free of contamination. No qualifications were required.

Surrogates - All samples exhibited acceptable surrogate %R values. No qualifications were required.

Laboratory Control Samples - LCS sample PBLKXGBS, PBLKYNBS, and PBLKYCBS exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA509-01 (in SDG 9805G688) exhibited acceptable %R and RPD values. No qualifications were required.

MS/MSD sample BHGLTA818-04 (in SDG 9806G980) exhibited low MS/MSD %R values for 2,4,5-TP of 64%/60%. 2,4,5-TP has been qualified "UJ" in associated samples BHGLTA815-01, BHGLTA815-02, BHGLTA813-01, BHGLTA813-02, and BHGLTA813-03 since all results are non-detect.

Field Duplicates - Field duplicate results for samples BHGLTA506-02 and DUP01 are non-detect. No qualifications were required.

Compound Identification - The retention times met the QC acceptance criteria and no qualifications were required.

Compound Quantitation - No discrepancies were identified.

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Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the continuing calibration and MS/MSD sections of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Herbicides SDG: 9805G655					
Sample No.	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
BHGLTA815-01	2,4,5-TP (Silvex)	34	U	34	UJ
	2,4,5-T	34	U	34	R
BHGLTA815-02	2,4,5-TP (Silvex)	35	U	35	UJ
	2,4,5-T	35	U	35	R
BHGLTA813-01	2,4,5-TP (Silvex)	35	U	35	UJ
	2,4,5-T	35	U	35	R
BHGLTA813-02	2,4,5-TP (Silvex)	36	U	36	UJ
	2,4,5-T	36	U	36	R
BHGLTA813-03	2,4,5-TP (Silvex)	40	U	40	UJ
	2,4,5-T	40	U	40	R
EB051298	2,4,5-T	0.10	U	0.10	R
BHGLTA506-01	2,4,5-T	36	U	36	R
BHGLTA506-02	2,4,5-T	40	U	40	R
BHGLTA506-03	2,4,5-T	34	U	34	R

Environmental Data Services, Inc.

Specializing in Laboratory Data Validation

APPENDIX IX METALS
USEPA SW846 Methods 6010A, 7471, 9010A
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G655

Client: HydroGeoLogic, Inc. Date: September 14, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA815-01	9805G655-001	Soil
BHGLTA815-02	9805G655-002	Soil
BHGLTA813-01	9805G655-003	Soil
BHGLTA813-02	9805G655-004	Soil
BHGLTA813-03	9805G655-005	Soil
EB051298	9805G655-006	Water
BHGLTA506-01	9805G655-008	Soil
BHGLTA506-02	9805G655-009	Soil
BHGLTA506-03	9805G655-010	Soil
BHGLTA507-01	9805G655-011	Soil
BHGLTA507-02	9805G655-012	Soil
BHGLTA507-03	9805G655-013	Soil
BHGLTA508-01	9805G655-014	Soil
BHGLTA508-02	9805G655-015	Soil
BHGLTA508-03	9805G655-016	Soil
DUP01	9805G655-017	Soil

Holding Times - All samples were extracted and analyzed within the recommended holding time of 180 days for all metals except 28 days for mercury and 14 days for cyanide as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Sample EB051398A was received by the laboratory unpreserved and the client cancelled the analysis for this sample.

Calibration - The initial calibration verification exhibited cyanide with a high %R of 197.0%. Cyanide has been rejected "R" in all soil samples.

Method Blanks - Soil preparation blank PBS (5/18/98) exhibited contamination for chromium, copper, tin, and zinc, however, all associated results were non-detect or greater than 5X the blank concentration with the exception of tin. Tin has been qualified "U" and, when necessary, the result raised to the PQL in associated samples BHGLTA815-01, BHGLTA815-02, BHGLTA506-01, BHGLTA506-02, BHGLTA506-03, BHGLTA507-01, BHGLTA507-02, BHGLTA507-03, BHGLTA508-01, BHGLTA508-03, and DUP01.

Water preparation blank PBW (5/20/98) exhibited zinc contamination at 7.060 ug/L. Zinc has been qualified "U" and the result raised to the PQL in associated sample EB051298.

The continuing calibration blanks exhibited contamination for several compounds, however, all associated results were non-detect or greater than 5X the blank concentration with the exception of beryllium. Beryllium has been qualified "U" and, when necessary, the result raised to the PQL in associated samples BHGLTA815-02, BHGLTA506-03, BHGLTA507-03, and BHGLTA813-02.

Field and equipment blank - Equipment blank EB051298 exhibited chromium contamination at 5.1 ug/L. Chromium has been qualified "U" and the result raised to the PQL in associated samples BHGLTA506-03 and BHGLTA507-03.

ICP Interference Check Sample - All % recovery values met the QC acceptance criteria. No qualifications were required.

LCS - The LCS analysis met the QC acceptance criteria of as specified in the QAPP. No qualifications were required.

ICP Serial Dilutions - ICP serial dilution sample BHGLTA504-02 (in SDG 9805G688) exhibited acceptable %D values. No qualifications were required.

Matrix Spike - Matrix spike sample BHGLTA509-01 (in SDG 9805G688) exhibited a low %R value for antimony of 35.0%. Antimony has been qualified "UJ" in associated samples BHGLTA506-01, BHGLTA506-02, BHGLTA506-03, BHGLTA507-01, BHGLTA507-02, BHGLTA507-03, BHGLTA508-01, BHGLTA508-02, BHGLTA508-03, and DUP01 since all results are non-detect.

Matrix spike sample BHGLTA818-04 (in SDG 9806G980) exhibited low %R values for antimony and silver of 0.0% and 60.9%, respectively, and a high %R value for vanadium of 142.0%. Antimony and silver have been qualified "J" for positive results and "UJ" for non-detects in associated samples BHGLTA815-01, BHGLTA815-02, BHGLTA813-01, BHGLTA813-02, and BHGLTA813-03. Vanadium has been qualified "J" for positive results in associated samples BHGLTA815-01, BHGLTA815-02, BHGLTA813-01, BHGLTA813-02, and BHGLTA813-03.

Matrix Spike Duplicate - Matrix duplicate sample BHGLTA509-01 (in SDG 9805G688) exhibited acceptable RPD values. No qualifications were required.

Matrix duplicate sample BHGLTA818-04 (in SDG 9806G980) exhibited acceptable RPD values. No qualifications were required.

Field Duplicates - Field duplicate results are summarized in the following table. Barium, beryllium, chromium, copper, and zinc have been qualified "J" in both samples.

Analyte	BHGLTA506-02 mg/kg	DUP01 mg/kg	RPD
Arsenic	12 4	12.5	1
Barium	220	65.3	108*
Beryllium	1.2	0 73	49*
Chromium	25 0	15 3	48*
Cobalt	5.6	4.4	24
Copper	7 2	4 6	44*
Lead	11.7	4 0	98
Nickel	14.8	9.4	45
Thallium	21.1	15.7	29
Vanadium	38 7	27.9	32
Zinc	38.7	24.0	47*

Compound Quantitation - All results between the MDL and the PQL have been qualified "F."

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the calibration, method blank, field blank, matrix spike, field duplicates, and compound quantitation sections of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

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Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Metals SDG: 9805G655					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc	Qualifier
BHGLTA815-01	Antimony	13.1	U	13.1	UJ
	Mercury	0.03	B	0.03	F
	Nickel	2.7	B	2.7	F
	Silver	2.7	B	2.7	J
	Tin	7.7	B	40.9	U
	Vanadium	11.2	B	11.2	J
	Cyanide	0.11	U	0.11	R
BHGLTA815-02	Antimony	2.8	U	2.8	UJ
	Arsenic	2.9	B	2 9	F
	Beryllium	0.29	-	0.29	U
	Chromium	5 4	B	5 4	F
	Cobalt	1.8	B	1.8	F
	Copper	3.5	B	3.5	F
	Lead	5.4	B	5.4	F
	Nickel	3.0	B	3 0	F
	Silver	0.25	U	0.25	UJ
	Tin	2.1	B	8 8	U
	Vanadium	8 0	-	8.0	J
	Cyanide	0.12	U	0.12	R
BHGLTA813-01	Antimony	5.4	U	5.4	UJ
	Arsenic	8 0	B	8 0	F
	Cobalt	3.0	B	3.0	F
	Copper	7 3	B	7 3	F
	Lead	64 5	B	64 5	F
	Nickel	5.9	B	5.9	F
	Silver	0.47	U	0.47	UJ
	Vanadium	18 9	-	18.9	J
	Cyanide	0.13	U	0.13	R
BHGLTA813-02	Antimony	14 8	U	14.8	UJ
	Beryllium	0.41	B	1.4	U
	Chromium	12 6	B	12.6	F
	Cobalt	3.4	B	3.4	F
	Copper	5.3	B	5 3	F
	Nickel	6.5	B	6.5	F
	Silver	1.3	U	1.3	UJ
	Vanadium	23.5	B	23.5	J
	Cyanide	0.12	U	0.12	R
BHGLTA813-03	Antimony	6.7	U	6.7	UJ
	Arsenic	8.8	B	8.8	F
	Beryllium	0.33	B	0.33	F
	Chromium	7.1	B	7.1	F
	Cobalt	2.4	B	2.4	F
	Copper	3 5	B	3.5	F
	Lead	5.1	B	5.1	F

Qualification Summary Table - Metals SDG: 9805G655					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
	Nickel	3.9	B	3.9	F
	Silver	0.59	U	0.59	UJ
	Vanadium	13.0	B	13 0	J
	Cyanide	0.15	U	0 15	R
EB051298	Chromium	5 1	B	5.1	F
	Zinc	12.2	B	20 0	U
BHGLTA506-01	Antimony	2.7	U	2.7	UJ
	Arsenic	7.1	B	7.1	F
	Cobalt	3 6	B	3.6	F
	Lead	11.0	B	11.0	F
	Nickel	7.7	B	7.7	F
	Tin	1.8	B	8.5	U
	Thallium	9.9	B	9.9	F
	Cyanide	0.14	U	0.14	R
BHGLTA506-02	Antimony	3.4	U	3.4	UJ
	Arsenic	12 4	B	12.4	F
	Barium	220	-	220	J
	Beryllium	1.2	-	1.2	J
	Chromium	25.0	-	25.0	J
	Cobalt	5.6	B	5.6	F
	Copper	7.2	-	7.2	J
	Lead	11.7	B	11.7	F
	Nickel	14.8	B	14.8	F
	Tin	2.0	B	10.6	U
	Thallium	21.1	B	21.1	F
	Zinc	38.7	-	38 7	J
	Cyanide	0 15	U	0.15	R
BHGLTA506-03	Antimony	2 6	U	2.6	UJ
	Beryllium	0.09	B	0.24	U
	Chromium	2.4	B	5.6	U
	Cobalt	1.4	B	1.4	F
	Copper	1 6	B	1.6	F
	Lead	2.7	B	2.7	F
	Nickel	2.7	B	2.7	F
	Tin	1.1	B	8.0	U
	Vanadium	4.4	B	4.4	F
	Cyanide	0 14	U	0 14	R
BHGLTA507-01	Antimony	2 7	U	2.7	UJ
	Arsenic	6.9	B	6.9	F
	Cobalt	5 2	B	5 2	F
	Lead	7.2	B	7.2	F
	Nickel	10.3	B	10.3	F
	Tin	2.1	B	8.6	U
	Thallium	11.1	B	11.1	F
	Cyanide	0 29	B	0.29	R
BHGLTA507-02	Antimony	6.0	U	6.0	UJ
	Arsenic	12 5	B	12.5	F
	Cobalt	7.7	B	7.7	F

Qualification Summary Table - Metals SDG· 9805G655					
Sample No.	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
	Copper	5.4	B	5.4	F
	Lead	6.9	B	6 9	F
	Nickel	10 0	B	10.0	F
	Tin	1 8	B	18.9	U
	Cyanide	0.19	B	0 19	R
BHGLTA507-03	Antimony	2 5	U	2.5	UJ
	Beryllium	0 07	B	0.24	U
	Chromium	1 9	B	5.6	U
	Cobalt	0.97	B	0.97	F
	Copper	1 5	B	1.5	F
	Lead	2 0	B	2.0	F
	Nickel	1.6	B	1.6	F
	Tin	1.7	B	8.0	U
	Vanadium	4.8	B	4.8	F
	Cyanide	0 11	U	0.11	R
BHGLTA508-01	Antimony	2 7	U	2 7	UJ
	Arsenic	6.2	B	6.2	F
	Lead	13 5	B	13.5	F
	Nickel	8 7	B	8.7	F
	Tin	1.3	B	8.4	U
	Thallium	11.7	B	11.7	F
	Cyanide	0.11	U	0.11	R
BHGLTA508-02	Antimony	6.6	U	6.6	UJ
	Arsenic	9.3	B	9.3	F
	Chromium	14.3	B	14.3	F
	Cobalt	5.8	B	5.8	F
	Copper	7.1	B	7 1	F
	Lead	7 2	B	7.2	F
	Nickel	10.2	B	10.2	F
	Thallium	13 4	B	13.4	F
	Cyanide	0.12	U	0.12	R
BHGLTA508-03	Antimony	16.5	U	16.5	UJ
	Beryllium	0.63	B	0 63	F
	Chromium	10.8	B	10.8	F
	Cobalt	4.2	B	4.2	F
	Copper	5.0	B	5 0	F
	Nickel	6.5	B	6.5	F
	Tin	5 6	B	10 3	U
	Vanadium	27.9	B	27.9	F
	Cyanide	0.14	U	0 14	R
DUP01	Antimony	6.1	U	6 1	UJ
	Arsenic	12.5	B	12.5	F
	Barium	65.3	-	65.3	J
	Beryllium	0.73	-	0.73	J
	Chromium	15.3	-	15 3	J
	Cobalt	4 4	B	4.4	F
	Copper	4.6	B	4 6	J
	Lead	4.0	B	4.0	F
	Nickel	9.4	B	9.4	F

Qualification Summary Table - Metals SDG. 9805G655					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
	Tin	2.0	B	19.2	U
	Thallium	15 7	B	15.7	F
	Zinc	24.0	-	24.0	J
	Cyanide	0.16	U	0.16	R

SULFIDE
USEPA SW846 Method 9030
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G655

Client: HydroGeoLogic, Inc. Date: September 15, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA815-01	9805G655-001	Soil
BHGLTA815-02	9805G655-002	Soil
BHGLTA813-01	9805G655-003	Soil
BHGLTA813-02	9805G655-004	Soil
BHGLTA813-03	9805G655-005	Soil
EB051298	9805G655-006	Water
BHGLTA506-01	9805G655-008	Soil
BHGLTA506-02	9805G655-009	Soil
BHGLTA506-03	9805G655-010	Soil
BHGLTA507-01	9805G655-011	Soil
BHGLTA507-02	9805G655-012	Soil
BHGLTA507-03	9805G655-013	Soil
BHGLTA508-01	9805G655-014	Soil
BHGLTA508-02	9805G655-015	Soil
BHGLTA508-03	9805G655-016	Soil
DUP01	9805G655-017	Soil

Holding Times - All samples were analyzed within the recommended holding time of 7 days as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 with the exception of samples BHGLTA815-01, BHGLTA815-02, BHGLTA813-01, BHGLTA813-02, BHGLTA813-03, and EB051298 which were analyzed at 8 days. Sulfide has been qualified "UJ" in these samples since all results are non-detect.

Sample EB051398A was received by the laboratory unpreserved and the client canceled the analysis for this sample.

Method and Calibration Blanks - The method blanks were free of contamination. No qualifications were required.

Field and Equipment Blank - Equipment blank EB051298 was free of contamination. No qualifications were required.

LCS - The LCS samples exhibited acceptable %R values. No qualifications were required.

Matrix Spike/Duplicate - MS/MSD sample BHGLTA509-01 (in SDG 9805G688) exhibited acceptable %R and RPD values. No qualifications were required.

MS/MSD sample BHGLTA818-04 (in SDG 9806G980) exhibited acceptable %R and RPD values. No qualifications were required.

Field Duplicates - Field duplicate results for samples BHGLTA506-02 and DUP01 are non-detect. No qualifications were required.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the holding times section of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Sulfide SDG: 9805G655					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
BHGLTA815-01	Sulfide	25.8	U	25.8	UJ
BHGLTA815-02	Sulfide	26.2	U	26.2	UJ
BHGLTA813-01	Sulfide	26 5	U	26.5	UJ
BHGLTA813-02	Sulfide	27.5	U	27.5	UJ
BHGLTA813-03	Sulfide	29.9	U	29.9	UJ
EB051298	Sulfide	1.0	U	1.0	UJ

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APPENDIX IX SEMIVOLATILE ORGANIC COMPOUNDS
USEPA SW846 Method 8270C
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G655

Client: HydroGeoLogic, Inc. Date: September 11, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA815-01	9805G655-001	Soil
BHGLTA815-02	9805G655-002	Soil
BHGLTA813-01	9805G655-003	Soil
BHGLTA813-02	9805G655-004	Soil
BHGLTA813-03	9805G655-005	Soil
EB051298	9805G655-006	Water
BHGLTA506-01	9805G655-008	Soil
BHGLTA506-02	9805G655-009	Soil
BHGLTA506-03	9805G655-010	Soil
BHGLTA507-01	9805G655-011	Soil
BHGLTA507-02	9805G655-012	Soil
BHGLTA507-03	9805G655-013	Soil
BHGLTA508-01	9805G655-014	Soil
BHGLTA508-02	9805G655-015	Soil
BHGLTA508-03	9805G655-016	Soil
DUP01	9805G655-017	Soil
EB051398A	9805G655-018	Water

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soils samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

GC/MS Tuning - All of the DFTPP tunes in the initial and continuing calibrations met the percent relative abundance criteria. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 3/12/98 and 5/14/98 exhibited acceptable %RSD and mean RRF values No qualifications were required.

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Continuing Calibration - The continuing calibration analyzed on 5/21/98 exhibited high %D values for 4-chloroaniline, 3-nitroaniline, 4-nitroaniline, and 3,3'-dichlorobenzidine of 65.9%, 60.0%, 37.2%, and 27.3%, respectively. All four compounds have been rejected "R" in associated samples BHGLTA815-01, BHGLTA815-02, BHGLTA813-01, BHGLTA813-02, BHGLTA813-03, BHGLTA506-01, BHGLTA506-02, BHGLTA506-03, BHGLTA507-01, BHGLTA507-02, and BHGLTA507-03 since all results are non-detect.

The continuing calibration analyzed on 5/28/98 exhibited high %D values for 4-chloroaniline, 3-nitroaniline, 4-nitroaniline, and 3,3'-dichlorobenzidine of 74.1%, 65.8%, 46.8%, and 28.5%, respectively. All four compounds have been rejected "R" in associated samples EB051298, BHGLTA508-01, BHGLTA508-02, DUP01, and EB051398A since all results are non-detect.

The continuing calibration analyzed on 5/29/98 exhibited high %D values for 4-chloroaniline, 3-nitroaniline, 4-nitroaniline, and 3,3'-dichlorobenzidine of 48.7%, 59.3%, 56.4%, and 32.0%, respectively. All four compounds have been rejected "R" in associated sample BHGLTA508-03 since all results are non-detect.

Surrogates - All samples exhibited acceptable surrogate %R values. No qualifications were required.

Laboratory Control Samples - LCS samples SBLKPS and SBLKQK exhibited acceptable %R values. No qualifications were required.

LCS sample SBLKQG exhibited high %R values for butylbenzylphthalate and di-n-octylphthalate of 130% and 132%, respectively, however, all associated results are non-detect and no qualifications were required.

MS/MSD - MS/MSD sample BHGLTA509-01 (in SDG 9805G688) exhibited several compounds with MS %R values outside of QC limits, however, the LCS exhibited acceptable %R values for these compounds, therefore, no qualifications were required.

MS/MSD sample BHGLTA818-04 (in SDG 9806G980) exhibited low MS/MSD %R values for hexachlorocyclopentadiene of 2%/7%. Hexachlorocyclopentadiene has been qualified "UJ" in associated samples BHGLTA815-01, BHGLTA815-02, BHGLTA813-01, BHGLTA813-02, and BHGLTA813-03 since all results are non-detect. Several other MSD %R values exceeded QC limits, however, the LCS exhibited acceptable %R values for these compounds, therefore, no qualifications were required.

Internal Standard (IS) Area Performance - Internal standard criteria have been met and no action has been taken

Method Blank - Method blanks SBLKPS (5/14/98), SBLKQG (5/19/98), and SBLKQK (5/20/98) were free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB051298 was free of contamination. No qualifications were required.

Equipment blank EB051398A exhibited bis(2-ethylhexyl)phthalate contamination at 38 ug/L. Bis(2-ethylhexyl)phthalate has been qualified "U" in associated samples BHGLTA506-01, BHGLTA508-02 and BHGLTA508-03.

Field Duplicates - Field duplicate results are summarized in the table below. Since one result is below the PQL and the other result is non-detect, the RPD was "not calculated" and no qualifications were required.

Analyte	BHGLTA506-02 ug/kg	DUP01 ug/kg	RPD
Di-n-butylphthalate	58	380U	NC

Tentatively Identified Compounds (TICs) - All TIC results have been qualified "T."

Compound Quantitation - All results between the MDL and the PQL have been qualified "F."

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the continuing calibration, MS/MSD, field blank, TICs, and compound quantitation sections of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Semivolatiles SDG: 9805G655					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
BHGLTA815-01	4-Chloroaniline	690	U	690	R
	Hexachlorocyclopentadiene	340	U	340	UJ
	3-Nitroaniline	1700	U	1700	R
	4-Nitroaniline	1700	U	1700	R
	Anthracene	60	J	60	F
	Di-n-butylphthalate	98	J	98	F
	3,3'-Dichlorobenzidine	690	U	690	R
	Dibenzo(a,h)anthracene	120	J	120	F
BHGLTA815-02	4-Chloroaniline	710	U	710	R
	Hexachlorocyclopentadiene	350	U	350	UJ
	3-Nitroaniline	1800	U	1800	R
	4-Nitroaniline	1800	U	1800	R
	3,3'-Dichlorobenzidine	710	U	710	R
BHGLTA813-01	4-Chloroaniline	710	U	710	R
	Hexachlorocyclopentadiene	350	U	350	UJ
	3-Nitroaniline	1800	U	1800	R
	Acenaphthene	94	J	94	F
	Fluorene	43	J	43	F
	4-Nitroaniline	1800	U	1800	R
	Anthracene	220	J	220	F
	Di-n-butylphthalate	250	J	250	F
	3,3'-Dichlorobenzidine	710	U	710	R
	Dibenzo(a,h)anthracene	220	J	220	F
BHGLTA813-02	4-Chloroaniline	730	U	730	R
	Hexachlorocyclopentadiene	370	U	370	UJ
	3-Nitroaniline	1800	U	1800	R
	4-Nitroaniline	1800	U	1800	R
	Di-n-butylphthalate	170	J	170	F
	3,3'-Dichlorobenzidine	730	U	730	R
	Bis(2-ethylhexyl)phthalate	75	J	75	F
BHGLTA813-03	4-Chloroaniline	800	U	800	R
	Hexachlorocyclopentadiene	400	U	400	UJ
	3-Nitroaniline	2000	U	2000	R
	4-Nitroaniline	2000	U	2000	R
	Di-n-butylphthalate	40	J	40	F
	Fluoranthene	45	J	45	F
	Pyrene	40	J	40	F
	3,3'-Dichlorobenzidine	800	U	800	R
	Benzo(b)fluoranthene	40	J	40	F
EB051298	4-Chloroaniline	19	U	19	R
	3-Nitroaniline	48	U	48	R
	4-Nitroaniline	48	U	48	R
	3,3'-Dichlorobenzidine	19	U	19	R
BHGLTA506-01	4-Chloroaniline	720	U	720	R
	3-Nitroaniline	1800	U	1800	R

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Qualification Summary Table - Semivolatiles
SDG 9805G655

Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
	4-Nitroaniline	1800	U	1800	R
	Phenanthrene	55	J	55	F
	Fluoranthene	160	J	160	F
	Pyrene	140	J	140	F
	Benzo(a)anthracene	67	J	67	F
	3,3'-Dichlorobenzidine	720	U	720	R
	Chrysene	88	J	88	F
	Bis(2-ethylhexyl)phthalate	280	J	280	U
	Benzo(b)fluoranthene	130	J	130	F
	Benzo(k)fluoranthene	51	J	51	F
	Benzo(a)pyrene	82	J	82	F
	Indeno(1,2,3-cd)pyrene	61	J	61	F
	Benzo(g,h,i)perylene	53	J	53	F
BHGLTA506-02	4-Chloroaniline	810	U	810	R
	3-Nitroaniline	2000	U	2000	R
	4-Nitroaniline	2000	U	2000	R
	Di-n-butylphthalate	58	J	58	F
	3,3'-Dichlorobenzidine	810	U	810	R
BHGLTA506-03	4-Chloroaniline	680	U	680	R
	3-Nitroaniline	1700	U	1700	R
	4-Nitroaniline	1700	U	1700	R
	Di-n-butylphthalate	65	J	65	F
	3,3'-Dichlorobenzidine	680	U	680	R
BHGLTA507-01	4-Chloroaniline	700	U	700	R
	3-Nitroaniline	1800	U	1800	R
	4-Nitroaniline	1800	U	1800	R
	Phenanthrene	75	J	75	F
	Fluoranthene	280	J	280	F
	Pyrene	230	J	230	F
	Benzo(a)anthracene	99	J	99	F
	3,3'-Dichlorobenzidine	700	U	700	R
	Chrysene	140	J	140	F
	Benzo(b)fluoranthene	210	J	210	F
	Benzo(k)fluoranthene	67	J	67	F
	Benzo(a)pyrene	130	J	130	F
	Indeno(1,2,3-cd)pyrene	120	J	120	F
	Benzo(g,h,i)perylene	100	J	100	F
BHGLTA507-02	4-Chloroaniline	800	U	800	R
	3-Nitroaniline	2000	U	2000	R
	4-Nitroaniline	2000	U	2000	R
	3,3'-Dichlorobenzidine	800	U	800	R
BHGLTA507-03	4-Chloroaniline	680	U	680	R
	3-Nitroaniline	1700	U	1700	R
	4-Nitroaniline	1700	U	1700	R
	3,3'-Dichlorobenzidine	680	U	680	R
BHGLTA508-01	4-Chloroaniline	740	U	740	R
	3-Nitroaniline	1800	U	1800	R
	4-Nitroaniline	1800	U	1800	R

Qualification Summary Table - Semivolatiles
SDG. 9805G655

Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
	Fluoranthene	50	J	50	F
	Pyrene	39	J	39	F
	3,3'-Dichlorobenzidine	740	U	740	R
	Benzo(b)fluoranthene	42	J	42	F
BHGLTA508-02	Meta & para - Cresol	42	J	42	F
	Naphthalene	47	J	47	F
	4-Chloroaniline	770	U	770	R
	3-Nitroaniline	1900	U	1900	R
	4-Nitroaniline	1900	U	1900	R
	Anthracene	66	J	66	F
	Benzo(a)anthracene	280	J	280	F
	3,3'-Dichlorobenzidine	770	U	770	R
	Bis(2-ethylhexyl)phthalate	83	J	83	U
	Benzo(k)fluoranthene	190	J	190	F
	Benzo(a)pyrene	360	J	360	F
	Indeno(1,2,3-cd)pyrene	290	J	290	F
	Dibenzo(a,h)anthracene	52	J	52	F
	Benzo(g,h,i)perylene	270	J	270	F
BHGLTA508-03	Meta & para - Cresol	200	J	200	F
	4-Chloroaniline	780	U	780	R
	3-Nitroaniline	2000	U	2000	R
	4-Nitroaniline	2000	U	2000	R
	Phenanthrene	360	J	360	F
	Anthracene	61	J	61	F
	Benzo(a)anthracene	190	J	190	F
	3,3'-Dichlorobenzidine	780	U	780	R
	Chrysene	250	J	250	F
	Bis(2-ethylhexyl)phthalate	67	J	67	U
	Benzo(b)fluoranthene	290	J	290	F
	Benzo(k)fluoranthene	100	J	100	F
	Benzo(a)pyrene	200	J	200	F
	Indeno(1,2,3-cd)pyrene	160	J	160	F
	Benzo(g,h,i)perylene	160	J	160	F
DUP01	4-Chloroaniline	770	U	770	R
	3-Nitroaniline	1900	U	1900	R
	4-Nitroaniline	1900	U	1900	R
	3,3'-Dichlorobenzidine	770	U	770	R
EB051398A	4-Chloroaniline	19	U	19	R
	3-Nitroaniline	48	U	48	R
	4-Nitroaniline	48	U	48	R
	3,3'-Dichlorobenzidine	19	U	19	R

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APPENDIX IX VOLATILE ORGANIC COMPOUNDS
USEPA SW846 Method 8260B
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G655

Client: HydroGeoLogic, Inc. Date: September 10, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA815-01	9805G655-001	Soil
BHGLTA815-01RE	9805G655-001RE	Soil
BHGLTA815-02	9805G655-002	Soil
BHGLTA815-02RE	9805G655-002RE	Soil
BHGLTA813-01	9805G655-003	Soil
BHGLTA813-02	9805G655-004	Soil
BHGLTA813-02RE	9805G655-004RE	Soil
BHGLTA813-03	9805G655-005	Soil
EB051298	9805G655-006	Water
TB051298	9805G655-007	Water
BHGLTA506-01	9805G655-008	Soil
BHGLTA506-02	9805G655-009	Soil
BHGLTA506-03	9805G655-010	Soil
BHGLTA507-01	9805G655-011	Soil
BHGLTA507-02	9805G655-012	Soil
BHGLTA507-03	9805G655-013	Soil
BHGLTA508-01	9805G655-014	Soil
BHGLTA508-02	9805G655-015	Soil
BHGLTA508-03	9805G655-016	Soil
BHGLTA508-03DL	9805G655-016DL	Soil
DUP01	9805G655-017	Soil
DUP01DL	9805G655-017DL	Soil
EB051398A	9805G655-018	Water
TB051398A	9805G655-019	Water

Holding Times - All samples were analyzed within the recommended holding time of 14 days for preserved water samples and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 with the exception of sample BHGLTA815-02RE which was analyzed at 15 days. However, all results for this sample have already been qualified due to low surrogate recoveries and no further qualifications were required.

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GC/MS Tuning - All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria. No qualifications were required.

Initial Calibration - The initial calibration analyzed on 3/11/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

The initial calibration analyzed on 4/20/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

The initial calibration analyzed on 5/6/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

The initial calibration analyzed on 5/7/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

Continuing Calibration - The continuing calibration analyzed on 5/21/98 exhibited high %D values for dichlorodifluoromethane and chloromethane of 34.0% and 27.5%, respectively. Both compounds have been rejected "R" in associated samples EB051298, TB051298, EB051398A, and TB051398A.

The continuing calibration analyzed on 5/26/98 exhibited acceptable %D and RRF values. No qualifications were required.

The continuing calibration analyzed on 5/26/98 exhibited a high %D value for dichlorodifluoromethane of 36.3%. Dichlorodifluoromethane has been rejected "R" in associated samples BHGLTA506-01, BHGLTA506-02, BHGLTA506-03, BHGLTA507-01, BHGLTA507-02, BHGLTA507-03, BHGLTA508-01, BHGLTA508-02, BHGLTA508-03, and DUP01. Dichlorodifluoromethane has already been rejected in associated sample BHGLTA815-02RE due to surrogate problems and no further qualifications were required.

The continuing calibration analyzed on 5/27/98 exhibited high %D values for dichlorodifluoromethane, chloromethane, and bromomethane of 51.3%, 26.6%, and 26.1%, respectively. All three compounds have been rejected "R" in associated samples BHGLTA508-03DL and DUP01DL.

Surrogates - Sample BHGLTA815-01 exhibited a low %R value for surrogate compound S3-p-bromofluorobenzene of 52%. All results for this sample have been qualified "J" for positive results and "UJ" for non-detects. BHGLTA815-01RE exhibited acceptable surrogate %R values and the results from the reanalysis should be used for reporting purposes.

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Sample BHGLTA815-02 exhibited a low %R value for surrogate compound S4-dibromofluoromethane of 6%. Since this result is less than 10%, all results for this sample have been qualified "J" for positive results and rejected "R" for non-detects. Reanalyzed sample BHGLTA815-02RE exhibited a low %R value for surrogate compound S4-dibromofluoromethane of 4% and all results for this sample have been qualified "J" for positive results and rejected "R" for non-detects. Since the reanalyzed sample exhibited similar results and was also analyzed outside of holding times, the original sample results should be used for reporting purposes.

Laboratory Control Samples - LCS' VBLKGK, VBLKGS, VBLKGM, and VBLKGQ exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA509-01 (in SDG 9805G688) exhibited acceptable %R and RPD values. No qualifications were required.

MS/MSD sample BHGLTA818-04 (in SDG 9806G980) exhibited low MS/MSD %R values for dichlorodifluoromethane of 42%/34%. Dichlorodifluoromethane has been qualified "UJ" in associated samples BHGLTA815-01, BHGLTA815-01RE, BHGLTA815-02, BHGLTA815-02RE, BHGLTA813-01, BHGLTA813-02, BHGLTA813-02RE, and BHGLTA813-03 unless already rejected "R" due to surrogate problems. 1,1-Dichloroethene exhibited a low MSD %R value, however, the LCS exhibited acceptable values and no qualifications were required.

Internal Standard (IS) Area Performance - Sample BHGLTA815-01 exhibited low area counts for IS1, IS2, IS3, and IS4, however, all results for this sample have already been qualified due to surrogate problems and no further qualifications were required. Sample BHGLTA815-01RE exhibited a low area count for IS4 only. All IS4 associated results for this sample have been qualified "UJ" since all results are non-detect. Due to less qualification, all results from reanalyzed sample BHGLTA815-01RE should be used for reporting purposes.

Samples BHGLTA813-02 and BHGLTA813-02RE exhibited a low area count for IS4 and all IS4 associated results have been qualified "UJ" in both sample since all results are non-detect. Since both samples exhibited similar results, the original sample results should be used for reporting purposes.

Method Blank - Method blanks VBLKGK (5/21/98), VBLKGS (5/26/98), VBLKGM (5/26/98), and VBLKGQ (5/27/98) were free of contamination. No qualifications were required.

Trip, field, equipment blank - Trip blank TB051298 was free of contamination. No qualifications were required.

Trip blank TB051398A was free of contamination. No qualifications were required.

Equipment blank EB051298 exhibited methylene chloride contamination at 1 ug/L, however, all associated results are non-detect and no qualifications were required.

Equipment blank EB051398A exhibited methylene chloride contamination at 1 ug/L, however, all associated results are non-detect and no qualifications were required.

Field Duplicates - Field duplicate results are summarized in the following table. Since these compounds are exempt from RPD QC criteria, therefore, no qualifications were required.

Analyte	BHGLTA506-02 ug/kg	DUP01 ug/kg	RPD
Acetone	72	430	143
2-Butanone	8	59	152

Tentatively Identified Compounds (TICs) - All TIC results have been qualified "T."

Compound Quantitation - Several compounds in several samples were qualified "F" since the results were between the MDL and the PQL.

Samples BHGLTA508-03 and DUP01 exhibited acetone which exceeded the linear range of the instrument and these results were qualified "E" by the laboratory. The samples were reanalyzed at a 5X dilution and the original acetone results were replaced on the Form Is with the dilution results. All results on the original Form Is should be used for reporting purposes.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the continuing calibration, surrogate, MS/MSD, internal standard, TICs, and compound quantitation sections of this report with the exception of several rejections due to the continuing calibration and surrogate problems. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

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Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Volatiles SDG 9805G655					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc	Qualifier
BHGLTA815-01	All results	--	--	--	J/UJ
BHGLTA815-01RE	Dichlorodifluoromethane	5	U	5	UJ
	Toluene	4	J	4	F
	Trans-1,4-dichloro-2-butene	5	U	5	UJ
	1,1,2,2-tetrachloroethane	2	U	2	UJ
	1,2,3-Trichloropropane	5	U	5	UJ
	Pentachloroethane	5	U	5	UJ
	1,2-Dibromo-3-chloropropane	5	U	5	UJ
BHGLTA815-02	All results	--	--	--	J/R
BHGLTA815-02RE	All results	--	--	--	J/R
BHGLTA813-01	Dichlorodifluoromethane	5	U	5	UJ
	2-Hexanone	4	J	4	F
BHGLTA813-02	Dichlorodifluoromethane	6	U	6	UJ
	Ethylbenzene	3	J	3	F
	Trans-1,4-dichloro-2-butene	6	U	6	UJ
	1,1,2,2-tetrachloroethane	2	U	2	UJ
	1,2,3-Trichloropropane	6	U	6	UJ
	Pentachloroethane	6	U	6	UJ
	1,2-Dibromo-3-chloropropane	6	U	6	UJ
BHGLTA813-02RE	Dichlorodifluoromethane	6	U	6	UJ
	Ethylbenzene	2	J	2	F
	Trans-1,4-dichloro-2-butene	6	U	6	UJ
	1,1,2,2-tetrachloroethane	2	U	2	UJ
	1,2,3-Trichloropropane	6	U	6	UJ
	Pentachloroethane	6	U	6	UJ
	1,2-Dibromo-3-chloropropane	6	U	6	UJ
BHGLTA813-03	Dichlorodifluoromethane	6	U	6	UJ
EB051298	Dichlorodifluoromethane	0.5	U	0.5	R
	Chloromethane	0.5	U	0.5	R
	1,2-Dibromo-3-chloropropane	0.5	U	0.5	R
TB051298	Dichlorodifluoromethane	0.5	U	0 5	R
	Chloromethane	0 5	U	0 5	R
	1,2-Dibromo-3-chloropropane	0 5	U	0 5	R
BHGLTA506-01	Dichlorodifluoromethane	5	U	5	R
	4-Methyl-2-pentanone	3	J	3	F
BHGLTA506-02	Dichlorodifluoromethane	6	U	6	R
BHGLTA506-03	Dichlorodifluoromethane	5	U	5	R
BHGLTA507-01	Dichlorodifluoromethane	5	U	5	R
BHGLTA507-02	Dichlorodifluoromethane	6	U	6	R
BHGLTA507-03	Dichlorodifluoromethane	5	U	5	R
BHGLTA508-01	Dichlorodifluoromethane	6	U	6	R
BHGLTA508-02	Dichlorodifluoromethane	6	U	6	R
BHGLTA508-03	Dichlorodifluoromethane	6	U	6	R

Qualification Summary Table - Volatiles SDG. 9805G655					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
	Acetone	360	E	500	--
BHGLTA508-03DL	Dichlorodifluoromethane	30	U	30	R
	Chloromethane	30	U	30	R
	Bromomethane	30	U	30	R
DUP01	Dichlorodifluoromethane	6	U	6	R
	Acetone	330	E	430	--
DUP01DL	Dichlorodifluoromethane	29	U	29	R
	Chloromethane	29	U	29	R
	Bromomethane	29	U	29	R
EB051398A	Dichlorodifluoromethane	0.5	U	0.5	R
	Chloromethane	0.5	U	0 5	R
	1,2-Dibromo-3-chloropropane	0 5	U	0.5	R
TB051398A	Dichlorodifluoromethane	0.5	U	0.5	R
	Chloromethane	0.5	U	0.5	R
	1,2-Dibromo-3-chloropropane	0 5	U	0 5	R

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APPENDIX IX VOLATILE ORGANIC COMPOUNDS
USEPA SW846 Method 8260B
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9806G031

Client: HydroGeoLogic, Inc. Date: September 21, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
TB060498	9806G031-001	Water
EB060498	9806G031-002	Water
BHGLTA405-06	9806G031-003	Soil

Holding Times - All samples were analyzed within the recommended holding time of 14 days for preserved water samples and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

GC/MS Tuning - All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 2/23/98-6/17/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

The initial calibrations analyzed on 4/28/98-6/10/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

Continuing Calibration - The continuing calibrations analyzed on 6/18/98 exhibited acceptable %D and RRF values. No qualifications were required.

Surrogates - All samples exhibited acceptable surrogate %R values. No qualifications were required.

Laboratory Control Samples - LCS samples VBLKIG and VBLKLZ exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA402-01 (in SDG 9805G833) exhibited acceptable %R and RPD values. No qualifications were required.

Internal Standard (IS) Area Performance - All internal standards met response and retention time (RT) criteria. No qualifications were required.

Method Blank - Method blank VBLKIG (6/18/98) was free of contamination. No qualifications were required.

Method blank VBLKLZ (6/18/98) exhibited methylene chloride contamination at 0.6 ug/L, however, all associated results are non-detect and no qualifications were required.

Trip, field, equipment blank - Trip blank TB060498 was free of contamination. No qualifications were required.

Equipment blank EB060498 exhibited acetone contamination at 6 ug/L. Acetone has been qualified "U" in associated sample BHGLTA405-06.

Field Duplicates - Field duplicate samples were not analyzed with this data package.

Tentatively Identified Compounds (TICs) - TICs were not detected in any of the samples.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the field blank section of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Volatiles SDG: 9806G031					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
BHGLTA405-06	Acetone	9	-	9	U

APPENDIX IX SEMIVOLATILE ORGANIC COMPOUNDS
USEPA SW846 Method 8270C
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9806G031

Client: HydroGeoLogic, Inc. Date: September 21, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
EB060498	9806G031-002	Water
EB060498RE	9806G031-002RE	Water
BHGLTA405-06	9806G031-003	Soil

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soils samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 with the exception of sample EB060498RE which was analyzed at 49 days. All results for this sample have been qualified "UJ" except those results already rejected "R" due to the continuing calibration.

GC/MS Tuning - All of the DFTPP tunes in the initial and continuing calibrations met the percent relative abundance criteria. No qualifications were required.

Initial Calibration - The initial calibrations analyzed 3/12/98-7/10/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

The initial calibration analyzed on 7/17/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

Continuing Calibration - The continuing calibration analyzed on 7/16/98 exhibited a high %D value for 3-nitroaniline of 95.8%. 3-Nitroaniline has been rejected "R" in associated sample EB060498 since this result is non-detect.

The continuing calibration analyzed on 7/24/98 exhibited high %D values for 4-chloroaniline, 3-nitroaniline, and benzoic acid of 34.5%, 48.3%, and 33.1%, respectively. All three compounds have been rejected "R" in associated sample BHGLTA405-06 since all results are non-detect.

The continuing calibration analyzed on 7/29/98 exhibited high %D values for 4-nitroaniline and 3-nitroaniline of 41.8% and 28.6%, respectively. Both compounds have been rejected "R" in associated sample EB060498RE since both results are non-detect.

Surrogates - All samples exhibited acceptable surrogate %R values. No qualifications were required.

Laboratory Control Samples - LCS sample SBLKSB exhibited high %R values for 3-nitroaniline and 4,6-dinitro-2-methylphenol of 162% and 135%, respectively, however, all associated results are non-detect and no qualifications were required.

LCS sample SBLKSX exhibited high %R values for butylbenzylphthalate, chrysene, di-n-octylphthalate, and benzo(a)pyrene of 136%, 149%, 159%, and 145%, respectively, however, all associated results are non-detect and no qualifications were required.

MS/MSD - MS/MSD sample BHGLTA402-01 (in SDG 9805G833) exhibited acceptable %R and RPD values. No qualifications were required.

Internal Standard (IS) Area Performance - Sample EB060498 exhibited high area counts for IS1 and IS2, however, all results are non-detect and no qualifications were required. Reanalyzed sample EB060498RE exhibited acceptable response and retention time (RT) criteria, however, the sample was analyzed outside of holding times and the original sample results should be used for reporting purposes.

Method Blank - Method blanks SBLKSB (6/10/98) and SBLKSX (6/16/98) were free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB060498 was free of contamination. No qualifications were required.

Field Duplicates - Field duplicate samples were not analyzed with this data package.

Tentatively Identified Compounds (TICs) - All TIC results have been qualified "T."

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the holding times, continuing calibration, and TICs sections of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Semivolatiles SDG: 9806G031					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
EB060498	3-Nitroaniline	50	U	50	R
EB060498RE	All results	--	U	--	UJ/R
BHGLTA405-06	4-Chloroaniline	700	U	700	R
	3-Nitroaniline	1700	U	1700	R
	Benzoic Acid	1700	U	1700	R

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APPENDIX IX PESTICIDES/PCBs
USEPA SW846 Method 8080A
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9806G031

Client: HydroGeoLogic, Inc. Date: September 21, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
EB060498	9806G031-002	Water
BHGLTA405-06	9806G031-003	Soil

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soils samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibration analyzed on 6/17/98 exhibited acceptable %RSD values of less than 20%. No qualifications were required.

Continuing Calibration Verification - The continuing calibration QC acceptance criteria were met. The <20% DDT and endrin breakdown criteria were met. No qualifications were required.

Method Blank - Method blanks PBLKKG (6/10/98) and PBLKLE (6/16/98) were free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB060498 was free of contamination. No qualifications were required.

Surrogates - All samples exhibited acceptable surrogate %R values. No qualifications were required.

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APPENDIX IX ORGANOPHOPHORUS PESTICIDES
USEPA SW846 Method 8141
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9806G031

Client: HydroGeoLogic, Inc. Date: September 21, 1998

Laboratory: RECRA LabNet Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
EB060498	9806G031-002	Water
BHGLTA405-06	9806G031-003	Soil

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soils samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required

Initial Calibration - The initial calibrations analyzed on 6/25/98, 6/30/98, and 7/8/98 exhibited acceptable %RSD values of less than 20% and/or correlation coefficients of >0.995. No qualifications were required.

Continuing Calibration Verification - The continuing calibration verifications analyzed on 6/25/98, 6/28/98, 6/30/98, 7/1/98, and 7/8/98 exhibited acceptable %D values. No qualifications were required.

The continuing calibration verification analyzed on 6/29/98 exhibited high %D values for o,o,o-triethyl phosphorothioate and dimethoate of 21.0% and 18.2%, respectively. Both compounds have been rejected "R" in associated sample EB060498.

The continuing calibration verification analyzed on 7/8/98 exhibited a high %D value for dimethoate of 20.7%. Dimethoate has been rejected in associated sample BHGLTA405-06.

Method Blank - Method blanks PBLKKF (6/10/98) and PBLKLD (6/16/98) were free of contamination. No qualifications were required.

Laboratory Control Samples - LCS sample PBLKKHBS, PBLKKIBS, PBLKLFBS, and PBLKLGBS exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA402-01 (in SDG 9805G833) exhibited acceptable %R and RPD values. No qualifications were required.

Field Duplicates - Field duplicate samples were not analyzed with this data package.

Compound Identification - The retention times met the QC acceptance criteria with the exception of several RTs on 6/28/98 which were outside the RT window on both columns. However, the data were not affected and no qualifications were required.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Pesticide/PCBs SDG: 9806G031					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
None Qualified	--	--	--	--	--

Field. equipment blank - Equipment blank EB060498 was free of contamination. No qualifications were required.

Surrogates - Sample BHGLTA405-06 exhibited a low %R value for surrogate S1-TBP, however, no qualifications are required unless both surrogates exceed QC limits.

Laboratory Control Samples - LCS samples PBLKKFGS and PBLKDGPS exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA402-01 (in SDG 9805G833) exhibited acceptable %R and RPD values. No qualifications were required.

Field Duplicates - Field duplicate samples were not analyzed with this data package.

Compound Identification - Some of the RTs on 6/30/98 and 7/1/98 were updated due to slight shifts, however, the data were not affected and no action has been taken.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the continuing calibration section of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - OP Pesticides SDG· 9806G031					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc	Qualifier
EB060498	o,o,o-Triethyl phos	1.9	U	1.9	R
	Dimethoate	1 9	U	1 9	R
BHGLTA405-06	Dimethoate	70	U	70	R

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APPENDIX IX HERBICIDES
USEPA SW846 Method 8150B
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9806G031

Client: HydroGeoLogic, Inc. Date: September 21, 1998

Laboratory: RECRA LabNet Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
EB060498	9806G031-002	Water
BHGLTA405-06	9806G031-003	Soil

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soils samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 6/20/98 and 7/21/98 exhibited acceptable %RSD values less than 20%. No qualifications were required.

Continuing Calibration Verification - The continuing calibration verifications analyzed on 6/20/98, 6/21/98, and 7/21/98 exhibited acceptable %D values. No qualifications were required.

The continuing calibration analyzed on 7/22/98 exhibited a high %D value for 2,4,5-T of 16.2%. 2,4,5-T has been rejected "R" in associated sample BHGLTA405-06.

Method Blank - Method blanks PBLKXQ (6/11/98) and PBLKLH (6/16/98) were free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB060498 was free of contamination. No qualifications were required.

Surrogates - All samples exhibited acceptable surrogate %R values. No qualifications were required.

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Laboratory Control Samples - LCS sample PBLKXQGPS and PBLKHGPS exhibited acceptable %R values. No qualifications were required

MS/MSD - MS/MSD sample BHGLTA402-01 (in SDG 9805G833) exhibited acceptable %R and RPD values. No qualifications were required.

Field Duplicates - Field duplicate samples were not analyzed with this data package.

Compound Identification - The retention times met the QC acceptance criteria with the exception of CCV 7/22/98 which was 0.15 min outside of the RT window for 2,4,5-T, however, this compound has already been rejected due to the continuing calibration and no further qualifications were required.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the continuing calibration section of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Herbicides SDG 9806G031					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
BHGLTA405-06	2,4,5-T	35	U	35	R

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APPENDIX IX METALS
USEPA SW846 Methods 6010A, 7471, 9010A
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9806G031

Client: HydroGeoLogic, Inc. Date: September 21, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
EB060498	9806G031-002	Water
BHGLTA405-06	9806G031-003	Soil

Holding Times - All samples were extracted and analyzed within the recommended holding time of 180 days for all metals except 28 days for mercury and 14 days for cyanide as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Calibration - All initial and continuing calibration verifications exhibited acceptable %R values. No qualifications were required.

Method Blanks - Soil preparation blank PBS (6/18/98) exhibited contamination for beryllium, copper, tin, and zinc. Tin has been qualified "U" in associated sample BHGLTA405-06. All other associated results were greater than 5X the blank concentration and no further qualifications were required.

Water preparation blank PBW (6/17/98) exhibited mercury and zinc contamination at 0.14 ug/L and 17.57 ug/L, respectively. Mercury and zinc have been qualified "U" in associated sample EB060498.

The continuing calibration blanks exhibited contamination for several compounds, however, all associated results were non-detect or greater than 5X the blank concentration with the exception of beryllium. Beryllium has been qualified "U" in associated sample BHGLTA405-06.

Field and equipment blank - Equipment blank EB060498 exhibited copper contamination at 4.9 ug/L, however, the associated result is greater than 5X the blank concentration and no qualifications were required.

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ICP Interference Check Sample - All % recovery values met the QC acceptance criteria. No qualifications were required.

LCS - The LCS analysis met the QC acceptance criteria of as specified in the QAPP. No qualifications were required.

ICP Serial Dilutions - ICP serial dilution sample BHGLTA402-02 (in SDG 9805G833) exhibited a high %D value for nickel of 12.2%. Nickel has been qualified "J" in associated sample BHGLTA405-06.

Matrix Spike - Matrix spike sample BHGLTA405-06 exhibited an acceptable %R value for cyanide. No qualifications were required.

Matrix spike sample BHGLTA402-01 (in SDG 9805G833) exhibited low %R values for antimony, chromium, and vanadium of 35.7%, 78.1%, and 78.1%, respectively. Antimony, chromium, and vanadium have been qualified "J" for positive results and "UJ" for non-detects in associated sample BHGLTA405-06.

Matrix Spike Duplicate - Matrix duplicate sample BHGLTA405-06 exhibited an acceptable RPD value for cyanide. No qualifications were required.

Matrix duplicate sample BHGLTA402-01 (in SDG 9805G833) exhibited a high RPD value for antimony of 44.6, however, the associated antimony result has already been qualified due to the matrix spike and no further qualifications were required.

Field Duplicates - Field duplicate samples were not analyzed with this data package.

Compound Quantitation - All results between the MDL and the PQL have been qualified "F."

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the method blank, ICP serial dilution, matrix spike, and compound quantitation sections of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Metals SDG: 9806G031					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
EB060498	Copper	4 9	B	4 9	F
	Mercury	0.11	B	0 20	U
	Zinc	8.9	B	20.0	U
BHGLTA405-06	Antimony	2 6	U	2.6	UJ
	Beryllium	0 25	-	0.25	U
	Chromium	6.9	-	6 9	J
	Cobalt	1.6	B	1.6	F
	Copper	2.8	B	2.8	F
	Lead	2 2	B	2.2	F
	Nickel	3.9	B	3 9	J
	Selenium	6 3	B	6 3	F
	Tin	2.2	B	6.3	U
	Thallium	9 7	B	9 7	F
	Vanadium	11 3	-	11.3	J

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SULFIDE
USEPA SW846 Method 9030
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9806G031

Client: HydroGeoLogic, Inc. Date: September 21, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
EB060498	9806G031-002	Water
BHGLTA405-06	9806G031-003	Soil

Holding Times - All samples were analyzed within the recommended holding time of 7 days as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Method and Calibration Blanks - The method blanks were free of contamination. No qualifications were required.

Field and Equipment Blank - Equipment blank EB060498 was free of contamination. No qualifications were required.

LCS - The LCS samples exhibited acceptable %R values. No qualifications were required.

Matrix Spike/Duplicate - MS/MSD sample BHGLTA402-01 (in SDG 9805G833) exhibited acceptable %R and RPD values. No qualifications were required.

Field Duplicates - Field duplicate samples were not analyzed with this data package.

Compound Quantitation - No discrepancies were identified.

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Comments - The analyses of environmental samples and quality control samples are valid. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Sulfide SDG 9806G031					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
None Qualified	--	--	--	--	--

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APPENDIX IX POLYCHLORINATED DIBENZODIOXINS and POLYCHLORINATED DIBENZOFURANS (PCDD/PCDF)
USEPA SW846 Method 8280
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #. 9806G031

Client: HydroGeoLogic, Inc. Date: September 21, 1998

Laboratory: RECRA LabNet - Philadelphia Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
EB060498	9806G031-002	Water
BHGLTA405-06	9806G031-003	Soil

Holding Times - All samples were extracted within 30 days of collection and analyzed within the recommended holding time of 45 days as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 3/26/98 and 4/1/98 exhibited acceptable %RSD values of less than 15% for the RFs. All ICAL ion abundance ratios met QC acceptance criteria. No qualifications were required.

Continuing Calibration - The continuing calibrations analyzed on 6/17/98 and 6/18/98 exhibited acceptable %D values and ion abundance ratios within QC acceptance criteria and no qualifications were required.

Column Performance Check - Resolution check criteria were met since the valley was less than 25%.

Surrogates - All surrogate recovery values met QC acceptance criteria and no qualifications were required.

Method Blanks - The soil and water method blanks were free of contamination and no qualifications were required.

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Field, equipment blanks - Equipment blank EB060498 was free of contamination and no qualifications were required.

Internal Standards - The internal standards met QC acceptance criteria and no qualifications were required.

MS/MSD - MS/MSD sample BHGLTA402-01 (in SDG 9805G833) exhibited acceptable %R and RPD values. No qualifications were required.

Laboratory Control Sample/Duplicate - The soil and water LCS samples exhibited acceptable %R and RPD values within the QC acceptance criteria and no qualifications were required.

Field Duplicates - Field duplicate samples were not analyzed with this data package.

Compound Quantitation - No discrepancies were identified. All sample results were non-detect.

Comments - The analyses of environmental samples and quality control samples are valid. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Dioxins SDG: 9806G031					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
None Qualified	--	--	--	--	--

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APPENDIX IX VOLATILE ORGANIC COMPOUNDS
USEPA SW846 Method 8260B
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G909

Client: HydroGeoLogic, Inc. Date: September 21, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA074-01	9805G909-001	Soil
BHGLTA074-02	9805G909-002	Soil
BHGLTA074-03	9805G909-003	Soil
BHGLTA074-04	9805G909-004	Soil
BHGLTA074-05	9805G909-005	Soil
BHGLTA073-01	9805G909-006	Soil
BHGLTA073-02	9805G909-007	Soil
BHGLTA073-03	9805G909-008	Soil
BHGLTA073-04	9805G909-009	Soil
BHGLTA073-05	9805G909-010	Soil
BHGLTA072-01	9805G909-011	Soil
BHGLTA072-01MS	9805G909-011MS	Soil
BHGLTA072-01MSD	9805G909-011MSD	Soil
BHGLTA072-02	9805G909-012	Soil
BHGLTA072-03	9805G909-013	Soil
BHGLTA072-04	9805G909-014	Soil

Holding Times - All samples were analyzed within the recommended holding time of 14 days for preserved water samples and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

GC/MS Tuning - All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria. No qualifications were required.

Initial Calibration - The initial calibrations analyzed 4/20/98-5/6/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

Continuing Calibration - The continuing calibrations analyzed on 6/4/98 exhibited acceptable %D and RRF values No qualifications were required.

Surrogates - All samples exhibited acceptable surrogate %R values. No qualifications were required.

Laboratory Control Samples - LCS samples VBLKYW and VBLKYY exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA072-01 exhibited high MS/MSD %R values for 1,1,2,2-tetrachloroethane and 1,2,3-trichloropropane of 147%/146% and 150%/150%, respectively. However, all associated results are non-detect and no qualifications were required

Internal Standard (IS) Area Performance - Sample BHGLTA072-01 exhibited a low area count for IS4 and all IS4 associated results have been qualified "UJ" since all results are non-detect

Method Blank - Method blanks VBLKYW (6/4/98) and VBLKYY (6/4/98) were free of contamination. No qualifications were required.

Trip, field, equipment blank - Trip blank TB052798 (in SDG 9805G910) was free of contamination. No qualifications were required.

Equipment blank EB052798 (in SDG 9805G910) was free of contamination. No qualifications were required.

Field Duplicates - Field duplicate samples were not analyzed with this data package.

Tentatively Identified Compounds (TICs) - TICs were not detected in any of the samples.

Compound Quantitation - Several compounds in several samples were qualified "F" since the results were between the MDL and the PQL.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the internal standard and compound quantitation sections of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Volatiles *SDG 9805G909*					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc	Qualifier
BHGLTA074-01	Trichloroethene	2	J	2	F
BHGLTA073-02	Tetrachloroethene	2	J	2	F
BHGLTA072-01	Trans-1,4-Dichloro-2-butene	6	U	6	UJ
	1,1,2,2-Tetrachloroethane	2	U	2	UJ
	1,2,3-Trichloropropane	6	U	6	UJ
	Pentachloroethane	6	U	6	UJ
	1,2-Dibromo-3-chloropropane	6	U	6	UJ
BHGLTA072-02	Trichloroethene	4	J	4	F

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APPENDIX IX METALS
USEPA SW846 Methods 6010A, 7471, 9010A
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G909

Client: HydroGeoLogic, Inc. Date: September 22, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA074-01	9805G909-001	Soil
BHGLTA074-02	9805G909-002	Soil
BHGLTA074-03	9805G909-003	Soil
BHGLTA074-04	9805G909-004	Soil
BHGLTA074-05	9805G909-005	Soil
BHGLTA073-01	9805G909-006	Soil
BHGLTA073-02	9805G909-007	Soil
BHGLTA073-03	9805G909-008	Soil
BHGLTA073-04	9805G909-009	Soil
BHGLTA073-05	9805G909-010	Soil
BHGLTA072-01	9805G909-011	Soil
BHGLTA072-01MS	9805G909-011MS	Soil
BHGLTA072-01MSD	9805G909-011MSD	Soil
BHGLTA072-02	9805G909-012	Soil
BHGLTA072-03	9805G909-013	Soil
BHGLTA072-04	9805G909-014	Soil

Holding Times - All samples were extracted and analyzed within the recommended holding time of 180 days for all metals except 28 days for mercury and 14 days for cyanide as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Calibration - All initial and continuing calibration verifications exhibited acceptable %R values. No qualifications were required.

Method Blanks - Soil preparation blank PBS (6/9/98) exhibited contamination for beryllium, tin, zinc, and cyanide, however, all associated results were non-detect or greater than 5X the blank concentration with the exception of tin. Tin has been qualified "U" in associated samples BHGLTA074-01, BHGLTA074-04, BHGLTA074-05, BHGLTA073-01, BHGLTA073-03, BHGLTA073-04, BHGLTA073-05, BHGLTA072-03, and BHGLTA072-04.

The continuing calibration blanks exhibited contamination for several compounds, however, all associated results were non-detect or greater than 5X the blank concentration with the exception of beryllium, cobalt, copper, zinc, and cyanide. Beryllium has been qualified "U" in all samples except BHGLTA074-02 and BHGLTA073-02 Cobalt has been qualified "U" in associated samples BHGLTA074-04, BHGLTA074-05, BHGLTA073-03, BHGLTA073-04, and BHGLTA073-05. Copper has been qualified "U" in associated samples BHGLTA074-04, BHGLTA074-05, and BHGLTA073-05. Zinc has been qualified "U" in associated samples BHGLTA073-05 and BHGLTA074-05. Cyanide has been qualified "U" in associated sample BHGLTA072-01.

Field and equipment blank - Equipment blank EB052798 (in SDG 9805G910) was free of contamination. No qualifications were required.

ICP Interference Check Sample - All % recovery values met the QC acceptance criteria. No qualifications were required.- .

LCS - The LCS analysis met the QC acceptance criteria of as specified in the QAPP. No qualifications were required.

ICP Serial Dilutions - ICP serial dilution sample BHGLTA072-02 exhibited a high %D value for zinc of 41.2%. Zinc has been qualified "J" for positive results and "UJ" for non-detects in all samples.

Matrix Spike - Matrix spike sample BHGLTA072-01 exhibited low %R values for antimony, copper, lead, mercury, and silver of 0.0%, 62.9%, -56.9%, 60.7%, and 72.2%, respectively. All of the above compounds have been qualified "J" for positive results and "UJ" for non-detects in all samples.

Matrix Spike Duplicate - Matrix duplicate sample BHGLTA072-01 exhibited high RPD values for antimony, lead, copper, and mercury, however, all associated results have already been qualified due to the matrix spike and no further qualifications were required.

Field Duplicates - Field duplicate samples were not analyzed with this data package.

Compound Quantitation - All results between the MDL and the PQL have been qualified "F."

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the method blank, ICP serial dilution, matrix spike, and compound quantitation sections of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Metals SDG 9805G909					
Sample No.	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
BHGLTA074-01	Antimony	3.3	UN	3.3	UJ
	Arsenic	7.3	B	7.3	F
	Beryllium	0 79	-	0.79	U
	Cadmium	0.47	B	0.47	F
	Cobalt	4.3	B	4.3	F
	Copper	10 8	N	10.8	J
	Lead	18.1	BN	18.1	J
	Mercury	0.03	UN	0.03	UJ
	Nickel	8.5	B	8.5	F
	Selenium	13 8	B	13.8	F
	Silver	0.29	UN	0.29	UJ
	Tin	2.0	B	10.2	U
	Thallium	9 9	B	9.9	F
	Zinc	57.1	-	57.1	J
BHGLTA074-02	Antimony	15 3	UN	15 3	UJ
	Beryllium	0.96	B	0.96	F
	Chromium	18.5	B	18.5	F
	Cobalt	5 5	B	5 5	F
	Copper	8.0	BN	8.0	J
	Lead	8.6	UN	8.6	UJ
	Mercury	0.02	UN	0 02	UJ
	Nickel	11.8	B	11.8	F
	Silver	1 3	UN	1 3	UJ
	Vanadium	31.8	B	31.8	F
	Zinc	34.2	-	34.2	J
BHGLTA074-03	Antimony	13.6	UN	13.6	UJ
	Beryllium	0.33	B	1.3	U
	Chromium	5.3	B	5 3	F
	Cobalt	3.2	B	3.2	F
	Copper	2.9	BN	2.9	J
	Lead	7.7	BN	7.7	J
	Mercury	0.02	UN	0.02	J
	Nickel	4 1	B	4.1	F
	Silver	1.2	UN	1.2	UJ
	Vanadium	13.8	B	13.8	F

Qualification Summary Table - Metals SDG. 9805G909					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
	Zinc	11.9	-	11.9	J
BHGLTA074-04	Antimony	2.7	UN	2.7	UJ
	Beryllium	0.19	B	0.26	U
	Chromium	3.1	B	3.1	F
	Cobalt	1.4	B	6.0	U
	Copper	1.9	BN	5.1	UJ
	Lead	1.9	BN	1 9	J
	Mercury	0.02	UN	0.02	UJ
	Nickel	1.9	B	1 9	F
	Selenium	6.0	B	6.0	F
	Silver	0 24	UN	0.24	UJ
	Tin	2.2	B	8.5	U
	Zinc	6.1	-	6.1	J
BHGLTA074-05	Antimony	2.8	UN	2.8	UJ
	Beryllium	0.13	B	0.26	U
	- Chromium	3.0	B	3.0	F
	Cobalt	1.0	B	6 0	U
	Copper	1.4	BN	5.2	UJ
	Lead	2.4	BN	2.4	J
	Mercury	0.02	UN	0.02	UJ
	Nickel	1.6	B	1.6	F
	Selenium	5.5	B	5.5	F
	Silver	0.24	UN	0.24	UJ
	Tin	1.5	B	8.6	U
	Vanadium	5.6	B	5 6	F
	Zinc	4 2	-	4.2	UJ
BHGLTA073-01	Antimony	3 0	UN	3.0	UJ
	Arsenic	6.2	B	6.2	F
	Beryllium	0.70	-	0 70	U
	Cadmium	0.39	B	0.39	F
	Cobalt	4.4	B	4 4	F
	Copper	8 5	N	8.5	J
	Lead	28.9	BN	28 9	J
	Mercury	0.02	UN	0.02	UJ
	Nickel	8.7	B	8.7	F
	Selenium	12.8	B	12.8	F
	Silver	0.26	UN	0.26	UJ
	Tin	2 1	B	9 4	U
	Thallium	9.3	B	9.3	F
	Zinc	84 3	-	84 3	J
BHGLTA073-02	Antimony	14.7	UN	14.7	UJ
	Arsenic	14.0	B	14.0	F
	Beryllium	1.1	B	1.1	F
	Chromium	18.4	B	18.4	F
	Cobalt	5.5	B	5.5	F
	Copper	12.5	BN	12.5	J
	Lead	13 0	BN	13 0	J
	Mercury	0.02	UN	0.02	UJ
	Nickel	15.0	B	15.0	F

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Qualification Summary Table - Metals SDG: 9805G909					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
	Silver	1.3	UN	1.3	UJ
	Vanadium	35.8	B	35.8	F
	Zinc	36 3	-	36 3	J
BHGLTA073-03	Antimony	2.9	UN	2.9	UJ
	Beryllium	0.18	B	0.27	U
	Chromium	3.9	B	3.9	F
	Cobalt	1.9	B	6.4	U
	Copper	3.9	BN	3.9	J
	Lead	3.0	BN	3 0	J
	Mercury	0.02	UN	0.02	UJ
	Nickel	3.0	B	3 0	F
	Selenium	5.5	B	5.5	F
	Silver	0 26	UN	0 26	UJ
	Tin	5.6	B	9.1	U
	Zinc	8.1	-	8.1	J
BHGLTA073-04	Antimony	2.8	UN	2.8	UJ
	Beryllium	0 23	B	0 26	U
	Chromium	4 4	B	4 4	F
	Cobalt	1.5	B	6 2	U
	Copper	2.0	BN	2.0	J
	Lead	1 6	UN	1.6	UJ
	Mercury	0.02	UN	0.02	UJ
	Nickel	2.8	B	2 8	F
	Selenium	5.7	B	5.7	F
	Silver	0.25	UN	0.25	UJ
	Tin	1 5	B	8 8	U
	Thallium	6.6	B	6.6	F
	Zinc	6.9	-	6.9	J
BHGLTA073-05	Antimony	2.9	UN	2.9	UJ
	Beryllium	0 13	B	0 27	U
	Chromium	2.4	B	2.4	F
	Cobalt	0.85	B	6.4	U
	Copper	1.1	BN	5 5	UJ
	Lead	1.6	UN	1 6	UJ
	Mercury	0.02	UN	0.02	UJ
	Nickel	1.3	B	1.3	F
	Selenium	3.8	B	3.8	F
	Silver	0.26	UN	0.26	UJ
	Tin	1.8	B	9 1	U
	Vanadium	5.2	B	5 2	F
	Zinc	4 0	-	4.0	UJ
BHGLTA072-01	Antimony	15.2	UN	15.2	UJ
	Beryllium	0.44	B	1.4	U
	Chromium	12.4	B	12.4	F
	Cobalt	3.7	B	3.7	F
	Copper	30.5	N	30.5	J
	Lead	155	BN	155	J
	Mercury	0.03	BN	0.03	J
	Nickel	9.7	B	9.7	F

Qualification Summary Table - Metals
SDG· 9805G909

Sample No.	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
	Silver	1.3	UN	1.3	UJ
	Vanadium	15.6	B	15.6	F
	Zinc	116	-	116	J
	Cyanide	0.23	B	0.84	U
BHGLTA072-02	Antimony	16.0	UN	16.0	UJ
	Beryllium	0 55	B	1.5	U
	Chromium	12.3	B	12.3	F
	Cobalt	4.5	B	4 5	F
	Copper	6.1	BN	6.1	J
	Lead	9 0	UN	9.0	UJ
	Mercury	0.03	UN	0.03	UJ
	Nickel	9.0	B	9.0	F
	Selenium	15.7	B	15 7	F
	Silver	1.4	UN	1 4	UJ
	Vanadium	24.5	B	24.5	F
	Zinc	24 0	-	24.0	J
BHGLTA072-03	Antimony	2 9	UN	2.9	UJ
	Arsenic	6.8	B	6.8	F
	Beryllium	0 68	-	0.68	U
	Cobalt	3.7	B	3 7	F
	Copper	6.2	N	6 2	J
	Lead	4.2	BN	4.2	J
	Mercury	0 02	UN	0.02	UJ
	Nickel	7.8	B	7.8	F
	Selenium	10.7	B	10.7	F
	Silver	0 26	UN	0.26	UJ
	Tin	2.6	B	9.2	U
	Thallium	9.0	B	9.0	F
	Zinc	21.3	-	21 3	J
BHGLTA072-04	Antimony	3.2	UN	3.2	UJ
	Arsenic	3 4	B	3.4	F
	Beryllium	0.27	B	0.30	U
	Chromium	4.0	B	4 0	F
	Cobalt	3 9	B	3 9	F
	Copper	2.5	BN	2.5	J
	Lead	2.4	BN	2.4	J
	Mercury	0 03	UN	0 03	UJ
	Nickel	3.6	B	3.6	F
	Selenium	5.9	B	5.9	F
	Silver	0 28	UN	0.28	UJ
	Tin	1.8	B	9.8	U
	Zinc	8.8	-	8.8	J

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APPENDIX IX PESTICIDES/PCBs
USEPA SW846 Method 8080A
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G909

Client: HydroGeoLogic, Inc. Date: September 22, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA074-01	9805G909-001	Soil
BHGLTA074-02	9805G909-002	Soil
BHGLTA074-03	9805G909-003	Soil
BHGLTA074-04	9805G909-004	Soil
BHGLTA074-05	9805G909-005	Soil
BHGLTA073-01	9805G909-006	Soil
BHGLTA073-02	9805G909-007	Soil
BHGLTA073-03	9805G909-008	Soil
BHGLTA073-04	9805G909-009	Soil
BHGLTA073-05	9805G909-010	Soil
BHGLTA072-01	9805G909-011	Soil
BHGLTA072-01MS	9805G909-011MS	Soil
BHGLTA072-01MSD	9805G909-011MSD	Soil
BHGLTA072-02	9805G909-012	Soil
BHGLTA072-03	9805G909-013	Soil
BHGLTA072-04	9805G909-014	Soil

Holding Times - All samples were extracted within 14 days for soil samples and analyzed within the recommended holding time of 40 days for soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibration analyzed on 6/17/98 exhibited acceptable %RSD values of less than 20%. No qualifications were required.

Continuing Calibration Verification - The continuing calibration QC acceptance criteria were met with the exception of the following:

The continuing calibration verification analyzed on 6/21/98 exhibited a high %D value for methoxychlor on the following columns.

CCV	Analyte	DB-5	RTX-35
6/21/98 (0240)	Methoxychlor	16 9%	21.6%

Methoxychlor has been rejected in associated samples BHGLTA074-01 and BHGLTA074-02.

The DDT and endrin breakdown was acceptable.

Method Blank - Method blank PBLKFU (6/6/98) was free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB052798 (in SDG 9805G910) was free of contamination. No qualifications were required.

Surrogates - Sample BHGLTA074-01 exhibited a low %R value for surrogate compounds TCX and DCB of 10% and 12%, respectively. All results for this sample have been qualified "UJ" except those results already rejected due to the continuing calibration. The holding time expired before the laboratory realized the surrogate recoveries were low, therefore, no re-extraction was performed.

Laboratory Control Samples - LCS samples PBLKFWPS and PBLKFVPS exhibited acceptable %R values No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA072-01 exhibited low MSD %R values for heptachlor epoxide and methoxychlor of 35% and 33%, respectively, and high RPD values for both compounds of 104 and 125, respectively. Since the MS %R values were acceptable and the LCS sample %R values were acceptable, no qualifications were required.

Field Duplicates - Field duplicate samples were not analyzed with this data package.

Compound Identification - The retention times met the QC acceptance criteria and no qualifications were required.

Compound Quantitation - Several samples received a sulfur cleanup to reduce matrix interference.

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Several samples were analyzed at dilutions due to matrix interference and the reporting levels were adjusted accordingly.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the continuing calibration and surrogate sections of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Pesticide/PCBs SDG. 9805G909					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc	Qualifier
BHGLTA074-01	All other results	--	U	--	UJ
	Methoxychlor	120	U	120	R
BHGLTA074-02	Methoxychlor	110	U	110	R

APPENDIX IX ORGANOPHOPHORUS PESTICIDES
USEPA SW846 Method 8141
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G909

Client: HydroGeoLogic, Inc. Date: September 22, 1998

Laboratory: RECRA LabNet Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA074-01	9805G909-001	Soil
BHGLTA074-02	9805G909-002	Soil
BHGLTA074-03	9805G909-003	Soil
BHGLTA074-04	9805G909-004	Soil
BHGLTA074-05	9805G909-005	Soil
BHGLTA073-01	9805G909-006	Soil
BHGLTA073-02	9805G909-007	Soil
BHGLTA073-03	9805G909-008	Soil
BHGLTA073-04	9805G909-009	Soil
BHGLTA073-05	9805G909-010	Soil
BHGLTA072-01	9805G909-011	Soil
BHGLTA072-01MS	9805G909-011MS	Soil
BHGLTA072-01MSD	9805G909-011MSD	Soil
BHGLTA072-02	9805G909-012	Soil
BHGLTA072-03	9805G909-013	Soil
BHGLTA072-04	9805G909-014	Soil

Holding Times - All samples were extracted within 14 days for soil samples and analyzed within the recommended holding time of 40 days for soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 No qualifications were required.

Initial Calibration - The initial calibration analyzed on 6/25/98 exhibited acceptable %RSD values of less than 20% and/or correlation coefficients of >0.995. No qualifications were required.

Continuing Calibration Verification - The continuing calibration verifications analyzed on 6/25/98 and 6/26/98 exhibited acceptable %D values. No qualifications were required.

Method Blank - Method blank PBLKFT (6/6/98) was free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB052798 (in SDG 9805G910) was free of contamination. No qualifications were required.

Surrogates - Several samples exhibited a slightly low %R value for surrogate compound S1-TBP, however, no qualifications are required unless both surrogates exceed QC limits.

Laboratory Control Samples - LCS sample PBLKFTBS exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA072-01 exhibited acceptable %R and RPD values. No qualifications were required.

Field Duplicates - Field duplicate samples were not analyzed with this data package.

Compound Identification - Several of the RTs on 6/26/98 were slightly outside of the RT window, however, the data were not affected and no action has been taken.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - OP Pesticides SDG 9805G909					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc	Qualifier
None Qualified	--	--	--	--	--

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APPENDIX IX HERBICIDES
USEPA SW846 Method 8150B
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G909

Client: HydroGeoLogic, Inc. Date: September 22, 1998

Laboratory: RECRA LabNet Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA074-01	9805G909-001	Soil
BHGLTA074-02	9805G909-002	Soil
BHGLTA074-03	9805G909-003	Soil
BHGLTA074-04	9805G909-004	Soil
BHGLTA074-05	9805G909-005	Soil
BHGLTA073-01	9805G909-006	Soil
BHGLTA073-02	9805G909-007	Soil
BHGLTA073-03	9805G909-008	Soil
BHGLTA073-04	9805G909-009	Soil
BHGLTA073-05	9805G909-010	Soil
BHGLTA072-01	9805G909-011	Soil
BHGLTA072-01MS	9805G909-011MS	Soil
BHGLTA072-01MSD	9805G909-011MSD	Soil
BHGLTA072-02	9805G909-012	Soil
BHGLTA072-03	9805G909-013	Soil
BHGLTA072-04	9805G909-014	Soil

Holding Times - All samples were extracted within 14 days for soils samples and analyzed within the recommended holding time of 40 days for soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 6/20/98 and 6/25/98 exhibited acceptable %RSD values less than 20%. No qualifications were required.

Continuing Calibration Verification - The continuing calibration verifications analyzed on 6/20/98, 6/24/98, 6/26/98, 6/27/98, and 6/28/98 exhibited acceptable %D values. No qualifications were required.

The continuing calibration verification analyzed on 6/25/98 (0812) exhibited a high %D value for 2,4,5-T and 2,4-D of 17.7% and 18.2%, respectively, on the confirmation column. However, since the primary column %D values were acceptable and the results were non-detect, no qualifications were required.

The continuing calibration verification analyzed on 6/25/98 (1636) exhibited a high %D value for 2,4,5-T of 20.3% on the confirmation column. However, since the primary column %D value was acceptable and the result was non-detect, no qualifications were required.

Method Blank - Method blank PBLKKE (6/9/98) was free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB052798 (in SDG 9805G910) was free of contamination. No qualifications were required.

Surrogates - Sample BHGLTA074-04 exhibited a high %R value for surrogate compound S1-DCAA of 164%, however, all results for this sample are non-detect and no qualifications were required.

Laboratory Control Samples - LCS sample PBLKKEBS was inadvertently not spiked by the laboratory and all results were 0%. However, since the MS/MSD results were acceptable, no action was taken on this basis.

MS/MSD - MS/MSD sample BHGLTA072-01 exhibited acceptable %R and RPD values. No qualifications were required.

Field Duplicates - Field duplicate samples were not analyzed with this data package.

Compound Identification - Several of the RTs on 6/25/98 were slightly outside of the RT window, however, the data were not affected and no action has been taken.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Herbicides SDG. 9805G909					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
None Qualified	--	--	--	--	--

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SULFIDE
USEPA SW846 Method 9030
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G909

Client: HydroGeoLogic, Inc. Date: September 21, 1998

Laboratory. RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA074-01	9805G909-001	Soil
BHGLTA074-02	9805G909-002	Soil
BHGLTA074-03	9805G909-003	Soil
BHGLTA074-04	9805G909-004	Soil
BHGLTA074-05	9805G909-005	Soil
BHGLTA073-01	9805G909-006	Soil
BHGLTA073-02	9805G909-007	Soil
BHGLTA073-03	9805G909-008	Soil
BHGLTA073-04	9805G909-009	Soil
BHGLTA073-05	9805G909-010	Soil
BHGLTA072-01	9805G909-011	Soil
BHGLTA072-01MS	9805G909-011MS	Soil
BHGLTA072-01MSD	9805G909-011MSD	Soil
BHGLTA072-02	9805G909-012	Soil
BHGLTA072-03	9805G909-013	Soil
BHGLTA072-04	9805G909-014	Soil

Holding Times - All samples were analyzed within the recommended holding time of 7 days as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Method and Calibration Blanks - The method blanks were free of contamination. No qualifications were required.

Field and Equipment Blank - Equipment blank EB052798 (in SDG 9805G910) was free of contamination. No qualifications were required.

LCS - The LCS samples exhibited acceptable %R values. No qualifications were required.

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Matrix Spike/Duplicate - MS/MSD sample BHGLTA072-01 exhibited acceptable %R and RPD values. No qualifications were required.

Field Duplicates - Field duplicate samples were not analyzed with this data package.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Sulfide SDG: 9805G909					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
None Qualified	--	--	--	--	--

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APPENDIX IX POLYCHLORINATED DIBENZODIOXINS and POLYCHLORINATED DIBENZOFURANS (PCDD/PCDF)
USEPA SW846 Method 8280
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G909

Client: HydroGeoLogic, Inc. Date: September 22, 1998

Laboratory: RECRA LabNet - Philadelphia Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA074-01	9805G909-001	Soil
BHGLTA074-02	9805G909-002	Soil
BHGLTA074-03	9805G909-003	Soil
BHGLTA074-04	9805G909-004	Soil
BHGLTA074-05	9805G909-005	Soil
BHGLTA073-01	9805G909-006	Soil
BHGLTA073-02	9805G909-007	Soil
BHGLTA073-03	9805G909-008	Soil
BHGLTA073-04	9805G909-009	Soil
BHGLTA073-05	9805G909-010	Soil
BHGLTA072-01	9805G909-011	Soil
BHGLTA072-01MS	9805G909-011MS	Soil
BHGLTA072-01MSD	9805G909-011MSD	Soil
BHGLTA072-02	9805G909-012	Soil
BHGLTA072-03	9805G909-013	Soil
BHGLTA072-04	9805G909-014	Soil

Holding Times - All samples were extracted within 30 days of collection and analyzed within the recommended holding time of 45 days as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 3/26/98 and 4/1/98 exhibited acceptable %RSD values of less than 15% for the RFs. All ICAL ion abundance ratios met QC acceptance criteria. No qualifications were required.

Continuing Calibration - The continuing calibrations analyzed on 6/12/98 and 6/16/98 exhibited acceptable %D values and ion abundance ratios within QC acceptance criteria and no qualifications were required.

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Column Performance Check - Resolution check criteria were met since the valley was less than 25%.

Surrogates - All surrogate recovery values met QC acceptance criteria and no qualifications were required.

Method Blanks - The method blank BLKLE was free of contamination and no qualifications were required.

Field, equipment blanks - Equipment blank EB052798 (in SDG 9805G910) was free of contamination. No qualifications were required.

Internal Standards - The internal standards met QC acceptance criteria and no qualifications were required.

MS/MSD - MS/MSD sample BHGLTA072-01 exhibited acceptable %R and RPD values. No qualifications were required.

Laboratory Control Sample/Duplicate - The LCS sample exhibited acceptable %R values within the QC acceptance criteria and no qualifications were required.

Field Duplicates - Field duplicate samples were not analyzed with this data package.

Compound Quantitation - No discrepancies were identified. All sample results were non-detect.

Comments - The analyses of environmental samples and quality control samples are valid. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Dioxins *SDG: 9805G909*					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc	Qualifier
None Qualified					

APPENDIX IX SEMIVOLATILE ORGANIC COMPOUNDS
USEPA SW846 Method 8270C
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G909

Client: HydroGeoLogic, Inc. Date: September 21, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA074-01	9805G909-001	Soil
BHGLTA074-01RE	9805G909-001RE	Soil
BHGLTA074-02	9805G909-002	Soil
BHGLTA074-03	9805G909-003	Soil
BHGLTA074-03RE	9805G909-003RE	Soil
BHGLTA074-04	9805G909-004	Soil
BHGLTA074-05	9805G909-005	Soil
BHGLTA073-01	9805G909-006	Soil
BHGLTA073-01RE	9805G909-006RE	Soil
BHGLTA073-02	9805G909-007	Soil
BHGLTA073-03	9805G909-008	Soil
BHGLTA073-04	9805G909-009	Soil
BHGLTA073-04RE	9805G909-009RE	Soil
BHGLTA073-05	9805G909-010	Soil
BHGLTA072-01	9805G909-011	Soil
BHGLTA072-01MS	9805G909-011MS	Soil
BHGLTA072-01MSD	9805G909-011MSD	Soil
BHGLTA072-02	9805G909-012	Soil
BHGLTA072-02RE	9805G909-012RE	Soil
BHGLTA072-03	9805G909-013	Soil
BHGLTA072-04	9805G909-014	Soil
BHGLTA072-04RE	9805G909-014RE	Soil

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soils samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 with the exception of sample BHGLTA072-03 and all reanalyzed samples. Samples BHGLTA073-04RE and BHGLTA072-03 were extracted at 59 and 63 days, respectively. All results for these two samples have been qualified "J" for positive results and rejected "R" for non-detects. Samples BHGLTA074-01RE, BHGLTA073-01RE, BHGLTA072-02RE, and BHGLTA072-04RE were analyzed at 50 days. All results for these samples have been qualified "J" for positive results and "UJ" for non-detects unless already rejected "R" due to the continuing calibration.

GC/MS Tuning - All of the DFTPP tunes in the initial and continuing calibrations met the percent relative abundance criteria. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 3/12/98 and 7/17/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

Continuing Calibration - The continuing calibration analyzed on 7/15/98 exhibited high %D values for 4-nitroaniline and benzoic acid of 29.8% and 38.2%, respectively. Both compounds have been rejected "R" in associated samples BHGLTA074-02, BHGLTA074-03, BHGLTA074-04, BHGLTA074-05, BHGLTA073-02, BHGLTA073-03, BHGLTA073-04, and BHGLTA073-05 since all results are non-detect.

The continuing calibration analyzed on 7/16/98 exhibited a high %D value for 3-nitroaniline of 95.8%. 3-Nitroaniline has been rejected "R" in associated samples BHGLTA072-01, BHGLTA072-02, BHGLTA072-04, BHGLTA074-03RE, BHGLTA074-01, and BHGLTA073-01 since all results are non-detect.

The continuing calibration analyzed on 7/29/98 (1101) exhibited high %D values for 3-nitroaniline and 4-nitroaniline of 41.8% and 28 6%, respectively. Both compounds have been rejected "R" in associated samples BHGLTA072-02RE, BHGLTA072-04RE, BHGLTA074-01RE, and BHGLTA073-01RE since all results are non-detect.

The continuing calibration analyzed on 7/29/98 (2047) exhibited a high %D value for 2,4-dinitrophenol of 37.5%, however, the associated result has already been rejected "R" due to holding times and no further qualifications were required.

The continuing calibration analyzed on 7/30/98 exhibited high %D values for n-nitroso-di-n-propylamine, 3-nitroaniline, and benzoic acid of 26.6%, 75.3%, and 50.9%, respectively, however, all three associated results have already been rejected "R" due to holding times and no further qualifications were required.

Surrogates - Sample BHGLTA073-04 exhibited low surrogate %R values for surrogates S1, S2, S3, an S4 of 0%, 2%, 0%, and 11%, respectively. All results for this sample have been rejected "R" since all results are non-detect. Reanalyzed sample BHGLTA073-04RE exhibited acceptable surrogate results, however, this sample was extracted at 59 days and all results have already been rejected due to holding times. The original sample results should be used for reporting purposes.

Samples BHGLTA072-04 and BHGLTA072-04RE exhibited a low surrogate %R value for surrogate S4, however, no qualifications are required for only one surrogate outside of QC limits.

Laboratory Control Samples - LCS samples SBLKTL, SBLKVX, and SBLKVJ exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA072-01 exhibited several compounds with MS and/or MSD %R values and RPD values outside of QC limits, however, this was due to high concentrations of these compounds in the native sample. Since the LCS samples exhibited acceptable %R values for these compounds, no qualifications were required.

Internal Standard (IS) Area Performance - Several samples exhibited high or low area counts for the internal standards as identified in the table below. All associated results have been qualified "J" for positive results and "UJ" for non-detects.

Sample	IS1	IS2	IS3	IS4	IS5	IS6	Qualifier
072-02	High	High	--	--	--	--	J/UJ
072-04	High	High	--	--	--	High	J/UJ
074-03RE	High	--	--	--	--	--	J/UJ
074-01	High	--	--	--	--	--	J/UJ
073-01	High	High	High	High	High	--	J/UJ
072-01	High	High	High	High	--	--	J/UJ
074-03	--	--	--	--	Low	--	J/UJ

Method Blank - Method blanks SBLKTL (6/9/98), SBLKVX (7/25/98), and SBLKVJ (7/29/98) were free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB052798 (in SDG 9805G910) exhibited bis(2-ethylhexyl)phthalate contamination at 8 ug/L, however, all associated results are non-detect and no qualifications were required.

Field Duplicates - Field duplicate samples were not analyzed with this data package.

Tentatively Identified Compounds (TICs) - All TIC results have been qualified "T."

Compound Quantitation - All results between the MDL and the PQL have been qualified "F."

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the holding times, continuing calibration, surrogate, internal standard, TICs, and compound quantitation sections of this report with the exception of numerous results which were rejected due to holding times and calibration problems. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Additional Comment - The original extraction for sample BHGLTA072-03 was lost by the laboratory and the sample was re-extracted outside of holding times.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Semivolatiles
SDG 9805G909

Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
BHGLTA074-01	Phenol	390	U	390	UJ
	Bis(2-Chloroethyl)ether	390	U	390	UJ
	2-Chlorophenol	390	U	390	UJ
	1,3-Dichlorobenzene	390	U	390	UJ
	1,4-Dichlorobenzene	390	U	390	UJ
	1,2-Dichlorobenzene	390	U	390	UJ
	o-Cresol	390	U	390	UJ
	N-Nitroso-di-n-propylamine	390	U	390	UJ
	Meta & para-Cresol	390	U	390	UJ
	Hexachloroethane	390	U	390	UJ
	3-Nitroaniline	2000	U	2000	R
	Phenanthrene	140	J	140	F
	Fluoanthene	310	J	310	F
	Pyrene	230	J	230	F
	Benzo(a)anthracene	140	J	140	F
	Chrysene	160	J	160	F
	Benzo(b)fluoranthene	190	J	190	F
	Benzo(k)fluoranthene	93	J	93	F
	Benzo(a)pyrene	140	J	140	F
	Indeno(1,2,3-cd)pyrene	73	J	73	F
	Benzo(g,h,i)perylene	72	J	72	F
BHGLTA074-01RE	All Results	--	U/J	--	UJ/J/R
BHGLTA074-02	4-Nitroaniline	1800	U	1800	R
	Benzoic Acid	1800	U	1800	R
BHGLTA074-03	4-Nitroaniline	1800	U	1800	R
	Pyrene	350	U	350	UJ
	Butylbenzylphthalate	350	U	350	UJ
	Benzo(a)anthracene	350	U	350	UJ
	3,3'-Dichlorobenzidine	700	U	700	UJ

Qualification Summary Table - Semivolatiles SDG: 9805G909					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
	Chrysene	350	U	350	UJ
	Benzoic Acid	1800	U	1800	R
BHGLTA074-03RE	Phenol	350	U	350	UJ
	Bis(2-Chloroethyl)ether	350	U	350	UJ
	2-Chlorophenol	350	U	350	UJ
	1,3-Dichlorobenzene	350	U	350	UJ
	1,4-Dichlorobenzene	350	U	350	UJ
	1,2-Dichlorobenzene	350	U	350	UJ
	o-Cresol	350	U	350	UJ
	N-Nitroso-di-n-propylamine	350	U	350	UJ
	Meta & para-Cresol	350	U	350	UJ
	Hexachloroethane	350	U	350	UJ
	3-Nitroaniline	1800	U	1800	R
BHGLTA074-04	4-Nitroaniline	1700	U	1700	R
	Benzoic Acid	1700	U	1700	R
BHGLTA074-05	4-Nitroaniline	1700	U	1700	R
	Benzoic Acid	1700	U	1700	R
BHGLTA073-01	3-Nitroaniline	2000	U	2000	R
	Phenol-Chrysene	--	U/J	--	UJ/J
	Benzo(b)fluoranthene	61	J	61	F
BHGLTA073-01RE	All Results	--	U/J	--	UJ/J/R
BHGLTA073-02	4-Nitroaniline	1900	U	1900	R
	Benzoic Acid	1900	U	1900	R
BHGLTA073-03	4-Nitroaniline	1700	U	1700	R
	Benzoic Acid	1700	U	1700	R
BHGLTA073-04	All Results	--	U	--	R
BHGLTA073-04RE	All Results	--	U	--	R
BHGLTA073-05	4-Nitroaniline	1700	U	1700	R
	Benzoic Acid	1700	U	1700	R
BHGLTA072-01	3-Nitroaniline	1800	U	1800	R
	Phenol-Fluoranthene	--	U/J	--	UJ/J
	Dibenzo(a,h)anthracene	160	J	160	F
BHGLTA072-02	Phenol-2-Methylnaphthalene	--	U	--	UJ
	3-Nitroaniline	1900	U	1900	R
BHGLTA072-02RE	All Results	--	U	--	UJ/R
BHGLTA072-03	All Results	--	U	--	R
BHGLTA072-04	Phenol-2-Methylnaphthalene	--	U	--	UJ
	3-Nitroaniline	1900	U	1900	R
	bis(2-Ethylhexyl)phthalate- Benzoic Acid	--	U	--	UJ
BHGLTA072-04RE	All Results	--	U	--	UJ/R

APPENDIX IX VOLATILE ORGANIC COMPOUNDS
USEPA SW846 Method 8260B
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G910

Client: HydroGeoLogic, Inc. Date: September 22, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA072-05	9805G910-001	Soil
BHGLTA072-05MS	9805G910-001MS	Soil
BHGLTA072-05MSD	9805G910-001MSD	Soil
EB052798	9805G910-002	Water
TB052798	9805G910-003	Water
BHGLTA075-01	9805G910-004	Soil
BHGLTA075-02	9805G910-005	Soil
BHGLTA075-03	9805G910-006	Soil
BHGLTA075-04	9805G910-007	Soil
BHGLTA075-05	9805G910-008	Soil
DUP04	9805G910-009	Soil
BHGLTA076-01	9805G910-010	Soil
BHGLTA076-02	9805G910-011	Soil
BHGLTA076-03	9805G910-012	Soil
BHGLTA076-04	9805G910-013	Soil
BHGLTA076-05	9805G910-014	Soil
BHGLTA071-01	9805G910-015	Soil
BHGLTA071-02	9805G910-016	Soil
BHGLTA071-03	9805G910-017	Soil
BHGLTA071-04	9805G910-018	Soil
BHGLTA071-05	9805G910-019	Soil
EB052898	9805G910-020	Water
TB052898	9805G910-021	Water

Holding Times - All samples were analyzed within the recommended holding time of 14 days for preserved water samples and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

GC/MS Tuning - All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria. No qualifications were required.

Initial Calibration - The initial calibrations analyzed 2/23/98-6/9/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

The initial calibrations analyzed 4/20/98-5/6/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

The initial calibrations analyzed 5/6/98-6/10/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

Continuing Calibration - The continuing calibrations analyzed on 6/4/98 exhibited acceptable %D and RRF values. No qualifications were required.

The continuing calibrations analyzed on 6/5/98 exhibited acceptable %D and RRF values. No qualifications were required.

The continuing calibrations analyzed on 6/11/98 exhibited acceptable %D and RRF values. No qualifications were required.

The continuing calibrations analyzed on 6/10/98 exhibited a high %D value for dichlorodifluoromethane of 26.7%. Dichlorodifluoromethane has been rejected "R" in associated samples EB052798, TB052798, EB052898, and TB052898.

Surrogates - All samples exhibited acceptable surrogate %R values. No qualifications were required.

Laboratory Control Samples - LCS samples VBLKGT, VBLKLT, VBLKYY, and VBLKGV exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA072-05 exhibited a high RPD value for 1,2-dibromo-3-chloropropane of 32, however, all associated results are non-detect and no qualifications were required.

Internal Standard (IS) Area Performance - All internal standards met response and retention time (RT) criteria. No qualifications were required.

Method Blank - Method blanks VBLKYY (6/4/98), VBLKGV (6/5/98), VBLKLT (6/10/98), and VBLKGT (6/11/98) were free of contamination. No qualifications were required.

Trip, field, equipment blank - Trip blank TB052798 was free of contamination. No qualifications were required.

Trip blank TB052898 was free of contamination. No qualifications were required.

Equipment blank EB052798 was free of contamination. No qualifications were required.

Equipment blank EB052898 exhibited acetone, carbon disulfide, methylene chloride, and chloroform contamination at 4 ug/L, 8 ug/L, 0.6 ug/L, and 2 ug/L, respectively. Methylene chloride has been qualified "U" in associated sample BHGLTA076-05. All other associated results are non-detect and no further qualifications were required.

Field Duplicates - Field duplicate results are summarized in the following table. The RPD may be "not calculated" due to a non-detect sample result. Since the positive results are below the PQL, no qualifications were required.

Analyte	BHGLTA075-01 ug/kg	DUP04 ug/kg	RPD
Trichloroethene	5J	6U	NC
4-Methyl-2-pentanone	4J	3J	29
2-Hexanone	9	5J	57

Tentatively Identified Compounds (TICs) - All TIC results have been qualified "T."

Compound Quantitation - Several compounds in several samples were qualified "F" since the results were between the MDL and the PQL.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the continuing calibration, field blanks, TICs, and compound quantitation sections of this report with the exception of dichlorodifluoromethane which has been rejected in all water samples. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Volatiles SDG: 9805G910					
Sample No.	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
EB052798	Dichlorodifluoromethane	0 5	U	0.5	R
TB052798	Dichlorodifluoromethane	0 5	U	0 5	R
BHGLTA075-01	Trichloroethene	5	J	5	F
	4-Methyl-2-pentanone	4	J	4	F
DUP04	4-Methyl-2-pentanone	3	J	3	F
	2-Hexanone	5	J	5	F
BHGLTA076-01	Trichloroethene	4	J	4	F
BHGLTA076-05	Methylene Chloride	3	-	3	U
BHGLTA071-01	Trichloroethene	2	J	2	F
BHGLTA071-02	Tetrachloroethene	2	J	2	F
BHGLTA071-04	Acrylonitrile	12	J	12	F
	p,m-Xylene	1	J	1	F
EB052898	Dichlorodifluoromethane	0.5	U	0.5	R
TB052898	Dichlorodifluoromethane	0.5	U	0 5	R

APPENDIX IX SEMIVOLATILE ORGANIC COMPOUNDS
USEPA SW846 Method 8270C
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G910

Client: HydroGeoLogic, Inc. Date: September 23, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA072-05	9805G910-001	Soil
BHGLTA072-05RE	9805G910-001RE	Soil
EB052798	9805G910-002	Water
BHGLTA075-01	9805G910-004	Soil
BHGLTA075-02	9805G910-005	Soil
BHGLTA075-02RE	9805G910-005RE	Soil
BHGLTA075-03	9805G910-006	Soil
BHGLTA075-03RE	9805G910-006RE	Soil
BHGLTA075-04	9805G910-007	Soil
BHGLTA075-05	9805G910-008	Soil
DUP04	9805G910-009	Soil
BHGLTA076-01	9805G910-010	Soil
BHGLTA076-02	9805G910-011	Soil
BHGLTA076-03	9805G910-012	Soil
BHGLTA076-04	9805G910-013	Soil
BHGLTA076-05	9805G910-014	Soil
BHGLTA071-01	9805G910-015	Soil
BHGLTA071-02	9805G910-016	Soil
BHGLTA071-03	9805G910-017	Soil
BHGLTA071-04	9805G910-018	Soil
BHGLTA071-05	9805G910-019	Soil
EB052898	9805G910-020	Water

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soil samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 with the exception of all three reanalyzed samples. Sample BHGLTA072-05RE was re-extracted at 46 days. All results for this sample have been qualified "J" for positive results and rejected "R" for non-detects. Samples BHGLTA075-02RE and BHGLTA075-03RE were analyzed at 48 days. All results for these samples have been qualified "J" for positive results and "UJ" for non-detects unless already rejected "R" due to the continuing calibration.

GC/MS Tuning - All of the DFTPP tunes in the initial and continuing calibrations met the percent relative abundance criteria. No qualifications were required.

Initial Calibration - The initial calibrations analyzed 3/12/98-7/17/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

The initial calibrations analyzed 3/12/98-6/19/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

The initial calibrations analyzed 4/14/98-7/6/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

Continuing Calibration - The continuing calibration analyzed on 7/6/98 exhibited high %D values for 3-nitroaniline and 4-nitroaniline of 45.5% and 41.6%, respectively. Both compounds have been rejected "R" in associated samples EB052798 and EB052898.

The continuing calibration analyzed on 7/10/98 exhibited acceptable %D and RRF values. No qualifications were required.

The continuing calibration analyzed on 7/16/98 exhibited a high %D value for 3-nitroaniline of 95.8%. 3-Nitroaniline has been rejected "R" in associated samples BHGLTA075-02 and BHGLTA075-03.

The continuing calibration analyzed on 7/20/98 exhibited acceptable %D and RRF values. No qualifications were required.

The continuing calibration analyzed on 7/23/98 exhibited high %D values for hexachlorocyclopentadiene, 4,6-dinitro-2-methylphenol, and benzoic acid of 36.1%, 39.6%, and 33.0%, respectively, however, the associated results have already been rejected "R" due to holding times and no further qualifications were required.

The continuing calibration analyzed on 7/29/98 exhibited high %D values for 3-nitroaniline and 4-nitroaniline of 41.8% and 28.6%, respectively. Both compounds have been rejected "R" in associated samples BHGLTA075-02RE and BHGLTA075-03RE.

Surrogates - Sample BHGLTA072-05 exhibited low surrogate %R values for surrogates S1, S2, S3, an S4 of 0%, 2%, 0%, and 8%, respectively. All results for this sample have been rejected "R" since all results are non-detect.

Reanalyzed sample BHGLTA072-05RE exhibited acceptable surrogate results, however, this sample was extracted at 46 days and all results have already been rejected due to holding times. The original sample results should be used for reporting purposes.

Laboratory Control Samples - LCS samples SBLKTL and SBLKVD exhibited acceptable %R values. No qualifications were required.

LCS sample SBLKQZ exhibited a high %R value for 3-nitroaniline of 250%, however, all associated results are non-detect and no qualifications were required.

LCS sample SBLKTA exhibited a high %R value for di-n-octylphthalate of 159%, however, all associated results are non-detect and no qualifications were required.

MS/MSD - MS/MSD sample BHGLTA072-01 (in SDG 9805G909) exhibited several compounds with MS and/or MSD %R values and RPD values outside of QC limits, however, this was due to high concentrations of these compounds in the native sample. Since the LCS samples exhibited acceptable %R values for these compounds, no qualifications were required.

Internal Standard (IS) Area Performance - Samples BHGLTA075-02 and BHGLTA075-03 exhibited high area counts for IS1 and IS2. All IS1 and IS2 associated results have been qualified "UJ" since all results are non-detect. The reanalysis for both samples exhibited acceptable internal standard results, however, both samples were analyzed outside of holding times and the original sample results should be used for reporting purposes.

Method Blank - Method blanks SBLKQZ (6/3/98), SBLKTL (6/9/98), SBLKTA (6/11/98), SBLKTARE (6/11/98), and SBLKKV (7/12/98) were free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB052798 exhibited bis(2-ethylhexyl)phthalate contamination at 8 ug/L, however, all associated results are non-detect and no qualifications were required.

Equipment blank EB052898 exhibited bis(2-ethylhexyl)phthalate contamination at 11 ug/L. Bis(2-ethylhexyl)phthalate has been qualified "U" in associated samples BHGLTA075-01, BHGLTA075-04, DUP04, BHGLTA076-01, BHGLTA076-03, BHGLTA076-04, BHGLTA076-05, BHGLTA071-01, BHGLTA071-02, BHGLTA071-03, and BHGLTA071-04.

Field Duplicates - Field duplicate results are summarized in the following table. The RPD may be "not calculated" due to a non-detect sample result. No qualifications were required.

Analyte	BHGLTA075-01 ug/kg	DUP04 ug/kg	RPD
Phenanthrene	110	130	17
Fluoranthene	410	440	7
Pyrene	380	420	10
Benzo(a)anthracene	210	250	17
Chrysene	260	290	11
Benzo(b)fluoranthene	370	420	13
Benzo(a)pyrene	240	290	19
Indeno(1,2,3-cd)pyrene	230	270	16
Benzo(g,h,i)perylene	200	280	33
Benzo(k)fluoranthene	400U	160	NC

Tentatively Identified Compounds (TICs) - All TIC results have been qualified "T."

Compound Quantitation - All results between the MDL and the PQL have been qualified "F."

Sample BHGLTA071-01 exhibited several compounds which exceeded the linear range of the instrument and were flagged "E" by the laboratory. The laboratory did not reanalyze the sample at a dilution, therefore, all of these results have been qualified "J" by the reviewer.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the holding times, continuing calibration, surrogate, internal standard, field blanks, TICs, and compound quantitation sections of this report with the exception of several results which were rejected due to holding times and calibration problems. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Semivolatiles SDG 9805G910					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
BHGLTA072-05	All Results	--	U	--	R
BHGLTA072-05RE	All Results	--	U	--	R
EB052798	3-Nitroaniline	48	U	48	R
	4-Nitroaniline	48	U	48	R

Qualification Summary Table - Semivolatiles SDG: 9805G910					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
	Bis(2-Ethylhexyl)phthalate	8	J	8	F
BHGLTA075-01	Phenanthrene	110	J	110	F
	Pyrene	380	J	380	F
	Benzo(a)anthracene	210	J	210	F
	Chrysene	260	J	260	F
	Bis(2-Ethylhexyl)phthalate	82	J	400	U
	Benzo(b)fluoranthene	370	J	370	F
	Benzo(a)pyrene	240	J	240	F
	Indeno(1,2,3-cd)pyrene	230	J	230	F
	Benzo(g,h,I)perylene	200	J	200	F
BHGLTA075-02	Phenol-2-Methylnaphthalene	--	U	--	UJ
	3-Nitroaniline	1900	U	1900	R
BHGLTA075-02RE	All other results	--	U	--	UJ
	3-Nitroaniline	1900	U	1900	R
	4-Nitroaniline	1900	U	1900	R
BHGLTA075-03	Phenol-2-Methylnaphthalene	--	U	--	UJ
	3-Nitroaniline	1800	U	1800	R
BHGLTA075-03RE	All other results	--	U	--	UJ
	3-Nitroaniline	1800	U	1800	R
	4-Nitroaniline	1800	U	1800	R
BHGLTA075-04	Bis(2-Ethylhexyl)phthalate	86	J	340	U
DUP04	Phenanthrene	130	J	130	F
	Benzo(a)anthracene	250	J	250	F
	Chrysene	290	J	290	F
	Bis(2-Ethylhexyl)phthalate	110	J	400	U
	Benzo(k)fluoranthene	160	J	160	F
	Benzo(a)pyrene	290	J	290	F
	Indeno(1,2,3-cd)pyrene	270	J	270	F
	Benzo(g,h,i)perylene	280	J	280	F
BHGLTA076-01	Bis(2-Ethylhexyl)phthalate	44	J	360	U
BHGLTA076-03	Bis(2-Ethylhexyl)phthalate	57	J	370	U
BHGLTA076-04	Bis(2-Ethylhexyl)phthalate	58	J	340	U
BHGLTA076-05	Bis(2-Ethylhexyl)phthalate	71	J	350	U
BHGLTA071-01	Naphthalene	41	J	41	F
	Dibenzofuran	160	J	160	F
	Phenanthrene	10000	E	10000	J
	Fluoranthene	25000	E	25000	J
	Pyrene	23000	E	23000	J
	Butylbenzylphthalate	47	J	47	F
	Benzo(a)anthracene	10000	E	10000	J
	Bis(2-Ethylhexyl)phthalate	110	J	380	U
	Benzo(b)fluoranthene	19000	E	19000	J
	Benzo(a)pyrene	12000	E	12000	J
	Indeno(1,2,3-cd)pyrene	11000	E	11000	J
	Benzo(g,h,i)perylene	10000	E	10000	J
BHGLTA071-02	Bis(2-Ethylhexyl)phthalate	61	J	380	U
BHGLTA071-03	Bis(2-Ethylhexyl)phthalate	54	J	340	U
BHGLTA071-04	Bis(2-Ethylhexyl)phthalate	61	J	340	U

Qualification Summary Table - Semivolatiles SDG. 9805G910					
Sample No.	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
EB052898	3-Nitroaniline	47	U	47	R
	4-Nitroaniline	47	U	47	R

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APPENDIX IX PESTICIDES/PCBs
USEPA SW846 Method 8080A
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G910

Client: HydroGeoLogic, Inc Date: September 23, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA072-05	9805G910-001	Soil
EB052798	9805G910-002	Water
BHGLTA075-01	9805G910-004	Soil
BHGLTA075-02	9805G910-005	Soil
BHGLTA075-03	9805G910-006	Soil
BHGLTA075-04	9805G910-007	Soil
BHGLTA075-05	9805G910-008	Soil
DUP04	9805G910-009	Soil
BHGLTA076-01	9805G910-010	Soil
BHGLTA076-02	9805G910-011	Soil
BHGLTA076-03	9805G910-012	Soil
BHGLTA076-04	9805G910-013	Soil
BHGLTA076-05	9805G910-014	Soil
BHGLTA071-01	9805G910-015	Soil
BHGLTA071-02	9805G910-016	Soil
BHGLTA071-03	9805G910-017	Soil
BHGLTA071-04	9805G910-018	Soil
BHGLTA071-05	9805G910-019	Soil
EB052898	9805G910-020	Water

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soil samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 with the exception of samples BHGLTA076-04, BHGLTA076-05, BHGLTA071-01, BHGLTA071-02, BHGLTA071-03, BHGLTA071-04, and BHGLTA071-05. All of these samples were extracted at 18 days and all results have been qualified "UJ" since all results are non-detect.

Initial Calibration - The initial calibrations analyzed on 5/25/98, 6/17/98, and 7/15/98 exhibited acceptable %RSD values of less than 20%. No qualifications were required.

Continuing Calibration Verification - The continuing calibration QC acceptance criteria were met with the exception of the following:

The continuing calibration verification analyzed on 6/21/98 exhibited a high %D value for methoxychlor on the following columns.

CCV	Analyte	DB-5	RTX-35
6/21/98 (0240)	Methoxychlor	16.9%	21.6%

Methoxychlor has been rejected in associated samples BHGLTA076-02 and BHGLTA076-03.

The DDT and endrin breakdown was acceptable.

Method Blank - Method blanks PBLKCN (6/2/98), PBLKFQ (6/8/98), and PBLKKT (6/15/98) were free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB052798 was free of contamination. No qualifications were required.

Equipment blank EB052898 was free of contamination. No qualifications were required.

Surrogates - Sample BHGLTA071-01 was analyzed at a 50X dilution and the surrogates were reported with a "D" flag by the laboratory due to being diluted out. No action was taken on this basis.

Laboratory Control Samples - LCS samples PBLKCOBS, PBLKCPBS, PBLKFRBS, PBLKFSBS, PBLKKTBS, and PBLKRMBS exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA072-01 (in SDG 9805G909) exhibited low MSD %R values for heptachlor epoxide and methoxychlor of 35% and 33%, respectively, and high RPD values for both compounds of 104 and 125, respectively. Since the MS %R values were acceptable and the LCS sample %R values were acceptable, no qualifications were required.

Field Duplicates - Field duplicate results for samples BHGLTA075-01 and DUP04 are non-detect. No qualifications were required.

Compound Identification - Methoxychlor was slightly outside of the RT window on 6/5/98, however, the data were not affected and no action has been taken.

Compound Quantitation - Several samples were analyzed at dilutions due to matrix interference and the reporting levels were adjusted accordingly.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the holding times and continuing calibration sections of this report with the exception of methoxychlor which has been rejected in two samples. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Pesticide/PCBs SDG· 9805G910					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc	Qualifier
BHGLTA076-02	Methoxychlor	1100	U	1100	R
BHGLTA076-03	Methoxychlor	110	U	110	R
BHGLTA076-04	All results	--	U	--	UJ
BHGLTA076-05	All results	--	U	--	UJ
BHGLTA071-01	All results	--	U	--	UJ
BHGLTA071-02	All results	--	U	--	UJ
BHGLTA071-03	All results	--	U	--	UJ
BHGLTA071-04	All results	--	U	--	UJ
BHGLTA071-05	All results	--	U	--	UJ

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APPENDIX IX ORGANOPHOPHORUS PESTICIDES

USEPA SW846 Method 8141
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G910

Client: HydroGeoLogic, Inc. Date: September 23, 1998

Laboratory: RECRA LabNet Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA072-05	9805G910-001	Soil
EB052798	9805G910-002	Water
BHGLTA075-01	9805G910-004	Soil
BHGLTA075-02	9805G910-005	Soil
BHGLTA075-03	9805G910-006	Soil
BHGLTA075-04	9805G910-007	Soil
BHGLTA075-05	9805G910-008	Soil
DUP04	9805G910-009	Soil
BHGLTA076-01	9805G910-010	Soil
BHGLTA076-02	9805G910-011	Soil
BHGLTA076-03	9805G910-012	Soil
BHGLTA076-04	9805G910-013	Soil
BHGLTA076-05	9805G910-014	Soil
BHGLTA071-01	9805G910-015	Soil
BHGLTA071-02	9805G910-016	Soil
BHGLTA071-03	9805G910-017	Soil
BHGLTA071-04	9805G910-018	Soil
BHGLTA071-05	9805G910-019	Soil
EB052898	9805G910-020	Water

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soil samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 with the exception of samples BHGLTA076-04, BHGLTA076-05, BHGLTA071-01, BHGLTA071-02, BHGLTA071-03, BHGLTA071-04, and BHGLTA071-05. All of these samples were extracted at 18 days and all results have been qualified "UJ" since all results are non-detect unless already rejected "R" due to calibration problems.

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Initial Calibration - The initial calibrations analyzed on 6/22/98 and 6/25/98 exhibited acceptable %RSD values of less than 20% and/or correlation coefficients of >0.995. No qualifications were required.

Continuing Calibration Verification - The continuing calibration verifications analyzed on 6/22/98, 6/23/98, 6/25/98, 6/26/98, and 6/29/98 exhibited acceptable %D values. No qualifications were required.

The continuing calibration analyzed on 6/24/98 (0001) exhibited a high %D value for dimethoate of 17.5%. Dimethoate has been rejected "R" in associated samples EB052798 and EB052898.

The continuing calibration analyzed on 6/29/98 (1759) exhibited a high %D value for dimethoate of 16.4%. Dimethoate has been rejected "R" in associated samples BHGLTA076-04, BHGLTA076-05, BHGLTA071-01, BHGLTA071-02, BHGLTA071-03, BHGLTA071-04, and BHGLTA071-05.

Method Blank - Method blanks PBLKCM (6/2/98), PBLKFP (6/8/98), and PBLKKS (6/15/98) were free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB052798 was free of contamination. No qualifications were required.

Equipment blank EB052898 was free of contamination. No qualifications were required.

Surrogates - Several samples exhibited a slightly low %R value for either surrogate compound S1-TBP or S2-TPP, however, no qualifications are required unless both surrogates exceed QC limits.

Laboratory Control Samples - LCS samples PBLKCMBS, PBLKFPBS, and PBLKKSBS exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA072-01 (in SDG 9805G909) exhibited acceptable %R and RPD values. No qualifications were required.

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Field Duplicates - Field duplicate results for samples BHGLTA075-01 and DUP04 are non-detect. No qualifications were required.

Compound Identification - Several of the retention times were slightly outside of the RT window throughout the analysis and were updated. The data were not affected and no action has been taken.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the holding times and continuing calibration sections of this report with the exception of dimethoate which has been rejected in nine samples. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - OP Pesticides SDG 9805G910					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc	Qualifier
EB052798	Dimethoate	1.9	U	1.9	R
BHGLTA076-04	Dimethoate	68	U	68	R
	All other results	68	U	68	UJ
BHGLTA076-05	Dimethoate	71	U	71	R
	All other results	71	U	71	UJ
BHGLTA071-01	Dimethoate	76	U	76	R
	All other results	76	U	76	UJ
BHGLTA071-02	Dimethoate	77	U	77	R
	All other results	77	U	77	UJ
BHGLTA071-03	Dimethoate	69	U	69	R
	All other results	69	U	69	UJ
BHGLTA071-04	Dimethoate	69	U	69	R
	All other results	69	U	69	UJ
BHGLTA071-05	Dimethoate	68	U	68	R
	All other results	68	U	68	UJ
EB052898	Dimethoate	1.9	U	1.9	R

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APPENDIX IX HERBICIDES
USEPA SW846 Method 8150B
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G910

Client: HydroGeoLogic, Inc. Date: September 23, 1998

Laboratory. RECRA LabNet Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA072-05	9805G910-001	Soil
EB052798	9805G910-002	Water
BHGLTA075-01	9805G910-004	Soil
BHGLTA075-02	9805G910-005	Soil
BHGLTA075-03	9805G910-006	Soil
BHGLTA075-04	9805G910-007	Soil
BHGLTA075-05	9805G910-008	Soil
DUP04	9805G910-009	Soil
BHGLTA076-01	9805G910-010	Soil
BHGLTA076-02	9805G910-011	Soil
BHGLTA076-03	9805G910-012	Soil
BHGLTA076-04	9805G910-013	Soil
BHGLTA076-05	9805G910-014	Soil
BHGLTA071-01	9805G910-015	Soil
BHGLTA071-02	9805G910-016	Soil
BHGLTA071-03	9805G910-017	Soil
BHGLTA071-04	9805G910-018	Soil
BHGLTA071-05	9805G910-019	Soil
EB052898	9805G910-020	Water

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soil samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 with the exception of sample BHGLTA072-05 which was extracted at 15 days. All results for this sample have been qualified "UJ" since all results are non-detect.

Initial Calibration - The initial calibrations analyzed on 6/20/98 and 6/25/98 exhibited acceptable %RSD values less than 20%. No qualifications were required.

Continuing Calibration Verification - The continuing calibration verifications analyzed on 6/20/98, 6/21/98, and 6/26/98 exhibited acceptable %D values. No qualifications were required.

The continuing calibration verification analyzed on 6/27/98 exhibited a high %D value for 2,4-D of 18.1% on the confirmation column, however, since the primary column %D value was acceptable and the result was non-detect, no qualifications were required.

Method Blank - Method blanks PBLKKA (6/1/98) and PBLKKO (6/11/98) were free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB052798 was free of contamination. No qualifications were required.

Equipment blank EB052898 was free of contamination. No qualifications were required.

Surrogates - All samples exhibited acceptable surrogate %R values. No qualifications were required.

Laboratory Control Samples - LCS samples PBLKKABS and PBLKKOBS exhibited acceptable %R values No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA072-01 (in SDG 9805G909) exhibited acceptable %R and RPD values. No qualifications were required.

Field Duplicates - Field duplicate results for samples BHGLTA075-01 and DUP04 are non-detect. No qualifications were required.

Compound Identification - Several of the retention times were slightly outside of the RT window, however, the data were not affected and no action has been taken.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the holding times section of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Herbicides SDG: 9805G910					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc	Qualifier
BHGLTA072-05	All Results	--	U	--	UJ

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APPENDIX IX METALS
USEPA SW846 Methods 6010A, 7471, 9010A
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G910

Client: HydroGeoLogic, Inc. Date: September 22, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA072-05	9805G910-001	Soil
EB052798	9805G910-002	Water
BHGLTA075-01	9805G910-004	Soil
BHGLTA075-02	9805G910-005	Soil
BHGLTA075-03	9805G910-006	Soil
BHGLTA075-04	9805G910-007	Soil
BHGLTA075-05	9805G910-008	Soil
DUP04	9805G910-009	Soil
BHGLTA076-01	9805G910-010	Soil
BHGLTA076-02	9805G910-011	Soil
BHGLTA076-03	9805G910-012	Soil
BHGLTA076-04	9805G910-013	Soil
BHGLTA076-05	9805G910-014	Soil
BHGLTA071-01	9805G910-015	Soil
BHGLTA071-02	9805G910-016	Soil
BHGLTA071-03	9805G910-017	Soil
BHGLTA071-04	9805G910-018	Soil
BHGLTA071-05	9805G910-019	Soil
EB052898	9805G910-020	Water

Holding Times - All samples were extracted and analyzed within the recommended holding time of 180 days for all metals except 28 days for mercury and 14 days for cyanide as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Calibration - All initial and continuing calibration verifications exhibited acceptable %R values. No qualifications were required.

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Method Blanks - Soil preparation blank PBS (6/10/98) exhibited contamination for beryllium, tin, and zinc, however, all associated results were non-detect or greater than 5X the blank concentration with the exception of tin. Tin has been qualified "U" in associated samples BHGLTA072-05, BHGLTA075-01, BHGLTA075-02, BHGLTA075-04, BHGLTA075-05, DUP04, BHGLTA076-01, BHGLTA076-03, BHGLTA076-04, and BHGLTA071-01.

Water preparation blank PBW (6/11/98) exhibited contamination for zinc at 10.65 ug/L. Zinc has been qualified "U" in associated samples EB052798 and EB052898.

The continuing calibration blanks exhibited contamination for several compounds, however, all associated results were non-detect or greater than 5X the blank concentration with the exception of beryllium, chromium, cobalt, copper, tin, and zinc. Beryllium has been qualified "U" in all soil samples except BHGLTA075-02, BHGLTA075-03, and BHGLTA071-02. Chromium has been qualified "U" in associated samples BHGLTA072-05 and BHGLTA076-04. Cobalt has been qualified "U" in associated samples BHGLTA072-05, BHGLTA075-04, BHGLTA075-05, BHGLTA076-03, BHGLTA076-04, BHGLTA076-05, BHGLTA071-03, BHGLTA071-04, and BHGLTA071-05. Copper has been qualified "U" in associated samples BHGLTA072-05, BHGLTA075-05, BHGLTA076-03, BHGLTA076-04, BHGLTA076-05, and BHGLTA071-05 Tin has been qualified "U" in associated samples BHGLTA076-05, BHGLTA071-02, BHGLTA071-03, BHGLTA071-04, and BHGLTA071-05. Zinc has been qualified "U" in associated samples BHGLTA072-05 and BHGLTA076-04.

Field and equipment blank - Equipment blank EB052798 was free of contamination. No qualifications were required.

Equipment blank EB052898 was free of contamination. No qualifications were required.

ICP Interference Check Sample - All % recovery values met the QC acceptance criteria. No qualifications were required.

LCS - The LCS analysis met the QC acceptance criteria of as specified in the QAPP. No qualifications were required.

ICP Serial Dilutions - ICP serial dilution sample BHGLTA072-02 (in SDG 9805G909) exhibited a high %D value for zinc of 41.2%. Zinc has been qualified "J" for positive results in all soil samples.

Matrix Spike - Matrix spike sample BHGLTA072-01 (in SDG 9805G909) exhibited low %R values for antimony, copper, lead, mercury, and silver of 0.0%, 62.9%, -56.9%, 60.7%, and 72.2%, respectively. All of the above compounds have been qualified "J" for positive results and "UJ" for non-detects in all soil samples.

Matrix Spike Duplicate - Matrix duplicate sample BHGLTA072-01 (in SDG 9805G909) exhibited high RPD values for antimony, lead, copper, and mercury, however, all associated results have already been qualified due to the matrix spike and no further qualifications were required.

Field Duplicates - Field duplicate results are summarized in the following table. No qualifications were required.

Analyte	BHGLTA075-01 mg/kg	DUP04 mg/kg	RPD
Arsenic	8 5	8.0	6
Barium	68 9	66.4	4
Chromium	12 6	12.8	2
Cobalt	4.4	4.3	2
Copper	9 0	9.5	5
Lead	28.7	28.0	2
Mercury	0 04	0.04	0
Nickel	8.3	9.1	9
Selenium	11.8	13 3	12
Thallium	7.5	8 0	6
Vanadium	23.7	22.8	4
Zinc	58.6	62.1	6
Cyanide	0.17	0.21	21

Compound Quantitation - All results between the MDL and the PQL have been qualified "F."

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the method blank, ICP serial dilution, matrix spike, and compound quantitation sections of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Metals SDG· 9805G910					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
BHGLTA072-05	Antimony	2.9	U	2 9	UJ
	Beryllium	0 13	B	0 27	U
	Chromium	2.5	B	6.3	U
	Cobalt	1.1	B	6.3	U
	Copper	1.1	B	5.4	UJ
	Lead	1.6	U	1.6	UJ
	Mercury	0 02	U	0.02	UJ
	Nickel	1.2	B	1.2	F
	Selenium	4.4	B	4 4	F
	Silver	0.25	U	0.25	UJ
	Tin	1.8	B	9 1	U
	Vanadium	4.4	B	4.4	F
	Zinc	4.0	-	4.0	U
EB052798	Zinc	7 6	B	20 0	U
BHGLTA075-01	Antimony	3.4	U	3.4	UJ
	Arsenic	8 5	B	8.5	F
	Beryllium	0.72	-	0.72	U
	Cobalt	4.4	B	4 4	F
	Copper	9.0	-	9.0	J
	Lead	28 7	B	28.7	J
	Mercury	0 04	B	0 04	J
	Nickel	8.3	B	8.3	F
	Selenium	11.8	B	11.8	F
	Silver	0.30	U	0.30	UJ
	Tin	2.6	B	10.6	U
	Thallium	7 5	B	7.5	F
	Zinc	58.6	-	58.6	J
	Cyanide	0 17	B	0.17	F
BHGLTA075-02	Antimony	16.0	U	16.0	UJ
	Arsenic	17 4	B	17.4	F
	Beryllium	0.94	B	0.94	F
	Chromium	18 3	B	18.3	F
	Cobalt	4.7	B	4 7	F
	Copper	6 9	B	6.9	J
	Lead	11 7	B	11.7	J
	Mercury	0.02	U	0 02	UJ
	Nickel	12.9	B	12.9	F
	Selenium	17.3	B	17.3	F
	Silver	1 4	U	1 4	UJ
	Tin	5.3	B	50.0	U
	Vanadium	28.4	B	28.4	F
	Zinc	31.1	-	31.1	J
	Cyanide	0.15	B	0.15	F
BHGLTA075-03	Antimony	14.9	U	14 9	UJ

Qualification Summary Table - Metals
SDG. 9805G910

Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
	Beryllium	0.64	B	0.64	F
	Chromium	10.8	B	10.8	F
	Cobalt	4.4	B	4.4	F
	Copper	7.4	B	7.4	J
	Lead	10.6	B	10.6	J
	Mercury	0.03	U	0.03	UJ
	Nickel	10.8	B	10.8	F
	Silver	1.3	U	1.3	UJ
	Vanadium	23 3	B	23 3	F
	Zinc	25.0	-	25.0	J
BHGLTA075-04	Antimony	2 8	U	2 8	UJ
	Beryllium	0.22	B	0.27	U
	Chromium	3 9	B	3 9	F
	Cobalt	1 8	B	6.2	U
	Copper	1 9	B	1.9	J
	Lead	2.6	B	2.6	J
	- Mercury	0.02	U	0.02	UJ
	Nickel	2.5	B	2 5	F
	Selenium	5 4	B	5.4	F
	Silver	0.25	U	0.25	UJ
	Tin	0 91	B	8.9	U
	Zinc	6 7	-	6 7	J
BHGLTA075-05	Antimony	2.9	U	2.9	UJ
	Beryllium	0.16	B	0.27	U
	Chromium	3 5	B	3.5	F
	Cobalt	1 4	B	6 3	U
	Copper	1 5	B	5.4	UJ
	Lead	1.8	B	1.8	J
	Mercury	0.02	U	0.02	UJ
	Nickel	2.0	B	2.0	F
	Selenium	5 5	B	5.5	F
	Silver	0.25	U	0.25	UJ
	Tin	1.7	B	9.0	U
	Vanadium	6 1	B	6.1	F
	Zinc	6.8	-	6 8	J
DUP04	Antimony	3.2	U	3.2	UJ
	Arsenic	8.0	B	8 0	F
	Beryllium	0.69	-	0.69	U
	Cobalt	4.3	B	4.3	F
	Copper	9.5	-	9.5	J
	Lead	28.0	B	28.0	J
	Mercury	0 04	B	0.04	J
	Nickel	9.1	B	9.1	F
	Selenium	13 3	B	13.3	F
	Silver	0.28	U	0.28	UJ
	Tin	2.8	B	10.0	U
	Thallium	8.0	B	8.0	F
	Zinc	62.1	-	62.1	J
	Cyanide	0.21	B	0 21	F

Qualification Summary Table - Metals
SDG. 9805G910

Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
BHGLTA076-01	Antimony	2.8	U	2.8	UJ
	Arsenic	6 9	B	6.9	F
	Beryllium	0.51	-	0 51	U
	Cobalt	3 8	B	3.8	F
	Copper	4.5	B	4.5	J
	Lead	6.9	B	6.9	J
	Mercury	0.02	U	0 02	UJ
	Nickel	7.7	B	7.7	F
	Selenium	11.0	B	11 0	F
	Silver	0 24	U	0.24	UJ
	Tin	1.9	B	8 7	U
	Thallium	9.8	B	9.8	F
	Zinc	16 7	-	16.7	J
BHGLTA076-02	Antimony	13 5	U	13.5	UJ
	Beryllium	0 77	B	1.26	U
	Chromium	15.6	B	15 6	F
	Cobalt	4 6	B	4.6	F
	Copper	5 9	B	5.9	J
	Lead	7.6	U	7 6	UJ
	Mercury	0.02	U	0.02	UJ
	Nickel	11.9	B	11.9	F
	Silver	1 2	U	1 2	UJ
	Thallium	27.3	B	27 3	F
	Vanadium	30.2	B	30.2	F
	Zinc	25.6	-	25.6	J
BHGLTA076-03	Antimony	3.1	U	3 1	UJ
	Beryllium	0 18	B	0 29	U
	Chromium	3.4	B	3 4	F
	Cobalt	1.0	B	6 9	U
	Copper	1.5	B	5.9	UJ
	Lead	1.8	U	1.8	UJ
	Mercury	0.03	U	0.03	UJ
	Nickel	2.4	B	2 4	F
	Selenium	3.4	B	3 4	F
	Silver	0.27	U	0 27	UJ
	Tin	2.2	B	9.8	U
	Vanadium	5 8	B	5.8	F
	Zinc	7.3	-	7.3	J
BHGLTA076-04	Antimony	2.8	U	2 8	UJ
	Beryllium	0.13	B	0.26	U
	Chromium	2 9	B	6.1	U
	Cobalt	0 93	B	6.1	U
	Copper	1 1	B	5 2	UJ
	Lead	1.6	U	1.6	UJ
	Mercury	0.02	U	0.02	UJ
	Nickel	1.1	B	1.1	F
	Selenium	5 0	B	5.0	F
	Silver	0.24	U	0.24	UJ
	Tin	2 1	B	8 7	U

Qualification Summary Table - Metals
SDG 9805G910

Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
	Vanadium	5.5	B	5.5	F
	Zinc	4.9	-	4.9	U
BHGLTA076-05	Antimony	2.7	U	2.7	UJ
	Beryllium	0.12	B	0.25	U
	Chromium	2.9	B	2.9	F
	Cobalt	0.93	B	5.9	U
	Copper	0 95	B	5.1	UJ
	Lead	1.5	U	1 5	UJ
	Mercury	0.02	U	0 02	UJ
	Nickel	1.5	B	1.5	F
	Selenium	3.4	B	3.4	F
	Silver	0 24	U	0.24	UJ
	Tin	1.4	B	8 5	U
	Vanadium	4.0	B	4.0	F
	Zinc	4 1	-	4.1	J
BHGLTA071-01	Antimony	15 5	U	15.5	UJ
	Beryllium	0 41	B	1.5	U
	Chromium	12.3	B	12.3	F
	Cobalt	3.1	B	3 1	F
	Copper	8 6	B	8 6	J
	Lead	49.7	B	49.7	J
	Mercury	0.03	B	0.03	J
	Nickel	6 1	B	6 1	F
	Silver	1.4	U	1.4	UJ
	Tin	4 3	B	48 5	U
	Vanadium	17.9	B	17.9	F
	Zinc	50.5	-	50.5	J
BHGLTA071-02	Antimony	2.9	U	2.9	UJ
	Arsenic	12.5	B	12.5	F
	Cobalt	5 3	B	5.3	F
	Copper	7 4	-	7.4	J
	Lead	7.0	B	7.0	J
	Mercury	0.03	U	0.03	UJ
	Nickel	11.7	B	11 7	F
	Selenium	15 8	B	15.8	F
	Silver	0.25	U	0.25	UJ
	Tin	2.4	B	9 1	U
	Thallium	12.4	B	12 4	F
	Zinc	27.3	-	27.3	J
BHGLTA071-03	Antimony	2.8	U	2.8	UJ
	Arsenic	2.4	B	2.4	F
	Beryllium	0.17	B	0.26	U
	Chromium	4 5	B	4.5	F
	Cobalt	1.8	B	6.1	U
	Copper	2.4	B	2.4	J
	Lead	2.6	B	2.6	J
	Mercury	0.02	U	0 02	UJ
	Nickel	3.2	B	3.2	F
	Selenium	8.7	B	8.7	F

Qualification Summary Table - Metals SDG 9805G910					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
	Silver	0.24	U	0.24	UJ
	Tin	1.4	B	8.7	U
	Zinc	7.1	-	7.1	J
BHGLTA071-04	Antimony	2 9	U	2.9	UJ
	Arsenic	2.8	B	2.8	F
	Beryllium	0.17	B	0.27	U
	Chromium	3 2	B	3 2	F
	Cobalt	1 2	B	6.2	U
	Copper	1.5	B	1.5	J
	Lead	1 6	U	1 6	UJ
	Mercury	0.02	U	0 02	UJ
	Nickel	1 7	B	1.7	F
	Selenium	5.1	B	5.1	F
	Silver	0.25	U	0.25	UJ
	Tin	1 8	B	8 9	U
	Zinc	5 6	-	5.6	J
BHGLTA071-05	Antimony	3 0	U	3.0	UJ
	Beryllium	0 12	B	0.28	U
	Chromium	2.3	B	2.3	F
	Cobalt	0 69	B	6 5	U
	Copper	1 00	B	5.6	UJ
	Lead	1.7	U	1.7	UJ
	Mercury	0.02	U	0.02	UJ
	Nickel	0 96	B	0.96	F
	Silver	0.26	U	0.26	UJ
	Tin	1.8	B	9.3	U
	Vanadium	4.4	B	4.4	F
	Zinc	3 9	-	3 9	J
EB052898	Zinc	12.8	B	20 0	U

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SULFIDE
USEPA SW846 Method 9030
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G910

Client: HydroGeoLogic, Inc. Date: September 23, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA072-05	9805G910-001	Soil
EB052798	9805G910-002	Water
BHGLTA075-01	9805G910-004	Soil
BHGLTA075-02	9805G910-005	Soil
BHGLTA075-03	9805G910-006	Soil
BHGLTA075-04	9805G910-007	Soil
BHGLTA075-05	9805G910-008	Soil
DUP04	9805G910-009	Soil
BHGLTA076-01	9805G910-010	Soil
BHGLTA076-02	9805G910-011	Soil
BHGLTA076-03	9805G910-012	Soil
BHGLTA076-04	9805G910-013	Soil
BHGLTA076-05	9805G910-014	Soil
BHGLTA071-01	9805G910-015	Soil
BHGLTA071-02	9805G910-016	Soil
BHGLTA071-03	9805G910-017	Soil
BHGLTA071-04	9805G910-018	Soil
BHGLTA071-05	9805G910-019	Soil
EB052898	9805G910-020	Water

Holding Times - All samples were analyzed within the recommended holding time of 7 days as specified in Table 5 1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Method and Calibration Blanks - The method blanks were free of contamination. No qualifications were required.

Field and Equipment Blank - Equipment blank EB052798 was free of contamination. No qualifications were required.

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Equipment blank EB052898 was free of contamination. No qualifications were required.

LCS - The LCS samples exhibited acceptable %R values. No qualifications were required.

Matrix Spike/Duplicate - MS/MSD sample BHGLTA072-01 (in SDG 9805G909) exhibited acceptable %R and RPD values. No qualifications were required.

Field Duplicates - Field duplicate results for samples BHGLTA075-01 and DUP04 are non-detect. No qualifications were required.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Sulfide SDG 9805G910					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
None Qualified	--	--	--	--	--

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APPENDIX IX POLYCHLORINATED DIBENZODIOXINS and POLYCHLORINATED DIBENZOFURANS (PCDD/PCDF)
USEPA SW846 Method 8280
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G910

Client: HydroGeoLogic, Inc. Date: September 23, 1998

Laboratory: RECRA LabNet - Philadelphia Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA072-05	9805G910-001	Soil
EB052798	9805G910-002	Water
BHGLTA075-01	9805G910-004	Soil
BHGLTA075-02	9805G910-005	Soil
BHGLTA075-03	9805G910-006	Soil
BHGLTA075-04	9805G910-007	Soil
BHGLTA075-05	9805G910-008	Soil
DUP04	9805G910-009	Soil
BHGLTA076-01	9805G910-010	Soil
BHGLTA076-02	9805G910-011	Soil
BHGLTA076-03	9805G910-012	Soil
BHGLTA076-04	9805G910-013	Soil
BHGLTA076-05	9805G910-014	Soil
BHGLTA071-01	9805G910-015	Soil
BHGLTA071-02	9805G910-016	Soil
BHGLTA071-03	9805G910-017	Soil
BHGLTA071-04	9805G910-018	Soil
BHGLTA071-05	9805G910-019	Soil
EB052898	9805G910-020	Water

Holding Times - All samples were extracted within 30 days of collection and analyzed within the recommended holding time of 45 days as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 3/26/98 and 4/1/98 exhibited acceptable %RSD values of less than 15% for the RFs. All ICAL ion abundance ratios met QC acceptance criteria. No qualifications were required.

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Continuing Calibration - The continuing calibrations analyzed on 6/9/98, 6/15/98, and 6/16/98 exhibited acceptable %D values and ion abundance ratios within QC acceptance criteria and no qualifications were required.

Column Performance Check - Resolution check criteria were met since the valley was less than 25%.

Surrogates - All surrogate recovery values met QC acceptance criteria and no qualifications were required.

Method Blanks - The water and soil method blanks were free of contamination and no qualifications were required.

Field, equipment blanks - Equipment blank EB052798 was free of contamination. No qualifications were required.

Equipment blank EB052898 was free of contamination. No qualifications were required.

Internal Standards - The internal standards met QC acceptance criteria and no qualifications were required.

MS/MSD - MS/MSD sample BHGLTA072-01 (in SDG 9805G909) exhibited acceptable %R and RPD values. No qualifications were required.

Laboratory Control Sample/Duplicate - The LCS and LCS/LCSD samples exhibited acceptable %R and RPD values within the QC acceptance criteria and no qualifications were required.

Field Duplicates - Field duplicate results for samples BHGLTA075-01 and DUP04 are non-detect. No qualifications were required.

Compound Quantitation - No discrepancies were identified. All sample results were non-detect.

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Comments - The analyses of environmental samples and quality control samples are valid. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Dioxins SDG: 9805G910					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
None Qualified	--	--	--	--	--

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APPENDIX IX POLYCHLORINATED DIBENZODIOXINS and POLYCHLORINATED DIBENZOFURANS (PCDD/PCDF)
USEPA SW846 Method 8280
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9806G959

Client: HydroGeoLogic, Inc. Date: September 23, 1998

Laboratory: RECRA LabNet - Philadelphia Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA813-04	9806G959-002	Soil
BHGLTA813-05	9806G959-003	Soil
BHGLTA817-01	9806G959-004	Soil
DUP060198	9806G959-005	Soil
EB060198	9806G959-006	Water
BHGLTA812-01	9806G959-008	Soil
BHGLTA812-02	9806G959-009	Soil
BHGLTA812-03	9806G959-010	Soil
BHGLTA812-04	9806G959-011	Soil
BHGLTA812-05	9806G959-012	Soil
BHGLTA815-03	9806G959-013	Soil
BHGLTA815-04	9806G959-014	Soil
BHGLTA815-05	9806G959-015	Soil
DUP060298	9806G959-016	Soil
EB060298	9806G959-017	Water

Holding Times - All samples were extracted within 30 days of collection and analyzed within the recommended holding time of 45 days as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 3/26/98 and 4/1/98 exhibited acceptable %RSD values of less than 15% for the RFs. All ICAL ion abundance ratios met QC acceptance criteria. No qualifications were required.

Continuing Calibration - The continuing calibrations analyzed on 6/17/98, 6/18/98, and 6/19/98 exhibited acceptable %D values and ion abundance ratios within QC acceptance criteria and no qualifications were required.

Column Performance Check - Resolution check criteria were met since the valley was less than 25%.

Surrogates - Sample EB060198 exhibited low %R values for surrogate compounds S1-TCD and S2-TCF of 9% and 8%, respectively. There was insufficient sample volume to perform a re-extraction and both results for this sample have been rejected "R" since both results are non-detect.

Method Blanks - The water and soil method blanks were free of contamination and no qualifications were required.

Field, equipment blanks - Equipment blank EB060198 was free of contamination. No qualifications were required.

Equipment blank EB060298 was free of contamination. No qualifications were required.

Internal Standards - The internal standards met QC acceptance criteria and no qualifications were required.

MS/MSD - MS/MSD sample BHGLTA818-04 (in SDG 9806G980) exhibited acceptable %R and RPD values. No qualifications were required.

Laboratory Control Sample/Duplicate - The water and soil LCS/LCSD samples exhibited acceptable %R and RPD values within the QC acceptance criteria and no qualifications were required.

Field Duplicates - Field duplicate results for samples BHGLTA817-01 and DUP060198 are non-detect. No qualifications were required.

Field duplicate results for samples BHGLTA812-01 and DUP060298 are non-detect. No qualifications were required.

Compound Quantitation - No discrepancies were identified All sample results were non-detect.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the surrogate section of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Dioxins SDG: 9806G959					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
EB060198	2378-TCDD	1.9	U	1.9	R
	2378-TCDF	1.8	U	1.8	R

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APPENDIX IX SEMIVOLATILE ORGANIC COMPOUNDS
USEPA SW846 Method 8270C
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9806G959

Client: HydroGeoLogic, Inc. Date: September 24, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA813-04	9806G959-002	Soil
BHGLTA813-05	9806G959-003	Soil
BHGLTA817-01	9806G959-004	Soil
BHGLTA817-01DL	9806G959-004DL	Soil
DUP060198	9806G959-005	Soil
DUP060198DL	9806G959-005DL	Soil
EB060198	9806G959-006	Water
BHGLTA812-01	9806G959-008	Soil
BHGLTA812-02	9806G959-009	Soil
BHGLTA812-03	9806G959-010	Soil
BHGLTA812-04	9806G959-011	Soil
BHGLTA812-05	9806G959-012	Soil
BHGLTA815-03	9806G959-013	Soil
BHGLTA815-04	9806G959-014	Soil
BHGLTA815-05	9806G959-015	Soil
DUP060298	9806G959-016	Soil
DUP060298DL	9806G959-016DL	Soil
EB060298	9806G959-017	Water

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soil samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 with the exception of all three dilution samples. Samples BHGLTA817-01DL, DUP060198DL, and DUP060298DL were analyzed at 48 days. All results for these samples have been qualified "J" for positive results and "UJ" for non-detects unless already rejected "R" due to the continuing calibration.

GC/MS Tuning - All of the DFTPP tunes in the initial and continuing calibrations met the percent relative abundance criteria. No qualifications were required.

Initial Calibration - The initial calibrations analyzed 3/12/98-7/17/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

The initial calibrations analyzed 4/14/98-7/6/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

Continuing Calibration - The continuing calibration analyzed on 7/15/98 exhibited high %D values for 4-nitroaniline and benzoic acid of 29.8% and 38.2%, respectively. Both compounds have been rejected "R" in associated samples EB060198 and EB060298..

The continuing calibration analyzed on 7/21/98 (0933) exhibited a high %D value for benzoic acid of 30.6%. Benzoic acid has been rejected "R" in associated samples BHGLTA813-04, BHGLTA813-05, BHGLTA812-03, BHGLTA812-04, BHGLTA812-05, BHGLTA815-03, BHGLTA815-04, and BHGLTA815-05.

The continuing calibration analyzed on 7/21/98 (1944) exhibited acceptable %D and RRF values. No qualifications were required.

The continuing calibration analyzed on 7/29/98 exhibited a high %D value for 2,4-dinitrophenol of 37.5%. 2,4-Dinitrophenol has been rejected "R" in associated samples BHGLTA817-01DL, DUP060198DL, and DUP060298DL.

Surrogates - Sample BHGLTA812-02 exhibited low surrogate %R values for surrogates S1, S2, S3, S4, S5, and S6 of 4%, 12%, 19%, 21%, 0%, and 25%, respectively. All acid results for this sample have been rejected "R" since all results are non-detect. All base/neutral results have been qualified "J" for positive results and "UJ" for non-detects. The laboratory states that the sample was not reanalyzed due to holding time considerations.

Sample DUP060298 exhibited a high %R value for surrogate compound S6 of 145%, however, no action is required for only one surrogate outside of QC limits.

Three samples were analyzed at a dilution and the surrogate %R values were reported with a "D" flag by the laboratory due to being diluted out. No action was taken on this basis.

Laboratory Control Samples - LCS sample SBLKRR exhibited acceptable %R values. No qualifications were required.

LCS sample SBLKSZ exhibited a low %R value for 4-chloroaniline of 8%. 4-Chloroaniline has been rejected "R" in all soil samples.

MS/MSD - MS/MSD sample BHGLTA818-04 (in SDG 9806G980) exhibited low MS/MSD %R values for hexachlorocyclopentadiene of 2%/7%. Hexachlorocyclopentadiene has been qualified "UJ" in all soil samples. Several other MSD %R values exceeded QC limits, however, the MS and LCS exhibited acceptable %R values for these compounds, therefore, no qualifications were required.

Internal Standard (IS) Area Performance - Internal standard criteria have been met and no action has been taken.

Method Blank - Method blanks SBLKRR (6/8/98) and SBLKSZ (6/12/98) were free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB060198 was free of contamination. No qualifications were required.

Equipment blank EB060298 was free of contamination No qualifications were required.

Field Duplicates - Field duplicate results are summarized in the following table. The RPD may be "not calculated" due to a non-detect sample result. All results greater than the PQL with a RPD value >30% have been qualified "J" for positive results and "UJ" for non-detects in both samples.

Analyte	BHGLTA817-01 ug/kg	DUP060198 ug/kg	RPD
Naphthalene	43J	350U	NC
2-Methylnaphthalene	36J	350U	NC
Acenaphthene	620	360	53*
Dibenzofuran	230J	96J	82*
Fluorene	410	220J	60*
Phenanthrene	9500	5400	55*
Anthracene	1100	740	39*
Fluoranthene	13000	9600	30
Pyrene	14000	8400	50*
Benzo(a)anthracene	5000	4100	20
Chrysene	6300	5100	21
Benzo(b)fluoranthene	8200	5900	33*
Benzo(k)fluoranthene	2700	600	127*
Benzo(a)pyrene	5500	5000	10
Indeno(1,2,3-cd)pyrene	4300	3600	18
Dibenzo(a,h)anthracene	760	600	24
Benzo(g,h,i)perylene	4100	3300	22

Analyte	BHGLTA812-01 ug/kg	DUP060298 ug/kg	RPD
Naphthalene	340U	87J	NC
Acenaphthylene	340U	130J	NC
Acenaphthene	340U	700	200*
Dibenzofuran	340U	370	200*
Fluorene	340U	620	200*
Phenanthrene	280J	11000	190*
Anthracene	38J	1900	192*
Di-n-butylphthalate	340U	120J	NC
Fluoranthene	870	27000	188*
Pyrene	980	23000	184*
Butylbenzylphthalate	35J	260J	153*
Benzo(a)anthracene	440	13000	187*
Chrysene	620	13000	182*
Bis(2-Ethylhexyl)phthalate	330J	4700	174*
Benzo(b)fluoranthene	940	17000	179*
Benzo(k)fluoranthene	380	7700	181*
Benzo(a)pyrene	670	12000	179*
Indeno(1,2,3-cd)pyrene	610	10000	177*
Dibenzo(a,h)anthracene	340U	500	200*
Benzo(g,h,i)perylene	610	5200	158*

Tentatively Identified Compounds (TICs) - All TIC results have been qualified "T."

Compound Quantitation - All results between the MDL and the PQL have been qualified "F."

Samples BHGLTA817-01, DUP060198, and DUP060298 exhibited several compounds which exceeded the linear range of the instrument and were flagged "E" by the laboratory. The laboratory reanalyzed the samples at a dilution and the original results have been replaced with the dilution results. All results on the original Form Is should be used for reporting purposes.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the holding times, continuing calibration, surrogate, LCS, MS/MSD, field duplicate, TICs, and compound quantitation sections of this report with the exception of several results which were rejected due to calibration and LCS problems. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

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Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Semivolatiles SDG 9806G959					
Sample No.	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
BHGLTA813-04	4-Chloroaniline	800	U	800	R
	Hexachlorocyclopentadiene	400	U	400	UJ
	Benzoic Acid	2000	U	2000	R
BHGLTA813-05	4-Chloroaniline	730	U	730	R
	Hexachlorocyclopentadiene	370	U	370	UJ
	Bis(2-Ethylhexyl)phthalate	200	J	200	F
	Benzoic Acid	1800	U	1800	R
BHGLTA817-01	Naphthalene	43	J	43	F
	4-Chloroaniline	690	U	690	R
	2-Methylnaphthalene	36	J	36	F
	Hexachlorocyclopentadiene	350	U	350	UJ
	Acenaphthene	620	-	620	J
	Dibenzofuran	230	J	230	F
	Fluorene	410	-	410	J
	Phenanthrene	9200	E	9500	J
	Anthracene	1100	-	1100	J
	Fluoranthene	15000	E	13000	J
	Pyrene	14000	E	14000	J
	Chrysene	6500	E	6300	J
	Benzo(b)fluoranthene	9500	E	8200	J
	Benzo(k)fluoranthene	2700	-	2700	J
	Benzo(a)pyrene	6000	E	5500	J
BHGLTA817-01DL	4-Chloroaniline	3500	U	3500	R
	2,4-Dinitrophneol	8700	U	8700	R
	All Other Results	--	U/D	--	UJ/J
DUP060198	4-Chloroaniline	700	U	700	R
	Hexachlorocyclopentadiene	350	U	350	UJ
	Acenaphthene	360	-	360	J
	Dibenzofuran	96	J	96	F
	Fluorene	220	J	220	F
	Phenanthrene	5800	E	5400	J
	Anthracene	740	-	740	J
	Fluoranthene	10000	E	9600	J
	Pyrene	11000	E	8400	J
	Benzo(b)fluoranthene	8700	E	5900	J
	Benzo(k)fluoranthene	600	-	600	J
DUP060198DL	4-Chloroaniline	2800	U	2800	R
	2,4-Dinitrophneol	7000	U	7000	R
	All Other Results	--	U/D	--	UJ/J
EB060198	4-Nitroaniline	47	U	47	R
	Benzoic Acid	47	U	47	R
BHGLTA812-01	4-Chloroaniline	680	U	680	R
	Hexachlorocyclopentadiene	340	U	340	UJ
	Acenaphthene	340	U	340	UJ

Qualification Summary Table - Semivolatiles
SDG 9806G959

Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
	Dibenzofuran	340	U	340	UJ
	Fluorene	340	U	340	UJ
	Phenanthrene	280	J	280	F
	Anthracene	38	J	38	F
	Fluoranthene	870	-	870	J
	Pyrene	980	-	980	J
	Butylbenzylphthalate	35	J	35	F
	Benzo(a)anthracene	440	-	440	J
	Chrysene	620	-	620	J
	Bis(2-Ethylhexyl)phthalate	330	J	330	F
	Benzo(b)fluoranthene	940	-	940	J
	Benzo(k)fluoranthene	380	-	380	J
	Benzo(a)pyrene	670	-	670	J
	Indeno(1,2,3-cd)pyrene	610	-	610	J
	Dibenzo(a,h)anthracene	340	U	340	UJ
	Benzo(g,h,i)perylene	610	-	610	J
BHGLTA812-02	All Acid Compounds	--	U	--	R
	All Base/Neutral Compounds	--	U/J	--	UJ/J
BHGLTA812-03	4-Chloroaniline	710	U	710	R
	Hexachlorocyclopentadiene	360	U	360	UJ
	Bis(2-Ethylhexyl)phthalate	52	J	52	F
	Benzoic Acid	1800	U	1800	R
BHGLTA812-04	4-Chloroaniline	760	U	760	R
	Hexachlorocyclopentadiene	380	U	380	UJ
	Benzoic Acid	1900	U	1900	R
BHGLTA812-05	4-Chloroaniline	780	U	780	R
	Hexachlorocyclopentadiene	390	U	390	UJ
	Benzoic Acid	1900	U	1900	R
BHGLTA815-03	4-Chloroaniline	740	U	740	R
	Hexachlorocyclopentadiene	370	U	370	UJ
	Bis(2-Ethylhexyl)phthalate	140	J	140	F
	Benzoic Acid	1800	U	1800	R
BHGLTA815-04	4-Chloroaniline	720	U	720	R
	Hexachlorocyclopentadiene	360	U	360	UJ
	Fluoranthene	65	J	65	F
	Pyrene	63	J	63	F
	Benzo(a)anthracene	150	J	150	F
	Chrysene	200	J	200	F
	Bis(2-Ethylhexyl)phthalate	210	J	210	F
	Benzo(k)fluoranthene	270	J	270	F
	Benzoic Acid	1800	U	1800	R
BHGLTA815-05	4-Chloroaniline	720	U	720	R
	Hexachlorocyclopentadiene	360	U	360	UJ
	Benzoic Acid	1800	U	1800	R
DUP060298	Naphthalene	87	J	87	F
	4-Chloroaniline	680	U	680	R
	Hexachlorocyclopentadiene	340	U	340	UJ
	Acenaphthylene	130	J	130	F

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Qualification Summary Table - Semivolatiles SDG 9806G959					
Sample No.	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
	Acenaphthene	700	-	700	J
	Dibenzofuran	370	-	370	J
	Fluorene	620	-	620	J
	Phenanthrene	11000	E	11000	J
	Anthracene	1900	-	1900	J
	Di-n-butylphthalate	120	J	120	F
	Fluoranthene	23000	E	27000	J
	Pyrene	27000	E	23000	J
	Butylbenzylphthalate	260	J	260	J
	Benzo(a)anthracene	11000	E	13000	J
	Chrysene	21000	E	13000	J
	Bis(2-Ethylhexyl)phthalate	5600	E	4700	J
	Benzo(b)fluoranthene	29000	E	17000	J
	Benzo(k)fluoranthene	28000	E	7700	J
	Benzo(a)pyrene	8700	E	12000	J
	Indeno(1,2,3-cd)pyrene	6500	E	10000	J
	Dibenzo(a,h)anthracene	500	-	500	J
	Benzo(g,h,i)perylene	5200	-	5200	J
DUP060298DL	4-Chloroaniline	2700	U	2700	R
	2,4-Dinitrophenol	6800	U	6800	R
	All Other Results	--	U/D	--	UJ/J
EB060298	4-Nitroaniline	62	U	62	R
	Benzoic Acid	62	U	62	R

APPENDIX IX VOLATILE ORGANIC COMPOUNDS
USEPA SW846 Method 8260B
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9806G959

Client: HydroGeoLogic, Inc. Date: September 24, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA813-04	9806G959-002	Soil
BHGLTA813-05	9806G959-003	Soil
BHGLTA817-01	9806G959-004	Soil
BHGLTA817-01RE	9806G959-004RE	Soil
DUP060198	9806G959-005	Soil
DUP060198RE	9806G959-005RE	Soil
EB060198	9806G959-006	Water
EB060198RE	9806G959-006RE	Water
TB060198	9806G959-007	Water
BHGLTA812-01	9806G959-008	Soil
BHGLTA812-02	9806G959-009	Soil
BHGLTA812-03	9806G959-010	Soil
BHGLTA812-04	9806G959-011	Soil
BHGLTA812-05	9806G959-012	Soil
BHGLTA815-03	9806G959-013	Soil
BHGLTA815-04	9806G959-014	Soil
BHGLTA815-05	9806G959-015	Soil
DUP060298	9806G959-016	Soil
EB060298	9806G959-017	Water

Holding Times - All samples were analyzed within the recommended holding time of 14 days for preserved water samples and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 with the exception of the three reanalyzed samples. Samples BHGLTA817-01RE and DUP060198RE were analyzed at 15 days and sample EB060198RE was analyzed at 20 days. All results for these three samples have been qualified "J" for positive results and "UJ" for non-detects.

GC/MS Tuning - All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria. No qualifications were required.

Sample EB060198 was analyzed one minute past the 12 hours between tuning criteria. No action was taken on this basis. The sample was reanalyzed, however, outside of holding times. The original sample results should be used for reporting purposes.

Initial Calibration - The initial calibrations analyzed 2/23/98-6/9/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

The initial calibrations analyzed 2/23/98-6/18/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

The initial calibrations analyzed 4/28/98-6/10/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

The initial calibrations analyzed 5/6/98-6/10/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

Continuing Calibration - The continuing calibration analyzed on 6/11/98 (0849) exhibited acceptable %D and RRF values. No qualifications were required.

The continuing calibration analyzed on 6/11/98 (2327) exhibited acceptable %D and RRF values. No qualifications were required.

The continuing calibration analyzed on 6/13/98 exhibited acceptable %D and RRF values. No qualifications were required.

The continuing calibration analyzed on 6/15/98 exhibited acceptable %D and RRF values. No qualifications were required.

The continuing calibration analyzed on 6/22/98 exhibited acceptable %D and RRF values. No qualifications were required.

The continuing calibration analyzed on 6/16/98 (2156) exhibited acceptable %D and RRF values. No qualifications were required.

Surrogates - All samples exhibited acceptable surrogate %R values. No qualifications were required.

Laboratory Control Samples - LCS samples VBLKOS, VBLKOY, VBLKOW, VBLKGT, and VBLKQY exhibited acceptable %R values. No qualifications were required.

LCS sample VBLKKM exhibited a low %R value for 1,1-dichloeoethene of 70%. 1,1-Dichloroethene has been rejected "R" in associated sample EB060198

LCS sample VBLKQS exhibited a low %R value for methylene chloride of 74%. Methylene chloride has been rejected "R" in associated sample EB060198RE.

MS/MSD - MS/MSD sample BHGLTA818-04 (in SDG 9806G980) exhibited low MS/MSD %R values for dichlorodifluoromethane of 42%/34%. Dichlorodifluoromethane has been qualified "UJ" in all soil samples. 1,1-Dichloroethene exhibited a low MSD %R value, however, the MS and LCS exhibited acceptable %R values and no qualifications were required.

Internal Standard (IS) Area Performance - Sample BHGLTA817-01 exhibited a low area count for IS4. All IS4 associated results have been qualified "UJ." Reanalyzed sample BHGLTA817-01RE exhibited acceptable internal standard criteria, however, the sample was analyzed outside of holding times. The original sample results should be used for reporting purposes.

Sample DUP060198 exhibited low area counts for IS1, IS2, IS3, and IS4. All associated results have been qualified "UJ" since all results are non-detect. Reanalyzed sample DUP060198RE exhibited acceptable internal standard criteria, however, the sample was analyzed outside of holding times. The original sample results should be used for reporting purposes.

Method Blank - Method blanks VBLKGT (6/11/98), VBLKQY (6/12/98), VBLKKM (6/13/98), VBLKOS (6/15/98), VBLKOY (6/16/98), VBLKOW (6/17/98), and VBLKQS (6/22/98) were free of contamination. No qualifications were required.

Trip, field, equipment blank - Trip blank TB060198 was free of contamination. No qualifications were required.

Trip blank TB060298 (in SDG 9806G980) exhibited methylene chloride contamination at 0.6 ug/L, however, all associated results are non-detect and no qualifications were required.

Equipment blank EB060198 exhibited acetone, carbon disulfide, and chloroform contamination at 4 ug/L, 2 ug/L, and 0.9 ug/L, respectively, however, all associated results are non-detect or greater than 10X the blank concentration and no qualifications were required.

Equipment blank EB060298 exhibited acetone and carbon disulfide contamination at 4 ug/L and 16 ug/L, respectively. Acetone has been qualified "U" in associated samples BHGLTA815-03, BHGLTA812-03, and BHGLTA812-05. All other associated results are non-detect or greater than 10X the blank concentration and no further qualifications were required.

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Ambient blank AB060298 (in SDG 9806G980) exhibited acetone and methylene chloride contamination at 4 ug/L and 0.6 ug/L, respectively, however, all associated results are non-detect or already qualified and no qualifications were required.

Field Duplicates - Field duplicate results are summarized in the following tables. Trichloroethene and tetrachloroethene have been qualified "J" for positive results and "UJ" for non-detects in samples BHGLTA812-01 and DUP060298.

Analyte	BHGLTA817-01 ug/kg	DUP060198 ug/kg	RPD
None	ND	ND	--

Analyte	BHGLTA812-01 ug/kg	DUP060298 ug/kg	RPD
Trichloroethene	5U	26	200*
Tetrachloroethene	5U	56	200*

Tentatively Identified Compounds (TICs) - All TIC results have been qualified "T."

Compound Quantitation - Several compounds in several samples were qualified "F" since the results were between the MDL and the PQL.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the holding times, LCS, internal standards, MS/MSD, field blanks, field duplicates, TICs, and compound quantitation sections of this report with the exception of 1,1-dichloroethene which has been rejected in sample EB060198. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Volatiles SDG. 9806G959					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
BHGLTA813-04	Dichlorodifluoromethane	6	U	6	UJ
BHGLTA813-05	Dichlorodifluoromethane	6	U	6	UJ
BHGLTA817-01	Dichlorodifluoromethane	5	U	5	UJ
	Trans-1,4-Dichloro-2-butene	5	U	5	UJ
	1,1,2,2-Tetrachloroethane	2	U	2	UJ
	1,2,3-Trichloropropane	5	U	5	UJ

Qualification Summary Table - Volatiles
SDG 9806G959

Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
	Pentachloroethane	5	U	5	UJ
	1,2-Dibromo-3-Chloropropane	5	U	5	UJ
BHGLTA817-01RE	All Results	--	U	--	UJ
DUP060198	All Results	--	U	--	UJ
DUP060198RE	All Results	--	U	--	UJ
EB060198	1,1-Dichloroethene	0.5	U	0.5	R
EB060198RE	All Results	--	U/-	--	UJ/J/R
BHGLTA812-01	Dichlorodifluoromethane	5	U	5	UJ
	Trichloroethene	5	U	5	UJ
	Tetrachloroethene	5	U	5	UJ
	p,m-Xylene	1	J	1	F
BHGLTA812-02	Dichlorodifluoromethane	5	U	5	UJ
BHGLTA812-03	Dichlorodifluoromethane	5	U	5	UJ
	Acetone	28	-	28	U
BHGLTA812-04	Dichlorodifluoromethane	6	U	6	UJ
BHGLTA812-05	Dichlorodifluoromethane	6	U	6	UJ
	Acetone	10	-	10	U
BHGLTA815-03	Dichlorodifluoromethane	6	U	6	UJ
	Acetone	14	-	14	U
BHGLTA815-04	Dichlorodifluoromethane	6	U	6	UJ
BHGLTA815-05	Dichlorodifluoromethane	5	U	5	UJ
DUP060298	Dichlorodifluoromethane	5	U	5	UJ
	Trichloroethene	26	-	26	J
	Tetrachloroethene	56	-	56	J

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APPENDIX IX HERBICIDES
USEPA SW846 Method 8150B
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9806G959

Client: HydroGeoLogic, Inc. Date: September 23, 1998

Laboratory: RECRA LabNet Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA813-04	9806G959-002	Soil
BHGLTA813-05	9806G959-003	Soil
BHGLTA817-01	9806G959-004	Soil
DUP060198	9806G959-005	Soil
EB060198	9806G959-006	Water
BHGLTA812-01	9806G959-008	Soil
BHGLTA812-02	9806G959-009	Soil
BHGLTA812-03	9806G959-010	Soil
BHGLTA812-04	9806G959-011	Soil
BHGLTA812-05	9806G959-012	Soil
BHGLTA815-03	9806G959-013	Soil
BHGLTA815-04	9806G959-014	Soil
BHGLTA815-05	9806G959-015	Soil
DUP060298	9806G959-016	Soil
EB060298	9806G959-017	Water

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soil samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 6/20/98 and 7/21/98 exhibited acceptable %RSD values less than 20%. No qualifications were required.

Continuing Calibration Verification - The continuing calibration verifications analyzed on 6/22/98, 7/21/98, and 7/22/98 exhibited acceptable %D values. No qualifications were required.

Method Blank - Method blanks PBLKHS (6/5/98) and PBLKKV (6/15/98) were free of contamination. No qualifications were required.

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Field, equipment blank - Equipment blank EB060198 was free of contamination. No qualifications were required.

Equipment blank EB060298 was free of contamination. No qualifications were required.

Surrogates - All samples exhibited acceptable surrogate %R values. No qualifications were required.

Laboratory Control Samples - LCS samples PBLKHSBS and PBLKKVBS exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA818-04 (in SDG 9806G980) exhibited low MS/MSD %R values for 2,4,5-TP of 64%/60%. 2,4,5-TP has been qualified "UJ" in all soil samples.

Field Duplicates - Field duplicate results for samples BHGLTA817-01 and DUP060198 are non-detect. No qualifications were required.

Field duplicate results for samples BHGLTA812-01 and DUP060298 are non-detect. No qualifications were required.

Compound Identification - The retention times met the QC acceptance criteria and no qualifications were required.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the MS/MSD section of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Additional Comment - Samples BHGLTA813-04 and BHGLTA813-05 were incorrectly identified on the Form Is as samples "BHGLTA815-04" and BHGLTA815-05." The reviewer amended the Form Is with the correct sample ID.

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Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Herbicides SDG: 9806G959					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
BHGLTA813-04	2,4,5-TP	41	U	41	UJ
BHGLTA813-05	2,4,5-TP	37	U	37	UJ
BHGLTA817-01	2,4,5-TP	35	U	35	UJ
DUP060198	2,4,5-TP	35	U	35	UJ
BHGLTA812-01	2,4,5-TP	34	U	34	UJ
BHGLTA812-02	2,4,5-TP	34	U	34	UJ
BHGLTA812-03	2,4,5-TP	35	U	35	UJ
BHGLTA812-04	2,4,5-TP	37	U	37	UJ
BHGLTA812-05	2,4,5-TP	39	U	39	UJ
BHGLTA815-03	2,4,5-TP	37	U	37	UJ
BHGLTA815-04	2,4,5-TP	36	U	36	UJ
BHGLTA815-05	2,4,5-TP	36	U	36	UJ
DUP060298	2,4,5-TP	34	U	34	UJ

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APPENDIX IX ORGANOPHOPHORUS PESTICIDES
USEPA SW846 Method 8141
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9806G959

Client: HydroGeoLogic, Inc. Date: September 24, 1998

Laboratory: RECRA LabNet Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA813-04	9806G959-002	Soil
BHGLTA813-05	9806G959-003	Soil
BHGLTA817-01	9806G959-004	Soil
DUP060198	9806G959-005	Soil
EB060198	9806G959-006	Water
BHGLTA812-01	9806G959-008	Soil
BHGLTA812-02	9806G959-009	Soil
BHGLTA812-03	9806G959-010	Soil
BHGLTA812-04	9806G959-011	Soil
BHGLTA812-05	9806G959-012	Soil
BHGLTA815-03	9806G959-013	Soil
BHGLTA815-04	9806G959-014	Soil
BHGLTA815-05	9806G959-015	Soil
DUP060298	9806G959-016	Soil
EB060298	9806G959-017	Water

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soil samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibration analyzed on 6/25/98 exhibited acceptable %RSD values of less than 20% and/or correlation coefficients of >0.995. No qualifications were required.

Continuing Calibration Verification - The continuing calibration verifications analyzed on 6/25/98 and 6/28/98 exhibited acceptable %D values. No qualifications were required.

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The continuing calibration analyzed on 6/29/98 (1759) exhibited high %D values for o,o,o-triethyl phosphorothioate (o,o,o-TEPA) and dimethoate of 17.9% and 16.4%, respectively The compounds o,o,o-TEPA and dimethoate have been rejected "R" in associated samples BHGLTA813-04, BHGLTA813-05, BHGLTA817-01, DUP060198, BHGLTA812-01, BHGLTA812-02, BHGLTA812-03, and BHGLTA812-04.

The continuing calibration analyzed on 6/29/98 (2231) exhibited high %D values for o,o,o-triethyl phosphorothioate (o,o,o-TEPA) and disulfoton of 24.7% and 16.3%, respectively. The compounds o,o,o-TEPA and disulfoton have been rejected "R" in associated samples DUP060198, BHGLTA812-01, BHGLTA812-02, BHGLTA812-03, BHGLTA812-04, BHGLTA812-05, BHGLTA815-03, BHGLTA815-04, BHGLTA815-05 and DUP060298.

Method Blank - Method blanks PBLKER (6/8/98) and PBLKKX (6/12/98) were free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB060198 was free of contamination. No qualifications were required.

Equipment blank EB060298 was free of contamination. No qualifications were required.

Surrogates - Sample DUP060298 exhibited low %R values for surrogate compounds S1-TBP and S2-TPP of 61% and 47%, respectively. All results for this sample have been qualified "UJ."

Several samples exhibited a slightly low %R value for either surrogate compound S1-TBP or S2-TPP, however, no qualifications are required unless both surrogates exceed QC limits.

Laboratory Control Samples - LCS samples PBLKERBS and PBLKKXBS exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA818-04 (in SDG 9806G980) exhibited low MSD %R values for dimethoate and famphur of 55% and 58%, respectively. However, since the MS and LCS %R values were acceptable, no qualifications were required.

Field Duplicates - Field duplicate results for samples BHGLTA817-01 and DUP060198 are non-detect. No qualifications were required.

Field duplicate results for samples BHGLTA812-01 and DUP060298 are non-detect. No qualifications were required.

Compound Identification - Several of the retention times were slightly outside of the RT window throughout the analysis and were updated. The data were not affected and no action has been taken.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the continuing calibration and surrogate sections of this report with the exception of several compounds which have been rejected in several samples due to calibration problems. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - OP Pesticides SDG. 9806G959					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
BHGLTA813-04	o,o,o-TEPA	82	U	82	R
	Dimethoate	82	U	82	R
BHGLTA813-05	o,o,o-TEPA	74	U	74	R
	Dimethoate	74	U	74	R
BHGLTA817-01	o,o,o-TEPA	69	U	69	R
	Dimethoate	69	U	69	R
DUP060198	Disulfoton	70	U	70	R
	o,o,o-TEPA	70	U	70	R
	Dimethoate	70	U	70	R
BHGLTA812-01	Disulfoton	68	U	68	R
	o,o,o-TEPA	68	U	68	R
	Dimethoate	68	U	68	R
BHGLTA812-02	Disulfoton	70	U	70	R
	o,o,o-TEPA	70	U	70	R
	Dimethoate	70	U	70	R
BHGLTA812-03	Disulfoton	70	U	70	R
	o,o,o-TEPA	70	U	70	R
	Dimethoate	70	U	70	R
BHGLTA812-04	Disulfoton	75	U	75	R

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	o,o,o-TEPA	75	U	75	R
	Dimethoate	75	U	75	R
BHGLTA812-05	Disulfoton	78	U	78	R
	o,o,o-TEPA	78	U	78	R
BHGLTA815-03	Disulfoton	74	U	74	R
	o,o,o-TEPA	74	U	74	R
BHGLTA815-04	Disulfoton	73	U	73	R
	o,o,o-TEPA	73	U	73	R
BHGLTA815-05	Disulfoton	71	U	71	R
	o,o,o-TEPA	71	U	71	R
DUP060298	Disulfoton	67	U	67	R
	Methyl parathion	67	U	67	UJ
	Phorate	67	U	67	UJ
	o,o,o-TEPA	67	U	67	R
	Thionazin	67	U	67	UJ
	Sulfotep	67	U	67	UJ
	Dimethoate	67	U	67	UJ
	Parathion	67	U	67	UJ
	Famphur	67	U	67	UJ

SULFIDE
USEPA SW846 Method 9030
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9806G959

Client: HydroGeoLogic, Inc. Date. September 23, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA813-04	9806G959-002	Soil
BHGLTA813-05	9806G959-003	Soil
BHGLTA817-01	9806G959-004	Soil
DUP060198	9806G959-005	Soil
EB060198	9806G959-006	Water
BHGLTA812-01	9806G959-008	Soil
BHGLTA812-02	9806G959-009	Soil
BHGLTA812-03	9806G959-010	Soil
BHGLTA812-04	9806G959-011	Soil
BHGLTA812-05	9806G959-012	Soil
BHGLTA815-03	9806G959-013	Soil
BHGLTA815-04	9806G959-014	Soil
BHGLTA815-05	9806G959-015	Soil
DUP060298	9806G959-016	Soil
EB060298	9806G959-017	Water

Holding Times - All samples were analyzed within the recommended holding time of 7 days as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Method and Calibration Blanks - The method blanks were free of contamination. No qualifications were required.

Field and Equipment Blank - Equipment blank EB060198 was free of contamination No qualifications were required.

Equipment blank EB060298 was free of contamination. No qualifications were required.

LCS - The LCS samples exhibited acceptable %R values. No qualifications were required.

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Matrix Spike/Duplicate - MS/MSD sample BHGLTA818-04 (in SDG 9806G980) exhibited acceptable %R and RPD values. No qualifications were required.

Field Duplicates - Field duplicate results for samples BHGLTA817-01 and DUP060198 are non-detect. No qualifications were required.

Field duplicate results for samples BHGLTA812-01 and DUP060298 are non-detect. No qualifications were required.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Additional Comment - Samples BHGLTA813-04 and BHGLTA813-05 were incorrectly identified on the Form Is as samples "BHGLTA815-04" and BHGLTA815-05." The reviewer amended the Form Is with the correct sample ID.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Sulfide SDG· 9806G959					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
None Qualified	--	--	--	--	--

APPENDIX IX PESTICIDES/PCBs
USEPA SW846 Method 8080A
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9806G959

Client: HydroGeoLogic, Inc Date: September 24, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA813-04	9806G959-002	Soil
BHGLTA813-05	9806G959-003	Soil
BHGLTA817-01	9806G959-004	Soil
DUP060198	9806G959-005	Soil
EB060198	9806G959-006	Water
BHGLTA812-01	9806G959-008	Soil
BHGLTA812-02	9806G959-009	Soil
BHGLTA812-03	9806G959-010	Soil
BHGLTA812-04	9806G959-011	Soil
BHGLTA812-05	9806G959-012	Soil
BHGLTA815-03	9806G959-013	Soil
BHGLTA815-04	9806G959-014	Soil
BHGLTA815-05	9806G959-015	Soil
DUP060298	9806G959-016	Soil
EB060298	9806G959-017	Water

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soil samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 6/17/98 exhibited acceptable %RSD values of less than 20%. No qualifications were required.

Continuing Calibration Verification - The continuing calibration QC acceptance criteria were met with the exception of the following:

The continuing calibration verification analyzed on 6/25/98 exhibited a high %D value for endrin aldehyde on the following columns.

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CCV	Analyte	DB-5	RTX-35
6/25/98 (0110)	Endrin Aldehyde	15 4%	40 4%

Endrin aldehyde has been rejected in all soil samples.

The DDT and endrin breakdown was acceptable.

Method Blank - Method blanks PBLKES (6/8/98) and PBLKRV (6/12/98) were free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB060198 was free of contamination. No qualifications were required.

Equipment blank EB060298 was free of contamination. No qualifications were required.

Surrogates - Several samples were analyzed at a dilution and the surrogates were reported with a "D" flag by the laboratory due to being diluted out. No action was taken on this basis.

Laboratory Control Samples - LCS samples PBLKETBS, PBLKEUBS, PBLKRWBS, and PBLKRXBS exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA818-04 (in SDG 9806G980) exhibited acceptable %R and RPD values. No qualifications were required.

Field Duplicates - Field duplicate results for samples BHGLTA817-01 and DUP060198 are non-detect. No qualifications were required.

Field duplicate results for samples BHGLTA812-01 and DUP060298 are non-detect. No qualifications were required.

Compound Identification - The retention times met the QC acceptance criteria and no qualifications were required.

Compound Quantitation - Several samples were analyzed at dilutions due to matrix interference and the reporting levels were adjusted accordingly.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the continuing calibration section of this report with the exception of endrin aldehyde which has been rejected in all soil samples. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Additional Comment - Samples BHGLTA813-04 and BHGLTA813-05 were incorrectly identified on the Form Is as samples "BHGLTA815-04" and BHGLTA815-05." The reviewer amended the Form Is with the correct sample ID.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Pesticide/PCBs
SDG: 9806G959

Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
BHGLTA813-04	Endrin Aldehyde	250	U	250	R
BHGLTA813-05	Endrin Aldehyde	22	U	22	R
BHGLTA817-01	Endrin Aldehyde	1000	U	1000	R
DUP060198	Endrin Aldehyde	1000	U	1000	R
BHGLTA812-01	Endrin Aldehyde	1000	U	1000	R
BHGLTA812-02	Endrin Aldehyde	1000	U	1000	R
BHGLTA812-03	Endrin Aldehyde	420	U	420	R
BHGLTA812-04	Endrin Aldehyde	22	U	22	R
BHGLTA812-05	Endrin Aldehyde	23	U	23	R
BHGLTA815-03	Endrin Aldehyde	22	U	22	R
BHGLTA815-04	Endrin Aldehyde	220	U	220	R
BHGLTA815-05	Endrin Aldehyde	21	U	21	R
DUP060298	Endrin Aldehyde	1000	U	1000	R

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APPENDIX IX METALS
USEPA SW846 Methods 6010A, 7471, 9010A
USEPA Level III Review

Site. Naval Air Station Fort Worth JRB, Texas SDG #: 9806G959

Client: HydroGeoLogic, Inc. Date: September 23, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA813-04	9806G959-002	Soil
BHGLTA813-05	9806G959-003	Soil
BHGLTA817-01	9806G959-004	Soil
DUP060198	9806G959-005	Soil
EB060198	9806G959-006	Water
BHGLTA812-01	9806G959-008	Soil
BHGLTA812-02	9806G959-009	Soil
BHGLTA812-03	9806G959-010	Soil
BHGLTA812-04	9806G959-011	Soil
BHGLTA812-05	9806G959-012	Soil
BHGLTA815-03	9806G959-013	Soil
BHGLTA815-04	9806G959-014	Soil
BHGLTA815-05	9806G959-015	Soil
DUP060298	9806G959-016	Soil
EB060298	9806G959-017	Water

Holding Times - All samples were extracted and analyzed within the recommended holding time of 180 days for all metals except 28 days for mercury and 14 days for cyanide as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 with the exception of cyanide in sample EB060298 which was analyzed at 22 days. Cyanide has been rejected "R" in this sample.

Calibration - All initial and continuing calibration verifications exhibited acceptable %R values. No qualifications were required.

Method Blanks - Soil preparation blank PBS (6/15/98) exhibited contamination for barium, tin, zinc, and cyanide, however, all associated results were non-detect or greater than 5X the blank concentration with the exception of tin and cyanide. Tin has been qualified "U" in associated samples BHGLTA817-01, BHGLTA812-02, and BHGLTA812-03. Cyanide has been qualified "U" in associated samples DUP060198 and BHGLTA812-02.

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Water preparation blank PBW (6/11/98) exhibited contamination for zinc at 10.65 ug/L. Zinc has been qualified "U" in associated samples EB060198 and EB060298.

The continuing calibration blanks exhibited contamination for several compounds, however, all associated results were non-detect or greater than 5X the blank concentration with the exception of beryllium, barium, chromium, tin, and vanadium. Beryllium has been qualified "U" in associated samples BHGLTA817-01, BHGLTA815-05, BHGLTA813-05, DUP060198, BHGLTA812-02, and BHGLTA815-03. Barium and chromium have been qualified "U" in associated sample EB060298. Tin has been qualified "U" in associated samples BHGLTA813-04, BHGLTA815-03, and BHGLTA815-04. Vanadium has been qualified "U" in associated samples EB060198 and EB060298.

Field and equipment blank - Equipment blank EB060198 was free of contamination. No qualifications were required.

Equipment blank EB060298 was free of contamination. No qualifications were required.

ICP Interference Check Sample - All % recovery values met the QC acceptance criteria. No qualifications were required.

LCS - The LCS analysis met the QC acceptance criteria of as specified in the QAPP. No qualifications were required.

ICP Serial Dilutions - ICP serial dilution sample 9805G744-007 (in SDG 9805G744) exhibited a high %D value for zinc of 20.5%. Zinc has been qualified "J" for positive results in all soil samples.

Matrix Spike - Matrix spike sample BHGLTA818-04 (in SDG 9806G980) exhibited low %R values for antimony and silver of 0.0% and 60.9%, respectively, and a high %R value for vanadium of 142.0%. Antimony and silver have been qualified "J" for positive results and "UJ" for non-detects in all soil samples. Vanadium has been qualified "J" for positive results in all soil samples.

Matrix Spike Duplicate - Matrix duplicate sample BHGLTA818-04 (in SDG 9806G980) exhibited acceptable RPD values. No qualifications were required.

Field Duplicates - Field duplicate results are summarized in the following table. Results with a "*" have been qualified "J" in both samples.

Analyte	BHGLTA817-01 mg/kg	DUP060198 mg/kg	RPD
Barium	60 3	65.3	8
Cadmium	0.96	0.88	9
Chromium	10 1	9.5	6
Cobalt	2.7	2.7	0
Copper	6.9	15.7	78*
Lead	62 0	67.9	9
Nickel	6 7	7.6	13
Selenium	5.5	6.3	14
Thallium	19.1	17.2	10
Vanadium	18 6	17 4	7
Zinc	32.3	34.7	7

Analyte	BHGLTA812-01 mg/kg	DUP060298 mg/kg	RPD
Barium	1220	580	71*
Beryllium	0.69	0 42	49*
Cadmium	1.00	1 6U	NC
Chromium	26.1	22.1	17
Cobalt	1.5	1.6U	NC
Copper	13 2	7 6	54*
Lead	245	168	37*
Mercury	0.03	0 02	40*
Nickel	5.2	2.0U	NC
Selenium	5.9	13 2U	NC
Thallium	10.8	23 8U	NC
Vanadium	11.1	6.6	51*
Zinc	72.3	47.4	42*

Compound Quantitation - All results between the MDL and the PQL have been qualified "F."

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the holding times, method blank, ICP serial dilution, matrix spike, field duplicate, and compound quantitation sections of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Additional Comment - The Form I incorrectly identifies sample EB060198 as DUP060198 which the reviewer amended.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Metals SDG: 9806G959					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
BHGLTA813-04	Antimony	2 9	U	2.9	UJ
	Arsenic	14.7	B	14 7	F
	Cobalt	5.8	B	5.8	F
	Lead	6.9	B	6 9	F
	Selenium	13.6	B	13.6	F
	Silver	0 25	U	0.25	UJ
	Tin	2.7	B	9 0	U
	Thallium	30.3	B	30 3	F
	Vanadium	42.7	-	42.7	J
	Zinc	39.5	-	39 5	J
BHGLTA813-05	Antimony	15.0	U	15.0	UJ
	Beryllium	0 55	B	1.4	U
	Chromium	10.4	B	10.4	F
	Cobalt	3 2	B	3 2	F
	Copper	5 0	B	5.0	F
	Nickel	6 6	B	6 6	F
	Silver	1.3	U	1 3	UJ
	Vanadium	29.1	B	29.1	J
	Zinc	15 9	-	15.9	J
BHGLTA817-01	Antimony	5.5	U	5.5	UJ
	Beryllium	0 39	B	0 52	U
	Cadmium	0 96	B	0.96	F
	Chromium	10.1	B	10 1	F
	Cobalt	2.7	B	2 7	F
	Copper	6 9	B	6.9	J
	Lead	62 0	B	62 0	F
	Nickel	6 7	B	6.7	F
	Selenium	5.5	B	5.5	F
	Silver	0.48	U	0.48	UJ
	Tin	1 9	B	17.3	U
	Thallium	19 1	B	19.1	F
	Vanadium	18.6	-	18.6	J
	Zinc	32 3	-	32.3	J
DUP060198	Antimony	5.5	U	5.5	UJ
	Beryllium	0 40	B	1.3	U
	Cadmium	0.88	B	0.88	F
	Chromium	9.5	B	9.5	F
	Cobalt	2.7	B	2.7	F
	Copper	15 7	-	15.7	J
	Lead	67.9	B	67.9	F
	Nickel	7.6	B	7.6	F
	Selenium	6 3	B	6.3	F
	Silver	0.48	U	0 48	UJ
	Thallium	17.2	B	17 2	F

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Qualification Summary Table - Metals SDG: 9806G959					
Sample No.	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
	Vanadium	17 4	-	17.4	J
	Zinc	34 7	-	34.7	J
	Cyanide	0 15	B	1.0	U
EB060198	Vanadium	2.9	B	80 0	U
	Zinc	15.5	B	20.0	U
BHGLTA812-01	Antimony	5 6	U	5 6	UJ
	Barium	1220	-	1220	J
	Beryllium	0.69	-	0.69	J
	Cadmium	1.00	B	1.00	F
	Cobalt	1.5	B	1 5	F
	Copper	13 2	-	13.2	J
	Lead	245	-	245	J
	Mercury	0.03	B	0.03	J
	Nickel	5.2	B	5.2	F
	Selenium	5 9	B	5.9	F
	Silver	0 49	U	0 49	UJ
	Thallium	10.8	B	10.8	F
	Vanadium	11.1	B	11 1	J
	Zinc	72.3	-	72.3	J
BHGLTA812-02	Antimony	5.5	U	5 5	UJ
	Beryllium	0 46	B	1.3	U
	Cobalt	3.1	B	3.1	F
	Copper	6.2	B	6.2	F
	Lead	73.2	B	73.2	F
	Nickel	7 9	B	7 9	F
	Selenium	5.4	B	5.4	F
	Silver	0.48	U	0 48	UJ
	Tin	1.4	B	42.6	U
	Thallium	14.1	B	14.1	F
	Vanadium	17.9	-	17.9	J
	Zinc	38.1	-	38 1	J
	Cyanide	0 14	B	1.0	U
BHGLTA812-03	Antimony	5.7	U	5 7	UJ
	Arsenic	14.3	B	14.3	F
	Cobalt	4.5	B	4.5	F
	Copper	6.1	B	6 1	F
	Lead	10 3	B	10.3	F
	Nickel	8 2	B	8 2	F
	Selenium	7.3	B	7 3	F
	Silver	0.50	U	0.50	UJ
	Tin	2 2	B	44 6	U
	Thallium	20.0	B	20.0	F
	Vanadium	25.8	-	25.8	J
	Zinc	23 6	-	23 6	J
BHGLTA812-04	Antimony	6.6	U	6.6	UJ
	Arsenic	9.8	B	9.8	F
	Cobalt	5.3	B	5 3	F
	Copper	6.7	B	6.7	F
	Lead	7.1 .	B	7.1	F

APPENDIX IX ORGANOPHOPHORUS PESTICIDES
USEPA SW846 Method 8141
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9806G980

Client: HydroGeoLogic, Inc. Date: September 25, 1998

Laboratory: RECRA LabNet Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA816-01	9806G980-003	Soil
BHGLTA816-02	9806G980-004	Soil
BHGLTA816-03	9806G980-005	Soil
BHGLTA816-04	9806G980-006	Soil
DUP060298A	9806G980-007	Soil
BHGLTA818-01	9806G980-008	Soil
BHGLTA818-03	9806G980-009	Soil
BHGLTA818-04	9806G980-010	Soil
BHGLTA818-04MS	9806G980-010MS	Soil
BHGLTA818-04MSD	9806G980-010MSD	Soil
EB060398	9806G980-012	Water
BHGLTA403-05	9806G980-013	Soil
BHGLTA403-06	9806G980-014	Soil

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soil samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 6/25/98, 6/30/98, and 7/8/98 exhibited acceptable %RSD values of less than 20% and/or correlation coefficients of >0.995. No qualifications were required.

Continuing Calibration Verification - The continuing calibration verifications analyzed on 6/25/98, 6/28/98, and 7/8/98 exhibited acceptable %D values. No qualifications were required.

The continuing calibration analyzed on 7/1/98 exhibited a high %D value for methyl parathion of 18.5%. Methyl parathion has been rejected "R" in associated samples BHGLTA818-03, BHGLTA818-04, BHGLTA403-05, and BHGLTA403-06.

Method Blank - Method blanks PBLKKF (6/10/98) and PBLKLD (6/16/98) were free of contamination No qualifications were required.

Field. equipment blank - Equipment blank EB060298 (in SDG 9806G959) was free of contamination. No qualifications were required.

Equipment blank EB060398 was free of contamination. No qualifications were required.

Surrogates - Sample BHGLTA403-05 exhibited low %R values for surrogate compounds S1-TBP and S2-TPP of 52% and 64%, respectively. All results for this sample have been qualified "UJ" unless already rejected "R" due to calibration problems.

Several samples exhibited a slightly low %R value for either surrogate compound S1-TBP or S2-TPP, however, no qualifications are required unless both surrogates exceed QC limits.

Laboratory Control Samples - LCS samples PBLKKFBS and PBLKLDBS exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA818-04 exhibited low MSD %R values for dimethoate and famphur of 55% and 58%, respectively. However, since the MS and LCS %R values were acceptable, no qualifications were required.

Field Duplicates - Field duplicate results for samples BHGLTA816-03 and DUP060298A are non-detect. No qualifications were required.

Compound Identification - Several of the retention times were slightly outside of the RT window throughout the analysis and were updated. The data were not affected and no action has been taken.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the continuing calibration and surrogate sections of this report with the exception of several compounds which have been rejected in several samples due to calibration problems. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - OP Pesticides SDG, 9806G980					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
BHGLTA818-03	Methyl Parathion	74	U	74	R
BHGLTA818-04	Methyl Parathion	73	U	73	R
BHGLTA403-05	Methyl Parathion	78	U	78	R
	All other results	78	U	78	UJ
BHGLTA403-06	Methyl Parathion	67	U	67	R

APPENDIX IX SEMIVOLATILE ORGANIC COMPOUNDS

USEPA SW846 Method 8270C

USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9806G980

Client HydroGeoLogic, Inc. Date: September 25, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA816-01	9806G980-003	Soil
BHGLTA816-01DL	9806G980-003DL	Soil
BHGLTA816-02	9806G980-004	Soil
BHGLTA816-03	9806G980-005	Soil
BHGLTA816-04	9806G980-006	Soil
BHGLTA816-04RE	9806G980-006RE	Soil
DUP060298A	9806G980-007	Soil
BHGLTA818-01	9806G980-008	Soil
BHGLTA818-03	9806G980-009	Soil
BHGLTA818-04	9806G980-010	Soil
BHGLTA818-04MS	9806G980-010MS	Soil
BHGLTA818-04MSD	9806G980-010MSD	Soil
EB060398	9806G980-012	Water
BHGLTA403-05	9806G980-013	Soil
BHGLTA403-06	9806G980-014	Soil

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soil samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 with the exception of sample BHGLTA816-04RE which was analyzed at 44 days. All results for this sample have been qualified "J" for positive results and "UJ" for non-detects unless already rejected "R" due to the continuing calibration.

GC/MS Tuning - All of the DFTPP tunes in the initial and continuing calibrations met the percent relative abundance criteria. No qualifications were required.

Initial Calibration - The initial calibrations analyzed 3/12/98-7/17/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

Continuing Calibration - The continuing calibration analyzed on 7/16/98 exhibited a high %D value for 3-nitroaniline of 95.8%. 3-Nitroaniline has been rejected "R" in associated sample EB060398.

The continuing calibration analyzed on 7/21/98 (1944) exhibited acceptable %D and RRF values. No qualifications were required.

The continuing calibration analyzed on 7/22/98 exhibited a high %D value for benzoic acid of 39.9%. Benzoic acid has been rejected "R" in associated samples BHGLTA403-06, BHGLTA816-01, BHGLTA816-02, DUP060298A, and BHGLTA818-01.

The continuing calibration analyzed on 7/24/98 exhibited a high %D value for 4-chloroaniline, 3-nitroaniline, and benzoic acid of 34.5%, 48.3%, and 33.1%. All three compounds have been rejected "R" in associated samples BHGLTA816-03 and BHGLTA816-01DL.

The continuing calibration analyzed on 7/29/98 exhibited a high %D value for 2,4-dinitrophenol of 37.5%. 2,4-Dinitrophenol has been rejected "R" in associated sample BHGLTA816-04RE.

Surrogates - All samples exhibited acceptable surrogate %R values. No qualifications were required.

Sample BHGLTA816-01DL was analyzed at a dilution and the surrogate %R values were reported with a "D" flag by the laboratory due to being diluted out. No action was taken on this basis.

Laboratory Control Samples - LCS sample SBLKSB exhibited high %R values for 3-nitroaniline and 4,6-dinitro-2-methylphenol of 162% and 135%, respectively, however, both associated results are non-detect and no qualifications were required.

LCS sample SBLKSX exhibited high %R values for butylbenzylphthalate, chrysene, di-n-octylphthalate, and benzo(a)pyrene of 136%, 149%, 159%, and 145%, respectively. Positive results for all four compounds have been qualified "J" in all soil samples.

MS/MSD - MS/MSD sample BHGLTA818-04 exhibited low MS/MSD %R values for hexachlorocyclopentadiene of 2%/7%. Hexachlorocyclopentadiene has been qualified "UJ" in all soil samples Several other MSD %R values exceeded QC limits, however, the MS and LCS exhibited acceptable %R values for these compounds, therefore, no qualifications were required.

Internal Standard (IS) Area Performance - Sample EB060398 exhibited a high area count for IS1. All IS1 associated results have been qualified "UJ."

Sample BHGLTA816-04 exhibited low area counts for IS1, IS2, and IS3. All associated results have been qualified "J" for positive results and "UJ" for non-detects. Reanalyzed sample BHGLTA816-04RE exhibited acceptable internal standard results, however, this sample was analyzed outside of holding times. The original sample results should be used for reporting purposes.

Method Blank - Method blanks SBLKSB (6/10/98) and SBLKSX (6/16/98) were free of contamination. No qualifications were required.

Field. equipment blank - Equipment blank EB060298 (in SDG 9806G959) was free of contamination. No qualifications were required.

Equipment blank EB060398 was free of contamination. No qualifications were required.

Field Duplicates - Field duplicate results for samples BHGLTA816-03 and DUP060298A are non-detect No qualifications were required.

Tentatively Identified Compounds (TICs) - All TIC results have been qualified "T."

Compound Quantitation - All results between the MDL and the PQL have been qualified "F."

Sample BHGLTA816-01 exhibited several compounds which exceeded the linear range of the instrument and were flagged "E" by the laboratory. The laboratory reanalyzed the sample at a 4X dilution and the original results have been replaced with the dilution results. All results on the original Form Is should be used for reporting purposes.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the holding times, continuing calibration, LCS, MS/MSD, internal standard, TICs, and compound quantitation sections of this report with the exception of several results which were rejected due to calibration problems. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Semivolatiles SDG· 9806G980					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
BHGLTA816-01	Hexachlorocyclopentadiene	340	U	340	UJ
	Acenaphthylene	48	J	48	F
	Acenaphthene	140	J	140	F
	Fluorene	77	J	77	F
	Fluoranthene	13000	E	12000	-
	Pyrene	17000	E	15000	-
	Benzo(a)anthracene	9600	E	8600	-
	Chrysene	10000	E	9100	J
	Benzo(b)fluoranthene	16000	E	13000	-
	Benzo(k)fluoranthene	6100	E	5700	-
	Benzo(a)pyrene	11000	E	9100	J
	Indeno(1,2,3-cd)pyrene	8000	E	7000	-
	Benzo(g,h,i)perylene	6600	E	6300	-
	Benzoic Acid	1700	U	1700	R
BHGLTA816-01DL	4-Chloroaniline	2700	U	2700	R
	Hexachlorocyclopentadiene	1400	U	1400	UJ
	3-Nitroaniline	6800	U	6800	R
	Chrysene	9100	D	9100	J
	Benzo(a)pyrene	9100	D	9100	J
	Benzoic Acid	6800	U	6800	R
BHGLTA816-02	Hexachlorocyclopentadiene	360	U	360	UJ
	Acenaphthene	36	J	36	F
	Anthracene	80	J	80	F
	Chrysene	460	-	460	J
	Bis(2-Ethylhexyl)phthalate	76	J	76	F
	Benzo(k)fluoranthene	320	J	320	F
	Benzo(a)pyrene	520	-	520	J
	Indeno(1,2,3-cd)pyrene	340	J	340	F
	Benzoic Acid	1800	U	1800	R
BHGLTA816-03	4-Chloroaniline	800	U	800	R
	Hexachlorocyclopentadiene	400	U	400	UJ
	3-Nitroaniline	2000	U	2000	R
	Benzoic Acid	2000	U	2000	R
BHGLTA816-04	Phenol-4-Nitroaniline	--	U	--	UJ
BHGLTA816-04RE	2,4-Dinitrophenol	1800	U	1800	R
	All other results	--	U	--	UJ
DUP060298A	Hexachlorocyclopentadiene	410	U	410	UJ
	Benzoic Acid	2000	U	2000	R
BHGLTA818-01	Hexachlorocyclopentadiene	370	U	370	UJ
	Benzo(b)fluoranthene	49	J	49	F
	Benzoic Acid	1800	U	1800	R
BHGLTA818-03	Hexachlorocyclopentadiene	380	U	380	UJ
BHGLTA818-04	Hexachlorocyclopentadiene	370	U	370	UJ

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Qualification Summary Table - Semivolatiles SDG: 9806G980					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
EB060398	Phenol-Hexachloroethane	10	U	10	UJ
	3-Nitroaniline	50	U	50	R
BHGLTA403-05	Hexachlorocyclopentadiene	390	U	390	UJ
BHGLTA403-06	Naphthalene	36	J	36	F
	2-Methylnaphthalene	54	J	54	F
	Hexachlorocyclopentadiene	330	U	330	UJ
	Phenanthrene	78	J	78	F
	Fluoranthene	46	J	46	F
	Pyrene	52	J	52	F
	Chrysene	64	J	64	J
	Benzo(b)fluoranthene	71	J	71	F
	Benzo(a)pyrene	43	J	43	J
	Indeno(1,2,3-cd)pyrene	40	J	40	F
	Benzoic Acid	1600	U	1600	R

SULFIDE
USEPA SW846 Method 9030
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9806G980

Client: HydroGeoLogic, Inc. Date: September 25, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA816-01	9806G980-003	Soil
BHGLTA816-02	9806G980-004	Soil
BHGLTA816-03	9806G980-005	Soil
BHGLTA816-04	9806G980-006	Soil
DUP060298A	9806G980-007	Soil
BHGLTA818-01	9806G980-008	Soil
BHGLTA818-03	9806G980-009	Soil
BHGLTA818-04	9806G980-010	Soil
BHGLTA818-04MS	9806G980-010MS	Soil
BHGLTA818-04MSD	9806G980-010MSD	Soil
EB060398	9806G980-012	Water
BHGLTA403-05	9806G980-013	Soil
BHGLTA403-06	9806G980-014	Soil

Holding Times - All samples were analyzed within the recommended holding time of 7 days as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 with the exception of sample BHGLTA816-01 which was analyzed at 8 days. Sulfide has been qualified "UJ" in this sample.

Method and Calibration Blanks - The method blanks were free of contamination. No qualifications were required.

Field and Equipment Blank - Equipment blank EB060398 was free of contamination. No qualifications were required.

Equipment blank EB060298 (in SDG 9805G959) was free of contamination. No qualifications were required.

LCS - The LCS samples exhibited acceptable %R values. No qualifications were required.

Matrix Spike/Duplicate - MS/MSD sample BHGLTA818-04 exhibited acceptable %R and RPD values. No qualifications were required.

Field Duplicates - Field duplicate results for samples BHGLTA816-03 and DUP060298A are non-detect. No qualifications were required.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the holding times section of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Sulfide SDG 9806G980					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
BHGLTA816-01	Sulfide	25.3	U	25.3	UJ

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APPENDIX IX POLYCHLORINATED DIBENZODIOXINS and POLYCHLORINATED DIBENZOFURANS (PCDD/PCDF)
USEPA SW846 Method 8280
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9806G980

Client: HydroGeoLogic, Inc. Date: September 25, 1998

Laboratory: RECRA LabNet - Philadelphia Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA816-01	9806G980-003	Soil
BHGLTA816-02	9806G980-004	Soil
BHGLTA816-03	9806G980-005	Soil
BHGLTA816-04	9806G980-006	Soil
DUP060298A	9806G980-007	Soil
BHGLTA818-01	9806G980-008	Soil
BHGLTA818-03	9806G980-009	Soil
BHGLTA818-04	9806G980-010	Soil
BHGLTA818-04MS	9806G980-010MS	Soil
BHGLTA818-04MSD	9806G980-010MSD	Soil
EB060398	9806G980-012	Water
BHGLTA403-05	9806G980-013	Soil
BHGLTA403-06	9806G980-014	Soil

Holding Times - All samples were extracted within 30 days of collection and analyzed within the recommended holding time of 45 days as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 3/26/98 and 4/1/98 exhibited acceptable %RSD values of less than 15% for the RFs. All ICAL ion abundance ratios met QC acceptance criteria. No qualifications were required.

Continuing Calibration - The continuing calibrations analyzed on 6/17/98 and 6/19/98 exhibited acceptable %D values and ion abundance ratios within QC acceptance criteria and no qualifications were required.

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Column Performance Check - Resolution check criteria were met since the valley was less than 25%

Surrogates - All samples exhibited acceptable surrogate %R values. No qualifications were required.

Method Blanks - The water and soil method blanks were free of contamination and no qualifications were required.

Field, equipment blanks - Equipment blank EB060298 (in SDG 9806G959) was free of contamination. No qualifications were required.

Equipment blank EB060398 was free of contamination. No qualifications were required

Internal Standards - The internal standards met QC acceptance criteria and no qualifications were required.

MS/MSD - MS/MSD sample BHGLTA818-04 exhibited acceptable %R and RPD values. No qualifications were required.

Laboratory Control Sample/Duplicate - The water and soil LCS/LCSD samples exhibited acceptable %R and RPD values within the QC acceptance criteria and no qualifications were required.

Field Duplicates - Field duplicate results for samples BHGLTA816-03 and DUP060298A are non-detect No qualifications were required.

Compound Quantitation - No discrepancies were identified. All sample results were non-detect.

Comments - The analyses of environmental samples and quality control samples are valid. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Additional Comment - The data summary form identifies sample BHGLTA818-03 incorrectly as sample "BHGLTA818-02." The reviewer amended the summary form to reflect the correct sample ID.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Dioxins SDG. 9806G980					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
None Qualified	--	--	--	--	--

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APPENDIX IX PESTICIDES/PCBs
USEPA SW846 Method 8080A
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9806G980

Client: HydroGeoLogic. Inc. Date: September 25, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA816-01	9806G980-003	Soil
BHGLTA816-02	9806G980-004	Soil
BHGLTA816-03	9806G980-005	Soil
BHGLTA816-04	9806G980-006	Soil
DUP060298A	9806G980-007	Soil
BHGLTA818-01	9806G980-008	Soil
BHGLTA818-03	9806G980-009	Soil
BHGLTA818-04	9806G980-010	Soil
BHGLTA818-04MS	9806G980-010MS	Soil
BHGLTA818-04MSD	9806G980-010MSD	Soil
EB060398	9806G980-012	Water
BHGLTA403-05	9806G980-013	Soil
BHGLTA403-06	9806G980-014	Soil

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soil samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 6/17/98 exhibited acceptable %RSD values of less than 20%. No qualifications were required.

Continuing Calibration Verification - The continuing calibration QC acceptance criteria were met. The DDT and endrin breakdown was acceptable.

Method Blank - Method blanks PBLKKG (6/10/98) and PBLKLE (6/16/98) were free of contamination. No qualifications were required.

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Field. equipment blank - Equipment blank EB060298 (in SDG 9806G959) was free of contamination. No qualifications were required.

Equipment blank EB060398 was free of contamination. No qualifications were required

Surrogates - Sample EB060398 exhibited a low %R value for surrogate compound DCB, however, no qualifications are required for only one surrogate outside of QC limits.

Several samples were analyzed at a dilution and the surrogates were reported with a "D" flag by the laboratory due to being diluted out. No action was taken on this basis.

Laboratory Control Samples - LCS samples PBLKLFGS, PBLKLGGS, PBLKKHBS, and PBLKKIBS exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA818-04 exhibited acceptable %R and RPD values. No qualifications were required.

Field Duplicates - Field duplicate results for samples BHGLTA816-03 and DUP060298A are non-detect. No qualifications were required.

Compound Identification - Several CCVs exhibited retention times outside of the RT window, however, none of the data were affected. No action was taken on this basis.

Compound Quantitation - Several samples received sulfur cleanups due to matrix interference. No action was taken on this basis.

Comments - The analyses of environmental samples and quality control samples are valid. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

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Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Pesticide/PCBs SDG· 9806G980					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
None Qualified	--	--	--	--	--

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APPENDIX IX VOLATILE ORGANIC COMPOUNDS
USEPA SW846 Method 8260B
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9806G980

Client: HydroGeoLogic, Inc. Date: September 25, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
AB060298	9806G980-001	Water
TB060298	9806G980-002	Water
BHGLTA816-01	9806G980-003	Soil
BHGLTA816-01RE	9806G980-003RE	Soil
BHGLTA816-02	9806G980-004	Soil
BHGLTA816-02RE	9806G980-004RE	Soil
BHGLTA816-03	9806G980-005	Soil
BHGLTA816-04	9806G980-006	Soil
DUP060298A	9806G980-007	Soil
BHGLTA818-01	9806G980-008	Soil
BHGLTA818-03	9806G980-009	Soil
BHGLTA818-04	9806G980-010	Soil
BHGLTA818-04MS	9806G980-010MS	Soil
BHGLTA818-04MSD	9806G980-010MSD	Soil
TB060398	9806G980-011	Water
EB060398	9806G980-012	Water
BHGLTA403-05	9806G980-013	Soil
BHGLTA403-06	9806G980-014	Soil

Holding Times - All samples were analyzed within the recommended holding time of 14 days for preserved water samples and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 with the exception of sample DUP060298A and the reanalyzed samples. Samples DUP060298A, BHGLTA816-01RE, and BHGLTA816-02RE were analyzed at 15 days. All results for these three samples have been qualified "J" for positive results and "UJ" for non-detects.

GC/MS Tuning - All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria. No qualifications were required.

Initial Calibration - The initial calibrations analyzed 2/23/98-6/9/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

The initial calibrations analyzed 3/11/98-6/2/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

The initial calibrations analyzed 4/28/98-6/10/98 exhibited acceptable %RSD and mean RRF values No qualifications were required.

Continuing Calibration - The continuing calibration analyzed on 6/15/98 exhibited acceptable %D and RRF values. No qualifications were required.

The continuing calibration analyzed on 6/16/98 (0936) exhibited acceptable %D and RRF values. No qualifications were required.

The continuing calibration analyzed on 6/16/98 (2156) exhibited acceptable %D and RRF values. No qualifications were required.

The continuing calibration analyzed on 6/17/98 (1004) exhibited acceptable %D and RRF values. No qualifications were required.

The continuing calibration analyzed on 6/17/98 (1943) exhibited high %D values for dichlorodifluoromethane and chloromethane of 33.2% and 25.3%, respectively. Both compounds have been rejected "R" in associated samples TB060398 and EB060398.

Surrogates - All samples exhibited acceptable surrogate %R values. No qualifications were required

Laboratory Control Samples - LCS samples VBLKOS, VBLKOU, VBLKOY, and VBLKOW exhibited acceptable %R values. No qualifications were required.

LCS sample VBLKOQ exhibited a low %R value for dichlorodifluoromethane of 46%, however, both associated results have already been rejected due to the continuing calibration and no further qualifications were required.

MS/MSD - MS/MSD sample BHGLTA818-04 exhibited low MS/MSD %R values for dichlorodifluoromethane of 42%/34%. Dichlorodifluoromethane has been qualified "UJ" in all soil samples 1,1-Dichloroethene exhibited a low MSD %R value, however, the MS and LCS exhibited acceptable %R values and no qualifications were required.

Internal Standard (IS) Area Performance - Samples BHGLTA816-01 and BHGLTA816-02 exhibited low area counts for IS4. All IS4 associated results have been qualified "UJ." Reanalyzed samples BHGLTA816-01RE and BHGLTA816-02RE exhibited acceptable internal standard criteria, however, the samples were analyzed outside of holding times. The original sample results should be used for reporting purposes.

Sample BHGLTA818-03 exhibited a low area count for IS4. All IS4 associated results have been qualified "UJ." The sample was not reanalyzed by the laboratory due to holding time considerations.

Method Blank - Method blanks VBLKOS (6/15/98), VBLKOY (6/16/98), VBLKOW (6/17/98), VBLKOU (6/17/98), and VBLKOQ (6/17/98) were free of contamination. No qualifications were required.

Trip, field, equipment blank - Trip blank TB060298 exhibited methylene chloride contamination at 0.6 ug/L, however, all associated results are non-detect and no qualifications were required.

Trip blank TB060398 was free of contamination. No qualifications were required.

Equipment blank EB060298 (in SDG 9805G959) exhibited acetone and carbon disulfide contamination at 4 ug/L and 16 ug/L, respectively, however, all associated results are non-detect or greater than 10X the blank concentration and no qualifications were required.

Equipment blank EB060398 exhibited chloroform contamination at 0.4 ug/L, however, all associated results are non-detect and no qualifications were required.

Ambient blank AB060298 exhibited acetone and methylene chloride contamination at 4 ug/L and 0.6 ug/L, respectively. Acetone has been qualified "U" in associated samples BHGLTA816-02, BHGLTA816-02RE, and DUP060298A. All other associated results are non-detect or greater than 10X the blank concentration and no further qualifications were required.

Field Duplicates - Field duplicate results are summarized in the following table. No qualifications were required.

Analyte	BHGLTA816-03 ug/kg	DUP060298A ug/kg	RPD
Tetrachloroethene	7	6U	NC

Tentatively Identified Compounds (TICs) - TICs were not detected in any of the samples.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the holding times, continuing calibration, MS/MSD, internal standards, and field blank sections of this report with the exception of two compounds which have been rejected in two samples. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Volatiles SDG· 9806G980					
Sample No.	- Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
BHGLTA816-01	Dichlorodifluoromethane	5	U	5	UJ
	Trans-1,4-Dichloro-2-butene	5	U	5	UJ
	1,1,2,2-Tetrachloroethane	2	U	2	UJ
	1,2,3-Trichloropropane	5	U	5	UJ
	Pentachloroethane	5	U	5	UJ
	1,2-Dibromo-3-chloropropane	5	U	5	UJ
BHGLTA816-01RE	All Results	--	U	--	UJ
BHGLTA816-02	Dichlorodifluoromethane	5	U	5	UJ
	Acetone	26	-	26	U
	Trans-1,4-Dichloro-2-butene	5	U	5	UJ
	1,1,2,2-Tetrachloroethane	2	U	2	UJ
	1,2,3-Trichloropropane	5	U	5	UJ
	Pentachloroethane	5	U	5	UJ
	1,2-Dibromo-3-chloropropane	5	U	5	UJ
BHGLTA816-02RE	All Results	--	U	--	UJ
BHGLTA816-03	Dichlorodifluoromethane	6	U	6	UJ
BHGLTA816-04	Dichlorodifluoromethane	6	U	6	UJ
DUP060298A	All Results	--	U	--	UJ
BHGLTA818-01	Dichlorodifluoromethane	6	U	6	UJ
BHGLTA818-03	Dichlorodifluoromethane	6	U	6	UJ
	Trans-1,4-Dichloro-2-butene	6	U	6	UJ
	1,1,2,2-Tetrachloroethane	2	U	2	UJ
	1,2,3-Trichloropropane	6	U	6	UJ
	Pentachloroethane	6	U	6	UJ
	1,2-Dibromo-3-chloropropane	6	U	6	UJ
BHGLTA818-04	Dichlorodifluoromethane	6	U	6	UJ
TB060398	Dichlorodifluoromethane	0.5	U	0.5	R
	Chloromethane	0 5	U	0.5	R
EB060398	Dichlorodifluoromethane	0.5	U	0 5	R
	Chloromethane	0.5	U	0.5	R

Qualification Summary Table - Volatiles SDG. 9806G980					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc	Qualifier
BHGLTA403-05	Dichlorodifluoromethane	6	U	6	UJ
BHGLTA403-06	Dichlorodifluoromethane	5	U	5	UJ

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APPENDIX IX METALS
USEPA SW846 Methods 6010A, 7471, 9010A
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9806G980

Client: HydroGeoLogic, Inc. Date: September 25, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA816-01	9806G980-003	Soil
BHGLTA816-02	9806G980-004	Soil
BHGLTA816-03	9806G980-005	Soil
BHGLTA816-04	9806G980-006	Soil
DUP060298A	9806G980-007	Soil
BHGLTA818-01	9806G980-008	Soil
BHGLTA818-03	9806G980-009	Soil
BHGLTA818-04	9806G980-010	Soil
BHGLTA818-04MS	9806G980-010MS	Soil
BHGLTA818-04MSD	9806G980-010MSD	Soil
EB060398	9806G980-012	Water
BHGLTA403-05	9806G980-013	Soil
BHGLTA403-06	9806G980-014	Soil

Holding Times - All samples were extracted and analyzed within the recommended holding time of 180 days for all metals except 28 days for mercury and 14 days for cyanide as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 with the exception of cyanide in sample BHGLTA818-01 which was analyzed at 21 days. Cyanide has been rejected "R" in this sample.

Calibration - All initial and continuing calibration verifications exhibited acceptable %R values. No qualifications were required.

Method Blanks - Soil preparation blank PBS (6/18/98) exhibited contamination for beryllium, copper, tin, and zinc, however, all associated results were non-detect or greater than 5X the blank concentration with the exception of tin. Tin has been qualified "U" in associated samples DUP060298A and BHGLTA403-05.

Water preparation blank PBW (6/17/98) exhibited contamination for zinc at 17.57 ug/L. Zinc has been qualified "U" in associated sample EB060398.

The continuing calibration blanks exhibited contamination for several compounds, however, all associated results were non-detect or greater than 5X the blank concentration with the exception of beryllium and tin. Beryllium has been qualified "U" in associated samples BHGLTA816-01, BHGLTA816-02, BHGLTA816-04, BHGLTA818-04, and BHGLTA403-06. Tin has been qualified "U" in associated samples BHGLTA816-01, BHGLTA816-03, BHGLTA818-01, BHGLTA403-06, and EB060398.

Field and equipment blank - Equipment blank EB060298 (in SDG 9806G959) was free of contamination. No qualifications were required.

Equipment blank EB060398 exhibited copper contamination at 6.8 ug/L. Copper has been qualified "U" in associated sample BHGLTA403-06.

ICP Interference Check Sample - All % recovery values met the QC acceptance criteria. No qualifications were required.

LCS - The LCS analysis met the QC acceptance criteria of as specified in the QAPP. No qualifications were required.

ICP Serial Dilutions - ICP serial dilution sample 9805G744-007 (in SDG 9805G744) exhibited a high %D value for zinc of 20.5%. Zinc has been qualified "J" for positive results in all soil samples.

Matrix Spike - Matrix spike sample BHGLTA818-04 exhibited low %R values for antimony and silver of 0.0% and 60.9%, respectively, and a high %R value for vanadium of 142 0%. Antimony and silver have been qualified "J" for positive results and "UJ" for non-detects in all soil samples. Vanadium has been qualified "J" for positive results in all soil samples.

Matrix Spike Duplicate - Matrix duplicate sample BHGLTA818-04 exhibited acceptable RPD values. No qualifications were required.

Field Duplicates - Field duplicate results are summarized in the following table. Selenium has been qualified "J" in both samples.

Analyte	BHGLTA816-03 mg/kg	DUP060298A mg/kg	RPD
Arsenic	18.9	23.6	22
Barium	136	142	4

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Analyte	BHGLTA816-03 mg/kg	DUP060298A mg/kg	RPD
Beryllium	1 2	1.2	0
Chromium	26 4	25.3	4
Cobalt	5.6	6.3	12
Copper	8 9	8.2	8
Lead	4.6	4.7	2
Nickel	13.0	13.5	4
Selenium	18.7	14 4	26*
Thallium	30.5	34.2	11
Vanadium	45.3	43 9	3
Zinc	35.3	35.8	1

Compound Quantitation - All results between the MDL and the PQL have been qualified "F."

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the holding times, method blank, field blanks, ICP serial dilution, matrix spike, field duplicate, and compound quantitation sections of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Metals SDG: 9806G980					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
BHGLTA816-01	Antimony	5.7	UN	5 7	UJ
	Arsenic	6 5	B	6.5	F
	Beryllium	0.55	-	0.55	U
	Cadmium	0 99	B	0 99	F
	Cobalt	3.2	B	3.2	F
	Nickel	8.7	B	8.7	F
	Selenium	8.4	B	8.4	F
	Silver	0.49	UN	0.49	UJ
	Tin	1.7	B	17 7	U
	Thallium	19.3	B	19.3	F
	Vanadium	21.0	N	21.0	J
	Zinc	43.7	-	43.7	J
	Cyanide	0 13	B	0.13	F
BHGLTA816-02	Antimony	13.6	UN	13 6	UJ
	Beryllium	0.29	B	1 28	U
	Chromium	10	B	10	F
	Cobalt	3.5	B	3.5	F
	Copper	4.9	B	4.9	F
	Lead	13.3	B	13 3	F

Qualification Summary Table - Metals SDG: 9806G980					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc	Qualifier
	Nickel	7.3	B	7.3	F
	Silver	1.2	UN	1 2	UJ
	Vanadium	18.8	BN	18.8	J
	Zinc	23.3	-	23.3	J
BHGLTA816-03	Antimony	3.4	UN	3.4	UJ
	Arsenic	18.9	B	18.9	F
	Cobalt	5 6	B	5 6	F
	Lead	4.6	B	4.6	F
	Nickel	13.0	B	13 0	F
	Selenium	18.7	B	18 7	J
	Silver	0.30	UN	0.30	UJ
	Tin	2 0	B	10 7	U
	Thallium	30 5	B	30.5	F
	Vanadium	45 3	N	45.3	J
	Zinc	35.3	-	35.3	J
BHGLTA816-04	Antimony	14.3	UN	14.3	UJ
	Beryllium	0.55	B	1.3	U
	Chromium	11.8	B	11 8	F
	Cobalt	3.5	B	3.5	F
	Copper	5.3	B	5.3	F
	Lead	9.2	B	9.2	F
	Nickel	10.3	B	10 3	F
	Silver	1.3	UN	1.3	UJ
	Vanadium	30.2	BN	30 2	J
	Zinc	19.9	-	19.9	J
DUP060298A	Antimony	3.2	UN	3.2	UJ
	Arsenic	23.6	B	23.6	F
	Cobalt	6 3	B	6 3	F
	Lead	4.7	B	4.7	F
	Nickel	13.5	B	13 5	F
	Selenium	14 4	B	14 4	J
	Silver	0 28	UN	0.28	UJ
	Tin	2.0	B	9.8	U
	Thallium	34.2	B	34.2	F
	Vanadium	43.9	N	43 9	J
	Zinc	35 8	-	35 8	J
BHGLTA818-01	Antimony	3.1	UN	3 1	UJ
	Arsenic	8.9	B	8.9	F
	Cobalt	6.5	B	6.5	F
	Lead	8 0	B	8.0	F
	Nickel	12.2	B	12.2	F
	Selenium	13.5	B	13.5	F
	Silver	0 27	UN	0.27	UJ
	Tin	3.1	B	9.7	U
	Thallium	21 6	B	21 6	F
	Vanadium	32.5	N	32.5	J
	Zinc	25.1	-	25.1	J
	Cyanide	0.15	U	0.15	R
BHGLTA818-03	Antimony	14.6	UN	14.6	UJ

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Qualification Summary Table - Metals SDG. 9806G980					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
	Beryllium	1 1	B	1 1	F
	Chromium	23.2	B	23.2	F
	Cobalt	4.5	B	4.5	F
	Copper	5 5	B	5.5	F
	Lead	12.0	B	12.0	F
	Nickel	13 6	B	13.6	F
	Selenium	19.4	B	19 4	F
	Silver	1.3	UN	1.3	UJ
	Thallium	29 8	B	29.8	F
	Vanadium	41 4	N	41 4	J
	Zinc	25 9	-	25 9	J
BHGLTA818-04	Antimony	14.6	UN	14.6	UJ
	Beryllium	0.25	B	1 4	U
	Chromium	7 5	B	7.5	F
	Cobalt	3.5	B	3.5	F
	Copper	4 7	B	4 7	F
	Lead	8 9	B	8.9	F
	Nickel	6.6	B	6.6	F
	Silver	1.3	UN	1.3	UJ
	Vanadium	20.7	BN	20.7	J
	Zinc	14.4	-	14.4	J
EB060398	Copper	6.8	B	6.8	F
	Tin	8.7	B	100	U
	Zinc	8 4	B	20.0	U
BHGLTA403-05	Antimony	6.2	UN	6.2	UJ
	Arsenic	16 1	B	16.1	F
	Cobalt	8.2	B	8.2	F
	Copper	7 7	B	7 7	F
	Lead	7 0	B	7.0	F
	Nickel	16.1	B	16.1	F
	Selenium	15.7	B	15.7	F
	Silver	0.54	UN	0 54	UJ
	Tin	3.3	B	19.4	U
	Thallium	29.2	B	29.2	F
	Vanadium	40.8	N	40.8	J
	Zinc	28.5	-	28 5	J
BHGLTA403-06	Antimony	2.8	UN	2.8	UJ
	Beryllium	0.18	B	0.26	U
	Chromium	3.0	B	3.0	F
	Cobalt	2.2	B	2.2	F
	Copper	2 0	B	5.3	U
	Lead	2.5	B	2.5	F
	Nickel	2.4	B	2.4	F
	Selenium	5.3	B	5.3	F
	Silver	0.25	UN	0.25	UJ
	Tin	1.5	B	8.8	U
	Thallium	5 1	B	5.1	F
	Vanadium	7 8	N	7.8	J
	Zinc	5 3	-	5 3	J

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APPENDIX IX HERBICIDES
USEPA SW846 Method 8150B
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9806G980

Client. HydroGeoLogic, Inc. Date: September 25, 1998

Laboratory: RECRA LabNet Reviewer. Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA816-01	9806G980-003	Soil
BHGLTA816-02	9806G980-004	Soil
BHGLTA816-03	9806G980-005	Soil
BHGLTA816-04	9806G980-006	Soil
DUP060298A	9806G980-007	Soil
BHGLTA818-01	9806G980-008	Soil
BHGLTA818-03	9806G980-009	Soil
BHGLTA818-04	9806G980-010	Soil
BHGLTA818-04MS	9806G980-010MS	Soil
BHGLTA818-04MSD	9806G980-010MSD	Soil
EB060398	9806G980-012	Water
BHGLTA403-05	9806G980-013	Soil
BHGLTA403-06	9806G980-014	Soil

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soil samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 6/20/98 and 7/21/98 exhibited acceptable %RSD values less than 20%. No qualifications were required.

Continuing Calibration Verification - The continuing calibration verifications analyzed on 6/20/98, 6/21/98, 6/22/98, and 7/21/98 exhibited acceptable %D values. No qualifications were required.

The continuing calibration analyzed on 7/22/98 exhibited a high %D value for 2,4,5-T of 16.2%. 2,4,5-T has been rejected "R" in all soil samples.

Method Blank - Method blanks PBLKHS (6/5/98) and PBLKLH (6/16/98) were free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB060298 (in SDG 9806G959) was free of contamination. No qualifications were required.

Equipment blank EB060398 was free of contamination. No qualifications were required.

Surrogates - All samples exhibited acceptable surrogate %R values. No qualifications were required.

Laboratory Control Samples - LCS samples PBLKHSBS and PBLKLHBS exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA818-04 exhibited low MS/MSD %R values for 2,4,5-TP of 64%/60%. 2,4,5-TP has been qualified "UJ" in all soil samples.

Field Duplicates - Field duplicate results for samples BHGLTA816-03 and DUP060298A are non-detect. No qualifications were required.

Compound Identification - The retention times met the QC acceptance criteria with the exception of 2,4,5-T on 7/22/98, however, 2,4,5-T has already been rejected due to the continuing calibration and no further qualifications were required.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the continuing calibration and MS/MSD sections of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Herbicides SDG· 9806G980					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc	Qualifier
BHGLTA816-01	2,4,5-TP (Silvex)	35	U	35	UJ
	2,4,5-T	35	U	35	R
BHGLTA816-02	2,4,5-TP (Silvex)	36	U	36	UJ
	2,4,5-T	36	U	36	R
BHGLTA816-03	2,4,5-TP (Silvex)	41	U	41	UJ
	2,4,5-T	41	U	41	R
BHGLTA816-04	2,4,5-TP (Silvex)	37	U	37	UJ
	2,4,5-T	37	U	37	R
DUP060298A	2,4,5-TP (Silvex)	41	U	41	UJ
	2,4,5-T	41	U	41	R
BHGLTA818-01	2,4,5-TP (Silvex)	36	U	36	UJ
	2,4,5-T	36	U	36	R
BHGLTA818-03	2,4,5-TP (Silvex)	37	U	37	UJ
	2,4,5-T	37	U	37	R
BHGLTA818-04	2,4,5-TP (Silvex)	37	U	37	UJ
	2,4,5-T	37	U	37	R
BHGLTA403-05	2,4,5-TP (Silvex)	39	U	39	UJ
	2,4,5-T	39	U	39	R
BHGLTA403-06	2,4,5-TP (Silvex)	34	U	34	UJ
	2,4,5-T	34	U	34	R

APPENDIX IX VOLATILE ORGANIC COMPOUNDS
USEPA SW846 Method 8260B
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G744

Client: HydroGeoLogic, Inc. Date: September 30, 1998

Laboratory. RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA505-02	9805G744-001	Soil
BHGLTA505-03	9805G744-002	Soil
BHGLTA505-04	9805G744-003	Soil
BHGLTA505-05	9805G744-004	Soil
BHGLTA505-05MS	9805G744-004MS	Soil
BHGLTA505-05MSD	9805G744-004MSD	Soil
EB051898	9805G744-005	Water
BHGLTA814-01	9805G744-006	Soil
BHGLTA814-02	9805G744-007	Soil
BHGLTA814-03	9805G744-008	Soil
TB051898	9805G744-010	Water
DUP01	9805G744-011	Soil
BHGLTA404-01	9805G744-012	Soil
BHGLTA404-02	9805G744-013	Soil
BHGLTA404-03	9805G744-014	Soil
BHGLTA404-04	9805G744-015	Soil
BHGLTA404-05	9805G744-016	Soil
BHGLTA403-02	9805G744-017	Soil
EB052098	9805G744-018	Water
TB052098	9805G744-019	Water
BHGLTA818-02	9805G744-020	Soil

Holding Times - All samples were analyzed within the recommended holding time of 14 days for preserved water samples and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

GC/MS Tuning - All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria. No qualifications were required.

Initial Calibration - The initial calibrations analyzed 3/21/98-3/23/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

The initial calibrations analyzed 4/20/98-5/6/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

The initial calibrations analyzed on 3/11/98-5/27/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

Continuing Calibration - The continuing calibration analyzed on 5/28/98 (1741) exhibited high %D values for dichlorodifluoromethane, dibromochloromethane, 1,2-dibromoethane, 1,1,1,2-tetrachloroethane, bromoform, pentachloroethane, and 1,2-dibromo-3-chloropropane of 51.2%, 38.4%, 27.7%, 33.1%, 41.1%, 27.5%, and 32.9%, respectively. All of the above compounds have been rejected "R" in associated samples BHGLTA505-02, BHGLTA505-03, and BHGLTA505-04.

The continuing calibration analyzed on 5/28/98 (2206) exhibited a high %D value for dichlorodifluoromethane of 37.9%. Dichlorodifluoromethane has been rejected "R" in associated samples BHGLTA814-02, BHGLTA814-03, DUP01, BHGLTA404-01, BHGLTA404-02, BHGLTA404-03, BHGLTA404-04, BHGLTA404-05, and BHGLTA403-02.

The continuing calibration analyzed on 5/29/98 exhibited acceptable %D and RRF values. No qualifications were required.

The continuing calibration analyzed on 6/1/98 exhibited high %D values for dichlorodifluoromethane and chloromethane of 60.0% and 31.3%, respectively. Both compounds have been rejected "R" in associated samples EB051898, TB051898, EB052098, and TB052098.

Surrogates - All samples exhibited acceptable surrogate %R values. No qualifications were required.

Laboratory Control Samples - LCS samples VBLKHM and VBLKHQ exhibited acceptable %R values. No qualifications were required.

LCS sample VBLKHI exhibited high %R values for dichlorodifluoromethane, chloromethane, vinyl chloride, bromomethane, and chloroethane of 142%, 153%, 144%, 131%, and 127%, respectively. However, all associated results are non-detect and no qualifications were required.

LCS sample VBLKHK exhibited a high %R value for 1,1,1,2-tetrachloroethane of 129%, however, all associated results are non-detect and no qualifications were required.

MS/MSD - MS/MSD sample BHGLTA509-01 (in SDG 9805G688) exhibited acceptable %R and RPD values. No qualifications were required.

MS/MSD sample BHGLTA818-04 (in SDG 9806G980) exhibited low MS/MSD %R values for dichlorodifluoromethane of 42%/34%. Dichlorodifluoromethane has been qualified "UJ" in associated samples BHGLTA814-01, BHGLTA814-02, BHGLTA814-03, and BHGLTA818-02 unless already rejected "R" due to continuing calibration problems. 1,1-Dichloroethene exhibited a low MSD %R value, however, the LCS exhibited acceptable values and no qualifications were required.

MS/MSD sample BHGLTA505-05 exhibited acceptable %R and RPD values. No qualifications were required.

MS/MSD sample BHGLTA402-01 (in SDG 9805G833) exhibited acceptable %R and RPD values. No qualifications were required.

Internal Standard (IS) Area Performance - All internal standards met response and retention time (RT) criteria. No qualifications were required.

Method Blank - Method blanks VBLKHM (5/29/98), VBLKHQ (5/29/98), and VBLKHI (6/1/98) were free of contamination. No qualifications were required.

Method blank VBLKHK (5/28/98) exhibited methylene chloride contamination at 2 ug/kg. Methylene chloride has been qualified "U" in associated sample BHGLTA505-02.

Trip, field, equipment blank - Trip blank TB051898 was free of contamination. No qualifications were required.

Trip blank TB052098 was free of contamination. No qualifications were required.

Equipment blank EB051898 exhibited methylene chloride contamination at 1 ug/L. Methylene chloride has been qualified "U" in associated sample DUP01.

Equipment blank EB052098 exhibited chloroform contamination at 2 ug/L, however, all associated results are non-detect and no qualifications were required.

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Field Duplicates - Field duplicate results are summarized in the following table. 2-Hexanone has been qualified "J/UJ" in both samples.

Analyte	BHGLTA814-01 ug/kg	DUP01 ug/kg	RPD
Toluene	1J	5U	NC
2-Hexanone	6	5U	200

Tentatively Identified Compounds (TICs) - TICs were not detected in any of the samples.

Compound Quantitation - Several compounds in several samples were qualified "F" since the results were between the MDL and the PQL.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the continuing calibration, MS/MSD, method blank, field blank, field duplicates, and compound quantitation sections of this report with the exception of several rejections due to the continuing calibration problems. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Volatiles SDG· 9805G744					
Sample No.	*Compound(s)*	Reported		Validated	
		Conc.	Qualifier	Conc	Qualifier
BHGLTA505-02	Dichlorodifluoromethane	6	U	6	R
	Methylene Chloride	2	B	2	U
	Dibromochloromethane	3	U	3	R
	1,2-Dibromoethane	3	U	3	R
	1,1,1,2-Tetrachloroethane	3	U	3	R
	Bromoform	6	U	6	R
	Pentachloroethane	6	U	6	R
	1,2-Dibromo-3-chloropropane	6	U	6	R
BHGLTA505-03	Dichlorodifluoromethane	5	U	5	R
	Cis-1,2-Dichloroethene	2	J	2	F
	Trichloroethene	1	J	1	F
	Dibromochloromethane	3	U	3	R
	1,2-Dibromoethane	3	U	3	R
	1,1,1,2-Tetrachloroethane	3	U	3	R
	Bromoform	5	U	5	R
	Pentachloroethane	5	U	5	R

Qualification Summary Table - Volatiles SDG: 9805G744					
Sample No.	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
	1,2-Dibromo-3-chloropropane	5	U	5	R
BHGLTA505-04	Dichlorodifluoromethane	5	U	5	R
	Dibromochloromethane	3	U	3	R
	1,2-Dibromoethane	3	U	3	R
	1,1,1,2-Tetrachloroethane	3	U	3	R
	Bromoform	5	U	5	R
	Pentachloroethane	5	U	5	R
	1,2-Dibromo-3-chloropropane	5	U	5	R
BHGLTA505-05					
EB051898	Dichlorodifluoromethane	0 5	U	0.5	R
	Chloromethane	0 5	U	0 5	R
BHGLTA814-01	Dichlorodifluoromethane	5	U	5	R
	Toluene	1	J	1	F
	2-Hexanone	6	-	6	J
BHGLTA814-02	Dichlorodifluoromethane	6	U	6	R
	Trichloroethene	4	J	4	F
BHGLTA814-03	Dichlorodifluoromethane	6	U	6	R
	Cis-1,2-Dichloroethene	4	J	4	F
TB051898	Dichlorodifluoromethane	0 5	U	0.5	R
	Chloromethane	0 5	U	0 5	R
DUP01	Dichlorodifluoromethane	5	U	5	R
	Methylene Chloride	2	-	2	U
	2-Hexanone	5	5	5	UJ
BHGLTA404-01	Dichlorodifluoromethane	6	U	6	R
BHGLTA404-02	Dichlorodifluoromethane	6	U	6	R
BHGLTA404-03	Dichlorodifluoromethane	5	U	5	R
BHGLTA404-04	Dichlorodifluoromethane	5	U	5	R
BHGLTA404-05	Dichlorodifluoromethane	5	U	5	R
BHGLTA403-02	Dichlorodifluoromethane	6	U	6	R
EB052098	Dichlorodifluoromethane	0.5	U	0 5	R
	Chloromethane	0.5	U	0 5	R
TB052098	Dichlorodifluoromethane	0 5	U	0 5	R
	Chloromethane	0.5	U	0 5	R
BHGLTA818-02	Dichlorodifluoromethane	5	U	5	R

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APPENDIX IX SEMIVOLATILE ORGANIC COMPOUNDS
USEPA SW846 Method 8270C
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G744

Client: HydroGeoLogic, Inc. Date: September 30, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA505-02	9805G744-001	Soil
BHGLTA505-03	9805G744-002	Soil
BHGLTA505-04	9805G744-003	Soil
BHGLTA505-05	9805G744-004	Soil
EB051898	9805G744-005	Water
BHGLTA814-01	9805G744-006	Soil
BHGLTA814-02	9805G744-007	Soil
BHGLTA814-03	9805G744-008	Soil
DUP01	9805G744-011	Soil
BHGLTA404-01	9805G744-012	Soil
BHGLTA404-02	9805G744-013	Soil
BHGLTA404-03	9805G744-014	Soil
BHGLTA404-04	9805G744-015	Soil
BHGLTA404-05	9805G744-016	Soil
BHGLTA403-02	9805G744-017	Soil
EB052098	9805G744-018	Water
BHGLTA818-02	9805G744-020	Soil

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soil samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

GC/MS Tuning - All of the DFTPP tunes in the initial and continuing calibrations met the percent relative abundance criteria. No qualifications were required.

Initial Calibration - The initial calibrations analyzed 3/12/98-5/14/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

The initial calibrations analyzed 3/12/98-6/19/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

The initial calibrations analyzed 4/14/98-7/6/98 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

Continuing Calibration - The continuing calibration analyzed on 5/28/98 exhibited high %D values for 4-chloroaniline, 3-nitroaniline, 4-nitroaniline, and 3,3'-dichlorobenzidine of 74.1%, 65.8%, 46.8%, and 28.5%, respectively. All four compounds have been rejected "R" in associated samples EB051898 and EB052098.

The continuing calibration analyzed on 7/1/98 exhibited high %D values for 4-chloroaniline, 3-nitroaniline, 2,4-dinitrophenol, and benzoic acid of 82.1%, 30.3%, 48.3%, and 31.6%, respectively. All four compounds have been rejected "R" in associated samples BHGLTA505-02, BHGLTA505-03, BHGLTA505-04, BHGLTA505-05, BHGLTA814-02, BHGLTA814-03, and BHGLTA403-02.

The continuing calibration analyzed on 7/2/98 exhibited high %D values for 4-chloroaniline, 3-nitroaniline, and 2,4-dinitrophenol of 74.0%, 51.9%, and 55.8%, respectively. All three compounds have been rejected "R" in associated samples BHGLTA404-02, BHGLTA404-03, BHGLTA404-04, BHGLTA404-05, BHGLTA814-01, DUP01, and BHGLTA404-01.

The continuing calibration analyzed on 7/7/98 exhibited high %D values for 4-chloroaniline and 3-nitroaniline of 50.0% and 45.9%, respectively. Both compounds have been rejected "R" in associated sample BHGLTA818-02.

Surrogates - All samples exhibited acceptable surrogate %R values. No qualifications were required.

Laboratory Control Samples - LCS samples SBLKQH and SBLKSQ exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA509-01 (in SDG 9805G688) exhibited several compounds with MS %R values outside of QC limits, however, the LCS exhibited acceptable %R values for these compounds, therefore, no qualifications were required.

MS/MSD sample BHGLTA818-04 (in SDG 9806G980) exhibited low MS/MSD %R values for hexachlorocyclopentadiene of 2%/7%. Hexachlorocyclopentadiene has been qualified "UJ" in associated samples BHGLTA814-01, BHGLTA814-02, BHGLTA814-03, and BHGLTA818-02 since all results are non-detect. Several other MSD %R values exceeded QC limits, however, the LCS exhibited acceptable %R values for these compounds, therefore, no qualifications were required.

MS/MSD sample BHGLTA402-01 (in SDG 9805G833) exhibited acceptable %R and RPD values. No qualifications were required.

Internal Standard (IS) Area Performance - Internal standard criteria have been met and no action has been taken.

Method Blank - Method blanks SBLKQH (5/22/98) and SBLKSQ (7/1/98) were free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB051898 exhibited bis(2-ethylhexyl)phthalate contamination at 4 ug/L, however, all associated results are non-detect or greater than 10X the blank concentration and no qualifications were required.

Equipment blank EB052098 exhibited bis(2-ethylhexyl)phthalate contamination at 2 ug/L, however, all associated results are non-detect or greater than 10X the blank concentration and no qualifications were required.

Field Duplicates - Field duplicate results for samples BHGLTA814-01 and DUP01 are non-detect. No qualifications were required.

Tentatively Identified Compounds (TICs) - All TIC results have been qualified "T."

Compound Quantitation - All results between the MDL and the PQL have been qualified "F."

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the continuing calibration, MS/MSD, TICs, and compound quantitation sections of this report with the exception of several rejections due to continuing calibration problems. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Semivolatiles SDG: 9805G744					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
BHGLTA505-02	4-Chloroaniline	740	U	740	R
	3-Nitroaniline	1800	U	1800	R
	2,4-Dinitrophenol	1800	U	1800	R
	Benzoic Acid	1800	U	1800	R
BHGLTA505-03	4-Chloroaniline	710	U	710	R
	3-Nitroaniline	1800	U	1800	R
	2,4-Dinitrophenol	1800	U	1800	R
	Benzoic Acid	1800	U	1800	R
BHGLTA505-04	4-Chloroaniline	670	U	670	R
	3-Nitroaniline	1700	U	1700	R
	2,4-Dinitrophenol	1700	U	1700	R
	Benzoic Acid	1700	U	1700	R
BHGLTA505-05	4-Chloroaniline	680	U	680	R
	3-Nitroaniline	1700	U	1700	R
	2,4-Dinitrophenol	1700	U	1700	R
	Benzoic Acid	1700	U	1700	R
EB051898	4-Chloroaniline	19	U	19	R
	3-Nitroaniline	48	U	48	R
	4-Nitroaniline	48	U	48	R
	3,3'-Dichlorobenzidine	19	U	19	R
	bis(2-Ethylhexyl)phthalate	4	J	4	F
BHGLTA814-01	4-Chloroaniline	670	U	670	R
	Hexachlorocyclopentadiene	330	U	330	UJ
	3-Nitroaniline	1700	U	1700	R
	2,4-Dinitrophenol	1700	U	1700	R
BHGLTA814-02	4-Chloroaniline	760	U	760	R
	Hexachlorocyclopentadiene	380	U	380	UJ
	3-Nitroaniline	1900	U	1900	R
	2,4-Dinitrophenol	1900	U	1900	R
	Benzoic Acid	1900	U	1900	R
BHGLTA814-03	4-Chloroaniline	770	U	770	R
	Hexachlorocyclopentadiene	390	U	390	UJ
	3-Nitroaniline	1900	U	1900	R
	2,4-Dinitrophenol	1900	U	1900	R

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Qualification Summary Table - Semivolatiles SDG· 9805G744					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
	Benzoic Acid	1900	U	1900	R
DUP01	4-Chloroaniline	660	U	660	R
	3-Nitroaniline	1600	U	1600	R
	2,4-Dinitrophenol	1600	U	1600	R
BHGLTA404-01	4-Chloroaniline	760	U	760	R
	3-Nitroaniline	1900	U	1900	R
	Acenaphthene	64	J	64	F
	2,4-Dinitrophenol	1900	U	1900	R
	Fluorene	49	J	49	F
	Anthracene	99	J	99	F
	Bis(2-Ethylhexyl)phthalate	67	J	67	F
	Benzo(k)fluoranthene	260	J	260	F
	Dibenzo(a,h)anthracene	73	J	73	F
BHGLTA404-02	4-Chloroaniline	800	U	800	R
	3-Nitroaniline	2000	U	2000	R
	2,4-Dinitrophenol	2000	U	2000	R
	bis(2-Ethylhexyl)phthalate	340	J	340	F
BHGLTA404-03	4-Chloroaniline	680	U	680	R
	3-Nitroaniline	1700	U	1700	R
	2,4-Dinitrophenol	1700	U	1700	R
BHGLTA404-04	4-Chloroaniline	670	U	670	R
	3-Nitroaniline	1700	U	1700	R
	2,4-Dinitrophenol	1700	U	1700	R
BHGLTA404-05	4-Chloroaniline	680	U	680	R
	3-Nitroaniline	1700	U	1700	R
	2,4-Dinitrophenol	1700	U	1700	R
	bis(2-Ethylhexyl)phthalate	290	J	290	F
BHGLTA403-02	4-Chloroaniline	740	U	740	R
	3-Nitroaniline	1900	U	1900	R
	2,4-Dinitrophenol	1900	U	1900	R
	bis(2-Ethylhexyl)phthalate	180	J	180	F
	Benzoic Acid	1900	U	1900	R
EB052098	4-Chloroaniline	19	U	19	R
	3-Nitroaniline	48	U	48	R
	4-Nitroaniline	48	U	48	R
	3,3'-Dichlorobenzidine	19	U	19	R
	bis(2-Ethylhexyl)phthalate	2	J	2	F
BHGLTA818-02	4-Chloroaniline	7000	U	7000	R
	Hexachlorocyclopentadiene	3500	U	3500	UJ
	3-Nitroaniline	17000	U	17000	R

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APPENDIX IX PESTICIDES/PCBs
USEPA SW846 Method 8080A
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G744

Client: HydroGeoLogic, Inc. Date: September 30, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA505-02	9805G744-001	Soil
BHGLTA505-03	9805G744-002	Soil
BHGLTA505-04	9805G744-003	Soil
BHGLTA505-05	9805G744-004	Soil
EB051898	9805G744-005	Water
BHGLTA814-01	9805G744-006	Soil
BHGLTA814-02	9805G744-007	Soil
BHGLTA814-03	9805G744-008	Soil
DUP01	9805G744-011	Soil
BHGLTA404-01	9805G744-012	Soil
BHGLTA404-02	9805G744-013	Soil
BHGLTA404-03	9805G744-014	Soil
BHGLTA404-04	9805G744-015	Soil
BHGLTA404-05	9805G744-016	Soil
BHGLTA403-02	9805G744-017	Soil
EB052098	9805G744-018	Water
BHGLTA818-02	9805G744-020	Soil

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soils samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 5/25/98 and 5/26/98 exhibited acceptable %RSD values of less than 20%. No qualifications were required.

Continuing Calibration Verification - The continuing calibration QC acceptance criteria were met with the exception of the following:

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The continuing calibration verification analyzed on 6/7/98 exhibited a high %D value for endrin on the following columns.

CCV	Analyte	DB-5	RTX-35
6/7/98 (1123)	Endrin	16 1%	17.4%

Endrin has been rejected in associated sample BHGLTA403-02.

The DDT and endrin breakdown on 5/25/98 exhibited high values for endrin of 24.6% and 23.9% for the primary and secondary columns, respectively. However, none of the samples were associated and no qualifications were required.

Method Blank - Method blanks PBLKYF (5/27/98) and PBLKAV (5/30/98) were free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB051898 was free of contamination. No qualifications were required

Equipment blank EB052098 was free of contamination. No qualifications were required.

Surrogates - Sample EB051898 exhibited a low %R value for surrogate compound DCB of 25%, however, no qualifications are required for only one surrogate compound which exceeds QC limits. The TCX %R value was acceptable.

Laboratory Control Samples - LCS sample PBLKOCBS, PBLKYGBS, PBLKAWBS, and PBLKAXBS exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA509-01 (in SDG 9805G688) exhibited acceptable %R and RPD values. No qualifications were required.

MS/MSD sample BHGLTA818-04 (in SDG 9806G980) exhibited acceptable %R and RPD values. No qualifications were required.

MS/MSD sample BHGLTA402-01 (in SDG 9805G833) exhibited acceptable %R and RPD values. No qualifications were required.

Field Duplicates - Field duplicate results for samples BHGLTA814-01 and DUP01 are non-detect No qualifications were required.

Compound Identification - The retention times met the QC acceptance criteria and no qualifications were required.

Compound Quantitation - The positive results in sample BHGLTA403-02 were confirmed on a second column except for multiple peak analytes such as chlordane.

Several samples were analyzed at dilutions due to matrix interference and the rporting levels were adjusted accordingly.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the continuing calibration section of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Pesticide/PCBs SDG 9805G744					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
BHGLTA403-02	Endrin	8 9	U	8.9	R

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APPENDIX IX ORGANOPHOPHORUS PESTICIDES
USEPA SW846 Method 8141
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G744

Client: HydroGeoLogic, Inc. Date: September 30, 1998

Laboratory: RECRA LabNet Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA505-02	9805G744-001	Soil
BHGLTA505-03	9805G744-002	Soil
BHGLTA505-04	9805G744-003	Soil
BHGLTA505-05	9805G744-004	Soil
EB051898	9805G744-005	Water
BHGLTA814-01	9805G744-006	Soil
BHGLTA814-02	9805G744-007	Soil
BHGLTA814-03	9805G744-008	Soil
DUP01	9805G744-011	Soil
BHGLTA404-01	9805G744-012	Soil
BHGLTA404-02	9805G744-013	Soil
BHGLTA404-03	9805G744-014	Soil
BHGLTA404-04	9805G744-015	Soil
BHGLTA404-05	9805G744-016	Soil
BHGLTA403-02	9805G744-017	Soil
EB052098	9805G744-018	Water
BHGLTA818-02	9805G744-020	Soil

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soil samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 6/15/98 and 6/22/98 exhibited acceptable %RSD values of less than 20% and/or correlation coefficients of >0.995. No qualifications were required.

Continuing Calibration Verification - The continuing calibration verifications analyzed on 6/15/98, 6/16/98, and 6/22/98 exhibited acceptable %D values. No qualifications were required.

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Method Blank - Method blanks PBLKYE (5/22/98) and PBLKAU (5/30/98) were free of contamination. No qualifications were required

Field, equipment blank - Equipment blank EB051898 was free of contamination. No qualifications were required.

Equipment blank EB052098 was free of contamination. No qualifications were required.

Surrogates - Sample EB051898 exhibited low %R values for surrogate compounds TBP and TPP of 53% and 61%, respectively. All results for this sample have been qualified "UJ" since all results are non-detect.

All soil samples exhibited a low %R value for surrogate compound TBP, however, no qualifications are required unless both surrogates exceed QC limits.

Laboratory Control Samples - LCS sample PBLKAUBS exhibited acceptable %R values. No qualifications were required.

LCS sample PBLKYEBS exhibited a low %R value for disulfoton of 35%. Disulfoton has been rejected "R" in associated samples EB051898 and EB052098 since both results are non-detect.

MS/MSD - MS/MSD sample BHGLTA509-01 (in SDG 9805G688) exhibited acceptable %R and RPD values. No qualifications were required.

MS/MSD sample BHGLTA818-04 (in SDG 9806G980) exhibited a low MSD %R value for dimethoate of 55%, however, the LCS sample results were acceptable for all associated samples and no qualifications were required.

MS/MSD sample BHGLTA402-01 (in SDG 9805G833) exhibited acceptable %R and RPD values. No qualifications were required.

Field Duplicates - Field duplicate results for samples BHGLTA814-01 and DUP01 are non-detect. No qualifications were required.

Compound Identification - The retention times for parathion and methyl parathion were slightly outside of the RT window on 6/22/98, however, the data were not affected and no action has been taken.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the surrogate and LCS sections of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - OP Pesticides
SDG: 9805G744

Sample No.	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
EB051898	Disulfoton	1.9	U	1.9	R
	Methyl parathion	1 9	U	1.9	UJ
	Phorate	4.7	U	4.7	UJ
	o,o,o-Triethyl phos	1.9	U	1.9	UJ
	Thionazin	1.9	U	1 9	UJ
	Sulfotep	1.9	U	1.9	UJ
	Dimethoate	1 9	U	1 9	UJ
	Parathion	1.9	U	1.9	UJ
	Famphur	1.9	U	1.9	UJ
EB052098	Disulfoton	1.9	U	1.9	R

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APPENDIX IX HERBICIDES
USEPA SW846 Method 8150B
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G744

Client: HydroGeoLogic, Inc. Date: September 30, 1998

Laboratory: RECRA LabNet Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA505-02	9805G744-001	Soil
BHGLTA505-03	9805G744-002	Soil
BHGLTA505-04	9805G744-003	Soil
BHGLTA505-05	9805G744-004	Soil
EB051898	9805G744-005	Water
BHGLTA814-01	9805G744-006	Soil
BHGLTA814-02	9805G744-007	Soil
BHGLTA814-03	9805G744-008	Soil
DUP01	9805G744-011	Soil
BHGLTA404-01	9805G744-012	Soil
BHGLTA404-02	9805G744-013	Soil
BHGLTA404-03	9805G744-014	Soil
BHGLTA404-04	9805G744-015	Soil
BHGLTA404-05	9805G744-016	Soil
BHGLTA403-02	9805G744-017	Soil
EB052098	9805G744-018	Water
BHGLTA818-02	9805G744-020	Soil

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soils samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 6/1/98 and 6/9/98 exhibited acceptable %RSD values less than 20%. No qualifications were required.

Continuing Calibration Verification - The continuing calibration verifications analyzed on 6/2/98, 6/10/98, and 6/11/98 exhibited acceptable %D values. No qualifications were required.

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Method Blank - Method blanks PBLKBR (5/22/98) and PBLKFK (5/30/98) were free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB051898 was free of contamination. No qualifications were required.

Equipment blank EB052098 was free of contamination. No qualifications were required.

Surrogates - Sample BHGLTA404-05 exhibited a high %R value for surrogate compound S1-DCAA of 150%, however, all results for this sample are non-detect and no qualifications were required.

Laboratory Control Samples - LCS samples PBLKBRBS and PBLKFKBS exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA509-01 (in SDG 9805G688) exhibited acceptable %R and RPD values. No qualifications were required.

MS/MSD sample BHGLTA818-04 (in SDG 9806G980) exhibited low MS/MSD %R values for 2,4,5-TP of 64%/60%. 2,4,5-TP has been qualified "UJ" in associated samples BHGLTA814-01, BHGLTA814-02, BHGLTA814-03, DUP01, and BHGLTA818-02 since all results are non-detect.

MS/MSD sample BHGLTA402-01 (in SDG 9805G833) exhibited acceptable %R and RPD values. No qualifications were required.

Field Duplicates - Field duplicate results for samples BHGLTA814-01 and DUP01 are non-detect. No qualifications were required.

Compound Identification - The retention times met the QC acceptance criteria and no qualifications were required.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the MS/MSD section of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Herbicides SDG· 9805G744					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
BHGLTA814-01	2,4,5-TP (Silvex)	34	U	34	UJ
BHGLTA814-02	2,4,5-TP (Silvex)	37	U	37	UJ
BHGLTA814-03	2,4,5-TP (Silvex)	38	U	38	UJ
DUP01	2,4,5-TP (Silvex)	33	U	33	UJ
BHGLTA818-02	2,4,5-TP (Silvex)	36	U	36	UJ

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APPENDIX IX METALS
USEPA SW846 Methods 6010A, 7471, 9010A
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G744

Client: HydroGeoLogic, Inc. Date: September 30, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA505-02	9805G744-001	Soil
BHGLTA505-03	9805G744-002	Soil
BHGLTA505-04	9805G744-003	Soil
BHGLTA505-05	9805G744-004	Soil
EB051898	9805G744-005	Water
BHGLTA814-01	9805G744-006	Soil
BHGLTA814-02	9805G744-007	Soil
BHGLTA814-03	9805G744-008	Soil
DUP01	9805G744-011	Soil
BHGLTA404-01	9805G744-012	Soil
BHGLTA404-02	9805G744-013	Soil
BHGLTA404-03	9805G744-014	Soil
BHGLTA404-04	9805G744-015	Soil
BHGLTA404-05	9805G744-016	Soil
BHGLTA403-02	9805G744-017	Soil
EB052098	9805G744-018	Water
BHGLTA818-02	9805G744-020	Soil

Holding Times - All samples were extracted and analyzed within the recommended holding time of 180 days for all metals except 28 days for mercury and 14 days for cyanide as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Calibration - All initial and continuing calibration verifications exhibited acceptable %R values. No qualifications were required.

Method Blanks - Water preparation blank PBW (6/1/98) exhibited zinc contamination at 5.4 ug/L. Zinc has been qualified "U" in associated samples EB051898 and EB052098.

Soil preparation blank PBS (5/26/98) exhibited contamination for tin and zinc, however, all associated results were non-detect or greater than 5X the blank concentration with the exception of tin. Tin has been qualified "U" in associated samples BHGLTA505-03, BHGLTA505-04, BHGLTA505-05, BHGLTA814-01, BHGLTA814-02, BHGLTA404-01, BHGLTA404-02, BHGLTA404-03, BHGLTA404-04, BHGLTA404-05, BHGLTA403-02 and BHGLTA818-02.

The continuing calibration blanks exhibited contamination for several compounds, however, all associated results were non-detect or greater than 5X the blank concentration with the exception of beryllium. Beryllium has been qualified "U" in associated samples BHGLTA505-03, BHGLTA505-04, BHGLTA505-05, BHGLTA814-01, BHGLTA814-03, DUP01, BHGLTA404-03, BHGLTA404-04, and BHGLTA404-05.

Field and equipment blank - Equipment blank EB051898 was free of contamination. No qualifications were required.

Equipment blank EB052098 was free of contamination. No qualifications were required.

ICP Interference Check Sample - All % recovery values met the QC acceptance criteria. No qualifications were required.

LCS - The LCS analysis met the QC acceptance criteria of as specified in the QAPP. No qualifications were required.

ICP Serial Dilutions - ICP serial dilution sample BHGLTA504-02 (in SDG 9805G688) exhibited acceptable %D values. No qualifications were required.

ICP serial dilution sample BHGLTA814-02 exhibited a high %D value for zinc of 20.5%. Zinc has been qualified "J" in associated samples BHGLTA814-01, BHGLTA814-02, BHGLTA814-03, DUP01, and BHGLTA818-02.

ICP serial dilution sample BHGLTA402-02 (in SDG 9805G833) exhibited a high %D value for nickel of 12.2%. Nickel has been qualified "J" in associated samples BHGLTA404-01, BHGLTA404-02, BHGLTA404-03, BHGLTA404-04, BHGLTA404-05, and BHGLTA403-02.

Matrix Spike - Matrix spike sample BHGLTA509-01 (in SDG 9805G688) exhibited a low %R value for antimony of 35.0%. Antimony has been qualified "UJ" in associated samples BHGLTA505-02, BHGLTA505-03, BHGLTA505-04, and BHGLTA505-05 since all results are non-detect.

Matrix spike sample BHGLTA818-04 (in SDG 9806G980) exhibited low %R values for antimony and silver of 0.0% and 60.9%, respectively, and a high %R value for vanadium of 142.0%. Antimony and silver have been qualified "J" for positive results and "UJ" for non-detects in associated samples BHGLTA814-01, BHGLTA814-02, BHGLTA814-03, DUP01, and BHGLTA818-02. Vanadium has been qualified "J" for positive results in associated samples BHGLTA814-01, BHGLTA814-02, BHGLTA814-03, DUP01, and BHGLTA818-02

Matrix spike sample BHGLTA402-01 (in SDG 9805G833) exhibited low %R values for antimony and chromium of 35.7% and 78.1%, respectively. Antimony has been qualified "UJ" and chromium has been qualified "J" in associated samples BHGLTA404-01, BHGLTA404-02, BHGLTA404-03, BHGLTA404-04, BHGLTA404-05, and BHGLTA403-02.

Matrix Spike Duplicate - Matrix duplicate sample BHGLTA509-01 (in SDG 9805G688) exhibited acceptable RPD values. No qualifications were required.

Matrix duplicate sample BHGLTA818-04 (in SDG 9806G980) exhibited acceptable RPD values. No qualifications were required.

Matrix duplicate sample BHGLTA402-01 (in SDG 9805G833) exhibited a high RPD value for antimony of 44.6, however, all associated antimony results have already been qualified due to the matrix spike and no further qualifications were required.

Field Duplicates - Field duplicate results are summarized in the following table. Arsenic, chromium, cobalt, copper, lead, and vanadium have been qualified "J" in both samples.

Analyte	BHGLTA814-01 mg/kg	DUP01 mg/kg	RPD
Arsenic	8.5	6.2	31*
Barium	15.8	13 2	18
Chromium	4 4	3.1	35*
Cobalt	2.0	1.2	50*
Copper	3.4	2.6	27*
Lead	6 3	3 8	50*
Nickel	3.2	2.7	17
Vanadium	11 2	8 0	33*
Zinc	13 3	10.7	22

Compound Quantitation - All results between the MDL and the PQL have been qualified "F."

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the method blank, ICP serial dilution, matrix spike, field duplicates, and compound quantitation sections of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Metals SDG· 9805G744					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
BHGLTA505-02	Antimony	5.8	U	5 8	UJ
	Arsenic	25.5	B	25.5	F
	Cobalt	9 7	B	9.7	F
	Copper	9.1	B	9.1	F
	Lead	7.8	B	7.8	F
	Nickel	16.0	B	16.0	F
	Thallium	23.2	B	23.2	F
BHGLTA505-03	Antimony	2 8	U	2.8	UJ
	Beryllium	0.21	B	0.25	U
	Chromium	4.7	B	4.7	F
	Cobalt	1.6	B	1 6	F
	Copper	2.7	B	2 7	F
	Nickel	3.6	B	3.6	F
	Tin	1.7	B	8 5	U
BHGLTA505-04	Antimony	2.6	U	2.6	UJ
	Beryllium	0 08	B	0.25	U
	Chromium	2.1	B	2 1	F
	Cobalt	1.3	B	1.3	F
	Copper	2.2	B	2.2	F
	Nickel	1.7	B	1.7	F
	Tin	1 3	B	8.3	U
	Vanadium	4.6	B	4.6	F
BHGLTA505-05	Antimony	2.6	U	2.6	UJ
	Beryllium	0.13	B	0.25	U
	Chromium	2.4	B	2.4	F
	Cobalt	1.1	B	1.1	F
	Copper	1.3	B	1 3	F
	Lead	2 0	B	2.0	F
	Nickel	1.8	B	1.8	F
	Tin	1.3	B	8.4	U
	Vanadium	5 8	B	5.8	F
EB051898	Zinc	8.0	B	20.0	U
BHGLTA814-01	Antimony	5.1	U	5.1	UJ
	Arsenic	8.5	B	8.5	J
	Beryllium	0.22	B	0.51	U

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Qualification Summary Table - Metals
SDG· 9805G744

Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
	Chromium	4 4	B	4 4	J
	Cobalt	2 0	B	2 0	J
	Copper	3 4	B	3 4	J
	Lead	6.3	B	6.3	J
	Nickel	3 2	B	3 2	F
	Silver	0.45	U	0.45	UJ
	Tin	1.7	B	17.1	U
	Vanadium	11.2	B	11 2	J
	Zinc	13.3	E	13.3	J
BHGLTA814-02	Antimony	5 8	U	5.8	UJ
	Arsenic	9.4	B	9.4	F
	Cobalt	3 8	B	3.8	F
	Copper	4.6	B	4 6	F
	Lead	3.5	B	3.5	F
	Nickel	7 6	B	7.6	F
	Silver	0.50	U	0 50	UJ
	Tin	2.0	B	19.9	U
	Vanadium	27 0	-	27 0	J
	Zinc	17 8	E	17.8	J
BHGLTA814-03	Antimony	14.7	U	14 7	UJ
	Beryllium	0 45	B	1.5	U
	Chromium	10.6	B	10.6	F
	Cobalt	2 4	B	2.4	F
	Copper	3.5	B	3.5	F
	Nickel	3.3	B	3.3	F
	Silver	1 3	U	1.3	UJ
	Vanadium	24.6	B	24 6	J
	Zinc	15.0	E	15.0	J
DUP01	Antimony	5.1	U	5 1	UJ
	Arsenic	6.2	B	6 2	U
	Beryllium	0 15	B	0 53	U
	Chromium	3.1	B	3 1	J
	Cobalt	1.2	B	1.2	J
	Copper	2.6	B	2.6	J
	Lead	3.8	B	3.8	J
	Nickel	2.7	B	2.7	F
	Silver	0 45	U	0.45	UJ
	Vanadium	8 0	B	8.0	J
	Zinc	10.7	E	10.7	J
BHGLTA404-01	Antimony	2 9	U	2 9	UJ
	Arsenic	15.1	B	15.1	F
	Chromium	19.4	-	19.4	J
	Cobalt	6 2	B	6.2	F
	Lead	8.2	B	8 2	F
	Nickel	12 6	B	12.6	J
	Selenium	7.5	B	7.5	F
	Tin	1.1	B	9.7	U
	Thallium	13.4	B	13 4	F
BHGLTA404-02	Antimony	6.1	U	6.1	UJ

Qualification Summary Table - Metals
SDG 9805G744

Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
	Arsenic	15.9	B	15.9	F
	Chromium	22.7	-	22.7	J
	Cobalt	4.8	B	4.8	F
	Copper	9.5	B	9.5	F
	Lead	5.0	B	5.0	F
	Nickel	14.3	B	14.3	J
	Tin	1.9	B	17.8	U
	Thallium	12 3	B	12.3	F
BHGLTA404-03	Antimony	2.6	U	2 6	UJ
	Beryllium	0.13	B	0 26	U
	Chromium	3.2	B	3.2	J
	Cobalt	1.3	B	1.3	F
	Copper	1 5	B	1.5	F
	Lead	2 1	B	2.1	F
	Nickel	2.2	B	2.2	J
	Tin	1 7	B	8.7	U
BHGLTA404-04	Antimony	2 6	U	2 6	UJ
	Arsenic	2.6	B	2.6	F
	Beryllium	0 12	B	0.25	U
	Chromium	2.3	B	2.3	J
	Cobalt	1 4	B	1 4	F
	Copper	2 0	B	2.0	F
	Lead	2.7	B	2.7	F
	Nickel	2.1	B	2.1	J
	Tin	1.5	B	8.5	U
	Vanadium	6 4	B	6.4	F
BHGLTA404-05	Antimony	2.6	U	2 6	UJ
	Beryllium	0.09	B	0.26	U
	Chromium	2.2	B	2.2	J
	Cobalt	0.81	B	0.81	F
	Copper	1.1	B	1.1	F
	Nickel	1 4	B	1.4	J
	Tin	1 4	B	8.5	U
	Vanadium	5 0	B	5.0	F
BHGLTA403-02	Antimony	2.8	U	2.8	UJ
	Arsenic	5.9	B	5.9	F
	Chromium	7.5	-	7.5	J
	Cobalt	3.1	B	3.1	F
	Copper	5.1	B	5 1	F
	Lead	5.9	B	5 9	F
	Nickel	6.3	B	6.3	J
	Tin	2 0	B	8 8	U
	Thallium	7.0	B	7.0	F
EB052098	Zinc	4.9	B	20.0	U
BHGLTA818-02	Antimony	2.7	U	2.7	UJ
	Arsenic	8.2	B	8.2	F
	Cobalt	3 4	B	3.4	F
	Copper	4.8	B	4.8	F

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Qualification Summary Table - Metals SDG. 9805G744					
Sample No.	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
	Lead	4.6	B	4.6	F
	Nickel	6.8	B	6 8	F
	Selenium	2.7	B	2 7	F
	Silver	0 24	U	0.24	UJ
	Tin	1.6	B	8.9	U
	Thallium	13.4	B	13.4	F
	Vanadium	21 0	-	21.0	J
	Zinc	17.5	E	17.5	J

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APPENDIX IX POLYCHLORINATED DIBENZODIOXINS and POLYCHLORINATED DIBENZOFURANS (PCDD/PCDF)
USEPA SW846 Method 8280
USEPA Level III Review

Site. Naval Air Station Fort Worth JRB, Texas SDG #: 9805G744

Client: HydroGeoLogic, Inc. Date: September 30, 1998

Laboratory: RECRA LabNet - Philadelphia Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA505-02	9805G744-001	Soil
BHGLTA505-03	9805G744-002	Soil
BHGLTA505-04	9805G744-003	Soil
BHGLTA505-05	9805G744-004	Soil
EB051898	9805G744-005	Water
BHGLTA814-01	9805G744-006	Soil
BHGLTA814-02	9805G744-007	Soil
BHGLTA814-03	9805G744-008	Soil
DUP01	9805G744-011	Soil
BHGLTA404-01	9805G744-012	Soil
BHGLTA404-02	9805G744-013	Soil
BHGLTA404-03	9805G744-014	Soil
BHGLTA404-04	9805G744-015	Soil
BHGLTA404-05	9805G744-016	Soil
BHGLTA403-02	9805G744-017	Soil
EB052098	9805G744-018	Water
BHGLTA818-02	9805G744-020	Soil

Holding Times - All samples were extracted within 30 days of collection and analyzed within the recommended holding time of 45 days as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 3/26/98 and 4/1/98 exhibited acceptable %RSD values of less than 15% for the RFs. All ICAL ion abundance ratios met QC acceptance criteria. No qualifications were required.

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Continuing Calibration - The continuing calibrations analyzed on 6/3/98, 6/4/98, and 6/5/98 exhibited acceptable %D values and ion abundance ratios within QC acceptance criteria and no qualifications were required.

Column Performance Check - Resolution check criteria were met since the valley was less than 25%

Surrogates - All surrogate recovery values met QC acceptance criteria and no qualifications were required.

Method Blanks - The soil and water method blanks were free of contamination and no qualifications were required.

Field. equipment blanks - Equipment blanks EB051898 and EB052098 were free of contamination and no qualifications were required.

Internal Standards - The internal standards met QC acceptance criteria and no qualifications were required.

MS/MSD - MS/MSD sample BHGLTA509-01 (in SDG 9805G688) exhibited acceptable %R and RPD values. No qualifications were required.

MS/MSD sample BHGLTA818-04 (in SDG 9806G980) exhibited acceptable %R and RPD values. No qualifications were required.

MS/MSD sample BHGLTA402-01 (in SDG 9805G833) exhibited acceptable %R and RPD values. No qualifications were required.

Laboratory Control Sample/Duplicate - The soil and water LCS samples exhibited acceptable %R values within the QC acceptance criteria and no qualifications were required.

Field Duplicates - Field duplicate samples BHGLTA814-01 and DUP01 were non-detect and no qualifications were required.

Compound Quantitation - No discrepancies were identified. All sample results were non-detect.

Comments - The analyses of environmental samples and quality control samples are valid. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Dioxins SDG: 9805G744					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc	Qualifier
None Qualified					

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SULFIDE
USEPA SW846 Method 9030
USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas SDG #: 9805G744

Client: HydroGeoLogic, Inc. Date: September 30, 1998

Laboratory: RECRA LabNet - Chicago Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA505-02	9805G744-001	Soil
BHGLTA505-03	9805G744-002	Soil
BHGLTA505-04	9805G744-003	Soil
BHGLTA505-05	9805G744-004	Soil
EB051898	9805G744-005	Water
BHGLTA814-01	9805G744-006	Soil
BHGLTA814-02	9805G744-007	Soil
BHGLTA814-03	9805G744-008	Soil
DUP01	9805G744-011	Soil
BHGLTA404-01	9805G744-012	Soil
BHGLTA404-02	9805G744-013	Soil
BHGLTA404-03	9805G744-014	Soil
BHGLTA404-04	9805G744-015	Soil
BHGLTA404-05	9805G744-016	Soil
BHGLTA403-02	9805G744-017	Soil
EB052098	9805G744-018	Water
BHGLTA818-02	9805G744-020	Soil

Holding Times - All samples were analyzed within the recommended holding time of 7 days as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 with the exception of samples EB051898 and BHGLTA818-02 which were analyzed at 18 and 17 days, respectively. Sulfide has been qualified "UJ" in both samples since both results are non-detect.

Method and Calibration Blanks - The method blanks were free of contamination. No qualifications were required.

Field and Equipment Blank - Equipment blanks EB051898 and EB052098 were free of contamination. No qualifications were required.

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LCS - The LCS samples exhibited acceptable %R values. No qualifications were required.

Matrix Spike/Duplicate - MS/MSD sample BHGLTA509-01 (in SDG 9805G688) exhibited acceptable %R and RPD values. No qualifications were required.

MS/MSD sample BHGLTA818-04 (in SDG 9806G980) exhibited acceptable %R and RPD values. No qualifications were required.

MS/MSD sample BHGLTA402-01 (in SDG 9805G833) exhibited acceptable %R and RPD values. No qualifications were required.

Field Duplicates - Field duplicate results are summarized in the table below. Sulfide has been qualified "J/UJ" in both samples.

Analyte	BHGLTA814-01 mg/kg	DUP01 mg/kg	RPD
Sulfide	24 3U	37 5	200

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the holding times and field duplicate sections of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Sulfide SDG: 9805G744					
Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
EB051898	Sulfide	1 0	U	1 0	UJ
BHGLTA814-01	Sulfide	24 3	U	24.3	UJ
DUP01	Sulfide	37 5	-	37 5	J
BHGLTA818-02	Sulfide	26.8	U	26.8	UJ

Environmental Data Services, Inc.

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FAX: 603-226-0128
email EnvData@aol com

APPENDIX IX VOLATILE ORGANIC COMPOUNDS
USEPA SW846 Method 8260B - Level III Review

Site: Naval Air Station Fort Worth - DO2 SDG #: 9910G245

Client: HydroGeoLogic, Inc. Date: November 6, 1999

Laboratory: Severn Trent Laboratories, Chicago, IL Reviewer: Cathy Shelby

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA407-05	9910G245-001	Soil
BHGLTA407-04	9910G245-002	Soil
BHGLTA407-03	9910G245-003	Soil
BHGLTA407-03RE	9910G245-003RE	Soil
DUP002	9910G245-004	Soil
BHGLTA407-02	9910G245-005	Soil
BHGLTA407-02MS	9910G245-005MS	Soil
BHGLTA407-02MSD	9910G245-005MSD	Soil
TB100599	9910G245-006	Water
EB100599	9910G245-007	Water

Holding Times - All samples were analyzed within the recommended holding time of 14 days for preserved water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 No qualifications were required.

GC/MS Tuning - All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 05/31/99-10/06/99 and 01/24/99-10/09/99 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

Continuing Calibration - The continuing calibration analyzed on 10/14/99 (0947) exhibited acceptable %D values. No qualifications were required.

The continuing calibration analyzed on 10/14/99 (0854) exhibited high %D values for methylene chloride and 1,1,2-trichloroethane of 27 0% and 28.2%, respectively. Both compounds have been rejected (R) in samples BHGLTA407-05, BHGLTA407-04, BHGLTA407-03 and DUP02.

The continuing calibration analyzed on 10/15/99 exhibited a high %D value for 1,1,2-trichloroethane of 27.9%. 1,1,2-Trichloroethane has been rejected (R) in sample BHGLTA407-02.

Surrogates - Sample BHGLTA407-03 exhibited high %R values for surrogate compounds 1,2-dichloroethane-d4 and dibromofluoromethane of 190% and 147%, respectively, however, all results for this sample have already been qualified due to calibration and internal standard problems and no further qualifications were required.

Laboratory Control Samples - LCS samples VBLKWEBS, VBLKWCBS and VBLKWABS exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA407-02 exhibited high RPD values for acetone, 2-butanone and 4-methyl-2-pentanone of 59%, 47% and 32%, however, all associated results are non-detect and no qualifications were required.

Internal Standard (IS) Area Performance - Sample BHGLTA407-03 exhibited low area counts for all four internal standards. All results have been qualified (J/UJ) in this sample.

Method Blank - Method blanks VBLKWE (10/14/99), VBLKWC (10/15/99) and VBLKWA (10/14/99) were free of contamination. No qualifications were required.

Trip, field, equipment blank - Trip blank TB100599 was free of contamination No qualifications were required.

Equipment blank EB100599 exhibited acetone contamination at 3 ug/L, however, all associated results are non-detect and no qualifications were required.

Field Duplicates - Field duplicate results are summarized in the following table. Tetrachloroethene has been qualified (J) in both samples.

Compound	BHGLTA407-03 ug/kg	DUP02 ug/kg	RPD
Tetrachloroethene	12	2J	143

Tentatively Identified Compounds (TICs) - TICs were not detected in the samples.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the internal standard and field duplicate sections of this report with the exception of two compounds which were rejected in several samples due to calibration problems. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Additional Comment - Sample BHGLTA407-03 was reanalyzed and the Form Is for the reanalysis were included in the data package. However, there is no evidence in the data package when the sample was analyzed or what QC was associated with the sample. The case narrative states the internal standards were low for the original and reanalysis sample, therefore, the original sample results should be used for reporting purposes.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Volatiles
SDG: 9910G245

Sample No.	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
BHGLTA407-05	Methylene chloride	2	U	2	R
	1,1,2-Trichloroethane	5	U	5	R
BHGLTA407-04	Methylene chloride	2	U	2	R
	1,1,2-Trichloroethane	5	U	5	R
BHGLTA407-03	Methylene chloride	2	U	2	R
	1,1,2-Trichloroethane	6	U	6	R
	Tetrachloroethene	12	-	12	J
	All other compounds	--	U	-	UJ
DUP002	Methylene chloride	2	U	2	R
	1,1,2-Trichloroethane	6	U	6	R
	Tetrachloroethene	2	J	2	~~J~~ F
BHGLTA407-02	1,1,2-Trichloroethane	6	U	6	R

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APPENDIX IX
SEMIVOLATILE ORGANIC COMPOUNDS - REVISED
USEPA SW846 Method 8270C - Level III Review

Site: Naval Air Station Fort Worth - DO2 SDG #: 9910G245

Client: HydroGeoLogic, Inc. Date. November 29, 1999

Laboratory: Severn Trent Laboratories, Chicago, IL Reviewer· Cathy Shelby

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA407-05	9910G245-001	Soil
BHGLTA407-04	9910G245-002	Soil
BHGLTA407-03	9910G245-003	Soil
BHGLTA407-02	9910G245-004	Soil
BHGLTA407-02MS	9910G245-004MS	Soil
BHGLTA407-02MSD	9910G245-004MSD	Soil
EB100599	9910G245-007	Water
EB100499	9910G245-008	Water
BHGLTA408-01	9910G245-009	Soil
BHGLTA408-01DL1	9910G245-009DL	Soil
BHGLTA408-01DL2	9910G245-009DL2	Soil
BHGLTA408-01DL3	9910G245-009DL3	Soil
BHGTLA408-01MS	9910G245-009MS	Soil
BHGLTA408-01MSD	9910G245-009MSD	Soil
DUP01	9910G245-010	Soil
DUP01DL1	9910G245-010DL1	Soil
DUP01DL2	9910G245-010-DL2	Soil
DUP01DL3	9910G245-010-DL3	Soil

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soil samples and analyzed within the recommended holding time of 40 days for all samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

GC/MS Tuning - All of the DFTPP tunes in the initial and continuing calibrations met the percent relative abundance criteria. No qualifications were required.

Initial Calibration - The initial calibrations analyzed 02/24/99-10/12/99 and 01/27/99-10/08/99 exhibited acceptable %RSD values. No qualifications were required.

Continuing Calibration - The continuing calibrations analyzed on 10/19/99, 10/12/99, 10/15/99 and 10/21/99 exhibited acceptable %D and RRF values No qualifications were required

Surrogates - All samples exhibited acceptable surrogate %R values. No qualifications were required.

Laboratory Control Samples - LCS samples SBLKCOBS and SBLKCEBS exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA407-02 exhibited a high RPD value for benzoic acid of 40%, however, this compounds is non-detect in all associated samples and no qualifications were required.

MS/MSD sample BHGLTA408-01 exhibited numerous %R and RPD values outside of QC criteria. Several of the compounds were not qualified since the sample amount was greater than 4X the spike amount (as stated in the QAPP, Table 8.2-2, Footnote b). The qualifications apply to samples BHGLTA408-01 and DUP01 and their corresponding dilution samples.

Compound	MS %R	MSD %R	RPD	Qualifier
Naphthalene	Ok	Ok	33%	J
2-Methylnaphthalene	147%	Ok	52%	J
Acenaphthene	Ok	Ok	49%	J
Dibenzofuran	Ok	Ok	38%	J
Fluorene	Ok	Ok	38%	J
4,6-Dinitro-2-methylphenol	0%	0%	Ok	J/R
Phenanthrene	Ok	-92%	999%	None
Anthracene	540%	Ok	174%	J
Fluoranthene	-201%	-348%	999%	None
Pyrene	-15%	-348%	999%	None
Butylbenzylphthalate	Ok	4%	187%	J/R
Benzo(a)anthracene	-41%	-210%	999%	None
3,3'-Dichlorobenzidine	0%	0%	Ok	J/R
Chrysene	147%	13%	168%	None
Bis(2-ethylhexyl)phthalate	154%	Ok	36%	J
Benzo(b)fluoranthene	167%	-220%	999%	None
Benzo(k)fluoranthene	Ok	Ok	553%	J
Benzo(a)pyrene	Ok	-68%	27400%	None
Indeno(1,2,3-cd)pyrene	Ok	-22%	828%	J/UJ
Dibenz(a,h)anthracene	Ok	28%	81%	J/UJ
Benzo(g,h,i)perylene	179%	20%	160%	J/UJ
Benzoic Acid	Ok	8%	72%	J/R

Internal Standard (IS) Area Performance - All internal standards met response and retention time (RT) criteria No qualifications were required.

Method Blank - Method blanks SBLKCO (10/14/99) and SBLKCE (10/08/99) were free of contamination. No qualifications were required.

Field, equipment blank - Equipment blank EB100499 exhibited di-n-butylphthalate contamination at 4 ug/L, however, all associated results are non-detect and no qualifications were required.

Equipment blank EB100599 exhibited di-n-butylphthalate contamination at 4 ug/L, however, all associated results are non-detect and no qualifications were required.

Field Duplicates - Field duplicate results are summarized in the following table. Naphthalene, 2-methylnaphthalene and dibenzofuran have already been qualified due to the MS/MSD and no further qualifications were required.

Compound	BHGLTA408-01 ug/kg	DUP01 ug/kg	RPD
Naphthalene	400	620	43*
2-Methylnaphthalene	180	270	40*
Acenaphthene	1900	2400	23
Dibenzofuran	920	1300	34*
Fluorene	1800	2200	20
Phenanthrene	26000	35000	30
Anthracene	4000	5300	28
Fluoranthene	60000	58000	3
Pyrene	45000	45000	0
Benzo(a)anthracene	20000	19000	5
Chrysene	20000	21000	5
Bis(2-ethylhexyl)phthalate	340U	98	NC
Benzo(b)fluoranthene	29000	28000	4
Benzo(k)fluoranthene	6200	7000	12
Benzo(a)pyrene	20000	20000	0
Indeno(1,2,3-cd)pyrene	11000	10000	10
Dibenz(a,h)anthracene	2800	2600	7
Benzo(g,h,i)perylene	13000	10000	26

Tentatively Identified Compounds (TICs) - All TICs were qualified (T).

Compound Quantitation - Samples BHGLTA408-01 and DUP01 exhibited several compounds which exceeded the linear range of the instrument and were flagged (E) by the laboratory. The samples were diluted and reanalyzed three times and all final results for these compounds were added the to original Form I results. All results on the original Form Is should be used for reporting purposes. All results flagged (E) by the laboratory and not replaced on the Form I have been qualified as estimated (J).

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the MS/MSD section of this report with the exception of four compounds which were rejected in two samples due to the low MS/MSD recoveries The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Semivolatiles SDG 9910G245					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
BHGLTA408-01	Naphthalene	400	-	400	J
	2-Methylnaphthalene	180	J	180	~~J~~ F
	Acenaphthene	1900	-	1900	J
	Dibenzofuran	920	-	920	J
	Fluorene	1800	-	1800	J
	4,6-Dinitro-2-methylphenol	1700	U	1700	R
	Anthracene	4000	-	4000	J
	Butylbenzylphthalate	340	U	340	R
	3,3'-Dichlorobenzidine	690	U	690	R
	Benzo(k)fluoranthene	6800	E	6200	J
	Indeno(1,2,3-cd)pyrene	10000	E	11000	J
	Dibenz(a,h)anthracene	2800	-	2800	J
	Benzo(g,h,i)perylene	10000	E	13000	J
	Benzoic Acid	1700	U	1700	R
BHGLTA408-01DL1	4,6-Dinitro-2-methylphenol	3400	U	3400	R
	Phenanthrene	25000	DE	25000	J
	Fluoranthene	51000	DE	51000	J
	Pyrene	48000	DE	48000	J
	Butylbenzylphthalate	690	U	690	R
	Benzo(a)anthracene	22000	DE	22000	J
	3,3'-Dichlorobenzidine	1400	U	1400	R
	Chrysene	21000	DE	21000	J
	Benzo(b)fluoranthene	32000	DE	32000	J
	Benzo(k)fluoranthene	6200	D	6200	J
	Benzo(a)pyrene	18000	DE	18000	J
	Indeno(1,2,3-cd)pyrene	11000	D	11000	J
	Dibenz(a,h)anthracene	690	U	690	UJ

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Qualification Summary Table - Semivolatiles SDG· 9910G245					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
	Benzo(g,h,i)perylene	11000	DE	11000	J
	Benzoic Acid	3400	U	3400	R
BHGLTA408-01DL2	4,6-Dinitro-2-methylphenol	8600	U	8600	R
	Fluoranthene	55000	DE	55000	J
	Pyrene	45000	DE	45000	J
	Butylbenzylphthalate	1700	U	1700	R
	3,3'-Dichlorobenzidine	3400	U	3400	R
	Benzo(b)fluoranthene	29000	DE	29000	J
	Indeno(1,2,3-cd)pyrene	1700	U	1700	UJ
	Dibenz(a,h)anthracene	1700	U	1700	UJ
	Benzo(g,h,i)perylene	13000	D	13000	J
	Benzoic Acid	8600	U	8600	R
BHGLTA408-01DL3	4,6-Dinitro-2-methylphenol	34000	U	34000	R
	Butylbenzylphthalate	6900	U	6900	R
	3,3'-Dichlorobenzidine	6900	U	6900	R
	Indeno(1,2,3-cd)pyrene	6900	U	6900	UJ
	Dibenz(a,h)anthracene	6900	U	6900	UJ
	Benzo(g,h,i)perylene	6900	U	6900	UJ
	Benzoic Acid	34000	U	34000	R
DUP01	Naphthalene	620	-	620	J
	2-Methylnaphthalene	270	J	270	~~J~~ F
	Acenaphthene	2400	-	2400	J
	Dibenzofuran	1300	-	1300	J
	Fluorene	2200	-	2200	J
	4,6-Dinitro-2-methylphenol	1800	U	1800	R
	Anthracene	5300	-	5300	J
	Butylbenzylphthalate	350	U	350	R
	3,3'-Dichlorobenzidine	700	U	700	R
	Bis(2-ethylhexyl)phthalate	98	J	98	~~J~~ F
	Benzo(k)fluoranthene	6900	E	7000	J
	Indeno(1,2,3-cd)pyrene	8800	E	10000	J
	Dibenz(a,h)anthracene	2600	-	2600	J
	Benzo(g,h,i)perylene	9600	E	10000	J
	Benzoic Acid	1800	U	1800	R
DUP01DL1	4,6-Dinitro-2-methylphenol	3500	U	3500	R
	Phenanthrene	27000	DE	27000	J
	Anthracene	4900	D	4900	J
	Fluoranthene	47000	DE	47000	J
	Pyrene	44000	DE	44000	J
	Butylbenzylphthalate	700	U	700	R
	Benzo(a)anthracene	20000	DE	20000	J
	3,3'-Dichlorobenzidine	1400	U	1400	R
	Chrysene	18000	DE	18000	J
	Benzo(b)fluoranthene	30000	DE	30000	J
	Benzo(k)fluoranthene	7000	D	7000	J
	Benzo(a)pyrene	17000	DE	17000	J
	Indeno(1,2,3-cd)pyrene	10000	D	10000	J
	Dibenz(a,h)anthracene	700	U	700	UJ
	Benzo(g,h,i)perylene	10000	D	10000	J

Qualification Summary Table - Semivolatiles SDG: 9910G245					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
	Benzoic Acid	3500	U	3500	R
DUP01DL2	4,6-Dinitro-2-methylphenol	8800	U	8800	R
	Phenanthrene	30000	DE	30000	J
	Fluoranthene	49000	DE	49000	J
	Pyrene	42000	DE	42000	J
	Butylbenzylphthalate	1800	U	1800	R
	3,3'-Dichlorobenzidine	3500	U	3500	R
	Indeno(1,2,3-cd)pyrene	1800	U	1800	UJ
	Dibenz(a,h)anthracene	1800	U	1800	UJ
	Benzo(g,h,i)perylene	1800	U	1800	UJ
	Benzoic Acid	8800	U	8800	R
DUP01DL3	4,6-Dinitro-2-methylphenol	35000	U	35000	R
	Butylbenzylphthalate	7000	U	7000	R
	3,3'-Dichlorobenzidine	14000	U	14000	R
	Indeno(1,2,3-cd)pyrene	7000	U	7000	UJ
	Dibenz(a,h)anthracene	7000	U	7000	UJ
	Benzo(g,h,i)perylene	7000	U	7000	UJ
	Benzoic Acid	35000	U	35000	R

6761151 Received 1/20/00 Flags Applied 1/31/00 JW

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APPENDIX IX VOLATILE ORGANIC COMPOUNDS

USEPA SW846 Method 8260B - USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas - D02 SDG #: 9910G290

Client: HydroGeoLogic, Inc. Date: December 30, 1999

Laboratory: Severn Trent Laboratories, Chicago, IL Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
EB100799	9910G290-001	Water
TB100799	9910G290-002	Water
BHGLTA082-02	9910G290-009	Soil
BHGLTA082-03	9910G290-010	Soil
BHGLTA082-04	9910G290-011	Soil
BHGLTA083-03	9910G290-012	Soil
BHGLTA083-04	9910G290-013	Soil
BHGLTA083-05	9910G290-014	Soil

Holding Times - All samples were analyzed within the recommended holding time of 14 days for preserved water samples and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required

GC/MS Tuning - All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria. No qualifications were required

Initial Calibration - The initial calibrations analyzed 5/31/99-10/6/99 exhibited acceptable %RSD and mean RRF values. No qualifications were required

The initial calibrations analyzed 5/13/99-9/22/99 exhibited acceptable %RSD and mean RRF values No qualifications were required.

Continuing Calibration - The continuing calibration analyzed on 10/15/99 exhibited high %D values for 1,1,2-trichloroethane and 1,2-dibromoethane of 27.9% and 25.6%, respectively. Both compounds have been rejected "R" in associated samples BHGLTA082-02, BHGLTA082-04, BHGLTA083-03, BHGLTA083-04 and BHGLTA083-05.

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The continuing calibration analyzed on 10/16/99 exhibited acceptable %D values. No qualifications were required.

The continuing calibration analyzed on 10/18/99 exhibited high %D values for trichlorofluoromethane and 1,2-dibromo-3-chloropropane of 35 1% and 29.2%, respectively. Both compounds have been rejected "R" in associated samples EB100799 and TB100799.

Surrogates - All samples exhibited acceptable surrogate %R values. No qualifications were required.

Laboratory Control Samples - LCS samples VBLKZL, VBLKWC and VBLKTL exhibited acceptable %R values. No qualifications were required.

MS/MSD - An MS/MSD sample was not analyzed with this data package.

Internal Standard (IS) Area Performance - All internal standards met response and retention time (RT) criteria. No qualifications were required.

Method Blank - Method blanks VBLKTL (10/16/99), VBLKZL (10/18/99), and VBLKWC (10/15/99) were free of contamination. No qualifications were required.

Trip, field, equipment blank - Trip blank TB100799 (10/18/99) was free of contamination. No qualifications were required.

Equipment blank EB100799 (10/18/99) was free of contamination. No qualifications were required.

Field Duplicates - Field duplicate samples were not collected with this data package.

Tentatively Identified Compounds (TICs) - TICs were not reported in any of the samples

Compound Quantitation - Several compounds in several samples were qualified "F" since the results were between the MDL and the PQL.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the continuing calibration and compound quantitation sections of this report with the exception of several rejections due to the continuing calibration problems. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Volatiles SDG 9910G290					
Sample No.	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
EB100799	Trichlorofluoromethane	0 5	U	0 5	R
	1,2-Dibromo-3-chloropropane	0 5	U	0 5	R
TB100799	Trichlorofluoromethane	0 5	U	0 5	R
	1,2-Dibromo-3-chloropropane	0 5	U	0 5	R
BHGLTA082-02	1,1,2-Trichloroethane	6	U	6	R
	1,2-Dibromoethane	3	U	3	R
BHGLTA082-03	Trichloroethane ethene	3	J	3	F
BHGLTA082-04	1,1,2-Trichloroethane	5	U	5	R
	1,2-Dibromoethane	3	U	3	R
BHGLTA083-03	1,1,2-Trichloroethane	5	U	5	R
	1,2-Dibromoethane	3	U	3	R
BHGLTA083-04	1,1,2-Trichloroethane	5	U	5	R
	1,2-Dibromoethane	3	U	3	R
BHGLTA083-05	1,1,2-Trichloroethane	5	U	5	R
	1,2-Dibromoethane	3	U	3	R

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ENVIRONMENTAL
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Received 1/20/00
Flags Applied 1/31/00 JW

APPENDIX IX SEMIVOLATILE ORGANIC COMPOUNDS

USEPA SW846 Method 8270C - USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas - DO2 SDG #: 9910G290

Client HydroGeoLogic, Inc. Date: December 30, 1999

Laboratory: Severn Trent Laboratories, Chicago, IL Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
EB100799	9910G290-001	Water
BHGLTA821-01	9910G290-003	Soil
BHGLTA821-04	9910G290-004	Soil
BHGLTA820-04	9910G290-005	Soil
BHGLTA820-01	9910G290-006	Soil
BHGLTA819-02	9910G290-007	Soil
BHGLTA081-01	9910G290-008	Soil

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soil samples and analyzed within the recommended holding time of 40 days for water and soil samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 No qualifications were required

GC/MS Tuning - All of the DFTPP tunes in the initial and continuing calibrations met the percent relative abundance criteria No qualifications were required.

Initial Calibration - The initial calibrations analyzed 02/24/99-10/27/99 exhibited acceptable %RSD and mean RRF values. No qualifications were required

The initial calibrations analyzed 2/3/99-10/26/99 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

The initial calibrations analyzed 1/27/99-10/8/99 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

Continuing Calibration - The continuing calibration analyzed on 11/02/99 exhibited a high %D value for hexachlorocyclopentadiene of 28 9%. This compound has been rejected (R) in associated sample BHGLTA820-01.

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The continuing calibrations analyzed on 10/12/99 and 10/27/99 exhibited acceptable %D values. No qualifications were required.

Surrogates - All samples exhibited acceptable surrogate %R values. No qualifications were required.

Laboratory Control Samples - LCS samples SBLKCK and SBLKDF exhibited acceptable %R values. No qualifications were required.

MS/MSD - A MS/MSD sample was not analyzed with this data package.

Internal Standard (IS) Area Performance - Internal standard criteria have been met and no action has been taken.

Method Blank - Method blanks SBLKCK (10/11/99) and SBLKDF (10/21/99) were free of contamination. No qualifications were required

Field. equipment blank - Equipment blank EB100799 exhibited di-n-butylphthalate at 5ug/L, however, all associated results are non-detect or greater than 10X the blank concentration and no qualifications were required

Field Duplicates - Field duplicate samples were not collected with this data package.

Tentatively Identified Compounds (TICs) - All TIC results have been qualified (T).

Compound Quantitation - All results between the MDL and the PQL have been qualified (F).

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the continuing calibration, TICs, and compound quantitation sections of this report with the exception of one rejection due to continuing calibration problems The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Semivolatiles SDG 99910G290					
Sample No.	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
EB100799	Di-n-butylphthalate	5	J	5	F
BHGLTA821-01	Fluoranthene	160	J	160	F
	Benzo (b) fluoranthene	140	J	140	F
	Indeno (1,2,3-cd) pyrene	300	J	300	F
BHGLTA820-01	Hexachlorocyclopentadiene	350	U	350	R
	Phenanthrene	110	J	110	F
	Benzo (k) fluoranthene	270	J	270	F
	Benzo (g,h,i) perylene	320	J	320	F
BHGLTA819-02	Bis (2-Ethylhexyl) phthalate	200	J	200	F
BHGLTA081-01	Indeno (1,2,3-cd) pyrene	260	J	260	F

Flags Applied 1/31/00 UCW
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APPENDIX IX METALS (Barium and Lead Only)
USEPA SW846 Method 6010A - USEPA Level III Review

Site. Naval Air Station Fort Worth JRB, Texas - DO2 SDG #: 9910G290

Client· HydroGeoLogic, Inc. Date: December 30, 1999

Laboratory· Severn Trent Laboratories, Chicago, IL Reviewer. Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
EB100799	9910G290-001	Water
BHGLTA821-01	9910G290-003	Soil
BHGLTA820-01	9910G290-006	Soil
BHGLTA080-01	9910G290-008	Soil

Holding Times - All samples were extracted and analyzed within the recommended holding time of 180 days for all metals as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required

Calibration - All initial and continuing calibration verifications exhibited acceptable %R values. No qualifications were required

Method Blanks - Water preparation blanks PBW (11/04/99) and (11/10/99) were free of contamination No qualifications were required.

Soil preparation blank PBS (11/04/99) was free of contamination. No qualifications were required

Soil preparation blank PBS (11/16/99) exhibited lead contamination at 3 175 mg/kg, however all associated results were greater than 5X the blank concentration and no qualifications were required

Field and equipment blank - Equipment blank EB100799 exhibited barium contamination at 0.60 ug/L, however, all associated results are greater than 5X the blank concentration and no qualifications were required.

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ICP Interference Check Sample - All % recovery values met the QC acceptance criteria. No qualifications were required.

LCS - The LCS analysis met the QC acceptance criteria of as specified in the QAPP. No qualifications were required.

ICP Serial Dilutions - An ICP serial dilution sample was not analyzed with this data package.

Matrix Spike - A matrix spike sample was not analyzed with this data package.

Matrix Spike Duplicate - A matrix duplicate sample was not analyzed with this data package.

Field Duplicates - Field duplicate samples were not collected with this data package.

Compound Quantitation - All results between the MDL and the PQL have been qualified (F).

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the compound quantitation section of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Metals SDG 9910G290					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
EB100799	Barium	0 60	B	0 60	F
BHGLTA821-01	Lead	17 1	B	17 1	F

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APPENDIX IX ORGANOPHOPHORUS PESTICIDES

USEPA SW846 Method 8141 - USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas, DO2 SDG #. 9910G320

Client. HydroGeoLogic, Inc. Date: January 7, 2000

Laboratory: Severn Trent Laboratories, Chicago, IL Reviewer. Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA822-01	9910G320-003	Soil
BHGLTA822-01MS	9910G320-003MS	Soil
BHGLTA822-01MSD	9910G320-003MSD	Soil
BHGLTA822-01RE	9910G320-003RE	Soil
BHGLTA822-02	9910G320-004	Soil
BHGLTA822-02RE	9910G320-004RE	Soil
BHGLTA822-03	9910G320-005	Soil
BHGLTA822-03RE	9910G320-005RE	Soil
BHGLTA822-04	9910G320-006	Soil
BHGLTA822-04RE	9910G320-006RE	Soil
BHGLTA822-05	9910G320-007	Soil
BHGLTA822-05RE	9910G320-007RE	Soil
BHGLTA831-01	9910G320-008	Soil
BHGLTA831-01RE	9910G320-008RE	Soil
BHGLTA831-02	9910G320-009	Soil
BHGLTA831-02RE	9910G320-009RE	Soil
BHGLTA831-03	9910G320-010	Soil
BHGLTA831-03RE	9910G320-010RE	Soil
BHGLTA831-04	9910G320-011	Soil
BHGLTA831-04RE	9910G320-011RE	Soil
BHGLTA831-05	9910G320-012	Soil
BHGLTA831-05RE	9910G320-012RE	Soil
DUP03	9910G320-013	Soil
DUP03RE	9910G320-013RE	Soil
EB100899	9910G320-014	Water

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soil samples and analyzed within the recommended holding time of 40 days for all samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 with the exception of all reanalyzed samples which were extracted 12 days outside of holding times. All results have been qualified (J/UJ) in all reanalyzed samples. All original analysis sample results should be used for reporting purposes.

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Initial Calibration - The initial calibrations analyzed on 10/27/99, 10/31/99 and 11/05/99 exhibited acceptable %RSD values of less than 20% and/or correlation coefficients of >0 995 No qualifications were required

Continuing Calibration Verification - The continuing calibration verifications analyzed on 10/28/99, 10/31/99, 11/01/99, 11/05/99 and 11/06/99 exhibited acceptable %D values. No qualifications were required.

Method Blank - Method blanks PBLKNH (10/15/99), PBLKRU (10/21/99) and PBLKTL (11/03/99) were free of contamination. No qualifications were required.

Field. equipment blank - Equipment blank EB100899 was free of contamination No qualifications were required.

Surrogates - Samples BHGLTA822-01, BHGLTA822-03RE, BHGLTA822-04, BHGLTA822-04RE, BHGLTA822-05, BHGLTA822-05RE, BHGLTA831-01, BHGLTA831-01RE, BHGLTA831-05RE and DUP03RE exhibited low %R values for surrogate compound TPP of 62%. 56%, 50%, 43%, 52%, 38%, 64%, 51%, 54% and 58%, respectively. All results for the above original analysis samples have been qualified (J/UJ) All results for the above reanalyzed samples have already been qualified due to holding times and no further qualifications were required

Laboratory Control Samples - LCS sample PBLKNHBS exhibited acceptable %R values. No qualifications were required

LCS sample PBLKRUBS exhibited a low %R value for disulfoton of 12%. Disulfoton has been qualified (J/R) in all original analysis soil samples.

LCS sample PBLKTLBS exhibited a low %R value for disulfoton of 0%. Disulfoton has been qualified (J/R) in all reanalyzed soil samples

MS/MSD - MS/MSD sample BHGLTA822-01 exhibited low MS/MSD %R values for dimethoate and famphur of 44%/66% and 53%/59%, respectively. Dimethoate and famphur have been qualified (J/UJ) in all original analysis soil samples.

Field Duplicates - Field duplicate results for samples BHGLTA831-01 and DUP03 are non-detect. No qualifications were required.

Compound Identification - The retention times met the QC acceptance criteria and no qualifications were required.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the holding times, surrogate, LCS and MS/MSD sections of this report with the exception of non-detect disulfoton results which were rejected in all soil samples due to low LCS recoveries. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - OP Pesticides SDG 9805G744					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
BHGLTA822-01	Disulfoton	67	U	67	R
	All other Results	67	U	67	UJ
BHGLTA822-01RE	Disulfoton	67	U	67	R
	All other Results	67	U	67	UJ
BHGLTA822-02	Disulfoton	69	U	69	R
	Dimethoate	69	U	69	UJ
	Famphur	69	U	69	UJ
BHGLTA822-02RE	Disulfoton	70	U	70	R
	All other Results	70	U	70	UJ
BHGLTA822-03	Disulfoton	77	U	77	R
	Dimethoate	77	U	77	UJ
	Famphur	77	U	77	UJ
BHGLTA822-03RE	Disulfoton	77	U	77	R
	All other Results	77	U	77	UJ
BHGLTA822-04	Disulfoton	74	U	74	R
	All other Results	74	U	74	UJ
BHGLTA822-04RE	Disulfoton	76	U	76	R
	All other Results	76	U	76	UJ
BHGLTA822-05	Disulfoton	77	U	77	R
	All other Results	77	U	77	UJ
BHGLTA822-05RE	Disulfoton	77	U	77	R

	All other Results	77	U	77	UJ
BHGLTA831-01	Disulfoton	70	U	70	R
	All other Results	70	U	70	UJ
BHGLTA831-01RE	Disulfoton	70	U	70	R
	All other Results	70	U	70	UJ
BHGLTA831-02	Disulfoton	75	U	75	R
	Dimethoate	75	U	75	UJ
	Famphur	75	U	75	UJ
BHGLTA831-02RE	Disulfoton	75	U	75	R
	All other Results	75	U	75	UJ
BHGLTA831-03	Disulfoton	77	U	77	R
	Dimethoate	77	U	77	UJ
	Famphur	77	U	77	UJ
BHGLTA831-03RE	Disulfoton	78	U	78	R
	All other Results	78	U	78	UJ
BHGLTA831-04	Disulfoton	85	U	85	R
	Dimethoate	85	U	85	UJ
	Famphur	85	U	85	UJ
BHGLTA831-04RE	Disulfoton	85	U	85	R
	All other Results	85	U	85	UJ
BHGLTA831-05	Disulfoton	72	U	72	R
	Dimethoate	72	U	72	UJ
	Famphur	72	U	72	UJ
BHGLTA831-05RE	Disulfoton	73	U	73	R
	All other Results	73	U	73	UJ
DUP03	Disulfoton	69	U	69	R
	Dimethoate	69	U	69	UJ
	Famphur	69	U	69	UJ
DUP03RE	Disulfoton	69	U	69	R
	All other Results	69	U	69	UJ

Received 1/20/00

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APPENDIX IX METALS

USEPA SW846 Methods 6010A, 7471, 9010A - USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas - DO2 SDG #: 9910G320

Client: HydroGeoLogic, Inc Date: January 10, 2000

Laboratory: Severn Trent Laboratories, Chicago, IL Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA510-01	9910G320-001	Soil
BHGLTA511-02	9910G320-002	Soil
BHGLTA822-01	9910G320-003	Soil
BHGLTA822-01MS	9910G320-003MS	Soil
BHGLTA822-01MSD	9910G320-003MSD	Soil
BHGLTA822-02	9910G320-004	Soil
BHGLTA822-03	9910G320-005	Soil
BHGLTA822-04	9910G320-006	Soil
BHGLTA822-05	9910G320-007	Soil
BHGLTA831-01	9910G320-008	Soil
BHGLTA831-02	9910G320-009	Soil
BHGLTA831-03	9910G320-010	Soil
BHGLTA831-04	9910G320-011	Soil
BHGLTA831-05	9910G320-012	Soil
DUP03	9910G320-013	Soil
EB100899	9910G320-014	Water

Holding Times - All samples were extracted and analyzed within the recommended holding time of 180 days for all metals except 28 days for mercury and 14 days for cyanide as specified in Table 5.1 2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required

Calibration - All initial and continuing calibration verifications exhibited acceptable %R values. No qualifications were required.

Method Blanks - The soil preparation blank PBS, initial and continuing calibration blanks exhibited contamination for several compounds, however, all associated results were non-detect or greater than 5X the blank concentration with the exception of antimony, cadmium and tin. Antimony has been qualified (U) for positive results in all soil samples. Cadmium has been qualified (J/UJ) in all soil samples due to negative blank contamination. Tin has been qualified (U) in all soil samples.

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The water preparation blank PBW, initial and continuing calibration blanks exhibited contamination for several compounds, however, all associated results are non-detect in EB100899 and no qualifications were required.

Field and equipment blank - Equipment blank EB100899 exhibited barium contamination at 0.52 ug/L, however, all associated barium results are greater than 5X the blank concentration and no qualifications were required

ICP Interference Check Sample - All % recovery values met the QC acceptance criteria No qualifications were required

LCS - The LCS analysis met the QC acceptance criteria of as specified in the QAPP No qualifications were required

ICP Serial Dilutions - An ICP serial dilution sample was not analyzed with this data package

Matrix Spike - Matrix spike sample BHGLTA822-01 exhibited low %R values for antimony, selenium and thallium of 55 8%, 58.8% and 58.1%, respectively, and a high %R value for barium of 137.1% Antimony, selenium and thallium have been qualified (J/UJ) in all soil samples. Barium has been qualified (J) for positive results in all soil samples.

Matrix Spike Duplicate - Matrix duplicate sample BHGLTA822-01 exhibited an acceptable RPD value for mercury. No qualifications were required.

Field Duplicates - Field duplicate results are summarized in the following table No qualifications were required.

Analyte	BHGLTA831-01 mg/kg	DUP03 mg/kg	RPD
Arsenic	3 9	4 0	3
Barium	74 0	70 0	6
Beryllium	0 75	0 78	4
Cadmium	0 007	0 05U	NC
Chromium	14 9	19.7	28
Cobalt	4 8	4 7	2
Copper	8 9	9 4	5
Lead	23 8	22 5	6
Nickel	9 5	9 9	4

Analyte	BHGLTA831-01 mg/kg	DUP03 mg/kg	RPD
Silver	0 27	0 27	0
Vanadium	27 3	28 4	4
Zinc	40 0	41 6	4

Graphite Furnace Atomic Absorption (GFAA) Analysis: Several samples exhibited a postdigestion spike for several compounds out of control limits (85-115%) and sample absorbance is less than 50% of spike absorbance The laboratory flagged these results (W), however, all of these results have already been qualified due to the matrix spike and no further qualifications were required.

Compound Quantitation - All results between the MDL and the PQL have been qualified (F)

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the method blank, matrix spike and compound quantitation sections of this report The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Metals SDG 9910G320					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
BHGLTA511-02	Lead	7 8	B	7 8	F
BHGLTA822-01	Antimony	0 38	BN	0 38	UJ
	Arsenic	3 4	B	3 4	F
	Barium	44 7	N	44 7	J
	Cadmium	0 04	U	0 04	UJ
	Cobalt	3 4	B	3 4	F
	Copper	5.8	B	5 8	F
	Nickel	6 3	B	6 3	F
	Selenium	0 14	UWN	0 14	UJ
	Thallium	0 17	UWN	0 17	UJ
	Tin	1 2	B	1.2	U
	Vanadium	16.1	B	16 1	F
	Zinc	17.9	B	17 9	F
BHGLTA822-02	Antimony	0 75	BN	0 75	UJ
	Arsenic	2 6	B	2 6	F
	Barium	42.8	N	42 8	J
	Cadmium	0 05	U	0 05	UJ
	Chromium	9 4	B	9 4	F

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Qualification Summary Table - Metals SDG 9910G320					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
	Cobalt	2 7	B	2 7	F
	Copper	4 6	B	4 6	F
	Lead	7.4	B	7 4	F
	Nickel	6 1	B	6 1	F
	Selenium	0 13	UN	0 13	UJ
	Thallium	0 15	UWN	0 15	UJ
	Tin	1 4	B	1 4	U
	Vanadium	17 8	B	17.8	F
	Zinc	13 5	B	13.5	F
	Cyanide	0 40	B	0 40	F
BHGLTA822-03	Antimony	0 65	BN	0 65	UJ
	Arsenic	3.5	B	3 5	F
	Barium	39 8	BN	39.8	J
	Cadmium	0 05	U	0 05	UJ
	Cobalt	3 8	B	3.8	F
	Copper	4 7	B	4 7	F
	Lead	8 0	B	8 0	F
	Nickel	7 3	B	7 3	F
	Selenium	0 80	UN	0 80	UJ
	Thallium	0 19	UWN	0 19	UJ
	Tin	1 9	B	1 9	U
	Vanadium	18 2	B	18 2	F
	Zinc	14 7	B	14.7	F
BHGLTA822-04	Antimony	0 38	UN	0.38	UJ
	Arsenic	3 8	B	3 8	F
	Barium	69 1	N	69 1	J
	Cadmium	0.05	U	0.05	UJ
	Cobalt	4.2	B	4.2	F
	Copper	6 0	B	6 0	F
	Lead	7.0	B	7 0	F
	Nickel	8 9	B	8 9	F
	Selenium	0 15	UWN	0 15	UJ
	Thallium	0 18	UWN	0.18	UJ
	Tin	1 5	B	1 5	U
	Vanadium	23.7	B	23.7	F
	Zinc	17 0	B	17 0	F
BHGLTA822-05	Antimony	0 38	UN	0 38	UJ
	Barium	57 8	N	57.8	J
	Cadmium	0 05	U	0 05	UJ
	Cobalt	4 2	B	4 2	F
	Copper	5.7	B	5 7	F
	Nickel	9 5	B	9.5	F
	Selenium	0.73	UN	0.73	UJ
	Thallium	0.17	UWN	0 17	UJ
	Tin	1 8	B	1.8	U
	Zinc	18 3	B	18.3	F
BHGLTA831-01	Antimony	0 57	BN	0 57	UJ
	Arsenic	3 9	B	3 9	F
	Barium	74.0	N	74 0	J

Qualification Summary Table - Metals SDG 9910G320					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
	Cadmium	0 07	B	0 07	J
	Cobalt	4 8	B	4.8	F
	Copper	8 9	B	8 9	F
	Selenium	0 65	UN	0.65	UJ
	Thallium	0 15	UWN	0 15	UJ
	Tin	2 1	B	2.1	U
	Vanadium	27 3	B	27 3	F
BHGLTA831-02	Antimony	0.45	BN	0 45	UJ
	Arsenic	4 4	B	4 4	F
	Barium	97 8	N	97 8	J
	Cadmium	0 05	U	0 05	UJ
	Cobalt	4 1	B	4 1	F
	Copper	6 8	B	6 8	F
	Lead	8 8	B	8 8	F
	Nickel	9 5	B	9.5	F
	Selenium	0 77	UWN	0 77	UJ
	Thallium	0.18	UWN	0 18	UJ
	Tin	1 5	B	1 5	U
	Vanadium	27 5	B	27 5	F
	Zinc	22 1	B	22.1	F
BHGLTA831-03	Antimony	0 63	BN	0 63	UJ
	Barium	37.4	BN	37 4	J
	Cadmium	0 05	U	0 05	UJ
	Chromium	9.8	B	9.8	F
	Cobalt	2 5	B	2.5	F
	Copper	5 0	B	5 0	F
	Lead	5 9	B	5 9	F
	Nickel	7 1	B	7 1	F
	Selenium	0 73	UWN	0 73	UJ
	Thallium	0 87	UN	0 87	UJ
	Tin	1 6	B	1 6	U
	Vanadium	24 0	B	24 0	F
	Zinc	16 0	B	16 0	F
BHGLTA831-04	Antimony	0 47	UN	0.47	UJ
	Arsenic	3 6	B	3 6	F
	Barium	111	N	111	J
	Cadmium	0 06	U	0 06	UJ
	Cobalt	4.6	B	4 6	F
	Copper	8.0	B	8.0	F
	Lead	9 5	B	9 5	F
	Nickel	11 0	B	11 0	F
	Selenium	0 81	UWN	0 81	UJ
	Thallium	0 19	UWN	0 19	UJ
	Tin	2 3	B	2.3	U
	Zinc	32 3	B	32 3	F
BHGLTA831-05	Antimony	0 35	UN	0 35	UJ
	Arsenic	1.3	B	1 3	F
	Barium	93 5	N	93 5	J
	Cadmium	0 05	U	0 05	UJ

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Qualification Summary Table - Metals SDG 9910G320					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
	Cobalt	2 5	B	2 5	F
	Copper	7 1	B	7.1	F
	Nickel	8 1	B	8 1	F
	Selenium	0 14	UWN	0 14	UJ
	Thallium	0 84	UN	0 84	UJ
	Tin	1 7	B	1 7	U
DUP03	Antimony	0 39	UN	0 39	UJ
	Arsenic	4 0	B	4.0	F
	Barium	70 0	N	70 0	J
	Cadmium	0 05	U	0 05	UJ
	Cobalt	4 7	B	4 7	F
	Copper	9 4	B	9.4	F
	Nickel	9 9	B	9 9	F
	Selenium	0 69	UN	0 69	UJ
	Thallium	0 16	UWN	0 16	UJ
	Tin	1 9	B	1 9	U
	Vanadium	28 4	B	28 4	F
EB100899	Barium	0 52	B	0 52	F

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Rec. 4/20/00

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APPENDIX IX SEMIVOLATILE ORGANIC COMPOUNDS

USEPA SW846 Method 8270C - USEPA Level III Review

Site. Naval Air Station Fort Worth JRB, Texas - DO2 SDG #: 9910G320

Client. HydroGeoLogic, Inc. Date. December 30, 1999

Laboratory. Severn Trent Laboratories, Chicago, IL Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA511-02	9910G320-002	Soil
BHGLTA822-01	9910G320-003	Soil
BHGLTA822-01MS	9910G320-003MS	Soil
BHGLTA822-01MSD	9910G320-003MSD	Soil
BHGLTA822-02	9910G320-004	Soil
BHGLTA822-03	9910G320-005	Soil
BHGLTA822-04	9910G320-006	Soil
BHGLTA822-05	9910G320-007	Soil
BHGLTA831-01	9910G320-008	Soil
BHGLTA831-02	9910G320-009	Soil
BHGLTA831-03	9910G320-010	Soil
BHGLTA831-04	9910G320-011	Soil
BHGLTA831-05	9910G320-012	Soil
DUP03	9910G320-013	Soil
EB100899	9910G320-014	Water

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soil samples and analyzed within the recommended holding time of 40 days for all samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

GC/MS Tuning - All of the DFTPP tunes in the initial and continuing calibrations met the percent relative abundance criteria No qualifications were required.

Initial Calibration - The initial calibrations analyzed 02/24/99-10/27/99 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

The initial calibrations analyzed 2/3/99-10/26/99 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

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The initial calibrations analyzed 1/27/99-10/8/99 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

Continuing Calibration - The continuing calibration analyzed on 11/02/99 exhibited a high %D value for hexachlorocyclopentadiene of 28.9% This compound has been rejected (R) in associated samples BHGLTA822-01, BHGLTA831-02, BHGLTA831-04, BHGLTA831-05 and DUP03.

The continuing calibration analyzed on 10/27/99 exhibited acceptable %D values. No qualifications were required

The continuing calibration analyzed on 11/03/99 exhibited high %D values for 4-nitrophenol and benzo(g,h,i)perylene of 30 2% and 39.1%, respectively. Both compounds have been rejected (R) in samples BHGLTA822-05 and BHGLTA831-03

Surrogates - Sample BHGLTA822-03 exhibited a low %R value for surrogate compound S5-2,4,6-tribromophenol of 10%, however, no qualifications are required for only one surrogate outside of QC limits.

Laboratory Control Samples - LCS samples SBLKCN and SBLKDF exhibited acceptable %R values No qualifications were required

MS/MSD - MS/MSD sample BHGLTA822-01 exhibited low MS/MSD %R values for 4-chloroaniline and 2,4-dinitrophenol of 4%/7% and 9%/9%, respectively, and a high RPD value for 4-chloroaniline of 54. Both compounds have been qualified (J/UJ) in all soil samples except BHGLTA511-02

Internal Standard (IS) Area Performance - Sample BHGLTA822-01 exhibited low area counts for internal standards IS5 and IS6 All associated compounds have been qualified (J/UJ) in this sample

Method Blank - Method blanks SBLKCN (10/14/99) and SBLKDF (10/21/99) were free of contamination. No qualifications were required.

Field. equipment blank - Equipment blank EB100899 exhibited di-n-butylphthalate at 4 ug/L, however, all associated results are non-detect and no qualifications were required

Field Duplicates - Field duplicate results are summarized in the following table. Indeno(1,2,3-cd)pyrene has been qualified (J) in both samples.

Compound	BHGLTA831-01 ug/kg	DUP03 ug/kg	RPD
Fluoranthene	120	350U	NC
Benzo(b)fluoranthene	140	350U	NC
Benzo(a)pyrene	100	350U	NC
Indeno(1,2,3-cd)pyrene	300	200	40*
Bis(2-ethylhexyl)phthalate	350U	210	NC

Tentatively Identified Compounds (TICs) - All TIC results have been qualified (T).

Compound Quantitation - All results between the MDL and the PQL have been qualified (F)

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the MS/MSD, internal standards, field duplicates, TICs, and compound quantitation sections of this report with the exception of one rejection due to continuing calibration problems The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Semivolatiles SDG 99910G320					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
BHGLTA822-01	4-Chloroaniline	670	U	670	UJ
	Hexachlorocyclopentadiene	340	U	340	R
	2,4-Dinitrophenol	1700	U	1700	UJ
	All IS5/IS6 Compounds	--	U/J	--	UJ/J
BHGLTA822-02	4-Chloroaniline	690	U	690	UJ
	2,4-Dinitrophenol	1700	U	1700	UJ
BHGLTA822-03	4-Chloroaniline	760	U	760	UJ
	2,4-Dinitrophenol	1900	U	1900	UJ
BHGLTA822-04	4-Chloroaniline	740	U	740	UJ
	2,4-Dinitrophenol	1900	U	1900	UJ
BHGLTA822-05	4-Chloroaniline	760	U	760	UJ
	2,4-Dinitrophenol	1900	U	1900	UJ
	4-Nitrophenol	1900	U	1900	R
	Benzo(g,h,i)perylene	380	U	380	R
BHGLTA831-01	4-Chloroaniline	700	U	700	UJ

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Qualification Summary Table - Semivolatiles SDG 99910G320					
Sample No.	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
	2,4-Dinitrophenol	1700	U	1700	UJ
	Fluoranthene	120	J	120	F
	Benzo(b)fluoranthene	140	J	140	F
	Benzo(a)pyrene	100	J	100	F
	Indeno(1,2,3-cd)pyrene	300	J	300	J
BHGLTA831-02	4-Chloroaniline	750	U	750	UJ
	Hexachlorocyclopentadiene	370	U	370	R
	2,4-Dinitrophenol	1900	U	1900	UJ
BHGLTA831-03	4-Chloroaniline	770	U	770	UJ
	2,4-Dinitrophenol	1900	U	1900	UJ
	4-Nitrophenol	1900	U	1900	R
	Benzo(g,h,i)perylene	390	U	390	R
BHGLTA831-04	4-Chloroaniline	840	U	840	UJ
	Hexachlorocyclopentadiene	420	U	420	R
	2,4-Dinitrophenol	2100	U	2100	UJ
BHGLTA831-05	4-Chloroaniline	720	U	720	UJ
	Hexachlorocyclopentadiene	360	U	360	R
	2,4-Dinitrophenol	1800	U	1800	UJ
DUP03	4-Chloroaniline	700	U	700	UJ
	Hexachlorocyclopentadiene	350	U	350	R
	2,4-Dinitrophenol	1800	U	1800	UJ
	Bis(2-ethylhexyl)phthalate	210	J	210	F
	Indeno(1,2,3-cd)pyrene	200	J	200	J
EB100899	Di-n-butylphthalate	4	J	4	F

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APPENDIX IX POLYCHLORINATED DIBENZODIOXINS and POLYCHLORINATED DIBENZOFURANS (PCDD/PCDF)

USEPA SW846 Method 8280 - USEPA Level III Review

Site. Naval Air Station Fort Worth JRB. Texas - DO2 SDG #: 9910G320

Client· HydroGeoLogic. Inc. Date· December 31. 1999

Laboratory· Paradigm Analytical Laboratories Reviewer· Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA822-01	9910G320-003	Soil
BHGLTA822-01MS	9910G320-003MS	Soil
BHGLTA822-01MSD	9910G320-003MSD	Soil
BHGLTA822-02	9910G320-004	Soil
BHGLTA822-03	9910G320-005	Soil
BHGLTA822-04	9910G320-006	Soil
BHGLTA822-05	9910G320-007	Soil
BHGLTA831-01	9910G320-008	Soil
BHGLTA831-02	9910G320-009	Soil
BHGLTA831-03	9910G320-010	Soil
BHGLTA831-04	9910G320-011	Soil
BHGLTA831-05	9910G320-012	Soil
DUP03	9910G320-013	Soil
EB100899	9910G320-014	Water

Holding Times - All samples were extracted outside 30 days of collection as specified in Table 5 1 2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. All results have been qualified (J/UJ) in all samples.

Initial Calibration - The initial calibration analyzed on 11/22/99 exhibited acceptable %RSD values of less than 15% for the RFs. All ICAL ion abundance ratios met QC acceptance criteria No qualifications were required

Continuing Calibration - The continuing calibrations analyzed on 11/23/99 and 11/24/99 exhibited acceptable %D values and ion abundance ratios within QC acceptance criteria and no qualifications were required.

Column Performance Check - Resolution check criteria were met since the valley was less than 25%

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Surrogates - All surrogate recovery values met QC acceptance criteria and no qualifications were required.

Method Blanks - Method blanks LMB (11/10/99), LMB (11/10/99) and LMB (11/12/99) were free of contamination. No qualifications were required.

Field, equipment blanks - Equipment blank EB100899 exhibited 2378-TCDF and Total TCDF contamination at 0.200 ppt and 0.200 ppt, respectively, however, all associated results are non-detect and no qualifications were required

Internal Standards - The internal standards met QC acceptance criteria and no qualifications were required

MS/MSD - MS/MSD sample BHGLTA822-01 exhibited a low MS %R value for OCDD of 47 6%, however, all results have already been qualified due to holding times and no further qualifications were required.

Laboratory Control Sample/Duplicate - The three OPRs analyzed between 11/23/99 and 11/24/99 exhibited acceptable %R values within the QC acceptance criteria and no qualifications were required

Field Duplicates - Field duplicate results are summarized in the table below. The RPD value was high, however, all results have already been qualified due to holding times and no further qualifications were required.

Compound	BHGLTA831-01 ppt	DUP03 ppt	RPD
OCDD	866	326	91*

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the holding times section of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Additional Comment - An (A) flag by the laboratory denotes a positive result that is lower than the method calibration limit The reviewer would normally qualify these results as estimated (J), however, all results have already been qualified due to holding times and no further qualifications were required.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Dioxins SDG 9910G320					
Sample No	Compound(s)	Reported		Validated	
		Conc.	Qualifier	Conc.	Qualifier
All Samples	All Compounds	--	--	--	J/UJ

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APPENDIX IX VOLATILE ORGANIC COMPOUNDS

USEPA SW846 Method 8260B - USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas - DO2 SDG #: 9910G320

Client HydroGeoLogic, Inc. Date: January 8, 2000

Laboratory: Severn Trent Laboratories, Chicago, IL Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA511-02	9910G320-002	Soil
BHGLTA822-01	9910G320-003	Soil
BHGLTA822-01MS	9910G320-003MS	Soil
BHGLTA822-01MSD	9910G320-003MSD	Soil
BHGLTA822-02	9910G320-004	Soil
BHGLTA822-03	9910G320-005	Soil
BHGLTA822-04	9910G320-006	Soil
BHGLTA822-05	9910G320-007	Soil
BHGLTA831-01	9910G320-008	Soil
BHGLTA831-02	9910G320-009	Soil
BHGLTA831-03	9910G320-010	Soil
BHGLTA831-04	9910G320-011	Soil
BHGLTA831-05	9910G320-012	Soil
DUP03	9910G320-013	Soil
EB100899	9910G320-014	Water
TB100899	9910G320-015	Water

Holding Times - All samples were analyzed within the recommended holding time of 14 days for preserved water samples and soil samples as specified in Table 5 1 2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

GC/MS Tuning - All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria. No qualifications were required.

Initial Calibration - The initial calibrations analyzed 5/31/99-10/6/99 exhibited acceptable %RSD and mean RRF values. No qualifications were required.

The initial calibrations analyzed 5/13/99-9/22/99 exhibited acceptable %RSD and mean RRF values No qualifications were required

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Continuing Calibration - The continuing calibration analyzed on 10/15/99 exhibited high %D values for 1,1,2-trichloroethane and 1,2-dibromoethane of 27.9% and 25 6%, respectively. Both compounds have been rejected (R) in associated samples BHGLTA511-02, BHGLTA822-02 and BHGLTA822-03.

The continuing calibration analyzed on 10/18/99 exhibited a high %D value for dichlorodifluoromethane of 26.2%. Dichlorodifluoromethane has been rejected (R) in associated samples BHGLTA822-01, BHGLTA822-04, BHGLTA822-05, BHGLTA831-01, BHGLTA831-02 and BHGLTA831-03.

The continuing calibration analyzed on 10/19/99 exhibited high %D values for trichlorofluoromethane and methylene chloride of 51 0% and 25.5%, respectively. Both compounds have been rejected (R) in associated samples EB100899 and TB100899.

The continuing calibration analyzed on 10/21/99 exhibited acceptable %D values. No qualifications were required.

Surrogates - All samples exhibited acceptable surrogate %R values. No qualifications were required.

Laboratory Control Samples - LCS samples VBLKWC, VBLKQZ and VBLKKO exhibited acceptable %R values. No qualifications were required

LCS sample VBLKAY exhibited a high %R value for trichlorofluoromethane of 143%, however, all associated results are non-detect and no qualifications were required

MS/MSD - MS/MSD sample BHGLTA822-01 exhibited a high MS %R value for 1,2,3-trichloropropane of 142%, however, this compound is non-detect in this sample and no qualifications were required

Internal Standard (IS) Area Performance - Samples BHGLTA822-01, BHGLTA822-04, BHGLTA822-05, BHGLTA831-01, BHGLTA831-03, BHGLTA831-04, BHGLTA831-05 and DUP03 exhibited low area counts for internal standard IS4-1,4-dichlorobenzene-d4. All IS4 associated results have been qualified (J/UJ) in these samples

Method Blank - Method blanks VBLKWC (10/15/99), VBLKQZ (10/18/99), VBLKAY (10/19/99) and VBLKKO (10/21/99) were free of contamination. No qualifications were required.

Trip, field, equipment blank - Trip blank TB100899 was free of contamination. No qualifications were required

Equipment blank EB100899 was free of contamination No qualifications were required.

Field Duplicates - Field duplicate results are summarized in the following table. Methylene chloride has been qualified (J) in both samples.

Compound	BHGLTA831-01 ug/kg	DUP03 ug/kg	RPD
Methylene Chloride	2	3	40*
Toluene	4	5	22

Tentatively Identified Compounds (TICs) - All TIC results have been qualified (T).

Compound Quantitation - All results between the MDL and the PQL have been qualified (F).

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the internal standard, field duplicate, TICS and compound quantitation sections of this report with the exception of several rejections due to continuing calibration problems. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Volatiles SDG 9910G320					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc.	Qualifier
BHGLTA511-02	Toluene	4	J	4	F
	1,1,2-Trichloroethane	5	U	5	R
	1,2-Dibromoethane	3	U	3	R
BHGLTA822-01	Dichlorodifluoromethane	5	U	5	R
	Toluene	3	J	3	F
	Trans-1,4-Dichloro-2-butene	5	U	5	UJ
	1,1,2,2-Tetrachloroethane	2	U	2	UJ
	1,2,3-Trichloropropane	5	U	5	UJ
	Pentachloroethane	5	U	5	UJ
	1,2-Dibromo-3-chloropropane	5	U	5	UJ
BHGLTA822-02	Benzene	1	J	1	F

Qualification Summary Table - Volatiles SDG 9910G320					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
	1,1,2-Trichloroethane	5	U	5	R
	1,2-Dibromoethane	3	U	3	R
BHGLTA822-03	Benzene	1	J	1	F
	1,1,2-Trichloroethane	6	U	6	R
	1,2-Dibromoethane	3	U	3	R
BHGLTA822-04	Dichlorodifluoromethane	6	U	6	R
	Trans-1,4-Dichloro-2-butene	6	U	6	UJ
	1,1,2,2-Tetrachloroethane	2	U	2	UJ
	1,2,3-Trichloropropane	6	U	6	UJ
	Pentachloroethane	6	U	6	UJ
	1,2-Dibromo-3-chloropropane	6	U	6	UJ
BHGLTA822-05	Dichlorodifluoromethane	6	U	6	R
	Cis-1,2-Dichloroethene	3	J	3	F
	Benzene	1	J	1	F
	Trans-1,4-Dichloro-2-butene	6	U	6	UJ
	1,1,2,2-Tetrachloroethane	2	U	2	UJ
	1,2,3-Trichloropropane	6	U	6	UJ
	Pentachloroethane	6	U	6	UJ
	1,2-Dibromo-3-chloropropane	6	U	6	UJ
BHGLTA831-01	Dichlorodifluoromethane	5	U	5	R
	Methylene Chloride	2	-	2	J
	Toluene	4	J	4	F
	Trans-1,4-Dichloro-2-butene	5	U	5	UJ
	1,1,2,2-Tetrachloroethane	2	U	2	UJ
	1,2,3-Trichloropropane	5	U	5	UJ
	Pentachloroethane	5	U	5	UJ
	1,2-Dibromo-3-chloropropane	5	U	5	UJ
BHGLTA831-02	Dichlorodifluoromethane	6	U	6	R
BHGLTA831-03	Dichlorodifluoromethane	6	U	6	R
	Benzene	1	J	1	F
	Trans-1,4-Dichloro-2-butene	6	U	6	UJ
	1,1,2,2-Tetrachloroethane	2	U	2	UJ
	1,2,3-Trichloropropane	6	U	6	UJ
	Pentachloroethane	6	U	6	UJ
	1,2-Dibromo-3-chloropropane	6	U	6	UJ
BHGLTA831-04	Trans-1,4-Dichloro-2-butene	6	U	6	UJ
	1,1,2,2-Tetrachloroethane	2	U	2	UJ
	1,2,3-Trichloropropane	6	U	6	UJ
	Pentachloroethane	6	U	6	UJ
	1,2-Dibromo-3-chloropropane	6	U	6	UJ
BHGLTA831-05	Toluene	3	J	3	F
	Trans-1,4-Dichloro-2-butene	6	U	6	UJ
	1,1,2,2-Tetrachloroethane	2	U	2	UJ
	1,2,3-Trichloropropane	6	U	6	UJ
	Pentachloroethane	6	U	6	UJ
	1,2-Dibromo-3-chloropropane	6	U	6	UJ
DUP03	Methylene Chloride	3	-	3	J
	Toluene	5	J	5	F

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Qualification Summary Table - Volatiles SDG 9910G320					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
	Trans-1,4-Dichloro-2-butene	5	U	5	UJ
	1,1,2,2-Tetrachloroethane	2	U	2	UJ
	1,2,3-Trichloropropane	5	U	5	UJ
	Pentachloroethane	5	U	5	UJ
	1,2-Dibromo-3-chloropropane	5	U	5	UJ
EB100899	Trichlorofluoromethane	0 5	U	0 5	R
	Methylene Chloride	0 5	U	0 5	R
TB100899	Trichlorofluoromethane	0 5	U	0.5	R
	Methylene Chloride	0 5	U	0 5	R

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APPENDIX IX PESTICIDES/PCBs

USEPA SW846 Method 8080A - USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas, DO2 SDG #. 9910G320

Client. HydroGeoLogic, Inc. Date: January 7, 2000

Laboratory: Severn Trent Laboratories, Chicago, IL Reviewer Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA822-01	9910G320-003	Soil
BHGLTA822-02	9910G320-004	Soil
BHGLTA822-03	9910G320-005	Soil
BHGLTA822-03MS	9910G320-005MS	Soil
BHGLTA822-03MSD	9910G320-005MSD	Soil
BHGLTA822-04	9910G320-006	Soil
BHGLTA822-05	9910G320-007	Soil
BHGLTA831-01	9910G320-008	Soil
BHGLTA831-02	9910G320-009	Soil
BHGLTA831-03	9910G320-010	Soil
BHGLTA831-04	9910G320-011	Soil
BHGLTA831-05	9910G320-012	Soil
DUP03	9910G320-013	Soil
EB100899	9910G320-014	Water

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soil samples and analyzed within the recommended holding time of 40 days for all samples as specified in Table 5.1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibration analyzed on 10/31/99 exhibited acceptable %RSD values of less than 20%. No qualifications were required.

The initial calibration analyzed on 11/01/99 exhibited high %RSD values for kepone on both columns of 44.4% and 49.9%. Kepone has been rejected (R) in all samples

Continuing Calibration Verification - The continuing calibration QC acceptance criteria were met with the exception of kepone on several CCVs. However, kepone has already been rejected in all samples due to the initial calibration and no further qualifications were required. The DDT and endrin breakdown was acceptable

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Method Blank - Method blanks PBLKMY (10/14/99) and PBLKRS (10/21/99) were free of contamination No qualifications were required.

Field. equipment blank - Equipment blank EB100899 was free of contamination. No qualifications were required.

Surrogates - Several samples were analyzed at a dilution and the surrogates were reported with a "D" flag by the laboratory due to being diluted out. No action was taken on this basis.

Laboratory Control Samples - LCS samples PBLKRSBS, PBLKRTBS, PBLKMYBS, and PBLKMZBS exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample-BHGLTA822-01 was analyzed at a dilution and all results were reported as being diluted out. No action was taken on this basis

Field Duplicates - Field duplicate results for samples BHGLTA831-01 and DUP03 are non-detect No qualifications were required.

Compound Identification - The retention times met the QC acceptance criteria and no qualifications were required.

Compound Quantitation - Several samples were analyzed at dilutions due to matrix interference and the reporting levels were adjusted accordingly

Comments - The analyses of environmental samples and quality control sámples are valid with the exception of all kepone results which were rejected due to the initial calibration. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Pesticide/PCBs SDG 9910G320					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
BHGLTA822-01	Kepone	8400	U	8400	R
BHGLTA822-02	Kepone	870	U	870	R
BHGLTA822-03	Kepone	4800	U	4800	R
BHGLTA822-04	Kepone	930	U	930	R
BHGLTA822-05	Kepone	4800	U	4800	R
BHGLTA831-01	Kepone	880	U	880	R
BHGLTA831-02	Kepone	940	U	940	R
BHGLTA831-03	Kepone	960	U	960	R
BHGLTA831-04	Kepone	1000	U	1000	R
BHGLTA831-05	Kepone	900	U	900	R
DUP03	Kepone	870	U	870	R
EB100899	Kepōnė	2 4	U	2 4	R

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APPENDIX IX HERBICIDES

USEPA SW846 Method 8150B - USEPA Level III Review

Site: Naval Air Station Fort Worth JRB. Texas. DO2 SDG #: 9910G320

Client. HydroGeoLogic, Inc Date. January 7, 2000

Laboratory: Severn Trent Laboratories, Chicago, IL Reviewer: Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA822-01	9910G320-003	Soil
BHGLTA822-02	9910G320-004	Soil
BHGLTA822-03	9910G320-005	Soil
BHGLTA822-03MS	9910G320-005MS	Soil
BHGLTA822-03MSD	9910G320-005MSD	Soil
BHGLTA822-04	9910G320-006	Soil
BHGLTA822-05	9910G320-007	Soil
BHGLTA831-01	9910G320-008	Soil
BHGLTA831-02	9910G320-009	Soil
BHGLTA831-03	9910G320-010	Soil
BHGLTA831-04	9910G320-011	Soil
BHGLTA831-05	9910G320-012	Soil
DUP03	9910G320-013	Soil
EB100899	9910G320-014	Water

Holding Times - All samples were extracted within 7 days for water samples and 14 days for soil samples and analyzed within the recommended holding time of 40 days for all samples as specified in Table 5 1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Initial Calibration - The initial calibrations analyzed on 10/18/99 and 10/29/99 exhibited acceptable %RSD values less than 20%. No qualifications were required.

Continuing Calibration Verification - The continuing calibration verifications analyzed on 10/18/99, 10/19/99, 10/30/99 and 11/01/99 exhibited acceptable %D values No qualifications were required.

Method Blank - Method blanks PBLKND (10/13/99) and PBLKSZ (10/21/99) were free of contamination. No qualifications were required.

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Field, equipment blank - Equipment blank EB100899 was free of contamination. No qualifications were required

Surrogates - Sample BHGLTA822-01 reported a %R value for surrogate compound S1-DCAA of (I) due to interference. No action was taken on this basis.

Laboratory Control Samples - LCS samples PBLKNDBS and PBLKSZBS exhibited acceptable %R values. No qualifications were required.

MS/MSD - MS/MSD sample BHGLTA822-01 exhibited acceptable %R and RPD values. No qualifications were required.

Field Duplicates - Field duplicate results for samples BHGLTA831-01 and DUP03 are non-detect No qualifications were required.

Compound Identification - The retention times met the QC acceptance criteria and no qualifications were required

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report

Qualification Summary Table - Herbicides SDG 9910G320					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
None Qualified	--	--	--	--	--

6761186

Rec'd 1/20/00

ENVIRONMENTAL
Data Services, Inc.

SULFIDE

USEPA SW846 Method 9030 - USEPA Level III Review

Site: Naval Air Station Fort Worth JRB, Texas - DO2 SDG #: 9910G320

Client: HydroGeoLogic, Inc. Date: January 10, 2000

Laboratory Severn Trent Laboratories, Chicago, IL Reviewer. Nancy Weaver

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA822-01	9910G320-003	Soil
BHGLTA822-01MS	9910G320-003MS	Soil
BHGLTA822-01MSD	9910G320-003MSD	Soil
BHGLTA822-02	9910G320-004	Soil
BHGLTA822-03	9910G320-005	Soil
BHGLTA822-04	9910G320-006	Soil
BHGLTA822-05	9910G320-007	Soil
BHGLTA831-01	9910G320-008	Soil
BHGLTA831-02	9910G320-009	Soil
BHGLTA831-03	9910G320-010	Soil
BHGLTA831-04	9910G320-011	Soil
BHGLTA831-05	9910G320-012	Soil
DUP03	9910G320-013	Soil
EB100899	9910G320-014	Water

Holding Times - All samples were analyzed within the recommended holding time of 7 days as specified in Table 5 1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. No qualifications were required.

Method and Calibration Blanks - The method blanks were free of contamination No qualifications were required.

Field and Equipment Blank - Equipment blank EB100899 was free of contamination. No qualifications were required.

LCS - The LCS sample exhibited an acceptable %R value. No qualifications were required

4 Bicentennial Square, Suite 3A · Concord, NH 03301 · Telephone 603-226-0118 · Fax 603-226-0128 · e-mail envdata@aol.com

Matrix Spike/Duplicate - MS/MSD sample BHGLTA822-01 exhibited high MS/MSD %R values for sulfide of 194%/219%, however, sulfide is non-detect in this sample and no qualifications were required.

Field Duplicates - Field duplicate results for samples BHGLTA831-01 and DUP03 are non-detect. No qualifications were required.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, February, 1998, data validation criteria were used in evaluating the data in this summary report

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - Sulfide SDG 9910G320					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
None Qualified	--	--	--	--	--

6761188

METALS

USEPA SW846 Methods 6010A, 7470A, 7191, 7740
USEPA Level III Review

Site. Naval Air Station Fort Worth JRB, Texas

SDG # 9910G388-(DO23G)

Laboratory. STL - Chicago

Date 12/10/99

HydroGeoLogic, Inc. Reviewer Jennifer Wallace

Analyzed for. metals + mercury

Client Sample ID	Laboratory Sample ID	Matrix
LF04-4DWG10	002	Water
DUP01WG10	003	Water
WP07-10BWG10	004	Water
EB101499	005	Water
LF05-5CWG10 (MS/MSD)	006	Water

Sample Delivery & Condition - All samples were relinquished, received, and preserved properly Some of the sample temperatures did fall below 2°C but were not reported as frozen

Holding Times - All samples met the required holding times as specified in Table 5 1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 No qualifications were required

Calibration (Form IIA) - All ICV and CCV recoveries were in control No qualifications required

Preparation and Calibration Blanks (Form III) - The preparation and/or bracketing calibration blanks contained negative values for beryllium and copper All non-detects of these elements are qualified 'UJ' for negative bias.

The preparation and/or bracketing calibration blanks contained positive values for antimony and zinc. There were no detections in antimony , therefore no qualifications were required. ~~Zinc however was previously qualified 'F' and should remain as such~~
Zinc is already U flagged for EB contam

Field and Equipment Blank - The equipment blank EB101499 contained barium and zinc at 0 51 and 3 8 ppb, respectively The barium results in all associated samples is much greater than the equipment blank result and no qualification is necessary LF04-4WG10 and DUP01WG10 contained zinc in concentrations below the action level of 19 ppb and both samples are 'U' flagged as potential field artifacts Zinc not detected in WP07-10B and LF05-5C

ICP Interference Check Sample (Form IV) - All ICS results met the required %R criteria. No qualification was required

LCS - All LCS results met required %R criteria and no qualification is required.

ICP Serial Dilutions - No ICP serial dilution was requested for this SDG.

J/UJ

Matrix Spike - The matrix spike was run on sample LF05-5CWG10. All analytes were within the required %R except for the following compounds which had %R's below the lower tolerance. Chromium (79.4%) and selenium (76.8%) should ~~'UJ'~~
in all samples

Matrix Spike Duplicate - The matrix spike duplicate was also run on sample LF05-5CWG10 and chromium (77.3%) was also below the lower tolerance %R and has already been qualified 'UJ' No qualification required

Field Duplicates - Field duplicate DUP01 is associated with sample LF04-4DWG10. No qualifications required

Analyte	LF04-4DWG10 ug/L	DUP01 ug/L	RPD
Barium	204	200	2 0
Chromium	1.4	ND	200
Vanadium	1 4	0 80	54.6
Zinc	4.8	3.9	20 7

GFAA Spike Recoveries (Form XIV) - All chromium, selenium, and lead spike results were in control and no qualifications are required

Compound Quantitation - The laboratory flagged detections between the MDL and PQL with a 'B' and these are changed to an 'F' flag in accordance with project requirements.

Comments - All data quality flags were applied as specified in the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998

6761190

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report

Qualification Summary Table - Metals SDG. 9910G388					
Sample No	Compound(s)	Lab Val ug/L	Lab Qual	HGL Val. ug/L	HGL Qual
LF04-4DWG10	Beryllium	0.30	U	RL	UJ
	Chromium	1 4	B	1.4	F
selenium RL UJ	Copper	0 80	U	RL	UJ
	Vanadium	1.4	B	1 4	F
	Zinc	4 8	B	RL	U
DUP01WG10	Beryllium	0.30	U	RL	UJ
chromium + selenium RL UJ	Copper	0 80	U	RL	UJ
	Zinc	~~48~~ 39	B	RL	U
WP07-10BWG10	Barium	97.6	B	97 6	F
chromium + selenium RL UJ	Beryllium	0 30	U	RL	UJ
	Copper	0.80	U	RL	UJ
	Vanadium	0.96	B	0 96	F
LF05-5CWG10	Barium	140	B	140	F
	Beryllium	0.30	U	RL	UJ
	Copper	0 80	U	RL	UJ
	Chromium	1.2	U	RL	UJ
	Selenium	1 7	U	RL	UJ

APPENDIX IX PESTICIDES/PCBs

USEPA SW846 Method 8080A
USEPA Level III Review

6761191

Naval Air Station Fort Worth JRB, Texas — SDG #: 9910G388

Laboratory STL-Chicago — Date 11/16/99

HydroGeoLogic, Inc Reviewer. Jennifer Wallace — Analyzed for. Appendix IX

Client Sample ID	Laboratory Sample ID	Matrix
LF04-4DWG10	002	Water
DUP01WG10	003	Water
EB101499	005	Water

Sample Delivery and Condition - All samples were relinquished, received, and preserved properly Some of the sample temperatures did fall below 2°C but were not reported as frozen No qualifications required

Holding Times - All samples were extraction within the holding time of 7 days for water samples and the extracts were analyzed within the 40 day holding time, as specified in Table 5 1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 No qualifications were required.

Initial Calibration (Form VI) - All compounds met the maximum %RSD criterion, except Kepone which had a %RSD of 44 44%; however no action was required since this is not a compound of concern. R qualify Kepone

% DDT & Endrin Breakdown - Both compounds met the maximum degradation criterion

Continuing Calibration (Form IX) - All compounds met the maximum %D criterion except Kepone, however no action was required since this is not a compound of concern R qualify Kepone

Surrogates (Form II) - All samples had surrogate recoveries within the specified QC limits of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998

Laboratory Control Samples (Form III) - All LCS results were within the %R control limits specified by the QAPP.

MS/MSD (Form III) - No matrix QC was requested on this sample.

Method Blank (Form IV) - The method blank was below the required reporting limits. No qualifications were required.

Field and Equipment Blank - No contamination was detected in the equipment blank EB101499.

Field Duplicates - Field duplicate DUP01WG10 is a duplicate of LF04-4DWG10. No pesticides/PCBs were detected in these samples.

Compound Quantitation - No pesticides/PCBs were detected in these samples

Comments - No QC elements were out of control for this method in this data package.

Data Validation Summary Table - ~~No qualifications~~ necessary

LF04-4DWG10	Kepone	2.4	U	2.4	R
DUP01WG10	Kepone	2.4	U	2.4	R

6761192

APPENDIX IX ORGANOPHOPHORUS PESTICIDES

USEPA SW846 Method 8141
USEPA Level III Review

Site Naval Air Station Fort Worth JRB, Texas

SDG # 9910G388

Laboratory. STL - Chicago

Date· 10/17/99

HydroGeoLogic, Inc. Reviewer· Jennifer Wallace

Analyzed for· Appendix IX

Client Sample ID	Laboratory Sample ID	Matrix
WP07-10BWG10	004	Water
EB101499	005	Water
LF05-5CWG10 (MS/MSD)	006	Water

Sample Delivery and Condition - All samples were relinquished, received, and preserved properly. Some of the sample temperatures did fall below 2°C but were not reported as frozen No qualifications required.

Holding Times - All samples were extraction within the holding time of 7 days for water samples and the extracts were analyzed within the 40 day holding time, as specified in Table 5.1 2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 No qualifications were required

Initial Calibration - All compounds met the maximum 20% RSD criterion or the correlation coefficient (r) was > 0 995. No qualifications were required

Second-Source Calibration Verification - The second source calibration was below the maximum 15% criterion for all compounds. No qualifications were required.

Continuing Calibration - Most compounds met the maximum 15% difference, however, parathion (17.4%) and triphenylphosphate (17 5%) had a higher %D than specified Parathion was 'R' flagged in both samples and triphenylphosphate is not a compound of concern, therefore no action was taken.

Surrogates (Form II) - All samples had surrogate recoveries within the specified QC limits of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998

Laboratory Control Samples (Form III) - All LCS results were within the %R control limits specified by the QAPP, however the a confirmation LCS was run and it had high %R's for thionazin, sulfotep, and parathion. All three of these compounds were nondetect so no qualification was required.

MS/MSD (Form III) - The parent sample to the MS/MSD is LF05-5CWG10 All %R and %RPD's were within criterion except for o,o,o-Triethyl phosphorothioat which had a low %R for the MSD (47%) and %RSD and all detections/nondetections for this compound should be flagged 'J/UJ' respectively. (A confirmation sample was run and Parathion had a high MS/MSD (121%/134%) and o,o,o-Triethyl phosphorothioat had a high %RPD.) in both samples

Method Blank (Form IV) - The method blank was below the required reporting limits. No qualifications were required.

Field and Equipment Blank - No contamination was detected in any sample, therefore field blank contamination was not evaluated.

Field Duplicates - No field duplicates were requested with this data package.

Compound Quantitation - A confirmation sample was run on WP07-10BWG10 and LF05-5CWG10, due to the detection of o,o,o-Triethyl phosphorothioat

VOLATILE ORGANIC COMPOUNDS

USEPA SW846 Method 5035B, 8260B, & 8000B
USEPA Level III Review

6761193

e. Naval Air Station Fort Worth JRB, Texas

SDG # 9910G388 (DO AFC001-023G)

Laboratory. STL - Chicago

Date. 12/09/99

HydroGeoLogic, Inc. Reviewer: Jennifer Wallace

Analyzed for. Appendix IX VOAs + cis-1,2-DCE

Client Sample ID	Laboratory Sample ID	Matrix
TB101499	001	Water
LF04-4DWG10	002	Water
DUP01WG10	003	Water
WP07-10BWG10	004	Water
EB101499	005	Water
LF05-5CWG10 (MS/MSD)	006	Water

Sample Delivery and Condition - All samples were relinquished, received, and preserved properly. Some of the sample temperatures did fall below 2°C but were not reported as frozen No qualifications required.

Holding Times - All samples were analyzed within the recommended holding time of 14 days for preserved water samples as specified in Table 5 1.2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 No qualifications were required.

GC/MS Tuning (Form V) - The initial calibration and sample analytical sequence were all performed within 12 hours of an acceptable MS tune. No qualification required

Initial Calibration (Form VI) - The initial calibration was run on 9/22/99 All SPCC compounds met the minimum average RRF requirements. All CCCs met the maximum %RSD criterion of 30% All other analytes were also below the maximum %RSD criteria.

Continuing Calibration (Form VII) - All SPCC compounds met the minimum continuing calibration RRF requirements. All CCCs met the maximum %D criterion of 20%.

One compound from the VOC QAPP list exceeded the maximum %D of 25% (trichlorofluoromethane ~~(60.8%))~~ in the CCVs ~~performed on 10/22/99 at 0837 One of the last CCV's run on 10/25/99 at 2012 and trichlorofluoromethane was still detected but only had a %D of 33.4%~~. Trichlorofluoromethane should be 'R' flagged in all samples analyzed on 10/22/99 through 10/25/99, which includes all samples and dilutions ~~except for LF05-5CWG10DL~~.

Nine Appendix IX VOC compounds exceeded the %D of 50% in the CCV performed on 10/22/99 at 0837; however, no corrective action is required for Appendix IX compounds. (Iodomethane, 3-Chloropropene, 2-chloro-1,3-butadiene, Isobutanol, Methacrylonitrile, Methylmethacrylate, Ethylmethacrylate, trans-1,4-dichoro-2-butene, and pentachloroethane) On the last CCV run on 10/25/99 at 2049, the only Appendix IX compound that was >50%D, was 2-chloro-1,3-butadiene.

Surrogates (Form II) - All volatile samples had surrogate recoveries within the specified QC limits of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998

Laboratory Control Samples (Form III) - All LCS results were within the %R control limits except for trichlorofluoromethane (VBLKZV, VBLKZX, and VBLKZZ) and bromomethane (VBLKZZ), which exceeded the upper tolerance range No further qualification was required since all trichlorofluoromethane and bromomethane had no detections The laboratory include seven additional compounds in the spike mixture for which no LCS limits are provided in the QAPP.

MS/MSD (Form III) - The parent sample of the MS/MSD is LF05-5CWG10 Several compounds had the MS and/or MSD out of the required limits A summary of the qualifications is below. Trichlorofluoromethane (160%/160%) and bromomethane (130%/130%) had MS/MSDs greater than the upper tolerance; however, both were nondetects so no qualification is necessary Cis-1,2-Dichloroethene and trichloroethene had sample concentrations exceeding the spike concentrations by a factor of 4 or more and thus were not qualified

Compound	MS (%R)	MSD (%R)	Qualifier
cis-1,2-Dichloroethene	32	-156	Does Not Apply*
Trichloroethene	129	-80	Does Not Apply*
trans-1,2-Dichloroethene	OK	69	J (detections only)
Styrene	OK	35	UJ

* Spike recovery limits do not apply when the sample concentration exceeds the spike concentrations by a factor of 4 or more.

Internal Standard (IS) Area/Retention Time Performance (Form VIII) - All volatile samples had internal standard areas and retention times within the acceptance limits as compared to the corresponding continuing calibration.

Method Blank - The method blank was below the required reporting limits No qualifications were required

Trip, Field, Equipment Blank - Equipment blank EB101499 and TB101499 were clean from contaminants No qualifications required.

Field Duplicates - Field duplicate DUP01WG10 is a duplicate of LF04-4DWG10. Detections for both the duplicate and parent sample were consistent.

Compound Quantitation - Several samples had compounds exceed the calibration ranges and were flagged 'E' by the laboratory These results were further qualified by the validator In addition, the laboratory flags compounds between the MDL and PQL, 'J' and the validator further qualifies these with an 'F' flag.

Comments - All data quality flags were applied as specified in the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report Note The 'X' flag applied to the data indicates that there was a better result for that compound, and that better result is to be used

6761195

Qualification Summary Table - Volatiles SDG 9910G388					
Sample No	Compound(s)	Lab Val. ug/L	Lab Qual	HGL Val. ug/L	HGL Qual.
LF04-4DWG10	Trichlorofluoromethane	0.5	U	0 5	R
Styrene 0.4 UJ Trans 12DCE 1 UJ	cis-1,2-Dichloroethene	400	E	400	X
	Trichloroethene	98	E	98	X
LF04-4DWG10DL (100X)	Trichlorofluoromethane	50	U	50	RX
	cis-1,2-Dichloroethene	420	D	420	
	Trichloroethene	1600	D	1600	
	Original results should be used for reporting unless otherwise noted.				
DUP01WG10 Trans 12DCE 1 UJ	Trichlorofluoromethane	0.5	U	0 5	R
Styrene 0.4 UJ	cis-1,2-Dichloroethene	410	E	410	X
	Trichloroethene	94	E	94	X
DUP01WG10DL (100X)	Trichlorofluoromethane	50	U	50	RX
	cis-1,2-Dichloroethene	420	D	420	
	Trichloroethene	1700	D	1700	
	Original results should be used for reporting unless otherwise noted.				
WP07-10BWG10	Methylene Chloride	0.3	J	0.3	F
Styrene 0.4 UJ	Trichlorofluoromethane	0.5	U	0.5	R
	trans-1,2-Dichloroethene	42	E	42	X
	cis-1,2-Dichloroethene	390	E	390	X
	Benzene	0.2	J	0.2	F
	Trichloroethene	130	E	130	X
	4-Methyl-2-pentanone	0 5	J	0.5	F
	Chlorobenzene	0.3	J	0 3	F
WP07-10BWG10DL (10X)	Trichlorofluoromethane	5	U	5	RX
	trans-1,2-Dichloroethene	44	D	44	J
	cis-1,2-Dichloroethene	410	DE	410	X
	Trichloroethene	2900	DE	2900	X
	Original results should be used for reporting unless otherwise noted.				

6761196

Qualification Summary Table - Volatiles SDG 9910G388					
Sample No	Compound(s)	Lab Val ug/L	Lab Qual	HGL Val. ug/L	HGL Qual.
WP07-10BWG10DL (100X)	Trichlorofluoromethane	50	U	50	RX
	cis-1,2-Dichloroethene	350	D	350	
	Trichloroethene	2600	D	2600	
	Original results should be used for reporting unless otherwise noted.				
LF05-5CWG10	Trichlorofluoromethane	0 5	U	0.5	~~RX~~ R
	trans-1,2-dichloroethene	29		29	J
	cis-,1,2-dichloroethene	380	E	380	X
	Trichloroethene	120	E	120	X
	Styrene	0.4	U	0.4	UJ
LF05-5CWG10DL (500X)	cis-,1,2-dichloroethene	420	D	420	
	Trichloroethene	2200	D	2200	
	Original results should be used for reporting unless otherwise noted.				
	Trichlorofluoromethane	25 D	U	25 D	Use this result

SEMIVOLATILE ORGANIC COMPOUNDS

USEPA SW846 Method 8270C
USEPA Level III Review

6761197

Site: Naval Air Station Fort Worth JRB, Texas

Laboratory. STL - Chicago

HydroGeoLogic, Inc. Reviewer: Jennifer Wallace

SDG #: 9910G388 (DO AFC001-023G)

Date: 12/10/99

Analyzed for Appendix IX

Client Sample ID	Laboratory Sample ID	Matrix
LF04-4DWG10	002	Water
DUP01WG10	003	Water
WP07-10BWG10	004	Water
EB101499	005	Water
LF05-5CWG10 (MS/MSD)	006	Water

Sample Delivery and Condition - All samples were relinquished, received, and preserved properly Some of the sample temperatures did fall below 2°C but were not reported as frozen.

Holding Times - All samples were extraction within the holding time of 7 days for water samples and the extracts were analyzed within the 40 day holding time, as specified in Table 5 1 2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998

GC/MS Tuning (Form V) - The initial calibration and sample analytical sequence were all performed within 12 hours of an acceptable tune. No qualifications required.

Initial Calibration (Form VI) - All SPCC compounds met the minimum average RRF requirements. All CCCs met the maximum %RSD criterion of 30% All other analytes were also below the maximum %RSD criteria. No qualifications required.

Continuing Calibration (Form VII) - All compounds met the minimum continuing calibration RRF requirements. All CCCs met the maximum %D criterion of 20% Most Appendix IX compounds met the maximum %D of 50% however, some were greater than 50%, although no qualification is required. In addition, two compounds were detected above the 25%D, 1,4-Dioxane (46.7%) and hexachlorophene (44 4%), however they were not compounds of concern so no action was necessary

Surrogates (Form II) - One surrogate, terphenyl-d14 was below the lower tolerance criteria although no action was taken since the %R was greater than 10%

Laboratory Control Samples (Form III) - All LCS met the %R criterion as specified in the QAPP In addition, the laboratory include four additional compounds in the spike mixture for which no LCS limits are provided in the QAPP.

~~all results for~~ all results for these compounds are qualified "UJ".

MS/MSD (Form III) - The parent sample of the MS/MSD is LF05-5CWG10. Chrysene and dibenzo(a,h)anthracene both had low %R's for MS; ~~however,~~ the associated samples were nondetect therefore ~~no qualification was required~~. 30 compounds had %RPDs above 20%, however the associated samples were nondetect, so no further action is necessary. Four additional compounds were included in the analysis, however these compounds have no QC significance with this project.

Internal Standard (IS) Area/Retention Time Performance (Form VIII) - All semivolatile samples had internal standard areas and retention times within the acceptance limits as compared to the corresponding continuing calibration

Method Blank (Form IV) - The method blank was below the required reporting limits. Four additional compounds were included in the analysis, however these compounds have no QC significance with this project. No qualifications were required.

Field and Equipment Blank - Equipment blank EB101499 exhibited di-n-butylphthalate contamination at 5 ug/L; however di-n-butylphthalate was not detected in the associated samples. No qualifications were required.

Field Duplicates - Field duplicate DUP01 is a duplicate of LF04-4DWG10. Bis(2-ethylhexyl)phthalate should be flagged 'J' in DUP01.

Compound	DUP01 (ug/L)	LF04-4DWG10 (ug/L)	RPD
bis(2-ethylhexyl)phthalate	29	ND	200

Compound Quantitation -

Comments - All data quality flags were applied as specified in the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report

Qualification Summary Table - Semivolatiles SDG. 9910G388					
Sample No	Compound(s)	Lab Val. ug/L	Lab Qual	HGL Val. ug/L	HGL Qual
DUP01	bis(2-ethylhexyl)phthalate	29		29	J
All Samples	Chrysene dibenzo(a,h)anthracene	PQL	U	PQL	UJ
LF04-4D WG10	B2EHP	~~PQL~~ 10	U	~~PQL~~ 10	UJ

Appendix IX Volatile Organic Compounds (plus cis-1,2-DCE)
SW-846 Method 8260B
USEPA Level III Review

Site Naval Air Station Fort Worth JRB, Texas — SDG # 9910G621

Laboratory STL-Chicago — Date 08 01 00

HydroGeoLogic, Inc Reviewer Ken Rapuano — Project AFC001-023E

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA801-01	9910G621-001	Soil
BHGLTA801-02	9910G621-002	Soil
BHGLTA801-03	9910G621-003	Soil
BHGLTA803-01	9910G621-004	Soil
BHGLTA803-02	9910G621-005	Soil
TB102899	9910G621-006	Water
EB102899	9910G621-007	Water

Sample Delivery and Condition - The samples arrived at the laboratory in acceptable condition and temperature The samples were not submitted in EnCore® samplers and were prepared by Method SW5030A Proper custody (internal and external) was documented No qualification required

Holding Times - All samples were analyzed within the required holding times for preserved soil samples No qualification required

GC/MS Tuning - The initial calibration and sample analytical sequences were all performed within 12 hours of an acceptable MS tune No qualification required

Initial Calibration - The initial calibrations had acceptable %RSDs for CCCs and acceptable average RRFs for SPCCs All other compounds had acceptable %RSDs No qualification required

Continuing Calibration - All SPCCs met RRF requirements and all CCCs met the 20% %D requirement All other compounds met the 25% %D requirement, with the following exceptions

Dichlorodifluoromethane in the continuing calibration performed on 11 4 99 R-qualify the result for these compounds in associated samples BHGLTA801-02 and BHGLTA801-03

1,2-Dibromoethane in the continuing calibration performed on 11 5 99 R-qualify the result for these compounds in associated samples BHGLTA801-01, BGHLTA801-02RE, BHGLTA803-01, BHGLTA803-02

Trichlorofluoromethane in the continuing calibration performed on 11 8 99 This calibration verification is only associated with the equipment and trip blanks and no qualification is necessary

Note that several compounds listed in Appendix A of the QAPP had %Ds that did not meet the %D requirements, however, no corrective action is required for these compounds No qualification necessary

Surrogates - All surrogate recoveries were within established control limits, except for sample BHGLTA801-02 The original analysis of this sample had two surrogates above the UCL This sample was reanalyzed and the reanalysis had only one surrogate above the UCL The reanalyzed results should be used for this sample with the exception of the 1,2-dibromoethane result, which should be used from the original analysis All other original analysis results should be qualified 'JX/UJX' (unless otherwise qualified), all other reanalysis results should be qualified 'J/UJ' (unless otherwise qualified)

Laboratory Control Samples - All LCS %R results met established control limits with the exception of the trichlorofluoromethane %R in LCS VBLKUE, which was above the UCL The only associated samples are the equipment blank and the trip blank, and no qualification is necessary

MS/MSD - No MS/MSD pair is associated with this SDG No qualification necessary

Internal Standard Performance - All internal standards met area and retention time criteria, with the exception of sample BHGLTA801-02 The original analysis of this sample had all IS below the acceptance criterion The reanalysis of this sample had the IS dichlorobenzene-*d4* below the acceptance criterion All original analysis results should be qualified 'J/UJX' (unless otherwise qualified) All compounds associated with the out of control IS should be qualified 'J/UJ' (unless otherwise qualified)

Method Blanks - All method blanks were free from contamination No qualification necessary

Equipment and Trip Blanks - The associated equipment and trip blanks were free from contamination No qualification necessary

Field Duplicates - No field duplicate is associated with the samples in this SDG No qualification required

Compound Quantitation - Analyte detections reported below the PQL are qualified 'F'

Qualification Summary Table

Sample ID	Analyte	Lab Val	Lab Qual	HGL Val	HGL Qual
WHGLTA801-01	1,2-Dibromoethane	3	U	3	R
WHGLTA801-02	Dichlorodifluoromethane	6	U	6	RX
	1,2-Dibromoethane	3	U	3	UJ
	Trichloroethene	10	--	10	JX
	All other analytes	PQL	U	PQL	UJX
WHGLTA801-02RE	1,2-Dibromoethane	3	U	3	RX
	Trichloroethene	16	--	16	J
	All other analytes	PQL	U	PQL	UJ
WHGLTA801-03	Dichlorodifluoromethane	6	U	6	R
WHGLTA803-01	1,2-Dibromoethane	3	U	3	R
WHGLTA803-02	1,2-Dibromoethane	3	U	3	R

Appendix IX Semivolatile Organic Compounds
SW-846 Method 8270C
USEPA Level III Review

Site Naval Air Station Fort Worth JRB, Texas SDG # 9910G621

Laboratory STL-Chicago Date 08 02 00

HydroGeoLogic, Inc Reviewer Ken Rapuano Project AFC001-023E

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA801-01	9910G621-001	Soil
BHGLTA801-02	9910G621-002	Soil
BHGLTA801-03	9910G621-003	Soil
BHGLTA803-01	9910G621-004	Soil
BHGLTA803-02	9910G621-005	Soil
EB102899	9910G621-007	Water

Sample Delivery and Condition - The samples arrived at the laboratory in acceptable condition and temperature Proper custody (internal and external) was documented No qualification required

Holding Times - All samples were extracted and analyzed within the required holding times for soil samples

GC/MS Tuning - The initial calibration and sample analytical sequences were all performed within 12 hours of an acceptable MS tune No qualification required

Initial Calibration - The initial calibrations had acceptable average RRFs for SPCCs All other compounds had acceptable %RSDs No qualification required

Note that some compounds listed in Appendix A of the QAPP had %RSDs that did not meet the %RSD requirements, however, no corrective action is required for these compounds No qualification necessary

Continuing Calibration - All SPCCs met RRF requirements and all CCCs met the 20% %D requirement All other compounds met the 25% %D requirement, with the following exceptions

Note that some compounds listed in Appendix A of the QAPP had %Ds that did not meet the %D requirements, however, no corrective action is required for these compounds No qualification necessary

Surrogates - All sample surrogate recoveries were within established control limits

Laboratory Control Samples - Some aqueous LCS/LCSD %R results were outside control limits These QC samples are only associated with the equipment blank and no qualification is necessary All soil LCS %R results met established control limits, no qualification is necessary

MS/MSD - An MS/MSD was performed on BHGLTA803-02 All %Rs and RPDs were in control No qualification necessary

Internal Standard Performance - All internal standards met area and retention time criteria No qualification necessary

Method Blanks - The method blank was free from contamination No qualification necessary

Equipment Blanks - The associated equipment blank had bis(2-ethylhexyl)phthalate contamination at 46 µg/l, leading to a corresponding action level of 7600 µg/kg in soil This compound was not detected in any samples No qualification necessary

Field Duplicates - No field duplicate is associated with the samples in this SDG No qualification required

Compound Quantitation - Analyte detections reported below the PQL are qualified 'F'

Qualification Summary Table

Sample ID	Analyte	Lab Val	Lab Qual	HGL Val	HGL Qual
WHGLTA801-01	Benzo[a]anthracene	230	J	230	F
	Chrysene	270	J	270	F
Phenanthrene 16 ⊕ F	Benzo[b]fluoranthene	310	J	310	F
	Benzo[k]fluoranthene	130	J	130	F
	Benzo[a]pyrene	210	J	210	F
	Dibenzo[a,h]anthracene	230	J	230	F
	Benzo[g,h,i]perylene	200	J	200	F
WHGLTA801-02	No qualification necessary				
WHGLTA801-03	No qualification necessary				
WHGLTA803-01	No qualification necessary				
WHGLTA803-02	No qualification necessary				

Appendix IX Metals
SW-846 ICP and AA Methods
USEPA Level III Review

Site Naval Air Station Fort Worth JRB, Texas — SDG # 9910G621

Laboratory STL-Chicago — Date 08 02 00

HydroGeoLogic, Inc Reviewer Ken Rapuano — Project AFC001-023E

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA801-01	9910G621-001	Soil
BHGLTA801-02	9910G621-002	Soil
BHGLTA801-03	9910G621-003	Soil
BHGLTA803-01	9910G621-004	Soil
BHGLTA803-02	9910G621-005	Soil
EB102899	9910G621-007	Water

All metals fraction analyses of these samples were moved to SDG 9910G908 and put on hold The analyses were canceled in November by IT

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Appendix IX Metals
SW-846 ICP and AA methods
USEPA Level III Review

Site Naval Air Station Fort Worth JRB, Texas — SDG # 9911G676

Laboratory STL-Chicago — Date 08 01 00

HydroGeoLogic, Inc Reviewer Ken Rapuano — Project AFC001-023E

Client Sample ID	Laboratory Sample ID	Matrix
WHGLTA801WG01	9911G676-001	Water
EB110299	9911G676-002	Water

Sample Delivery and Condition - The samples arrived at the laboratory in acceptable condition and temperature Proper custody (internal and external) was documented No qualification required

Holding Times - All samples were analyzed within the required holding times for preserved water samples No qualification required

Calibration - The initial and continuing calibration verification standards had acceptable recoveries No qualification required The CRDL standards had acceptable recoveries

Method and Calibration Blanks - The preparation blank and bracketing CCBs had a detections of copper, thallium, and vanadium The highest associated blank values are 1 8 µg/l for copper, leading to an action level of 9 0 µg/l, 4 8 µg/l for thallium, leading to an action level of 24 0 µg/l, and 2 2 µg/l for vanadium, leading to an action level of 11 0 µg/l Sample WHGLTA801WG01 had a detections of copper and vanadium below the applicable action levels and these detections should be U-qualified at the PQL Thallium was not detected in the sample The preparation blank and bracketing CCBs showed negative baseline drift for beryllium, cadmium, cobalt, and nickel The highest associated blank values are -0 8 µg/l for copper, leading to an action level of 4 0 µg/l, -0 53 µg/l for cadmium, leading to an action level of 2 65 µg/l, -1 51 µg/l for cobalt, leading to an action level of 7 55 µg/l, and 3 13 µg/l for nickel, leading to an action level of 15 65 µg/l All four elements are non-detect in sample WHGLTA801WG01 and should be UJ-qualified at the PQL

Equipment Blanks - The equipment blank associated with these samples is EB110299 The preparation blank had a detection of 1 2 µg/l for silver and 5 4 µg/l for zinc, leading to action levels of 6 0 µg/l and 27 0 µg/l, respectively Silver was not detected in sample WHGLTA801WG01 The zinc detection in this sample is below the action level and should be U-qualified at the PQL

ICP Interference Check Sample - All %Rs were in control No qualification necessary

ICP Serial Dilution - No serial dilution performed No qualification necessary

Laboratory Control Samples - All LCSs had acceptable recoveries No qualification required

Recovery Tests - The recovery test result was below the LCL, but above 10%, for chromium and selenium in sample WHGLTA801WG01 The affected results are non-detects and are qualified UJ at the PQL

MS/MSD - A mercury MS was performed on sample WHGLTA801WG01. The %R was in control and no qualification is required

Laboratory Duplicates - Sample WHGLTA801WG01 was analyzed in duplicate for mercury Mercury was non-detect in both samples in the duplicate pair No qualification necessary

Field Duplicates - No field duplicate is associated with the samples in this SDG No qualification required

Compound Quantitation - No issues

Qualification Summary Table

Sample ID	Analyte	Lab Val	Lab Qual	HGL Val	HGL Qual
WHGLTA801WG01	Barium	123	B	123	F
	Beryllium	0 30	U	PQL	UJ
	Cadmium	0 30	U	PQL	UJ
	Chromium	1 2	UW	PQL	UJ
	Cobalt	1 0	U	PQL	UJ
	Copper	2 3	B	PQL	U
	Nickel	1 7	U	PQL	UJ
	Selenium	1 7	UW	PQL	UJ
	Vanadium	1 2	B	PQL	U
	Zinc	12 9	B	PQL	U

Appendix IX Volatile Organic Compounds (plus cis-1,2-DCE)
SW-846 Method 8260B
USEPA Level III Review

Site Naval Air Station Fort Worth JRB, Texas — SDG # 9911G676

Laboratory STL-Chicago — Date 07 31 00

HydroGeoLogic, Inc Reviewer Ken Rapuano — Project AFC001-023E

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA801WG01	9911G676-001	Water
EB110299	9911G676-002	Water
TB110299	9911G676-003	Water

Sample Delivery and Condition - The samples arrived at the laboratory in acceptable condition and temperature Proper custody (internal and external) was documented No qualification required

Holding Times - All samples were analyzed within the required holding times for preserved water samples No qualification required

GC/MS Tuning - The initial calibration and sample analytical sequence were all performed within 12 hours of an acceptable MS tune No qualification required

Initial Calibration - The initial calibration had acceptable %RSDs for CCCs and acceptable average RRFs for SPCCs All other compounds had acceptable %RSDs No qualification required

Continuing Calibration - All SPCCs met RRF requirements and all CCCs met the 20% %D requirement All other compounds met the 25% %D requirement, with the exception of trichlorofluoromethane in the continuing calibration performed on 11 8 99 R-qualify the result for this compound in the associated samples TB110299 and the original analysis of WHGLTA801WG01

Note that several compounds listed in Appendix A of the QAPP had %Ds that did not meet the %D requirements, however, no corrective action is required for these compounds No qualification necessary

Surrogates - All surrogate recoveries were within established control limits

Laboratory Control Samples - All LCS %R results met established control limits with two exceptions The trichlorofluoromethane %R in LCS VBLKUE was above the UCL, and the trans-1,2-dichloroethene %R in LCS VBLKUP was above the UCL The affected compounds were not detected in the associated samples and no qualification is necessary

MS/MSD - No MS/MSD pair is associated with this SDG No qualification necessary

Internal Standard Performance - All internal standards met area and retention time criteria

Method Blanks - All method blanks were free from contamination No qualification necessary

Equipment and Trip Blanks - The associated equipment and trip blanks were free from contamination No qualification necessary

Field Duplicates - No field duplicate is associated with the samples in this SDG No qualification required

Compound Quantitation - Sample WHGLTA801WG01 was analyzed at a 50X dilution to quantify some compounds above the calibration range in the initial analysis

Qualification Summary Table

Sample ID	Analyte	Lab Val	Lab Qual	HGL Val	HGL Qual
WHGLTA801WG01	Trichlorofluoromethane	0 5	U	0 5	RX
	trans-1,2-Dichloroethene	46	E	46	EX
	cis-1,2-Dichloroethene	370	E	370	EX
	Trichloroethene	140	E	140	EX
WHGLTA801WG01DL	Trichlorofluoromethane	25	U	Use this result	
	trans-1,2-Dichloroethene	60	D	60	--
	cis-1,2-Dichloroethene	410	D	410	--
	Trichloroethene	760	D	760	--
	All other analytes	PQL	U	PQL	UX

Appendix IX Semivolatile Organic Compounds
SW-846 Method 8270C
USEPA Level III Review

Site Naval Air Station Fort Worth JRB, Texas — SDG # 9911G676

Laboratory STL-Chicago — Date 08 01 00

HydroGeoLogic, Inc Reviewer Ken Rapuano — Project AFC001-023E

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA801WG01	9911G676-001	Water
EB110299	9911G676-002	Water

Sample Delivery and Condition - The samples arrived at the laboratory in acceptable condition and temperature Proper custody (internal and external) was documented No qualification required

Holding Times - All samples were extracted and analyzed within the required holding times for water samples with the exception of the reanalysis of EB110299, which was reextracted one day outside the 7 day holding time This sample is an equipment blank and no qualification is required

GC/MS Tuning - The initial calibration and sample analytical sequence were all performed within 12 hours of an acceptable MS tune No qualification required

Initial Calibration - The initial calibrations had acceptable average RRFs for SPCCs All other compounds had acceptable %RSDs No qualification required

Continuing Calibration - All SPCCs met RRF requirements and all CCCs met the 20% %D requirement All other compounds met the 25% %D requirement No qualification necessary

Note that several compounds listed in Appendix A of the QAPP had %Ds that did not meet the %D requirements, however, no corrective action is required for these compounds No qualification necessary

Surrogates - Sample WHGLTA801WG01 had one base/neutral surrogate with a low %R that was above 10% No qualification necessary EB110299 had four surrogates with %R below the LCL and was reextracted and reanalyzed All surrogates in the reanalysis were in control No qualification necessary

Laboratory Control Samples - All LCS %R results met established control limits No qualification is necessary

MS/MSD - No MS/MSD pair is associated with this SDG No qualification necessary

Internal Standard Performance - All internal standards met area and retention time criteria.

Method Blanks - All method blanks were free from contamination No qualification necessary

Equipment Blanks - The associated equipment blank was free from contamination No qualification necessary

Field Duplicates - No field duplicate is associated with the samples in this SDG No qualification required

Compound Quantitation - No issues

Qualification Summary Table

[No sample data require qualification]

6761210

METALS

USEPA SW846 Methods 6010A, 7470A, 7191, 7740
USEPA Level III Review

Site Naval Air Station Fort Worth JRB, Texas

SDG #. 9911G687 (DO2)

Laboratory STL - Chicago

Date 12/23/99

HydroGeoLogic, Inc Reviewer. Jennifer Wallace

Analyzed for· metals + mercury

Client Sample ID	Laboratory Sample ID	Matrix
WHGLTA803WG01	001	Water
EB110399	002	Water

Sample Delivery & Condition - All samples were relinquished, received, and preserved properly Some temperatures were reported below 2°C but no samples were reported as frozen No qualifications required

Holding Times - All samples met the required holding times as specified in Table 5 1 2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 No qualifications were required

Calibration - All ICV and CCV recoveries were in control No qualifications required.

Preparation and Calibration Blanks - The preparation and/or bracketing calibration blanks contained negative values for arsenic, cadmium, cobalt, nickel, and tin. In sample WHGLTA803, arsenic, cadmium, cobalt, and tin are non-detect and is qualified 'UJ' for negative bias' Nickel was previously qualified 'F' and should remain as such.

The preparation and/or bracketing calibration blanks contained positive values for beryllium, copper, thallium, and zinc. WHLGTA803 had no detections in beryllium, ~~copper, and~~ thallium, therefore no qualifications were required. ~~Zinc was detected in the equipment blank and was further qualified 'UJ'.~~ Copper and Zinc are qualified U.

Field and Equipment Blank - The equipment blank EB110399 contained beryllium and zinc at 0.82 and 9.6 ppb, respectively WHGLTA803 was free of beryllium, so no qualifications were required WHGLTA803 contained zinc at 11 1 ppb and should be flagged 'U' since it is less than 5 times the amount detected in the equipment blank

ICP Interference Check Sample - All ICS results met the required %R criteria. No qualification was required.

LCS - All LCS results met required %R criteria and no qualification is required

ICP Serial Dilutions - No ICP serial dilution was requested for this SDG

Matrix Spike - No matrix QC was performed on this data package

Matrix Spike Duplicate - No matrix QC was performed on this data package

Field Duplicates - No field duplicate was designated for this data package

GFAA Spike Recoveries - The %R's for chromium and selenium were below the %R range of 85-115% WHGLTA803 had a %R of 83 6% and 83.5% for chromium and selenium, respectively, the laboratory flagged these results with 'W' and the reviewer further qualified these compounds as 'UJ' Lead was within the required %R

Compound Quantitation - The laboratory flagged detections between the MDL and PQL with a 'B' and these are changed to an 'F' flag in accordance with project requirements

Comments - All data quality flags were applied as specified in the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report

Qualification Summary Table - Metals SDG 9911G687					
Sample No	Compound(s)	Lab Val ug/L	Lab Qual	HGL Val ug/L	HGL Qual
WHGLTA803WG01	Arsenic	3 5	U	RL	UJ
	Barium	195	B	195	F
	Cadmium	0.30	U	RL	UJ
	Chromium	1 2	UW	RL	UJ
	Cobalt	1 0	U	RL	UJ
	Copper	1 0	B	~~1.0~~ RL	~~F~~ UJ
	Nickel	2 6	B	2 6	F
	Selenium	1 7	UW	RL	UJ
	Tin	4 4	U	RL	UJ
	Zinc	11 1	B	RL	U

6761212

VOLATILE ORGANIC COMPOUNDS

USEPA SW846 Method 5035B, 8260B, & 8000B
USEPA Level III Review

Site· Naval Air Station Fort Worth JRB, Texas

SDG # 9911G687

Laboratory STL - Chicago

Date 12/23/99

HydroGeoLogic, Inc Reviewer Jennifer Wallace

Analyzed for Appendix IX VOAs + cis-1,2-DCE

Client Sample ID	Laboratory Sample ID	Matrix
WHGLTA803WG01	001	Water
EB110399	002	Water
TB110399	003	Water

Sample Delivery and Condition - All samples were relinquished, received, and preserved properly Some temperatures were reported below 2°C but no samples were reported as frozen No qualifications required

Holding Times - All samples were analyzed within the recommended holding time of 14 days for preserved water samples as specified in Table 5 1 2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 No qualifications were required

GC/MS Tuning - The initial calibration and sample analytical sequence were all performed within 12 hours of an acceptable MS tune No qualifications required

Initial Calibration - The initial calibration run on 09/22/99 had all SPCC compounds meet the minimum average RRF requirements All CCCs met the maximum %RSD criterion of 30%. All other analytes were also below the maximum %RSD criteria

Continuing Calibration - Continuing calibration run on 11/12/99 had all SPCC compounds meet the minimum continuing calibration RRF requirements All CCCs met the maximum %D criterion of 20% Trichlorofluoromethane (35 2%) and methylene chloride (29 7%) exceeded the maximum %D of 25% and these two compounds should be flagged 'R' in all samples 2-Chloro-1,3-butadiene, an Appendix IX compound had a %D greater than 50%, however no QC specifications are provided in the QAPP, therefore no action was required

Surrogates - All volatile samples had surrogate recoveries within the specified QC limits of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998.

Laboratory Control Samples - One compound, Trichlorfluoromethane (131%), in LCS VBLKAN had %R greater than the upper control limits specified by the QAPP. This compound has already been rejected due to the CCV data, so no further qualification was necessary The laboratory included seven additional compound in the spike mixture for which no LCS limits are provided in the QAPP and therefore not contaminants of concern No qualifications required

MS/MSD - No matrix QC was requested on this sample set

Internal Standard (IS) Area/Retention Time Performance - All volatile samples had internal standard areas and retention times within the acceptance limits specified in the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998

Method Blank (Form IV) - All compounds in the method blank were below the required reporting limits. No qualifications were required.

Trip, Field, Equipment Blank - Equipment blank EB110399 was free of contamination Trip blank TB110399 had a detection of methylene chloride at 0 6 ug/L, however this compound was previously qualified due to the CCV, so no further action was required No ambient blank was collected with these samples.

Field Duplicates - No field duplicates were requested in this data package

Compound Quantitation - WHGLTA803WG01 was free of contamination

Comments - All data quality flags were applied as specified in the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998

Data Validation Summary Table - The following table summarizes the qualifications applied in this data package

Qualification Summary Table - Volatiles SDG. 9911G687					
Sample No	Compound(s)	Lab Val ug/L	Lab Qual	HGL Val ug/L	HGL Qual
WHGLTA803WG01	Trichlorofluoromethane	0.5	U	0 5	R
	Methylene Chloride	0 5	U	0.5	R
EB110399	Trichlorofluoromethane	0 5	U	0.5	R
	Methylene Chloride	0 5	U	0 5	R
TB110399	Trichlorofluoromethane	0 5	U	0 5	R
	Methylene Chloride	0 6		0 6	R

6761214

SEMIVOLATILE ORGANIC COMPOUNDS

USEPA SW846 Method 8270C
USEPA Level III Review

Site Naval Air Station Fort Worth JRB, Texas

SDG # 9911G687

Laboratory. STL - Chicago

Date. 12/23/99

HydroGeoLogic, Inc. Reviewer Jennifer Wallace

Analyzed for. Appendix IX

Client Sample ID	Laboratory Sample ID	Matrix
WHGLTA803WG01	001	Water
EB110399	002	Water

Sample Delivery and Condition - All samples were relinquished, received, and preserved properly Some sample temperatures did fall below 2°C but no samples were reported frozen No qualifications required

Holding Times - All samples were extracted within the holding time of 7 days for water samples and analyzed within the 40 day holding time, as specified in Table 5 1 2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998

GC/MS Tuning - The initial calibration and sample analytical sequence were all performed within 12 hours of an acceptable MS tune No qualifications required

Initial Calibration - All SPCC compounds met the minimum average RRF requirements of 0 05 and all CCCs met the maximum %RSD criterion of 30% All other analytes were also below the maximum %RSD criteria.

Continuing Calibration - The continuing calibration run on 11/09/99 at 1057 had all SPCC compounds meet the minimum continuing calibration RRF requirements All CCCs met the maximum %D criterion of 20% and all other compounds had %D's less than 25%, except hexachlorocyclopentadiene (31.5%) and 2,4,6-tribromophenol (27 0%) Hexachlorocyclopentadiene is flagged 'R' in WHGLTA803 and EB110399 2,4,6-tribromophenol is not a compound of concern, so no qualification was required. The CCV run on 11/09/99 at 1139 had four Appendix IX compounds with a %D greater than 50%, however no action was taken since no QC criteria is specified in the QAPP

Surrogates - One surrogate, terphenyl-d14 was below the lower tolerance criteria although no action was taken since the %R was greater than 10%

Laboratory Control Samples - All LCS met the %R criterion as specified in the QAPP In addition, the laboratory include four additional compounds in the spike mixture for which no LCS limits are provided in the QAPP

MS/MSD - No matrix QC was submitted with this data package

IS's for sample WHGLTA803WG01 had retention times and peak areas [illegible]

Internal Standard (IS) Area/Retention Time Performance - Most semivolatile samples had internal standard areas and retention times within the acceptance limits as compared to the corresponding continuing calibrations, except for Lab File Id: SAB09 which had the IS3 (ANT) and IS4 (PHN) below the lower tolerance level for the LCS All compounds associated with internal standard IS3 (ANT) and IS4 (PHN) were non-dect and should be flagged 'UJ' in sample WHGLTA803 Please refer to the Validation Summary Table at the end of this validation package.

Method Blank -The method blank was below the required reporting limits. No qualifications were required

Field and Equipment Blank - Equipment blank EB110399 contained a detection of di-n-butylphthalate at 4 ug/L, however WHGLTA803 was free of contamination so no qualification was required

.eld Duplicates - No field duplicate was submitted with this data package

Comments - All data quality flags were applied as specified in the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998. Compounds flagged 'J' by the laboratory reflect detections above the MDL but below the RL and were further flagged 'F' by the validator.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report

Qualification Summary Table - Semivolatiles
SDG 9911G687

Sample No	Compound(s)	Lab Val ug/L	Lab Qual	HGL Val ug/L	HGL Qual
WHGLTA803WG01	Hexachlorocyclopentadiene	10	U	10	R
	Acenaphthene	10	U	10	UJ
	Acenaphthylene	10	U	10	UJ
	2-Chloronaphthalene	10	U	10	UJ
	4-Chlorophenyl phenyl ether	10	U	10	UJ
	Dibenzofuran	10	U	10	UJ
	Diethylphthalate	10	U	10	UJ
	Dimethylphthalate	10	U	10	UJ
	Fluorene	10	U	10	UJ
	2,4-Dinitrophenol	49	U	49	UJ
	2,4-Dinitrotoluene	10	U	10	UJ
	2,6-Dinitrotoluene	10	U	10	UJ
	1-Naphthylamine	20	U	20	UJ
	2-Naphthylamine	20	U	20	UJ
	2-Nitroaniline	49	U	49	UJ
	3-Nitroaniline	49	U	49	UJ
	4-Nitroaniline	49	U	49	UJ
	4-Nitrophenol	49	U	49	UJ
	Pentachlorobenzene	10	U	10	UJ
	1,2,4,5-Tetrachlorobenzene	10	U	10	UJ
	2,3,4,6-Tetrachlorophenol	10	U	10	UJ
	2,4,6-Trichlorophenol	10	U	10	UJ
	2 4,5-Trichlorphenol	49	U	49	U
	4-Aminobiphenyl	20	U	20	UJ

6761216

Qualification Summary Table - Semivolatiles
SDG 9911G687

Sample No	Compound(s)	Lab Val ug/L	Lab Qual	HGL Val. ug/L	HGL Qual
	Anthracene	10	U	10	UJ
	4-Bromophenyl-phenylether	10	U	10	UJ
	Di-n-butylphthalate	10	U	10	UJ
	4,6-Dinitro-2-methylphenol	49	U	49	UJ
	Diphenylamine	10	U	10	UJ
	Fluoranthene	10	U	10	UJ
	Hexachlorobenzene	10	U	10	UJ
	n-Nitrosodiphenylamine	10	U	10	UJ
	Pentachlorophenol	49	U	49	UJ
	Pentachloronitrobenzene	10	U	10	UJ
	Phenacetin	10	U	10	UJ
	Phenanthrene	10	U	10	UJ
	Pronamide	10	U	10	UJ
EB110399	Hexachlorocyclopentadiene	10	U	10	R
	Di-n-butylphthalate	4	J	4	F

6761217

METALS

USEPA SW846 GFAA for Lead (SW7421)
USEPA Level III Review

Site. Naval Air Station Fort Worth JRB, Texas

SDG # 9911G906 (DO23E)

Laboratory· STL - Chicago

Date 12/23/99

HydroGeoLogic, Inc Reviewer Jennifer Wallace

Analyzed for. Lead

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA080-01	002	Soil
BHGLTA084-01	003	Soil
BHGLTA829-01	005	Soil
BHGLTA830-01	007	Soil
BHGLTA407-01	009	Soil

*EB100799 is associated with data package 9910G290

Sample Delivery & Condition - All samples were relinquished, received, and preserved properly No qualifications necessary

Holding Times - All samples met the required holding times as specified in Table 5 1 2-1 of the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998 No qualifications were required

Calibration - All ICV and CCV recoveries were in control No qualifications required

Preparation and Calibration Blanks - The preparation and/or bracketing calibration blanks contained negative values for Lead. BHGLTA080-01, BHGLTA084-01 were 'F' flagged and should remain qualified as such.

Field and Equipment Blank - The equipment blank EB100799 is associated with data package 9910G290 and was free of lead contamination

ICP Interference Check Sample - All ICS results met the required %R criteria No qualification was required

LCS - All LCS results met required %R criteria and no qualification is required.

ICP Serial Dilutions - No ICP serial dilution was requested for this SDG

Matrix Spike - No matrix QC was requested for these samples

Matrix Spike Duplicate - No matrix QC was requested for these samples

Field Duplicates - No field duplicates were requested for these samples

Compound Quantitation - The laboratory flagged detections between the MDL and PQL with a 'B' and these are changed to an 'F' flag in accordance with project requirements. All compounds were analyzed under dilution to eliminate interferences

Comments - All data quality flags were applied as specified in the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), February, 1998.

Recovery Test Sample BHGLTA407-01 had a high recovery. The result on the sample retains the 'F' flag

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report

Qualification Summary Table - Metals (Lead by GFAA) SDG 9911G906					
Sample No	Compound(s)	Lab Val µg/L	Lab Qual	HGL Val µg/L	HGL Qual
BHGLTA080-01	Lead	351	B	351	F
BHGLTA084-01	Lead	27.9	B	27 9	F
BHGLTA407-01	Lead	81.5	B	81 5	F

Metals
Lead by SW7421
USEPA Level III Review

Site Naval Air Station Fort Worth JRB, Texas SDG # 9912G245

Laboratory STL - Chicago Date 07/31/00

HydroGeoLogic, Inc Reviewer Ken Rapuano Project AFC001-023E

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA080-01	9912G245-002	Water (SPLP Extract)
BHGLTA084-01	9912G245-004	Water (SPLP Extract)
BHGLTA829-01	9912G245-006	Water (SPLP Extract)
BHGLTA830-01	9912G245-008	Water (SPLP Extract)
BHGLTA407-01	9912G245-010	Water (SPLP Extract)

Sample Delivery and Condition - Proper custody (internal and external) was documented No qualification required

Holding Times - The holding time for furnace metals SPLP extraction is 180 days All samples were analyzed within the required holding times after extraction No qualification required

Calibration - The initial and continuing calibration verification standards had acceptable recoveries The CRDL standards were in control No qualification required

Method and Calibration Blanks - All preparation blank was free from contamination The initial and continuing calibration blanks were all free from contamination with the exception of one CCB which had a low-level negative result for lead This CCB does not bracket any samples and no further qualification is necessary

Equipment Blanks - No equipment blanks were evaluated because all samples were SPLP extracts to determine leachability of analytes already verified as present in the original soil samples No qualification necessary

Laboratory Control Samples - The LCS had an acceptable recovery No qualification required

Recovery Tests - The recovery test for lead was below the LCL for sample BHGLTA084-01. The lead non-detection in this sample is qualified UJ.

MS/MSD - An MS was performed on samples BHGLTA080-01 and BHGLTA084-01. Sample BHGLTA080-01 had an acceptable %R The %R in sample BHGLTA084-01 was 148 4%, above the UCL of 124% The result for this sample is a non-detect and no qualification is necessary

Laboratory Duplicates - Samples BHGLTA080-01 and BHGLTA084-01 were analyzed in duplicate by the laboratory Both duplicate pairs were in control and no qualification is necessary

Field Duplicates - No field duplicates were submitted No qualification required.

Compound Quantitation - All elements detected below the PQL are qualified 'F' Samples BHGLTA080-01, BHGLTA829-01, BHGLTA830-01, and BHGLTA47-01 were analyzed at 5-fold dilutions to eliminate interferences in the recovery test

Qualification Summary Table

Sample ID	Analyte	Lab Val	Lab Qual	HGL Val	HGL Qual
BHGLTA080-01	Lead	65 2	B	65 2	F
BHGLTA084-01	Lead	1 6	U	PQL	UJ
BHGLTA829-01	No qualification necessary				
BHGLTA830-01	Lead	70 8	B	70 8	F
BHGLTA407-01	Lead	12 9	B	12 9	F

DATA VALIDATION SUMMARY REPORT

PROJECT:	Carswell Air Force Base
LABORATORY:	Severn Trent Laboratories Chicago
WORK ORDERS:	9A01G449, 9A01G505, 9A01G512, 9A01G513, 9A01G543, 9A01G549, 9A01G578, 9A01G611
MATRIX:	Water and Soils
VALIDATION LEVEL:	III
ANALYSES, METHODS:	Volatiles SW8260B, Semivolatiles (PAH's)SW8270C, Pesticides SW8080A, Phosphorus Pesticides SW8141, PCBs SW8080A, Metals SW846 6010B (ICP, GFAA, CV)

1.0 INTRODUCTION

Water and soil samples were submitted to Severn Trent Laboratories Chicago for analyses. The validated samples are listed in Table 1-1.

100% of the samples were validated and reviewed in accordance with the "Basewide Quality Assurance Project Plan NAS Fort Worth JRB, Texas", and the associated methods.

Table 1-1. Sample Information

Work Order Number	Sample Date	Volatiles 8260B analysis	Semivolatiles 8270C analysis	Site #	Pesticides 8080A analysis	Phosphorus Pesticides 8141A	PCBs 8080A analysis	Metals 6010 analysis
**9A01G449	01/04/00		AA0001	4				
			AA0002	4				
			AA0005	4				
			AA0006	4				AA0006
			AA0012	4				
			AA0013	4				
			AA0014	4				
			AA0015	4				
			AA0020	5				
**9A01G505	01/04/00		AA0022	5				
			AA0023	5				
**9A01G512	01/05/00		AA0016	5				AA0016
			AA0017	5				AA0017
			AA0021	5				
**9A01G513	01/05/00			4				AA0003
				4				AA0004
			AA0007	4				
			AA0008	4				
			AA0009	4				
			AA0010	4				
				4	AA0011			
				5		AA0018		
				5				AA0019
*9A01G543	01/06/00	AA3008	AA3008	5		AA3008		AA3008
*9A01G549	01/07/00	AA3018	AA3018	8				AA3018
*9A01G578	01/11/00	AA3003	AA3003	4	AA3003		AA3003	AA3003
	↓	AA3004	AA3004	4	AA3004		AA3004	AA3004
		AA3006	AA3006	5		AA3006		AA3006
		AA3007	AA3007	5		AA3007		AA3007
		AA3010	AA3010	5		AA3010		AA3010
	01/10/00	AA3014	AA3014	8				AA3014
	↓	AA3015	AA3015	8				AA3015
		AA3016	AA3016	8				AA3016
		AA3017	AA3017	8		AA3017		AA3017
*9A01G611	01/13/00	AA3001	AA3001	4	AA3001		AA3001	AA3001
	↓	AA3002	AA3002	4	AA3002		AA3002	AA3002
	01/12/00	AA3005	AA3005	5		AA3005		AA3005
	↓	AA3009	AA3009	5		AA3009		AA3009
		AA3011	AA3011	5		AA3011		AA3011
		AA3012	AA3012	5		AA3012		AA3012
		AA3013	AA3013	8		AA3013		AA3013

* Appendix IX Target Analyte List Reported for each analyses

** Abbreviated Target Analyte List reported and SPLP analyses performed for each sample

2.0 *VOLATILE ORGANIC COMPOUNDS by 8260B*

2.1 Sampling Documentation

"All" (9A01G543, 9A01G549, 9A01G578, 9A01G611) Work Orders: Chain-of-custody (COC) records indicate that the sample(s) was received in good condition and properly preserved. No qualifiers were assigned.

2.2 Holding Times

"All" Work Orders: The samples were analyzed within the 14-day holding period for water and soil samples. No qualifiers were assigned.

2.3 Instrument Tune

"All" Work Orders: The bromofluorobenzene (BFB) tunes were performed. The tunes met the ion abundance criteria specified in the QAPP and the method. No qualifiers were assigned.

2.4 Calibrations

2.4.1 Initial Calibration

"All" Work Orders: The validated samples were analyzed using a five-point calibration. All SPCC compounds met the RRF QC criteria and all compounds met %RSD<30% QC criteria for all work orders..

2.4.2 Continuing Calibration

"All" Work Orders: Continuing calibration was performed using the 0.05 RRF criteria. All SPCC compounds met the QC criteria.

Work Order 9A01G543: Five target compounds (trichlorofluoromethane, acetonitrile, 3-chloropropene, ethylmethacrylate, 2-chloro-1,3-butadiene) had a continuing calibration %D>25%. Results were rejected (R qualified).

Work Order 9A01G549: Five target compounds (trichlorofluoromethane, 3-chloropropene, ethylmethacrylate, acetonitrile, isobutanol) had a continuing calibration %D >25%. Results were rejected (R qualified).

Work Order 9A01G578: Several compounds had a continuing calibration %D>25%. 2-Chloro-1,3-butadiene results for all samples were rejected (R qualified). Methylmethacrylate results for all samples except AA3003 were rejected (R qualified). Chloromethane and 3-chloropene results for AA3014, AA3015, and AA3017 were rejected (R qualified). Trichlorofluoromethane and isobutanol results for AA3003, AA3004, AA3007, AA3010, and AA3016 were rejected (R qualified). Acrolein and trans-1,4-dichloro-2-Butene results for AA3004, AA3007, AA3010, and AA3017 were rejected (R qualified). Bromoform, acetonitrile, and methacrylonitrile results for AA3003 were rejected (R qualified).

Work Order 9A01G611: Trichlorofluoromethane, and carbon disulfide, vinyl acetate, acetonitrile, acrylonitrile, and propionitrile results for all samples had a continuing

calibration %D>25% and results were rejected (R qualified). Chloromethane, 2-butanone, acrolein, and iodomethane results for AA3001 and AA3002 had a continuing calibration %D>25% and results were rejected (R qualified).

2.5 Blanks

2.5.1 Method/Preparation Blanks

"All" Work Orders: All method blanks associated with the samples had no contaminants detected in the blanks. No qualifiers were assigned.

2.5.2 Trip Blanks

"All" Work Orders: No action was required associated with the trip blanks. All trip blanks were non-detect except for AA8015-TB. Trichloroethene detected in the trip blank was less than five times the amount detected in the associated samples (AA3001, AA3002). No qualifiers were assigned.

2.5.3 Equipment and Field Blanks

"All" Work Orders: No contaminants were detected in the equipment rinses. No qualifiers were assigned

2.6 System Monitoring Compounds (surrogates)

"All" Work Orders: The surrogate recoveries for all samples were within the control limits. No qualifiers were assigned.

2.7 Internal Standards

Work Orders 9A01G543, 9A01G549, 9A01G611: The areas and retention times for all samples were within the control limits. No qualifiers were assigned.

Work Order 9A01G578: Sample AA3006 had all internal standards low and was diluted and reanalyzed with acceptable results; therefore, the original results were rejected (R qualified) in favor of the diluted results.

2.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

"All" Work Orders: Iodomethane not listed in the QAPP for target compounds had no laboratory QC limits. All iodomethane MS/MSD associated results were estimated (UJ qualified).

Work Order 9A01G543: Trichloroethane, cis-1,2-dichloroethene, and vinyl acetate experienced low % recoveries and/or high RPD for AA3008 and the results were estimated (J qualified). 2-Butanone experienced high RPD and trichlorofluoromethane experienced high % recovery but were not detected in the sample.

Work Order 9A01G549: No MS/MSD was associated with this SDG. No qualifiers were assigned.

Work Order 9A01G578: No qualifiers were assigned, other than the stated iodomethane estimated (UJ qualified) results.

Work Order 9A10G611: 2-Butanone experienced high % recoveries but was not detected in the samples. No qualifiers were assigned.

2.9 Laboratory Control Sample (LCS)

"All" Work Orders: Iodomethane not listed in the QAPP for target compounds had no laboratory QC limits. All iodomethane results were estimated (UJ qualified). Trichlorofluoromethane experienced high % recoveries in all LCS's except for one, but was not detected in any of the samples.

2.10 Field Duplicates

Work Orders 9A01G543, 9A01G549, 9A01G611: No field duplicates were associated with the samples. No qualifiers were assigned.

Work Order 9A01G578: Samples AA3003 (original), AA3004 (FD) and AA3006 (original), AA3007 (FD) were evaluated and all field duplicate QC criteria was met. No qualifiers were assigned.

2.11 Compound Quantitation and Project Reporting Limits

Based on a Level III validation, the samples were identified and generally quantified appropriately. The reporting limits listed on the Form I's were the reporting limits (RLs) specified in the QAPP. It should be noted that some compounds exceeded the instrument's calibration range. The samples were diluted and reanalyzed for these compounds with acceptable results; therefore, the original results were rejected (R qualified) in favor of the diluted results.

2.12 Overall Assessment of the Data

The data for the samples are acceptable as qualified.

3.0 *SEMIVOLATILE ORGANIC COMPOUNDS by 8270C*

3.1 Sampling Documentation

"All" (9A01G449, 9A01G505, 9A01G512, 9A01G513, 9A01G543, 9A01G549, 9A01G578, 9A01G611) Work Orders: Chain-of-custody (COC) records indicate that the sample(s) was received in good condition and properly preserved. No qualifiers were assigned.

3.2 Holding Times

"All" Work Orders: The samples were analyzed within the holding period for water and soils samples. No qualifiers were assigned.

3.3 Instrument Tune

"All" Work Orders: The decafluorotriphenylphosphine (DFTPP) tunes were performed. The tunes met the ion abundance criteria specified in the QAPP and the method. No qualifiers were assigned.

3.4 Calibrations

3.4.1 Initial Calibration

"All" Work Orders: The samples were analyzed using a five-point calibration. All SPCC compounds met the minimum average response factor (RRF) of 0.05.

Work Orders 9A01G449, 9A01G505, 9A01G512, 9A01G513, 9A01G543, 9A01G549, 9A01G578: The samples were analyzed using a five-point calibration. All target compounds met the %RSD<30%. No qualifiers were assigned.

Work Order 9A01G611: Sym-Trinitrobenzene, 2-sec-butyl-4,6-dinitrophenol, and hexachlorophene results for AA3009, AA3011, and AA3012 had %RSD>30% and were rejected (R qualified).

3.4.2 Continuing Calibration

Work Order 9A01G449: SPCC continuing calibration was performed using the 0.05 RRF QC criteria. All continuing calibrations met the mean RRF <0.05. The SPCC (%D<20%) and target compounds (%D<25%) continuing calibration was met for the all samples. No qualifiers were assigned.

Work Orders 9A01G505, 9A01G512, 9A01G513: SPCC continuing calibration was performed using the 0.05 RRF QC criteria. All continuing calibrations met the mean RRF <0.05. The continuing calibration %D < 25% was met for the all samples. No qualifiers were assigned.

Work Order 9A01G543: SPCC continuing calibration was performed using the 0.05 RRF QC criteria. All continuing calibrations met the mean RRF <0.05. The continuing calibration %D<25% was exceeded for n-nitrosodiethylamine, n-nitrosopiperidine, 1,4-naphthoquinone, 2-acetylaminofluorene, 7,12-dimethylbenz(a)anthrace, and 2-sec-butyl-4,6-dinitrophenol, results were rejected (R qualified).

Work Orders 9A01G549: SPCC continuing calibration was performed using the 0.05 RRF QC criteria. All continuing calibrations met the mean RRF <0.05. The SPCC (%D<20%) and target compounds (%D<25%) continuing calibration was met for the all samples. No qualifiers were assigned.

Work Order 9A01G578: SPCC continuing calibration was performed using the 0.05 RRF QC criteria. All continuing calibrations met the mean RRF <0.05. The continuing calibration %D<25% for all samples was exceeded for 2,4-dinitrophenol, 1,4-dioxane, a,a-dimethylphenethylamine, and p-phenylenediamine, results were rejected (R qualified). The continuing calibration %D<25% for AA3014, AA3015, AA3016, and AA3017 was exceeded for hexachlorocyclopentadiene and 3,3-dimethylbenzidine, results were rejected (R qualified). The continuing calibration %D<25% for AA3003, AA3004, AA3006, AA3007, and AA3010 was exceeded for benzyl alcohol and were rejected (R qualified). The continuing calibration %D<25% for AA3014, AA3015, AA3016, and AA3017 was exceeded for indeno(1,2,3-cd)pyrene and were rejected (R qualified).

Work Order 9A01G611: SPCC continuing calibration was performed using the 0.05 RRF QC criteria. All continuing calibrations met the mean RRF <0.05 The continuing calibration %D<25% for AA3005, AA3009, AA30011, AA30012, and AA30013 was exceeded for n-nitrosodiethylamine and 2-sec-butyl-4,6-dinitrophenol, results were rejected (R qualified). The continuing calibration %D<25% for AA3001, AA3002, AA3009, AA3011, and AA3012 was exceeded for n-nitrosomethylethylamine, p-phenylenediamine, and sym-trinitrobenzene, results were rejected (R qualified). The continuing calibration %D<25% for AA3013 and AA3005 were exceeded for n-nitrosopiperidine and diallate, results were rejected (R qualified). The continuing calibration %D<25% for AA3009, AA3011, and AA3012 were exceeded for n-nitrosodimethylamine, meta-dinitrobenzene, methapyrilene, hexachlorophene, and 2,2'-oxybis(1-chloropropane), results were rejected (R qualified) . The continuing calibration %D<25% for AA3001 and AA3002 were exceeded for 2-methylnaphthalene, 4,6-dinitro-2-methylphenol, 1,4-dioxane, 4-nitroquinoline-1-oxide, a,a-dimethylphenethylamine, aramite, and 5-nitro-o-toluidine, results were rejected (R qualified).

3.5 Blanks

3.5.1 Method/Preparation Blanks

"All" Work Orders: All method blanks associated with all samples had no contaminants detected in the associated method blanks. No qualifiers were assigned.

3.5.2 Equipment and Field Blanks

"All' Work Orders: All associated ERs for all samples had no contaminants detected in the ER blanks. No qualifiers were assigned.

3.6 System Monitoring Compounds (surrogates)

"All" Work Orders: The surrogate recoveries for all samples were within the control limits. No qualifiers were assigned.

3.7 Internal Standards

"All" Work Orders: The areas and retention times for all samples were within the control limits. No qualifiers were assigned.

3.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

"All" Work Orders: Aniline and n-nitrosodimethylamine not listed in the QAPP for target compounds had no laboratory QC limits. All aniline and n-nitrosodimethylamine MS/MSD associated results (9A01G512, 9A01G578) were estimated (UJ qualified).

Work Order 9A01G512: The MS/MSD had high % recoveries for Dibenzo(a,h)anthranene, but was not detected in any samples. No qualifiers were assigned.

3.9 Laboratory Control Sample (LCS)

"All" Work Orders: Aniline and n-nitrosodimethylamine not listed in the QAPP for target compounds had no laboratory QC limits. All aniline and n-nitrosodimethylamine results for all samples were estimated (UJ qualified).

Work Order 9A01G578: The LCS recoveries had high % recoveries for 4,6-dintro-2-methylphenol, but was not detected in any samples.

Work Order 9A01G611: The LCS recovery had high % recovery for bis(2-ethylhexyl)phthalate, but was not detected in any samples.

3.10 Field Duplicates

Work Order 9A01G505: Samples AA0022 (original) and AA0023 (FD) were evaluated and all field duplicate QC criteria were met No qualifiers were assigned

Work Order 9A01G578: Samples AA3003 (original), AA3004 (FD), and AA3006 (original), AA3007 (FD) were evaluated and all field duplicate QC criteria were met. No qualifiers were assigned.

3.11 Compound Quantitation and Project Reporting Limits

Based on a Level III validation, the samples were identified and generally quantified appropriately. The reporting limits listed on the Form I's were the reporting limits (RLs) specified in the QAPP.

3.12 Overall Assessment of the Data

The data for the samples are acceptable as qualified.

4.0 PESTICIDES Method 8080A

4.1 Sampling Documentation

"All" (9A01G513, 9A01G578, 9A01G611) Work Orders: Chain-of-custody (COC) records indicate that the sample(s) was received in good condition and properly preserved. No qualifiers were assigned.

4.2 Holding Times

"All" Work Orders: The samples were analyzed within the holding time. No qualifiers were assigned.

4.3 Calibrations

4.3.1 Initial Calibration

"All" Work Orders: The initial calibrations associated with the samples were performed in accordance with the method and the QAPP requirements. All r^2 were >0.990. No qualifiers were assigned.

4.3.2 Continuing Calibration

"All" Work Orders: The continuing calibrations associated with the samples were performed in accordance with the method and the QAPP requirements. No qualifiers were assigned.

4.4 Blanks

4.4.1 Method/Preparation Blanks

"All" Work Orders: The method blanks associated with all samples had no compounds detected. No qualifiers were assigned.

4.4.2 Trip Blanks

"All" Work Orders: There was no trip blank associated with the validated sample.

4.4.3 Equipment and Field Blanks

Work Order 9A01G513: No contaminants were found in the ER. No qualifiers were assigned.

Work Orders 9A01G578, 9A01G611: Heptachlor was detected in the ER, but all samples were non-detect for all pesticides. No qualifiers were assigned.

4.5 System Monitoring Compounds (surrogates)

"All" Work Orders: Surrogate spike recoveries (%R) were within the QC limits. No qualifiers were assigned.

4.6 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Work Orders 9A01G578, 9A01G611: There were no MS/MSD associated with these work orders. No qualifiers were assigned.

Work Order 99A01G513: The MS/MSD recoveries were within the QC limits. No qualifiers were assigned.

4.7 Laboratory Control Sample (LCS)

"All" Work Orders: All LCS analysis exhibited acceptable results. No qualifiers were assigned.

4.8 Field Duplicates

Work Order 9A01G578: Samples AA3003 (original) and AA3004 (FD) were evaluated and all field duplicate QC criteria was met. No qualifiers were assigned.

4.9 Compound Quantitation

Based on a Level III validation, the samples were identified and generally quantified appropriately. The reporting limits listed on the Form I's were the reporting limits (RLs) specified in the QAPP

4.10 Overall Assessment of the Data

The data for the validated samples are acceptable as reported.

5.0 PHOSPHORUS PESTICIDES Method 8141

5.1 Sampling Documentation

"All" (9A01G513, 9A01G543, 9A01G578, 9A01G611) Work Orders: Chain-of-custody (COC) records indicate that the sample(s) was received in good condition and properly preserved. No qualifiers were assigned.

5.2 Holding Times

"All" Work Orders: The samples were analyzed within the holding time No qualifiers were assigned.

5.3 Calibrations

5.3.1 Initial Calibration

"All" Work Orders: The initial calibrations associated with the samples were performed in accordance with the method and the QAPP requirements. No qualifiers were assigned

5.3.2 Continuing Calibration

"All" Work Orders: The continuing calibrations associated with the samples were performed in accordance with the method and the QAPP requirements. No qualifiers were assigned.

5.4 Blanks

5.4.1 Method/Preparation Blanks

"All" Work Orders: All method blanks had no compounds detected. No qualifiers were assigned.

5.4.2 Trip Blanks

"All" Work Orders: There were no trip blanks associated with the samples. No qualifiers were assigned.

5.4.3 Equipment and Field Blanks

"All" Work Orders: All ER's had no compounds detected. No qualifiers were assigned.

5.5 System Monitoring Compounds (surrogates)

"All" Work Orders: Surrogate spike recoveries (%R) were within the QC limits. No qualifiers were assigned.

5.6 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

"All" Work Orders: The MS/MSD recoveries were within the QC limits. No qualifiers were assigned.

5.7 Laboratory Control Sample (LCS)

"All" Work Orders: LCS analysis exhibited acceptable results. No qualifiers were assigned.

5.8 Field Duplicates

Work Order 9A01G578: Samples AA3006 (original) and AA3007 (FD) were evaluated and o,o,o-TEPA exceeded the field duplicate QC criteria and was estimated (J qualified).

5.9 Compound Quantitation

Based on a Level III validation, the samples were identified and generally quantified appropriately. The reporting limits listed on the Form I's were the reporting limits (RLs) specified in the QAPP

5.10 Overall Assessment of the Data

The data for the samples are acceptable as reported.

6.0 *PCBs* by Method 8080A

6.1 Sampling Documentation

"All" (9A01G578, 9A01G611) Work Orders: Chain-of-custody (COC) records indicate that the sample(s) was received in good condition and properly preserved. No qualifiers were assigned.

6.2 Holding Times

"All" Work Orders: The samples were analyzed within the holding time. No qualifiers were assigned.

6.3 Calibrations

6.3.1 Initial Calibration

"All" Work Orders: A five-point calibration was performed for the calibration. All target compounds met the minimum Relative Standard Deviation percentage (%RSD) of 20%. No qualifiers were assigned.

6.3.2 Continuing Calibration

"All" Work Orders: All target compounds met the continuing calibration %D<15%. No qualifiers were assigned.

6.4 Blanks

6.4.1 Method/Preparation Blanks

"All" Work Orders: There were no detects reported in the associated method blanks. No qualifiers were assigned.

6.4.2 Trip Blanks

"All" Work Orders: There were no TB associated with the samples. No qualifiers were assigned.

6.4.3 Equipment and Field Blanks

"All" Work Orders: There were no detects reported in the ER samples. No qualifiers were assigned.

6.5 System Monitoring Compounds (surrogates)

"All" Work Orders: The surrogate recoveries for the samples were within the control limits. No qualifiers were assigned.

6.6 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

"All" Work Orders: There were no MS/MSD associated with these samples. No qualifiers were assigned.

6.7 Laboratory Control Sample (LCS)

"All" Work Orders: LCS analysis exhibited acceptable results. No qualifiers were assigned.

6.8 Field Duplicates

Work Order 9A01G578: Samples AA3003 (original) and AA3004 (FD) were evaluated and all field duplicate QC criteria was met. No qualifiers were assigned.

6.9 Compound Quantitation and Project Reporting Limits

Based on a Level III validation, the samples were identified and generally quantified appropriately. The reporting limits listed on the Form I's were the reporting limits (RLs) specified in the QAPP

6.10 Overall Assessment of the Data

The data for the samples are acceptable as reported.

7.0 INORGANIC METALS ANALYSIS by 6010B

7.1 Sampling Documentation

"All" (9A01G449, 9A01G512, 9A01G513, 9A01G543, 9A01G549, 9A01G578, 9A01G611) Work Orders: Chain-of-custody (COC) records indicate that the sample(s) was received in good condition and properly preserved. No qualifiers were assigned.

7.2 Holding Times

"All" Work Orders: The validated samples were analyzed within the holding time requirements. No qualifiers were assigned.

7.3 Calibrations

7.3.1 Initial Calibration Verification

"All" Work Orders: The initial calibration verifications for all instruments were performed immediately following the standardization and met the requirements. No qualifiers were assigned.

7.3.2 Continuing Calibration Verification

"All" Work Orders: The continuing calibration verifications were within the control limits. No qualifiers were assigned.

7.4 Blanks

7.4.1 Method/Preparation Blanks

Work Order 9A01G449(soil, SPLP): The associated method blanks detected several contaminants. But all sample results were non-detect or >5X the associated method blank. No qualifiers were assigned

Work Order 9A01G512(soil,SPLP): There were no detects reported in the associated method blanks. No qualifiers were assigned.

Work Order 9A01G513(soils): There were no detects reported in the associated method blanks. No qualifiers were assigned.

Work Order 9A01G513(SPLP): The associated method blank detected several contaminants. Lead results for AA0003 and AA0004 and beryllium results for AA0019 were <5X the method blank and were changed to the non-detect status and U qualified.

Work Order 9A01G543: The associated method blank detected several contaminants, all negative values. Arsenic, cobalt, and nickel results were <5X the method blank and were estimated (J qualified). Cadmium, copper, lead, silver, thallium, and tin were not detected in the sample and results were estimated (UJ qualified).

Work Order 9A01G549: The associated method blank detected several contaminants, all negative values. Cobalt results were <5X the method blank and were estimated (J qualified). Calcium, copper, lead, nickel, silver, thallium, and tin were estimated (UJ qualified).

Work Order 9A01G578: The associated method blank detected several contaminants. All zinc results were ND or <5X the method blank and were changed to the non-detect status and U qualified. Due to negative values beryllium, cadmium, cobalt, and nickel for all samples were estimated (UJ qualified).

Work Order 9A01G611: The associated method blank detected several contaminants. Beryllium results for all samples were estimated (UJ qualified) except for AA3001 and AA3002 which were U qualified due to calibration/ER association. Copper results for AA3005, AA3011, AA3012, and AA3013 were changed to the non-detected status and U qualified. Zinc results for AA3002, AA3005, AA3009, AA3012, and AA3013 were

changed to the non-detected status and U qualified. Nickel results for AA3005, AA3009, AA3011, AA3012, and AA3013 were estimated (UJ qualified).

7.4.2 Equipment and Field Blanks

Work Order 9A01G449: The associated ER blank detected no contaminants. No qualifiers were assigned.

Work Orders 9A01G512, 9A01G513: The associated ER blank detected several contaminants. But all sample results were >5X the associated ER blank. No qualifiers were assigned.

Work Order 9A01G543. The associated ER blank detected several contaminants. Zinc results were <5X the associated ER blank and were changed to the non-detect status and U qualified.

Work Order 9A01G549: The associated ER blank detected several contaminants. But all sample results were >5X the associated ER blank. No qualifiers were assigned.

Work Order 9A01G578: The associated ER blank detected several contaminants. All zinc results were ND or <5X the ER blank and were changed to the non-detect status and U qualified.

Work Order 9A01G611: The associated ER blank detected several contaminants. Beryllium results for AA3001, AA3002, and zinc results for AA3013, AA3005, AA3009, AA3013, and antimony for AA3011 were <5X the ER blank and were changed to the non-detect status and U qualified.

7.4.3 Calibration Blanks

Work Order 9A01G449(soil, SPLP): The associated calibration blanks detected several contaminants. But all sample results were >5X the associated calibration blanks. No qualifiers were assigned.

Work Order 9A01G512(soil,SPLP): There were no detects reported in the associated calibration blanks. No qualifiers were assigned.

Work Order 9A01G513(soil): The associated calibration blanks detected several contaminants. But all sample results were >5X the associated calibration blanks. No qualifiers were assigned.

Work Order 9A01G513(SPLP): The associated calibration blanks detected several contaminants. Beryllium results for AA0019 were changed to the non-detect status.

Work Order 9A01G543: The associated calibration blanks detected several contaminants. Beryllium, cobalt, lead, and silver had negative values and sample results were estimated (UJ qualified).

Work Order 9A01G549: The associated calibration blanks detected several contaminants. Calcium, cobalt, lead, and silver had negative values and sample results were estimated (UJ qualified).

Work Order 9A01G578: The associated calibration blanks detected several contaminants. All positive vanadium results <5X the associated calibration blank were changed to the non-detect status and U qualified. Copper and thallium had negative values and all samples results were estimated (UJ qualified).

Work Order 9A01G611: The associated calibration blanks detected several contaminants. Beryllium results for AA3001, AA3002, and copper results for AA3005, AA3011, AA3012, AA3013, and vanadium results for AA3002, AA3009, AA3013, and cobalt results for AA3011 were changed to the non-detect status and U qualified. Due to negative blank values, lead results for AA3001, AA3002, AA3011, and AA3012 were estimated (UJ qualified).

7.5 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Work Order 9A01G449(soil): The RPD duplicate analysis for lead were outside the QC limits and were estimated (J qualified).

Work Order 9A01G449(SPLP): There were no MS/MSD's associated with this work order. No qualifiers were assigned.

Work Order 9A01G512(soil.SPLP): The MS/MSD recoveries were within the QC limits. No qualifiers were assigned.

Work Order 9A01G513(soil,SPLP): There were no MS/MSD's associated with this work order. No qualifiers were assigned.

Work Order 9A01G543: The MS/MSD recoveries were within the QC limits. No qualifiers were assigned.

Work Order 9A01G549: The MS/MSD recoveries for lead and selenium were low and results were estimated (UJ qualified).

Work Order 9A01G578: The MS/MSD recoveries for lead were low and results were estimated (UJ qualified)

Work Order 9A01G611: The MS/MSD recoveries for chromium were low and results were estimated (UJ qualified).

7.6 Laboratory Control Sample (LCS)

"All" Work Orders: LCS analysis exhibited acceptable results. No qualifiers were assigned.

7.7 Interference Check Samples

"All" Work Orders: The interference check samples analyzed were within the control limits. No qualifiers were assigned.

7.8 Field Duplicates

Work Order 91A0513: Samples AA0003 (original) and AA0004 (FD) were evaluated and all field duplicate QC criteria was met. No action was required.

Work Order 91A0578: Samples AA3003 (original) and AA3004 (FD) and AA3006 (original) and AA3007 (FD) were evaluated. The 20% RPD QC criteria was exceeded for zinc for all samples and was exceeded for vanadium for samples AA3006 and AA3007. Results were estimated (UJ qualified, since zinc and vanadium results were changed to the non detect status due to blank contamination).

7.9 Serial Dilution

Work Order 9A01G611: All serial dilutions were evaluated and %D for barium was greater than 10% and results were estimated (J qualified).

Work Orders 9A01G449, 9A01G512, 9A01G513, 9A01G543, 9A01G549, 9A01G578: All serial dilutions were within QC limits. No qualifiers were assigned.

7.10 Compound Quantitation and Project Reporting Limits

Based on a Level III validation, the samples were identified and generally quantified appropriately. The reporting limits listed on the Form I's were the reporting limits (RLs) specified in the QAPP

7.11 Overall Assessment of the Data

The data for the samples are acceptable as qualified.

Metals
SW-846 ICP and furnace
USEPA Level III Review

Site Naval Air Station Fort Worth JRB, Texas — SDG # 9A02G019

Laboratory STL-Chicago — Date 05 03 00

HydroGeoLogic, Inc Reviewer Ken Rapuano — Project AFC001-023E

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA821-01 (Be, Cr, and Zn)	9A02G019-001	Soil
BHGLTA820-01 (Be and Zn)	9A02G019-002	Soil
BHGLTA081-01 (Zn)	9A02G019-003	Soil
BHGLTA829-01 (Sb, Ba, and Cr)	9A02G019-004	Soil
BHGLTA830-01 (Sb, Ba, Cd, and Cr)	9A02G019-006	Soil

Sample Delivery and Condition - The samples arrived at the laboratory in acceptable condition and temperature Proper custody (internal and external) was documented No qualification required Note that these samples were originally collected on October 7, 1999 and were submitted as part of data package 9910G290 Due to an error on the chain of custody, the above analyses were not performed in time to be included in that data package

Holding Times - All samples were analyzed within the required holding times for soil samples No qualification required

Calibration - The initial and continuing calibration verification standards had acceptable recoveries No qualification required The CRDL standards had acceptable recoveries

Method and Calibration Blanks - The preparation blank had a detection of 1-470 mg/kg for barium and 1 070 mg/kg for zinc, leading to action levels of 7 35 mg/kg and 5 35 mg/kg, respectively The samples that were analyzed for barium or zinc had detections much greater than these action levels and no qualification is necessary The preparation blank also showed a baseline drift of -0 060 mg/kg for beryllium, leading to an action level of 0 30 mg/kg The samples that were analyzed for beryllium had detections greater than this action level (even when normalized for subsample size and percent solids) and no qualification is necessary All other initial and continuing calibration blanks were all free from contamination with the exception of one CCB which had a low-level detection of barium The action level for the CCB contamination is lower than that for the prep blank contamination and no further qualification is necessary

Equipment Blanks - The equipment blank associated with these samples is EB100799, reported in data package 9910G290. This blank has results reported only for barium and lead The raw data was examined and results were also determined for antimony, beryllium, chromium, and zinc The preparation blank had a detection of 0 60 µg/l for barium and 6 2 µg/l for zinc, leading to soil action levels of 0 3 mg/kg and 3 1 mg/kg, respectively All sample results are above the action level in all samples No qualification necessary

ICP Interference Check Sample - All %Rs were in control No qualification necessary

ICP Serial Dilution - No serial dilution performed No qualification necessary

Laboratory Control Samples - All LCSs had acceptable recoveries No qualification required

Recovery Tests - The recovery test result was above the UCL for antimony in BHGLTA829-01 The affected result is a non-detects and is qualified UJ

MS/MSD - No MS/MSD was submitted with this package No qualification required

Field Duplicates - No field duplicate is associated with the samples in this SDG No qualification required

Compound Quantitation - No issues

Qualification Summary Table

Sample ID	Analyte	Lab Val	Lab Qual	HGL Val	HGL Qual
BHGLTA821-01	All analytes	No qualification necessary			
BHGLTA820-01	All analytes	No qualification necessary			
BHGLTA081-01	All analytes	No qualification necessary			
BHGLTA829-01	Antimony	0 21	U	PQL	UJ
BHGLTA830-01	All analytes	No qualification necessary			

Metals
SW-846 ICP and furnace methods
USEPA Level III Review

Site Naval Air Station Fort Worth JRB, Texas — SDG # 9A02G019

Laboratory STL - Chicago — Date 05/3/00

HydroGeoLogic, Inc Reviewer Ken Rapuano — Project AFC001-023E

Client Sample ID	Laboratory Sample ID	Matrix
BHGLTA829-01 (Ba, Cr, & Sb)	9A02G019-005	Water (SPLP Extract)
BHGLTA830-01 (Ba, Cd, Cr, & Sb)	9A02G019-007	Water (SPLP Extract)

Sample Delivery and Condition - Proper custody (internal and external) was documented No qualification required

Holding Times - The holding time for ICP and furnace metals SPLP extraction is 180 days All samples were analyzed within the required holding times after extraction No qualification required

Calibration - The initial and continuing calibration verification standards had acceptable recoveries The CRDL standards were in control No qualification required

Method and Calibration Blanks - The preparation blank had a detection of 95 µg/l for barium The barium result in sample BHGLTA830-01 is qualified U as an extraction artifact The initial and continuing calibration blanks were all free from contamination with the exception of one CCB which had a low-level detection of barium The action level for the CCB contamination is lower than that for the prep blank contamination and no further qualification is necessary

Equipment Blanks - No equipment blanks were evaluated because all samples were SPLP extracts to determine leachability of analytes already verified as present in the original soil samples No qualification necessary

ICP Interference Check Sample - All %Rs were in control No qualification necessary

ICP Serial Dilution - No serial dilution was performed in this package No qualification required

Laboratory Control Samples - All LCSs had acceptable recoveries No qualification required

Recovery Tests - The recovery test for antimony was above the UCL for sample BHGLTA830-01 The antimony non-detection in this sample is qualified UJ The recovery test for antimony was also nominally above the UCL for sample BHGLTA829-01, however, as the exceedance is minimal (115 1% vs 115%), no qualification is deemed necessary

MS/MSD - No MS/MSD was submitted with this package No qualification required

Field Duplicates - No field duplicates were submitted No qualification required

Compound Quantitation - All elements detected below the PQL are qualified 'F'

Qualification Summary Table

Sample ID	Analyte	Lab Val	Lab Qual	HGL Val	HGL Qual
BHGLTA829-01	Chromium	100	B	100	F
BHGLTA830-01	Antimony	2 6	U	PQL	UJ
	Barium	455	-- (should be B)	~~455~~ PQL	U
	Chromium	23 6	B	23 6	F

DATA VALIDATION SUMMARY REPORT

PROJECT:	Carswell Air Force Base
LABORATORY:	Severn Trent Laboratories (STL) Chicago
WORK ORDERS:	9A03G284
MATRIX:	Water
VALIDATION LEVEL:	III
ANALYSES, METHODS:	Phosphorus Pesticide (O,O,O-Triethyl phosphorothioate) SW846 Method 8270 Semi-VOA SIM (Selective Ion Monitoring)

1.0 INTRODUCTION

Water samples with positive results for O,O,O-Triethyl phosphorothiate (O,O,O-TEPA) per SW846 Method SW8141 were submitted for definitive confirmation by using Gas Chromotography/Mass Spectroscopy in the Selective Ion Monitoring (SIM) mode. Samples with positive results for O,O,O-TEPA ranging from 2 ug/L to 13ug/L are listed in Table 1-1.

SW8270 SIM confirmation used concentrated extracts (Ten-fold, 5mL of extract to 0 5mL of extract) from the SW8141 analysis. In addition to the analysis of sample extracts, STL also concentrated batch QC samples (method blanks and laboratory control samples) to verify the analytical process.

100% of the samples were validated and reviewed in accordance with the "Basewide Quality Assurance Project Plan NAS Fort Worth JRB, Texas", and the associated methods.

Table 1-1. Sample Information

Work Order Number	Location	Sample Date	Analysis Date	Phosphorus Pesticides 8141A
9A03G284	WHGLTA003	02/28/00	03/16/00	AA3032
	LF05-18	2/29/00		AA3023
	LF05-19	03/01/00		AA3024
	WHGLTA701			AA3033
	LF05-5A	03/02/00		AA3025
	LF05-5B	03/03/00		AA3026
	WP07-10B			AA3037
	WP07-10C			AA3038
	LF04-4F	03/06/00	03/17/00	AA3021
	LF04-4F			AA3022
	LF05-5E			AA3028
	LF05-5E			AA3029
	WHGLTA702			AA3030
	WHGLTA703			AA3034
	LF05-5C	03/07/00		AA3027
	WPO7-10A			AA3036

2.0 PHOSPHORUS PESTICIDES (O,O,O-TEPA) Semi-VOA SW846 8270 SIMS

2.1 Sampling Documentation

Work Order 9A03G284: Chain-of-custody (COC) records indicate that the sample(s) was received in good condition and properly preserved. No qualifiers were assigned.

2.2 Holding Times

Work Order 9A03G284. The samples were analyzed within the holding time No qualifiers were assigned.

2.3 Calibrations

2.3.1 Initial Calibration

Work Order 9A03G284: Sample quantitation was based on single point (2ug/L) calibration at the reporting limit. No qualifiers were assigned.

2.4 Blanks

2.4.1 Method/Preparation Blanks

Work Order 9A03G284: All method blanks had no compounds detected No qualifiers were assigned.

2.4.2 Trip Blanks

Work Order 9A03G284: There were no trip blanks associated with the samples. No qualifiers were assigned.

2.4.3 Equipment and Field Blanks

Work Order 9A03G284: All associated ER's reported no contamination of O,O,O-TEPA per method SW8141. Subsequently, ER extracts were not analyzed by method SW8270 SIM.

2.5 System Monitoring Compounds (surrogates)

Work Order 9A03G284: Surrogate spike recoveries (%R) were within the QC limits for the primary analyses (SW8141). However, surrogate spike recoveries were not monitored by method SW8270 SIM. No qualifiers were assigned.

2.6 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Work Order 9A03G284: There were no MS/MSD's associated with the samples. No qualifiers were assigned.

2.7 Method of Standard Addition (MSA)

Work Order 9A03G284: Samples AA3024 and AA3025 were post spiked with O,O,O-TEPA. Percent recoveries indicated the concentrated extracts did not inhibit the identification and quantitation of O,O,O-TEPA at concentrations as low as 0.5 ug/L using SW8270 SIM.

2.8 Laboratory Control Sample (LCS)

Work Order 9A03G284: The LCS analysis exhibited acceptable results. No qualifiers were assigned.

2.9 Field Duplicates

Work Order 9A03G284: Samples AA3021 (original), AA3022 (FD) and AA3028 (original), AA3029 (FD), were evaluated and met the field duplicate QC criteria. No qualifiers were assigned.

2.10 Compound Quantitation

Based on a Level III validation, the samples were identified and generally quantified appropriately. The reporting limits listed on the Form I's were the reporting limits (RLs) specified in the QAPP per method SW8141.

2.10 Overall Assessment of the Data

The data for the samples are acceptable as reported.

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A Member of The IT Group

the IT group

April 13th, 2000

Mr Ken Rapuano
Hydrogeologic Inc.,
1155 Herndon Parkway, Suite #900
Herndon, VA 20170
Phone. (703) 478-5186
Fax (703) 471-4180

received 4-17-00

Re· Revised Carswell AFB – DO0003 Validation Report

Mr Rapuano,

Enclosed is one copy of the revised validation report for samples collected at Carswell AFB Delivery Order 0003. Samples were collected between January 4th through January 13th, 2000 at Landfill #4, Landfill #5, Waste Pile #7 and Landfill #8.

Also enclosed is a copy of Severn Trent Laboratories summary of GCMS confirmation of O,O,O-Tetraethyl Phosphorothioate (O,O,O-TEPA) of groundwater samples collected at Carswell AFB between February 28th through March 13th, 2000.

If you have any questions concerning the revised validation report you can contact me at the following telephone number· (865) 690-3211 ext. 2420. Thank-you for your time concerning this matter.

Very Truly Yours,

Tim Roth

Cc. Project files (letter only)

Note: 9A036284

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GCMS Confirmation of O,O,O-Tetra Ethyl Phosphorothioate (O,O,O-TEPA)
Groundwater Samples - NAS Ft. Worth

STL analyzed 29 water and 4 soil samples from the NAS Ft. Worth Site for Organophosphorus Pesticides using method SW8141. Several samples showed positive results for O,O,O-TEPA ranging from 2 ppb to 13 ppb. The results were tentatively confirmed using a secondary analysis with a dissimilar chromatographic column. At client's request STL pursued definitive confirmation of the presence of O,O,O-TEPA in the groundwater samples by using Gas Chromatography/Mass Spectroscopy in the Selective Ion Monitoring (SIM)mode. SIM analysis was necessary to ensure sufficient instrument sensitivity at the concentration levels found in the samples.

Per agreements with STL's customer, the laboratory used the extracts from the SW8141 analysis. The extracts were concentrated ten-fold (5 mL of extract to 0.5 mL of extract) and subsequently analyzed using a Semi-VOA SIM technique. In addition to the analysis of sample extracts, STL also concentrated the applicable batch QC samples (method blanks and LCS) from the SW8141 analysis to verify the analytical process as well as the positive results reported from the GC analysis. The results obtained using both analytical techniques are summarized in table 1.

Analytical/Instrumental Approach

SW8141 – The method had been previously validated in accordance with the applicable methodology and regulatory requirements. These include, but are not limited to, yearly Method Detection Limit (MDL) studies, demonstration of analyst proficiency, calibration of instruments with NIST standards, verification of initial calibration with second source standards, and successful analysis of Performance Evaluation samples. Daily instrument response and stability were monitored using the continuing calibration standards % drift and retention time windows. The standards used in the GC analysis were also analyzed by GCMS to confirm the identity of the compound. Method blanks and Laboratory Control Samples were also analyzed to monitor method performance. All the above parameters were within method criteria.

Analyte responses falling within the retention time windows of target analytes were tentatively identified as hits. The concentration levels were calculated using the established calibration factors. The tentative hits were further verified using a second analysis performed on a dissimilar column. All analytes meeting the retention time criteria in both columns were reported as hits in the SW8141 analytical run.

Semi-VOA SIM – The instrument was calibrated using an individual standard solution purchased independently from the calibration solution used in the GC analysis. Additionally, the standard was analyzed by SW8141 to verify its retention time. Using the individual O,O,O-TEPA standard, the GCMS department established a reference spectrum to be used in the analysis of the sample extracts. From the standard spectrum, the GCMS department determined that the ion most suited for used in the Ion Monitoring analysis would be the 198m/e. The SIM was calibrated using various concentration levels including a 2 ppb concentration which is the low standard or reporting level standard.

All sample extracts and associated extraction batch QC were analyzed using the SIM technique. The results are summarized in table 1. While the batch QC (LCS) analyzed by GCMS SIM showed results consistent with the GC analyses, the field sample results could not be replicated. STL analyzed the concentrated extracts by SW8141 to verify that the analyte detected by GC prior to concentration had not been lost during the concentration step. This analysis showed the analyte still present in the extract at a proportionally higher concentration. STL additionally performed a Method of Standards Addition (MSA) on the concentrated extract using SIM analysis. This was done to ensure that the concentrated extract would in no way interfere with the method's ability to quantify the target analyte at the expected concentrations The MSA showed that the concentrated extract did not inhibit the identification and quantitation of O,O,O-TEPA at concentrations as low as 0.5 ppb using SIM analysis.

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STL also used full scan GCMS (non SIM) to analyze the extract of the samples with the highest reported concentration from the GC analysis. The full scan analysis did not show any O,O,O-TEPA or any other analyte present in the extract. Concerned about the lack of agreement between the two analytical techniques STL decided to make one additional analysis using SW8141 but using different temperature conditions. The change in temperature profile would help determine if the compound found in the samples under the original temperature ramp matched the retention time of the O,O,O,-TEPA standard under the different conditions. The original GC conditions resulted in a retention time around 1 1 minutes The altered temperature profile resulted in a retention time of 10.2 minutes. Using the new temperature profile in the GC analysis STL found a peak in the sample in both columns but the peak no longer matched the TEPA retention time.

Conclusion – STL believes that the analyte found and reported from the SW8141 GC run is not O,O,O-TEPA. The compound was not confirmed by the GCMS SIM analysis and it was also not confirmed by the GC analysis using different temperature conditions. The compound found in the samples appears to behave similarly to TEPA but a definitive identification cannot be provided without further analysis.

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TABLE 1

IT-Carswell
Summary of Samples with
ooo-TEPA Detections via Method 8141

Client ID	8141 Results primary/confirmation (ug/l)		8270C SIM Results (ug/l)
AA 3032	1.1 J	1.5 J	ND < 2.0
AA 3023	7 7	8 7	ND < 2 0
AA 3024	4.5	5.2	ND < 2.0
AA 3033	9.4	11	ND < 2.0
AA 3025	7.3	8.5	ND < 2.0
AA 3026	3 4	3 9	ND < 2.0
AA 3038	7 7	8 4	ND < 2.0
AA 3037	11	12	ND < 2.0
AA 3030	4 6	4 8	ND < 2.0
AA 3034	5 3	5.5	ND < 2.0
AA 3021	12	13	ND < 2 0
AA 3022	13	13	ND < 2 0
AA 3028	7 2	7.7	ND < 2.0
AA 3029	6.5	7.3	ND < 2.0
AA 3027	9 4	10	ND < 2.0
AA 3036	10	11	ND < 2 0

Severn Trent Services - Chicago
GC/MS BNA Case Narrative

IT – Carswell AFB-D03
STL# 9A03G284
BNA DATA: O, O, O,-Triethyl phosphorothioate SIM confirmations

1. The organic extractions and the sample analyses were performed within recommended hold times.

2. The Method Blanks had all target compounds below the reporting limits.

3. The LCS (Laboratory Control Sample) samples were 9AGB178A-MB1 BS/BSD, 9AGB178A-MB1 BS, 9AGB196A-MB1 BS/BSD, 9AGB201A-MB1 BS/BSD, and 9AGB207A-MB1 BS/BSD. The OP PEST spike solution (20 µg/mL) was used and 1.0 mL was spiked in the LCS samples. The spike compound O,O,O,-Triethyl phosphorothioate was given QC limits of 0 - 200%. The spike recoveries and RPD values were within the QC limits for the target compounds in the LCS samples.

4. Matrix Spike/Matrix Spike Duplicate analyses were not performed on this analytical batch.

5. No surrogate recovery was generated for the SIM confirmations.

6. All analyses were performed following USEPA SW846 Method 8270C SIM protocol. All of the Internal Standard and Surrogate peaks have been labeled by name. The samples were quantitated using a single point calibration at 2 µg/L. All of the samples had internal standard areas and retention times within the acceptance criteria as compared to the corresponding calibration standard.

7. The samples were extracted by Method 3520 for OP PEST analysis. The extracts were concentrated from 5.0 mL to 0.5 mL and analyzed as low level waters.

Gary L Rynkar
Gary L. Rynkar
GC/MS BNA Unit Leader

3/20/00
Date

DATA VALIDATION SUMMARY REPORT

PROJECT.	Carswell Air Force Base
LABORATORY:	Severn Trent Laboratories Chicago
WORK ORDERS:	9A03G146, 9A03G241, 9A03G261, 9A03G262, 9A03G273, 9A03G274, 9A03G286, 9A03G287, 9A03G288, 9A03G289, 9A03G300
MATRIX:	Soils
VALIDATION LEVEL:	III
ANALYSES, METHODS:	Volatiles SW8260B, Semivolatiles SW8270C, Phosphorus Pesticides (O,O,O-Triethyl phosphorothioate) SW8141A, PAH SW8310, Metals SW846 6010B/7470A

1.0 INTRODUCTION

Soil samples were submitted to Severn Trent Laboratories Chicago for analyses. The validated samples are listed in Table 1-1.

100% of the samples were validated and reviewed in accordance with the "Basewide Quality Assurance Project Plan NAS Fort Worth JRB, Texas", and the associated methods

Table 1-1. Sample Information

Work Order Number	Sample Date	Volatiles PAH 8260B analysis	Semivolatiles 8270C analysis	PAH 8310	Phosphorus Pesticides 8141A	Metals 6010 analysis
9A03G146	03/01/00			AA0024 AA0025 AA0026		
9A03G241	03/08/00		AA0080	AA0059 AA0064 AA0069 *AA0080		*AA0052 AA0059 AA0063 AA0064 AA0069
9A03G261	03/09/00 03/13/00	AA0046 AA0047 AA0051 AA0084 AA0085 AA0086 AA0087 AA0088		AA0074 AA0075		AA0037 *AA0053 *AA0054 AA0055 *AA0058 AA0074 AA0075 *AA0076 *AA0077 *AA0078 AA0083
9A03G262	03/09/00	AA0038 AA0039 AA0049 AA0050				AA0045
9A03G273	03/10/00			AA0027 AA0028 AA0029 AA0030 AA0031 AA0032	AA0033 AA0034 AA0035 AA0036	AA0040 AA0042
9A03G274	03/09/00	AA0048				AA0048
9A03G286	03/13/00	AA0089 AA0090 AA0092 AA0096	AA0079 AA0081	*AA0079 *AA0081 AA0082		AA0089 AA0090
9A03G287	03/13/00	AA0091				AA0091
9A03G288	03/13/00	AA0093 AA0097				
9A03G289	03/13/00	AA0094 AA0095 AA0098 AA0099				
9A03G300	03/14/00					AA0100 AA0101 AA0102

* SPLP Analyses Performed

2.0 *VOLATILE ORGANIC COMPOUNDS by 8260B*

2.1 Sampling Documentation

"All" (9A03G261, 9A03G262, 9A03G274, 9A03G286, 9A03G287, 9A03G288, 9A03G289) Work Orders: Chain-of-custody (COC) records indicate that the sample(s) was received in good condition and properly preserved. No qualifiers were assigned.

2.2 Holding Times

"All" Work Orders. The samples were analyzed within the 14-day holding period for soil samples. No qualifiers were assigned.

2.3 Instrument Tune

"All" Work Orders: The bromofluorobenzene (BFB) tunes were performed. The tunes met the ion abundance criteria specified in the QAPP and the method. No qualifiers were assigned.

2.4 Calibrations

2.4.1 Initial Calibration

"All" Work Orders The validated samples were analyzed using a nine-point calibration. SPCC compounds met the mean RRF >0.30 and all target compounds met the %RSD <30% QC criteria for all work orders. No qualifiers were assigned.

2.4.2 Continuing Calibration

"All" Work Orders: Continuing calibration was performed using the SPCC >0.30 RRF QC criteria, and %D for CCC <20% and all calibration compounds <25%. All continuing calibrations met the QC criteria. No qualifiers were assigned.

2.5 Blanks

2.5.1 Method/Preparation Blanks

"All" Work Orders: All method blanks associated with the samples had no contaminants detected in the blanks. No qualifiers were assigned.

2.5.2 Trip Blanks

"All" Work Orders: No trip blanks are associated with the soil samples No qualifiers were assigned.

2.5.3 Equipment and Field Blanks

"All" Work Orders: No contaminants were detected in the equipment rinses. No qualifiers were assigned.

2.6 System Monitoring Compounds (surrogates)

"All" Work Orders: The surrogate recoveries for all samples were within the control limits. No qualifiers were assigned

2.7 Internal Standards

"All" Work Orders: The associated target compounds' internal standard areas and retention times for all samples were within the control limits. No qualifiers were assigned.

2.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

"All" Work Orders: The MS/MSD recoveries were within the QC limits No qualifiers were assigned.

2.9 Laboratory Control Sample (LCS)

"All" Work Orders: LCS analysis exhibited acceptable results No qualifiers were assigned.

2.10 Field Duplicates

Work Order 9A03G261: Samples AA0084 (original) and AA0085 (FD) were evaluated and all field duplicate QC criteria was met. No action was required.

Work Orders (9A03G262, 9A03G274, 9A03G286, 9A03G287, 9A03G288, 9A03G289): No field duplicates were associated with the samples. No qualifiers were assigned.

2.11 Compound Quantitation and Project Reporting Limits

Based on a Level III validation, the samples were identified and generally quantified appropriately.

2.12 Overall Assessment of the Data

The data for the samples are acceptable as qualified.

3.0 *SEMIVOLATILE* (PAH) *ORGANIC COMPOUNDS by 8270C*

3.1 Sampling Documentation

"All" (9A03G241, 9A03G286) Work Orders: Chain-of-custody (COC) records indicate that the sample(s) was received in good condition and properly preserved. No qualifiers were assigned.

3.2 Holding Times

"All" Work Orders: The samples were analyzed within the holding period for soil samples. No qualifiers were assigned.

3.3 Instrument Tune

"All" Work Orders: The decafluorotriphenylphosphine (DFTPP) tunes were performed The tunes met the ion abundance criteria specified in the QAPP and the method. No qualifiers were assigned.

3.4 Calibrations

3.4.1 Initial Calibration

"All" Work Orders: The samples were analyzed using an eight-point calibration All SPCC compounds met the minimum average response factor (RRF) of 0.05 and all target compounds met the %RSD<30%. No qualifiers were assigned

3.4.2 Continuing Calibration

"All" Work Orders: Continuing calibration was performed using the SPCC >0.05 RRF QC criteria, and %D for CCC <20% and all calibration compounds %D<25%. All continuing calibrations met the QC criteria. No qualifiers were assigned.

3.5 Blanks

3.5.1 Method/Preparation Blanks

"All" Work Orders: All method blanks associated with all samples had no contaminants detected in the associated method blanks No qualifiers were assigned.

3.5.2 Equipment and Field Blanks

"All' Work Orders: All associated ERs for all samples had no contaminants detected in the ER blanks. No qualifiers were assigned.

3.6 System Monitoring Compounds (surrogates)

"All" Work Orders: The surrogate recoveries for all samples were within the control limits. No qualifiers were assigned

3.7 Internal Standards

Work Order 9A03G241. The areas and retention times for all samples were within the control limits. No qualifiers were assigned

Work Order 9A03G286: Internal standard perylene d-12 for AA0081 recovery was low and associated compound dibenzo(a,h)anthracene was estimated (J qualified).

3.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Work Order 9A03G241: The MS/MSD recoveries were within QC limits No qualifiers were assigned.

Work Order 9A03G286: Phenanthrene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoroanthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, indeno(1,2,3-cd)pyrene, and benzo(a)pyrene results were estimated (J qualified) due to MS/MSD % recoveries and/or RPD.

3.9 Laboratory Control Sample (LCS)

"All" Work Orders: LCS analysis exhibited acceptable results. No qualifiers were assigned.

3.10 Field Duplicates

"All" Work Orders: No field duplicates were associated with the samples. No qualifiers were assigned.

3.11 Compound Quantitation and Project Reporting Limits

Based on a Level III validation, the samples were identified and generally quantified appropriately. Several compounds for sample AA0081 exceeded the calibration range of the instrument Dilutions and reanalyses were performed in order to obtain acceptable results.

3.12 Overall Assessment of the Data

The data for the samples are acceptable as qualified.

4.0 PHOSPHORUS PESTICIDES by 8141A

4.1 Sampling Documentation

"All" (9A03G273) Work Orders: Chain-of-custody (COC) records indicate that the sample(s) was received in good condition and properly preserved. No qualifiers were assigned

4.2 Holding Times

Work Order 9A03G273: The samples were analyzed within the holding time. No qualifiers were assigned.

4.3 Calibrations

4.3.1 Initial Calibration

Work Order 9A03G273: The initial calibrations associated with the samples were performed in accordance with the method and the QAPP requirements. No qualifiers were assigned

4.3.2 Continuing Calibration

Work Order 9A03G273: The continuing calibrations associated with the samples were performed in accordance with the method and the QAPP requirements. No qualifiers were assigned.

4.4 Blanks

4.4.1 Method/Preparation Blanks

Work Order 9A03G273: All method blanks had no compounds detected. No qualifiers were assigned.

4.4.2 Trip Blanks

Work Order 9A03G273: There were no trip blanks associated with the samples. No qualifiers were assigned.

4.4.3 Equipment and Field Blanks

Work Order 9A03G273: All ER's had no compounds detected No qualifiers were assigned.

4.5 System Monitoring Compounds (surrogates)

Work Order 9A03G273. Surrogate spike recoveries (%R) were within the QC limits. No qualifiers were assigned.

4.6 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Work Order 9A03G273: There were no MS/MSD associated with this SDG. No qualifiers were assigned.

4.7 Laboratory Control Sample (LCS)

Work Order 9A03G273: LCS analysis exhibited acceptable results No qualifiers were assigned.

4.8 Field Duplicates

Work Order 9A03G273: Samples AA0035 (original) and AA0036 (FD) were evaluated and all field duplicate QC criteria was met. No action was required.

4.9 Compound Quantitation

Based on a Level III validation, the samples were identified and generally quantified appropriately.

4.10 Overall Assessment of the Data

The data for the samples are acceptable as reported.

5.0 PAH's Method 8310

5.1 Sampling Documentation

"All" (9A03G146, 9A03G241, 9A03G261, 9A03G273, 9A03G286) Work Orders: Chain-of-custody (COC) records indicate that the sample(s) was received in good condition and properly preserved. No qualifiers were assigned

5.2 Holding Times

"All" Work Orders: The samples were analyzed within the holding time. No qualifiers were assigned.

5.3 Calibrations

5.3.1 Initial Calibration

"All" Work Orders: The initial calibrations associated with the samples were performed in accordance with the method and the QAPP requirements. No qualifiers were assigned

5.3.2 Continuing Calibration

Work Order 9A03G146: All samples had positive results for benzo(b)fluoranthene and continuing calibration had %D>15% and results were rejected (R qualified)

Work Orders 9A03G241, 9A03G261, 9A03G273, 9A03G286: The continuing calibrations associated with the samples were performed in accordance with the method and the QAPP requirements. No qualifiers were assigned.

5.4 Blanks

5.4.1 Method/Preparation Blanks

"All" Work Orders: All method blanks had no compounds detected. No qualifiers were assigned.

5.4.2 Trip Blanks

"All" Work Orders: There were no trip blanks associated with the samples. No qualifiers were assigned.

5.4.3 Equipment and Field Blanks

Work Order 9A03G146: The ER had phenanthrene detected but all samples were >5X blank results. No qualifiers were assigned.

Work Order 9A03G241, A930G261, 9A30G273, 9A03G286: All ER's had no compounds detected. No qualifiers were assigned.

5.5 System Monitoring Compounds (surrogates)

"All" Work Orders: Surrogate spike recoveries (%R) were within the QC limits. No qualifiers were assigned.

5.6 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Work Order 9A03G146, 9A03G261, 9A03G286: There were no MS/MSD's associated with these SDG's. No qualifiers were assigned.

Work Orders 9A03G241, 9A03G273: The MS/MSD recoveries were within the QC limits. No qualifiers were assigned.

5.7 Laboratory Control Sample (LCS)

"All" Work Orders: LCS analysis exhibited acceptable results. No qualifiers were assigned.

5.8 Field Duplicates

Work Order 9A03G146: Samples AA0024 (original) and AA0025 (FD) were evaluated and phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, and acenaphthene results were estimated (UJ/J qualified) due to field duplicate QC criteria. It should be noted that benzo(b)fluroanthene results were actually rejected due to calibration problems.

Work Orders 9A03G241, 9A03G273, 9A03G286: No field duplicates were associated with the samples. No qualifiers were assigned.

Work Order 9A03G261: Samples AA0074 (original) and AA0075 (FD) were evaluated and phenanthrene, benzo(b)fluoranthene and benzo(k)fluoranthene were estimated (J/UJ qualified) due to field duplicated QC criteria.

5.9 Confirmation

Work Order 9A03G146. Chrysene results for all samples and acenaphthene for AA0025 were estimated (J qualified) due to RPD>25%

5.10 Compound Quantitation

Based on a Level III validation, the samples were identified and generally quantified appropriately. Compounds that exceeded the instrument calibration range were diluted and reanalyzed as necessary, to obtain acceptable results.

5.11 Overall Assessment of the Data

The data for the samples are acceptable as qualified.

6.0 INORGANIC METALS ANALYSIS by 6010B

6.1 Sampling Documentation

"All" (9A03G241, 9A03G261, 9A03G262, 9A03G273, 9A03G274, 9A03G286, 9A03G287, 9A03G300) Work Orders: Chain-of-custody (COC) records indicate that the sample(s) was received in good condition and properly preserved. No qualifiers were assigned

6.2 Holding Times

"All" Work Orders: The validated samples were analyzed within the holding time requirements. No qualifiers were assigned.

6.3 Calibrations

6.3.1 Initial Calibration Verification

"All" Work Orders: The initial calibration verifications for all instruments were performed immediately following the standardization and met the requirements. No qualifiers were assigned.

6.3.2 Continuing Calibration Verification

"All" Work Orders: The continuing calibration verifications were within the control limits No qualifiers were assigned.

6.4 Blanks

6.4.1 Method/Preparation Blanks

Work Order 9A03G241(soil, SPLP): The associated method blanks detected several contaminants. Beryllium results for AA0052 and cadmium results for AA0059 and were estimated (J qualified) due to negative results for the method blank Barium results for AA0052(SPLP) were changed to the non-detect status and U qualified

Work Order 9A03G261(soil, SPLP). Cadmium results for AA0083 were estimated (J qualified) due to negative results for the method blank.

Work Orders 9A03G262, 9A03G273, 9A03G286, 9A03G287: There were no detects reported in the associated method blanks No qualifiers were assigned

Work Orders 9A03G274, 9A03G300: The associated method blank detected several contaminants but all sample results were >5X the method blank.

6.4.2 Equipment and Field Blanks

Work Order 9A03G241: The associated ER blank detected several contaminants. Beryllium results for AA0052(SPLP) were changed to the non-detect status and U qualified.

Work Orders 9A03G261, 9A03G262, 9A03G273, 9A03G274, 9A03G286, 9A03G287, 9A03G300: The associated ER blanks detected no contaminants No action was required

6.4.3 Calibration Blanks

Work Order 9A03G241: The associated calibration blanks detected several contaminants Beryllium results for AA0052(SPLP) were changed to the non-detect status and U qualified.

Work Order 9A03G261(soil, SPLP): Beryllium results for AA0053(SPLP) and AA0054(SPLP) were changed to the non-detect status and U qualified.

Work Orders 9A03G262, 9A03G273, 9A03G286, 9A03G287: The associated calibration blanks detected several contaminants. But all sample results were >5X the associated calibration blanks. No qualifiers were assigned.

Work Order 9A03G274: The associated calibration blanks detected no contaminants. No qualifiers were assigned.

Work Order 9A03G300: Copper results for AA0102 were changed to the non-detect status and U qualified.

6.5 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Work Orders 9A03G241, 9A03G261, 9A03G262, 9A03G273, 9A03G286, 9A03G287, 9A03G300: There were no MS/MSD's associated with these work orders. No qualifiers were assigned.

Work Order 9A03G274. The MS/MSD recoveries were within the QC limits. No qualifiers were assigned.

6.6 Laboratory Control Sample (LCS)

"All" Work Orders: LCS analysis exhibited acceptable results. No qualifiers were assigned.

6.7 Interference Check Samples

"All" Work Orders: The interference check samples analyzed were within the control limits. No qualifiers were assigned.

6.8 Field Duplicates

Work Orders 9A03G241, 9A03G262, 9A03G273, 9A03G274, 9A03G286, 9A30G287, 9A03G300: No field duplicates were associated with the samples. No qualifiers were assigned.

Work Order 9A03G261: Samples AA0053 (original), AA0054 (FD), and AA0074 (original), AA0075 (FD), and AA0077 (original), AA0078 (FD) were evaluated and all field duplicate QC criteria was met. No action was required.

6.9 Serial Dilution

Work Orders 9A03G241, 9A03G261, 9A03G262, 9A03G273, 9A03G286, 9A03G287, 9A03G300: There were no serial dilutions associated with these samples. No qualifiers were assigned.

Work Orders 9A03G274: All serial dilutions were within QC limits. No qualifiers were assigned.

6.10 Compound Quantitation and Project Reporting Limits

Based on a Level III validation, the samples were identified and generally quantified appropriately.

6.11 Overall Assessment of the Data

The data for the samples are acceptable as qualified.

DATA VALIDATION SUMMARY REPORT

PROJECT:	Carswell Air Force Base
LABORATORY:	Severn Trent Laboratories Chicago
WORK ORDERS:	9A02G112, 9A03G127, 9A03G146, 9A03G162, 9A03G177, 9A03G192, 9A03G223, 9A03G286
MATRIX:	Water
VALIDATION LEVEL:	III
ANALYSES, METHODS:	Phosphorus Pesticide (O,O,O-Triethyl phosphorothioate) SW846 method 8141

1.0 INTRODUCTION

Water samples were submitted to Severn Trent Laboratories Chicago for analyses The validated samples are listed in Table 1-1.

100% of the samples were validated and reviewed in accordance with the "Basewide Quality Assurance Project Plan NAS Fort Worth JRB, Texas", and the associated methods.

Table 1-1. Sample Information

Work Order Number	Location	Sample Date	Analysis Date	Phosphorus Pesticides 8141A
9A02G112	WHGLTA003	02/28/00	03/07/00	AA3032
9A03G127	LF04-10 LF05-18 WHGLTA002	2/29/00	03/07/00	AA3020 AA3023 AA3031
9A03G146	LF05-19 WHGLTA701 WHGLTA704	03/01/00	03/08/00	AA3024 AA3033 AA3035
9A03G162	LF05-5A	03/02/00	03/08/00	AA3025
9A03G177	LF05-5B WP07-10B WP07-10C	03/03/00	03/08/00	AA3026 AA3037 AA3038
9A03G192	FT09-12D LF04-4F LF04-4F LF05-5E LF05-5E WHGLTA702 WHGLTA703	03/06/00	03/10/00	AA3019 AA3021 AA3022 AA3028 AA3029 AA3030 AA3034
9A03G223	LF05-5C WPO7-10A	03/07/00	03/13/00	AA3027 AA3036
9A03G286	ITMWO1T	03/13/00	03/17/00	AA3039

2.0 PHOSPHORUS PESTICIDES (O,O,O-Triethyl phosphorothioate) Method 8141

2.1 Sampling Documentation

"All" (9A02G112, 9A03G127, 9A03G146, 9A03G162, 9A03G177, 9A03G192, 9A03G223, 9A03G286) Work Orders. Chain-of-custody (COC) records indicate that the sample(s) was received in good condition and properly preserved. No qualifiers were assigned.

2.2 Holding Times

"All" Work Orders: The samples were analyzed within the holding time. No qualifiers were assigned.

2.3 Calibrations

2.3.1 Initial Calibration

"All" Work Orders: The initial calibrations associated with the samples were performed in accordance with the method and the QAPP requirements No qualifiers were assigned

2.3.2 Continuing Calibration

"All" Work Orders: The continuing calibrations associated with the samples were performed in accordance with the method and the QAPP requirements. No qualifiers were assigned.

2.4 Blanks

2.4.1 Method/Preparation Blanks

"All" Work Orders All method blanks had no compounds detected No qualifiers were assigned.

2.4.2 Trip Blanks

"All" Work Orders: There were no trip blanks associated with the samples. No qualifiers were assigned.

2.4.3 Equipment and Field Blanks

"All" Work Orders: All ER's had no compounds detected. No qualifiers were assigned.

2.5 System Monitoring Compounds (surrogates)

"All" Work Orders: Surrogate spike recoveries (%R) were within the QC limits for the primary analyses. It should be noted that sample AA3023, experienced low surrogate (tributylphosphate) spike recovery during the confirmation analysis. No qualifiers were assigned

2.6 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

"All" Work Orders: The MS/MSD recoveries were within the QC limits. No qualifiers were assigned.

2.7 Laboratory Control Sample (LCS)

Work Orders 9A02G112, 9A03G127, 9A03G146, 9A03G162, 9A03G177, 9A03G223, 9A03G286: The LCS analysis exhibited acceptable results No qualifiers were assigned.

Work Order 9A03G192: The laboratory control sample recoveries for O,O,O-Triethyl phosphorothioate were low and samples AA3021, AA3022, AA3028, AA3029, AA3030, AA3034 were estimated (J qualified). Sample AA3019 non-detect results were rejected due to QAPP requirements for low recoveries.

UJ - based on SIM confirm 5.17.02

2.8 Field Duplicates

Work Order 9A03G192: Samples AA3021 (original), AA3022 (FD) and AA3028 (original), AA3029 (FD), were evaluated and met the field duplicate QC criteria. No qualifiers were assigned.

2.9 Compound Quantitation

Based on a Level III validation, the samples were identified and generally quantified appropriately per method SW8141. *However, O,O,O-Triethyl phosphorothioate was not confirmed by SW8270 SIM (see validation report for 9A03G284)* Therefore, all samples with positive results for O,O,O-Triethyl phosphorothioate should be considered false positives and qualified as such The reporting limits listed on the Form I's were the reporting limits (RLs) specified in the QAPP

2.10 Overall Assessment of the Data

The data for the samples are acceptable as qualified

IT Corporation
312 Directors Drive
Knoxville, TN 37923-4799
Tel. 423 690 3211
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A Member of The IT Group

6761265

the IT group

received

June 28th, 2000

Mr. Ken Rapuano
HydroGeologic Inc.
1155 Herndon Parkway, Suite #900
Herndon, VA 20170
Phone: (703) 478-5186
Fax: (703) 471-4180

Re. Carswell AFB – DO0003 LF05 (April '00) Validation Report

Mr. Rapuano,

Enclosed is one copy of the validation report for samples collected under Carswell AFB Delivery Order 0003. Samples were collected on April 26th, 2000 at Landfill #5.

If you have any questions concerning this validation report you can contact me at the following telephone number: (865) 690-3211 ext. 2420. Thank-you for your time concerning this matter.

Very Truly Yours,

Tim Roth

Cc: Project files (letter only)

6761266

DATA VALIDATION SUMMARY REPORT

PROJECT:	Carswell Air Force Base (Delivery Order 0003)
LABORATORY:	Severn Trent Laboratories Chicago
WORK ORDERS:	9A04G979
MATRIX:	Soils and Waters
VALIDATION LEVEL:	III
ANALYSES, METHODS:	Volatiles SW8260B

1.0 INTRODUCTION

Soil and water samples were submitted to Severn Trent Laboratories Chicago for analyses. The validated samples are listed in Table 1-1

100% of the samples were validated and reviewed in accordance with HydroGeologic Inc's "Basewide Quality Assurance Project Plan NAS Fort Worth JRB, Texas", and the associated methods.

Table 1-1. Sample Information

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Work Order Number	Sample Date	Volatiles 8260A Analysis
9A04G979	04/26/00	LF05-DP059-5 (S) LF05-DP059-10(S) LF05-DP059-15(S) LF05-DP059-20(S) LF05-DP059-25(S) LF05-DP060-5(S) LF05-DP060-10(S) LF05-DP060-15(S) LF05-DP060-20(S) WITCTA057 (W) WITCTA058(W) WITCTA059(W) WITCTA060(W)

2.0 *VOLATILE ORGANIC COMPOUNDS by 8260B*

2.1 Sampling Documentation

Work Order 9A04G979: Chain-of-custody (COC) records indicate that the sample(s) was received in good condition and properly preserved. No qualifiers were assigned.

2.2 Holding Times

Work Order 9A04G979: The soil samples were analyzed within the 14-day holding period. Reanalysis for cis-1,2-dichloroethene and trichloroethene for water samples WITCTA058, WITCTA059, and WITCTA060 were estimated (J qualified) due to exceeding the holding time by one day. Reanalysis for trans-1,2-dichloroethene for WITCTA059 were estimated (J qualified) due to exceeding the holding time by one day.

2.3 Instrument Tune

Work Order 9A04G979: The bromofluorobenzene (BFB) tunes were performed. The tunes met the ion abundance criteria specified in the QAPP and the method. No qualifiers were assigned.

2.4 Calibrations

2.4.1 Initial Calibration

Work Order 9A04G979: The samples were analyzed using a nine/ten point calibration. SPCC compounds met the mean RRF >0.30, or correlation coefficient (r) >0.995, and all target compounds met the %RSD <30% QC criteria. No qualifiers were assigned.

2.4.2 Continuing Calibration

Work Order 9A04G979: Continuing calibration was performed using the SPCC >0.30 RRF QC criteria, and %D for CCC <20% and all calibration compounds <25%.

Soil Samples: Trans-1,3-dichloropropene results for LF05-DP060-5, -10, -15 were rejected (R qualified) due to %D >25%.

Water samples: Chloromethane and ~~vinyl acetate~~ results were rejected (R qualified) and vinyl chloride results were estimated (J qualified) for WITCTA057, WITCTA058, WITCTA059, and WITCTA060, due to %D > 25%

2.5 Blanks

2.5.1 Method/Preparation Blanks

Work Order 9A04G979: All method blanks associated with the samples had no contaminants detected in the blanks. No qualifiers were assigned.

2.5.2 Trip Blanks

Work Order 9A04G979: No trip blanks are associated with the soil samples. No qualifiers were assigned.

Water samples: Trichloroethene was detected in the trip blank but sample results were >5X the trip blank.

2.5.3 Equipment and Field Blanks

Work Order 9A04G979:

Soil samples: No contaminants were detected in the equipment rinses. No qualifiers were assigned.

Water samples: Trichloroethene was detected in the equipment rinse but sample results were > 5X the equipment rinse.

2.6 System Monitoring Compounds (surrogates)

Work Order 9A04G979. The surrogate recoveries for all samples were within the control limits. No qualifiers were assigned.

2.7 Internal Standards

Work Order 9A04G979: The associated target compounds' internal standard areas and retention times for all samples were within the control limits. No qualifiers were assigned.

2.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Work Order 9A04G979: There were no MS/MSD associated with this work order. No qualifiers were assigned.

2.9 Laboratory Control Sample (LCS)

Work Order 9A04G979:

Soil samples: LCS analysis exhibited acceptable results for the soil samples. No qualifiers were assigned.

Water samples: The LCS had several compounds with high % recoveries. Vinyl chloride was detected in all water samples and were estimated (J qualified) due to high % recovery.

2.10 Field Duplicates

Work Order 9A04G979: No field duplicates were associated with the samples. No qualifiers were assigned.

2.11 Compound Quantitation and Project Reporting Limits

Based on a Level III validation, the samples were identified and generally quantified appropriately. Trans-1,2-dichloroethene results for WITCTA057 and WITCTA058 were above the calibration range on the original run and was diluted out on the reanalysis. The original analysis was used and estimated (J qualified) due to exceeding the calibration range of the instrument.

2.12 Overall Assessment of the Data

The data for the samples are acceptable as qualified.

ENVIRONMENTAL
Data Services, Inc.

6761271 received 7-21-00

PESTICIDES/PCBs

USEPA SW846 Methods 8081/8082 - USEPA Level III Review

Site: Naval Air Station Fort Worth - DO2-3E SDG #: 9A04G999

Client: HydroGeoLogic, Inc Date: June 28, 2000

Laboratory: Severn Trent Laboratories, Chicago, IL Reviewer: Cathy Shelby

Client Sample ID	Laboratory Sample ID	Matrix
IDW042700	9A04G999-001	Soil

Holding Times - All samples were extracted within 14 days for soil samples and analyzed within 40 days as specified in the NAS Fort Worth JRB 2000 Basewide Quality Assurance Project Plan (QAPP), March 2000 No qualifications were required

Initial Calibration - The initial calibrations analyzed on 05/11/00, 05/12/00 and 05/13/00 exhibited acceptable %RSD values of less than 20% and/or correlation coefficients greater than 0.995. No qualifications were required.

Continuing Calibration Verification - The continuing calibration analyzed 05/18/00 exhibited acceptable %D values. No qualifications were required

Method Blank - Method blank PBLKYR (05/05/00) was free of contamination. No qualifications were required

Field, equipment blank - Field QC samples were not analyzed with this data package

Surrogates - All samples exhibited acceptable surrogate %R values. No qualifications were required.

Laboratory Control Samples - LCS samples PBLKYRGP0385-MB1 and PBLKGP0385-MB2 exhibited acceptable %R values. No qualifications were required.

4 Bicentennial Square, Suite 3A · Concord, NH 03301 · Telephone. 603-226-0118 · Fax 603-226-0128 · e-mail envdata@aol.com

MS/MSD - A MS/MSD sample was not analyzed with this data package

Field Duplicates - Field duplicate samples were not analyzed with this data package.

Compound Identification - The retention times met the QC acceptance criteria and no qualifications were required.

Compound Quantitation - No discrepancies were identified.

Comments - The analyses of environmental samples and quality control samples are valid. The NAS Fort Worth JRB 2000 Basewide Quality Assurance Project Plan, March 2000, data validation criteria were used in evaluating the data in this summary report

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report

Qualification Summary Table - Pesticides/PCBs SDG 9A04G999					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
None Qualified	--	--	--	--	--

6761273

Received 7-21-00

ENVIRONMENTAL
Data Services, Inc.

METALS

USEPA SW846 Method 6010B/7000 - Level III Review

Site: Naval Air Station Fort Worth - DO2-3E SDG #: 9A04G999

Client: HydroGeoLogic, Inc. Date June 28, 2000

Laboratory: Severn Trent Laboratories, Chicago, IL Reviewer. Cathy Shelby

Client Sample ID	Laboratory Sample ID	Matrix
IDW042700	9A04G999-001	Soil

Holding Times - All samples were extracted and analyzed within 28 days for mercury and 180 days for all other metals as specified in the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), March 2000. No qualifications were required.

Calibration - All initial and continuing calibration verifications exhibited acceptable %R values. No qualifications were required.

Method Blanks - The preparation blank, initial and continuing calibration blanks exhibited arsenic, beryllium, copper, tin and vanadium contamination at 4 7 ug/L, 2.4 ug/L, 5.1 ug/L, 0 500 mg/kg and 2.2 ug/L, respectively. Arsenic, beryllium, copper and tin have been qualified (U) in sample IDW042700. Vanadium is greater than 5X the blank concentration and no further qualifications were required

The preparation blank, initial and continuing calibration blanks exhibited negative blank contamination for several compounds. Silver and tin have been qualified (UJ) in sample IDW042700 All other results are non-detect or less than the PQL and no further qualifications were required

Field and equipment blank - Field QC samples were not analyzed with this data package.

ICP Interference Check Sample - All % recovery values met the QC acceptance criteria. No qualifications were required.

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LCS - The LCS sample exhibited acceptable %R values No qualifications were required

ICP Serial Dilution - An ICP serial dilution sample was not analyzed with this data package.

Matrix Spike/Duplicate - A matrix spike/duplicate sample was not analyzed with this data package.

Field Duplicates - Field duplicate samples were not analyzed with this data package

Graphite Furnace Atomic Absorption (GFAA) Analysis - Sample IDW042700 exhibited a postdigestion spike for the selenium and thallium analyses out of control limits (85-115%) and sample absorbance is less than 50% of spike absorbance. The laboratory flagged these results (W) and the reviewer further qualified these results as estimated (UJ)

Compound Quantitation - All results between the MDL and the PQL have been qualified (F)

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the method blank, GFAA and compound quantitation sections of this report. The NAS Fort Worth JRB 2000 Basewide Quality Assurance Project Plan, March 2000, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report

Qualification Summary Table - Metals SDG 9A0G999					
Sample No.	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
IDW042700	Arsenic	2 0	B	2 0	U
	Barium	24.8	B	24 8	F
	Beryllium	0 30	B	0 30	U
	Cadmium	0 10	B	0 10	F
	Chromium	6 3	B	6.3	F
	Cobalt	2 4	B	2 4	F
	Copper	3.2	B	3 2	U
	Lead	6 6	B	6 6	F
	Selenium	0 15	UW	0 15	UJ
	Silver	0 01	U	0 01	UJ

Qualification Summary Table - Metals SDG 9A0G999					
Sample No	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
	Thallium	0 15	UW	0 15	UJ
	Tin	0 45	B	0 45	UJ
	Vanadium	11 4	B	11.4	F
	Zinc	9 9	B	9 9	F

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ENVIRONMENTAL
Data Services, Inc.

received
7-21-00

TOTAL PETROLEUM HYDROCARBONS

Texas Method 1005 (Rev 4/98) - Level III Review

Site Naval Air Station Fort Worth - D02-3E SDG #. 9A04G001

Client HydroGeoLogic, Inc. Date. June 28, 2000

Laboratory· Severn Trent Laboratories, Austin, Texas Reviewer· Cathy Shelby

Client Sample ID	Laboratory Sample ID	Matrix
IDW042700	9A04G001-001	Soil
IDW042700MS	9A04G001-001MS	Soil
IDW042700MSD	9A04G001-001MSD	Soil

Holding Times - All samples were analyzed within 14 days for soil samples as specified in the NAS Fort Worth JRB Basewide Quality Assurance Project Plan (QAPP), March 2000. No qualifications were required

Initial Calibration - The initial calibration analyzed on 04/28/00 exhibited acceptable %RSD and mean RRF values. No qualifications were required

Continuing Calibration - The continuing calibrations analyzed on 05/02/00, 05/03/00 and 05/06/00 exhibited acceptable %D and RRF values No qualifications were required.

Laboratory Control Samples - LCS sample DCPVR102 (05/02/00) exhibited acceptable %R values No qualifications were required

MS/MSD - MS/MSD sample IDW042700 exhibited low MS/MSD %R values for C6-C28 of 69%/58%, respectively. C6-C28 has been qualified (UJ) in this sample.

Method Blank - Method blank DCPVR101 (05/02/00) was free of contamination. No qualifications were required

Field, equipment blank - Field QC samples were not analyzed with this data package.

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Field Duplicates - Field duplicate samples were not analyzed with this data package.

Compound Quantitation - No discrepancies were identified

Comments - The analyses of environmental samples and quality control samples are valid within the constraints identified with the data quality flags as presented in the MS/MSD section of this report. The NAS Fort Worth JRB Basewide Quality Assurance Project Plan, March 2000, data validation criteria were used in evaluating the data in this summary report.

Data Validation Summary Table - The following table summarizes all qualifications as described in this data validation summary report.

Qualification Summary Table - TPH SDG 9A04G001					
Sample No.	Compound(s)	Reported		Validated	
		Conc	Qualifier	Conc	Qualifier
IDW042700	C6-C28	ND	--	ND	UJ

DATA VALIDATION SUMMARY REPORT

PROJECT:	Carswell Air Force Base
LABORATORY:	Severn Trent Laboratories Chicago
WORK ORDERS:	9A06G748, 9A06G781, 9A06G782
MATRIX:	Soils
VALIDATION LEVEL:	III
ANALYSES, METHODS:	Volatiles SW8260B, Semi-Volatiles and PAH's by SW8270, Metals SW6010

1.0 INTRODUCTION

Soil samples were submitted to Severn Trent Laboratories Chicago for analyses. The validated samples are listed in Table 1-1.

100% of the samples were validated and reviewed in accordance with the "Basewide Quality Assurance Project Plan NAS Fort Worth JRB, Texas", and the associated methods.

Table 1-1. Sample Information

Work Order Number	Sample Date	Sample Number	Volatiles 8260A Analysis	Semi-Volatiles 8270C Analysis	PAH's (SPLP) 8270C Analysis	Metals 6010B Analysis
09A06G748	6/14/00	AA0148				Be, Cr (&SPLP)
		AA0149				Pb, Cd (&SPLP)
		AA0150				Be, Se (&SPLP)
		AA0152				Be (&SPLP)
		AA0153				Pb (&SPLP)
		AA0154				Pb
		AA0155				Pb
		AA0156				Pb
		AA0157				Pb
		AA0158				Pb
		AA0159				Pb
		AA0160				Pb
		AA0161				Pb
		AA0162				Ba
		AA0163				Ba
		AA0164				Pb
		AA0165				Be
		AA0166				Pb
		AA0167				Be
		AA0168				Be
9A06G781		AA0127		06/20/00*	06/23/00	Cd, Pb, Sb(&SPLP)
		AA0128		06/20/00*	06/23/00	Ba(&SPLP)
		AA0151				Cr (&SPLP)
9A06G782		AA0125	06/23/00			
		AA0126	06/24/00			
		AA0129				Ag, Cd, Pb, Sb
		AA0130				Ba, Be, Cr, Pb, Zn
		AA0131				Pb, Zn
		AA0132	TCE			Pb, Zn
		AA0133				Pb, Zn
		AA0134	TCE			
		AA0135				Pb, Zn
		AA0136				Pb, Zn
		AA0137				Pb, Zn
		AA0138				Pb. Zn
		AA0139				Pb, Zn
		AA0140				Ag, Cd
		AA0141				Zn
		AA0142				Pb, Zn
		AA0143				Pb, Zn
		AA0144				Pb, Zn
		AA0145				Pb, Zn
		AA0146				Pb, Zn
		AA0147				Pb
		AA0169		06/20/00		
		AA0170		06/20/00		
		AA0171		06/20/00		
		AA0172		06/20/00		

2.0 *VOLATILE ORGANIC COMPOUNDS by 8260B*

2.1 Sampling Documentation

Work Order 9A06G782: Chain-of-custody (COC) records indicate that the sample(s) was received in good condition and properly preserved. No qualifiers were assigned.

2.2 Holding Times

Work Order 9A06G782: The soil samples were analyzed within the 14-day holding period. No qualifiers were assigned

2.3 Instrument Tune

Work Order 9A06G782: The bromofluorobenzene (BFB) tunes were performed. The tunes met the ion abundance criteria specified in the QAPP and the method. No qualifiers were assigned.

2.4 Calibrations

2.4.1 Initial Calibration

Work Order 9A06G782: The samples were analyzed using a nine-point calibration. SPCC compounds met the mean RRF >0.30, or correlation coefficient (r) >0.995, and all target compounds met the %RSD <30% QC criteria. No qualifiers were assigned.

2.4.2 Continuing Calibration

Work Order 9A06G782: Continuing calibration was performed using the SPCC >0.30 RRF QC criteria, and %D for CCC <20% and all calibration compounds <25%. Bromomethane and chloroethane results for AA0125 were rejected (R qualified) due to %D>20%/25%.

2.5 Blanks

2.5.1 Method/Preparation Blanks

Work Order 9A06G782: All method blanks associated with the samples had no contaminants detected in the blanks. No qualifiers were assigned.

2.5.2 Trip Blanks

Work Order 9A06G782: No trip blanks are associated with soil samples. No qualifiers were assigned.

2.5.3 Equipment and Field Blanks

Work Order 9A06G782: No contaminants were detected in the equipment rinses. No qualifiers were assigned.

2.6 System Monitoring Compounds (surrogates)

Work Order 9A06G782: The surrogate recoveries for all samples were within the control limits except for AA0126. Surrogate dibromofluoromethane had high % recoveries but all compounds were non-detect. No qualifiers were assigned.

2.7 Internal Standards

Work Order 9A06G782: The associated target compounds' internal standard areas and retention times for all samples were evaluated Internal standard #4 (1,4-dichlorobenzene d4) for AA0126 had low % recoveries. Associated compounds, 1,4-dichlorobenzene, n-butylbenzene, 1,2-dichlorobenzene, 1,2-dibromo-3-chloropropane, 1,2,4-trichlorobenzene, hexachlorobutadine, naphthalene, and 1,2,3-trichlorobenzene results were rejected (R qualified). Internal standard #4 for AA0134 had low % recoveries but were not associated with target compound.

2.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Work Order 9A06G782: Compounds with high % recoveries were non-detect for all compounds except AA0125 for methylene chloride which was estimated (J qualified). 1,2,4-trichlorobenzene, 1,2,3-trichlorobenzene, and hexachlorobutadiene had low % recoveries and associated results for AA0125 and AA1026 were estimated (UJ qualified). Hexachlorobutadiene also had high RPD.

2.9 Laboratory Control Sample (LCS)

Work Order 9A06G782: The LCS were evaluated and dichlorodifluoromethane results for AA0125 and AA0126 were rejected (R qualified) due to low % recoveries.

2.10 Field Duplicates

Work Order 9A06G782: No field duplicates were associated with the samples. No qualifiers were assigned.

2.11 Compound Quantitation and Project Reporting Limits

Based on a Level III validation, the samples were identified and generally quantified appropriately.

2.12 Overall Assessment of the Data

The data for the samples are acceptable as qualified.

3.0 *SEMIVOLATILE* -Bis (2-ethylhexyl) *ORGANIC COMPOUND by 8270C*

3.1 Sampling Documentation

"All" (9A06G781, 9A06G782) Work Orders: Chain-of-custody (COC) records indicate that the sample(s) was received in good condition and properly preserved. No qualifiers were assigned.

3.2 Holding Times

"All" Work Orders: The samples were analyzed within the holding period for soil samples. No qualifiers were assigned.

3.3 Instrument Tune

"All" Work Orders: The decafluorotriphenylphosphine (DFTPP) tunes were performed. The tunes met the ion abundance criteria specified in the QAPP and the method. No qualifiers were assigned.

3.4 Calibrations

3.4.1 Initial Calibration

"All" Work Orders: The samples were analyzed using an eight-point calibration. All SPCC compounds met the minimum average response factor (RRF) of 0.05 and all target compounds met the %RSD<30% No qualifiers were assigned.

3.4.2 Continuing Calibration

"All" Work Orders: Continuing calibration was performed using the SPCC >0.05 RRF QC criteria, and %D for CCC <20% and all calibration compounds <25%. All continuing calibrations met the QC criteria. No qualifiers were assigned.

3.5 Blanks

3.5.1 Method/Preparation Blanks

"All" Work Orders: All method blanks associated with all samples had no contaminants detected in the associated method blanks. No qualifiers were assigned.

3.5.2 Equipment and Field Blanks

"All" Work Orders: All associated ERs for all samples had no contaminants detected in the ER blanks. No qualifiers were assigned

3.6 System Monitoring Compounds (surrogates)

"All" Work Orders: The surrogate recoveries for all samples were within the control limits. No qualifiers were assigned.

3.7 Internal Standards

"All" Work Orders: The areas and retention times for all samples were within the control limits. No qualifiers were assigned.

3.8 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

"All" Work Orders: The MS/MSD recoveries were within QC limits. No qualifiers were assigned.

3.9 Laboratory Control Sample (LCS)

"All" Work Orders: LCS analysis exhibited acceptable results. No qualifiers were assigned.

3.10 Field Duplicates

Work Order 9A06G781: No field duplicates were associated with the samples. No qualifiers were assigned.

Work Order 9A06G782: AA0169 (original) and AA0170 (FD) were evaluated. Bis(2-ethylhexyl)phthalate results for AA0169 were estimated (J qualified) and AA0170 (non-detect) results were rejected (R qualified) due to RPD criteria. Note that AA0169 results were below the reporting limit.

3.11 Compound Quantitation and Project Reporting Limits

Based on a Level III validation, the samples were identified and generally quantified appropriately. Several compounds for sample AA0081 exceeded the calibration range of the instrument. Dilutions and reanalyses were performed in order to obtain acceptable results.

3.12 Overall Assessment of the Data

The data for the samples are acceptable as qualified.

4.0 PAH's (SPLP) Method 8310

4.1 Sampling Documentation

Work Order 9A06G781: Chain-of-custody (COC) records indicate that the sample(s) was received in good condition and properly preserved. No qualifiers were assigned.

4.2 Holding Times

Work Order 9A06G781: The samples were analyzed within the holding time. No qualifiers were assigned.

4.3 Calibrations

4.3.1 Initial Calibration

Work Order 9A06G781: The initial calibrations associated with the samples were performed in accordance with the method and the QAPP requirements. No qualifiers were assigned

4.3.2 Continuing Calibration

Work Order 9A06G781: The continuing calibrations associated with the samples were performed in accordance with the method and the QAPP requirements. No qualifiers were assigned.

4.4 Blanks

5.4.1 Method/Preparation Blanks

Work Order 9A06G781: The method blank detected acenaphthene, and associated results for AA0127 and AA0128 were changed to the non-detect status and U-qualified

4.4.2 Trip Blanks

Work Order 9A06G781: There are no trip blanks associated with SPLP extracts. No qualifiers were assigned.

4.4.3 Equipment and Field Blanks

Work Order 9A06G781: There are no equipment rinses associated with SPLP extracts. No qualifiers were assigned.

4.5 System Monitoring Compounds (surrogates)

Work Order A906G781: Surrogate spike recoveries (%R) were within the QC limits. No qualifiers were assigned.

4.6 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Work Order 9A06G781: The MS/MSD recoveries were within the QC limits. No qualifiers were assigned.

4.7 Laboratory Control Sample (LCS)

Work Order 9A06G781: LCS analysis exhibited acceptable results. No qualifiers were assigned.

4.8 Field Duplicates

Work Order 9A06G781: No field duplicates were associated with the samples. No qualifiers were assigned.

4.9 Confirmation

Work Order 9A06G781: The confirmation analysis associated with the samples were performed in accordance with the method and the QAPP requirements. No qualifiers were assigned.

4.10 Compound Quantitation

Based on a Level III validation, the samples were identified and generally quantified appropriately. Compounds that exceeded the instrument calibration range were diluted and reanalyzed as necessary, to obtain acceptable results.

4.11 Overall Assessment of the Data

The data for the samples are acceptable as qualified.

5.0 INORGANIC METALS ANALYSIS by 6010B

5.1 Sampling Documentation

"All" (9A06G748, 9A06G781, 9A06G782) Work Orders: Chain-of-custody (COC) records indicate that the sample(s) was received in good condition and properly preserved. No qualifiers were assigned.

5.2 Holding Times

"All" Work Orders: The validated samples were analyzed within the holding time requirements. No qualifiers were assigned.

5.3 Calibrations

5.3.1 Initial Calibration Verification

"All" Work Orders: The initial calibration verifications for all instruments were performed immediately following the standardization and met the requirements. No qualifiers were assigned.

5.3.2 Continuing Calibration Verification

"All" Work Orders. The continuing calibration verifications were within the control limits. No qualifiers were assigned.

5.4 Blanks

5.4.1 Method/Preparation Blanks

Work Order 9A06G748(soil): The associated method blanks detected several contaminants. Cadmium results for AA0149 were estimated (J qualified) due to negative values of the method blank.

Work Order 9A06G748(SPLP): The associated method blanks detected several contaminants. Beryllium results for AA0148 and AA0150 were changed to the non-detect status and U-qualified.

Work Order 9A06G781(soil): The associated method blanks detected several contaminants. Cadmium results for AA0127 were estimated (J qualified) due to negative values of the method blank.

Work Order 9A06G781(SPLP): The associated method blanks detected barium and cadmium. But sample results were non-detect or >5X the method blank. No qualifiers were assigned.

Work Order 9A06G782(soil): The associated method blanks detected several contaminants. Cadmium and silver results for AA0129 and AA0140 were estimated (UJ qualified) due to negative values of the method blank.

5.4.2 Equipment and Field Blanks

Work Order 9A06G748(soil): The associated equipment rinse detected barium, but sample results were >5X the ER. No qualifiers were assigned.

Work Order 9A06G781(soil): The associated equipment rinse detected chromium, but sample results were >5X the ER. No qualifiers were assigned.

Work Order 9A06G782(soil). The associated equipment rinse detected chromium and zinc. Zinc results for AA0143 were changed to the non-detect status and finally UJ-qualified due to field duplicate QC criteria.

5.4.3 Calibration Blanks

Work Order 9A06G748(soil): The associated calibration blanks detected several contaminants. Cadmium results for AA0149 were estimated (J qualified) due to negative values of the calibration blanks.

Work Order 9A06G748(SPLP): The associated calibration blanks detected several contaminants. Cadmium results for AA0149 were UJ-qualified due to negative calibration blanks.

Work Order 9A06G781(soil): The associated calibration blanks detected several contaminants. Cadmium results for AA0127 were estimated (J qualified) due to negative values of the calibration blanks.

Work Order 9A06G781(SPLP): The associated calibration blanks detected several contaminants. Cadmium results for AA0127 were estimated (UJ qualified) due to negative values of the calibration blanks.

Work Order 9A06G782(soil): The associated calibration blanks detected several contaminants. Silver, cadmium, and antimony results for AA0129 and AA0140 were estimated (UJ qualified) due to negative calibration blanks. Beryllium results for AA0130 were changed to the non-detect status and U-qualified.

5.5 Matrix Spike (MS) /Matrix Spike Duplicate (MSD)

Work Order 9A06G748(soil): MS/MSD's % recoveries for lead were low and associated samples AA0149, AA0153, AA0154, AA0155, AA0156, AA0157, AA0158, AA0159, AA0160, AA0161, AA0164, and AA0166 results were estimated (J qualified).

Work Order 9A06G748 (SPLP): There were no MS/MSD's associated with this work order. No qualifiers were assigned.

Work Order 9A06G781 (soil): MS/MSD's % recoveries for cadmium were low and AA0127 associated results were estimated (J qualified). MS/MSD's % recoveries for antimony were zero and AA0127 associated results were rejected (R qualified).

Work Order 9A06G781 (SPLP): The MS/MSD recoveries were low for antimony and high for lead. Associated results for AA0127 were estimated (J qualified).

Work Order 9A06G782 (soil): There were no MS/MSD's associated with this work order. No qualifiers were assigned.

5.6 Laboratory Control Sample (LCS)

"All" Work Orders: LCS analysis exhibited acceptable results. No qualifiers were assigned.

5.7 Interference Check Samples

"All" Work Orders: The interference check samples analyzed were within the control limits. No qualifiers were assigned.

5.8 Field Duplicates

Work Order 9A06G748: Samples AA0160 (original), AA0161 (FD) and AA0168 (original), AA0169 (FD) were evaluated and all field duplicated QC criteria were met. No qualifiers were assigned.

Work Order 9A06G781: There were no field duplicates associated with this SDG. No qualifiers were assigned.

Work Order 9A06G782: Samples AA0135 (original) and AA0136 (FD) were evaluated and lead results were estimated (J qualified) due to field duplicate QC criteria. Samples AA0143 (original) and AA0144 (FD) were evaluated and zinc results were estimated (J qualified) due to field duplicated QC criteria.

5.9 Serial Dilution

"All" Work Orders: All serial dilutions were within QC limits. No qualifiers were assigned.

5.10 Compound Quantitation and Project Reporting Limits

Based on a Level III validation, the samples were identified and generally quantified appropriately.

5.11 Overall Assessment of the Data

The data for the samples are acceptable as qualified.

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FINAL PAGE

ADMINISTRATIVE RECORD

FINAL PAGE