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1801

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DRAFT FINAL

RCRA FACILITY INVESTIGATION REPORT: UNITS 5, 10, 16, AND 17

VOLUME II OF II
APPENDICES

DEPARTMENT OF THE NAVY
MARINE CORPS AIR STATION
CHERRY POINT, NORTH CAROLINA

NUS CONTRACT NUMBER N62470-90-C-7635

NUS PROJECT NUMBER 3F24

MAY 1991

NUS CORPORATION
A Halliburton Company

NUS CORPORATION
ENVIRONMENTAL MANAGEMENT GROUP
PARK WEST TWO
CLIFF MINE ROAD
PITTSBURGH, PA 15275-1071
(412) 788-1080

1802

D-33-3-91-8

DRAFT FINAL

RCRA FACILITY INVESTIGATION REPORT: UNITS 5, 10, 16, AND 17

VOLUME II OF II
APPENDICES

DEPARTMENT OF THE NAVY
MARINE CORPS AIR STATION
CHERRY POINT, NORTH CAROLINA

NUS CONTRACT NUMBER N62470-90-C-7635

NUS PROJECT NUMBER 3F24

APRIL 1991

SUBMITTED FOR NUS BY:

Debra M. Wroblewski
DEBRA M. WROBLEWSKI
PROJECT MANAGER
NUS CORPORATION

APPROVED BY:

Vicki L. Bomberger
VICKI L. BOMBERGER
SENIOR ADVISOR
NUS CORPORATION

TABLE OF CONTENTS

APPENDICES

A	BORING LOGS	VOLUME II
B	WELL CONSTRUCTION DIAGRAMS	VOLUME II
C	SLUG TEST DATA AND PERMEABILITY CALCULATIONS	VOLUME II
D	CHEMICAL ANALYTICAL DATA	VOLUME II
E	RFI ACTION LEVELS	VOLUME II
F	REPRESENTATIVE CONCENTRATIONS	VOLUME II
G	RISK ASSESSMENT CALCULATIONS	VOLUME II

APPENDIX A

BORING LOGS

APPENDIX A.1

UNIT 5

BORING LOG — NUS CORPORATION

PROJECT: MCAS CHERRY POINT — BORING NO: 5GW08
PROJECT NO.: 3F24 — DATE: 10-28-90 (SUN) — DRILLER: R BILBREY, R. HAMMOCK } BOYLES BROS
ELEVATION: 14.45 — FIELD GEOLOGIST: SJ CONTI
WATER LEVEL DATA:
(Date, Time & Conditions)

1806

SAMPLE NO. & TYPE OR RUN NO.	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DEPTH) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	UNIFIED SOIL CLASS.	REMARKS
	0.0				LOOSE		HSA TO		LOGGED CUTTINGS
					TO		HIT SILTY SAND		
					MED		TO CLAYEY SAND ≈ 7'-8'		DIFFICULT TO LOG
					DENSE		THEN BECOMES WET		BELOW 8' DUE TO WT
	5.0								SILTY SANDS BELOW
				5			SILTY SAND TO		9'.
							CLAYEY SAND		
									WATER ≈ 9' ±
	10.0								
	15.0			15					
							SCREEN BOTM @ 15'		
									OVERDRILLED W/ HSA
									TO ≈ 16 & 17 TO MAKE
									SURE WELL WAS
									SET AT PROPER DEPTH.

REMARKS: MOBILE B-50 RIG - HSA W/O SAMPLES TO SET WELL.
SET UP OVER HOLE ≈ 0830 HRS
" " " " 1140 HRS

BORING 5GW08

PAGE 1 OF 1

BORING LOG | NUS CORPORATION

PROJECT: MCAS CHERRY POINT
BORING NO: 5GW09
PROJECT NO.: 3F24
DATE: 10-28-90
DRILLER: R. BILBREY > BOYLES
ELEVATION: 10.41
FIELD GEOLOGIST: SJ CONTI
R HAMMOCK } BROS
WATER LEVEL DATA:
(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RUN NO.	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DEPTH/FT) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	OVA READINGS	1807 REMARKS
	0.0				LOOSE		SILTY FINE TO COARSE		HSA TO ≈ 15'
					TO		SAND - TR		LOGGED CUTTINGS.
					MDENSE		GRAVEL		
							TR CLAY		
									WATER ≈ 5'±
	15.0			15.0					
							SCREEN 3 - 13		HSA TO 15 TO
									MAKE SURE SCREEN WOULD GO TO 13
									SAND 14 - 2.5
									PELLETS 2.5 - 1.5

REMARKS: MOBILE B-80 RIG.
SET UP ≈ 1430 HRS

BORING 5GW09

PAGE 1 OF 1

BORING LOG

NUS CORPORATION

808

PROJECT: MCAS CHERRY POINT

BORING NO: SGW10

PROJECT NO.: 3F24

DATE: 11/6/90

DRILLER: C. MINK (ATV)

ELEVATION: 16.92

FIELD GEOLOGIST: E. J. RODMAN

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (ft) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS	REMARKS
						DRK BRN	SURFACE SOILS		
					MEI	MED TAN	SILTY SAND		DRY TO MOIST (0ppm)
						LT. TAN	SILTY SAND		
							TRC. CLAY		~~MOIST~~ DRY TO MOIST
	5.0								
							Less CLAY		1 ppm
						MED YELLOW TAN	SILTY SAND		
				9					
	10.0					MED YELLOW TAN/GREY			
									MOIST
	15.0								MOIST TO WET
									SATURATED BUT BADLY
									RUNNING SANDS
				19					
	20.0								SCREEN 9.3-19.3
									SAND 20-7
				22'					PELLETS 7-5
				BOTTOM			WELL BOTTOM 19'		
							BOTTOM 22'		

REMARKS VERY DIFFICULT TO DETERMINE WHERE WE HIT H_2O: GRADUAL CHANGE FROM DRY TO MOIST TO WET TO SATURATED.
HSA TO 22'

BORING SGW10

PAGE 1 OF 1

BORING LOG

NUS CORPORATION

1809

PROJECT: MCAS CHERRY POINT

BORING NO: 5GW11

PROJECT NO.: 3F24

DATE: 10-29-90

DRILLER: R. BILBREY } BOYLES BROS

ELEVATION: 13.57

FIELD GEOLOGIST: SJ CONTI

R. HAMMOCK

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RUN NO.	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DEPTH) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	UNCONSOLIDATED CORE SAMPLE	REMARKS
	0.0				LOOSE TO	YELLOW BRN	SILTY SAND - TR GRAVEL		MOIST
					MED				
					DENSE		TO		
							SILTY FINE TO MED SAND		
				4					
									WATER ≈ 7.08'
									TO WET
									SCREEN 4-14
									SAND 3-15 } 10/29
				14					PELLETS 2-3
	15.0			15'					
							WELL BOTTOM @ 14		
							HSA TO 15		

REMARKS: MOBILE B-51 - RIG.
0750 RIG SETS UP OVER HOLE

BORING 5GW11

PAGE 1 OF 1

BORING LOG

NUS CORPORATION

1810

PROJECT: MCAS CHERRY POINT

BORING NO: SB01

PROJECT NO.: 3F24

DATE: 10-29-90

DRILLER: C. MINK B80

ELEVATION:

FIELD GEOLOGIST: EJ RODMAN

WATER LEVEL DATA:

(Date, Time & Conditions) AM

SAMPLE NO. & TYPE OR RUN NO.	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DEPTH FT) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	UNIFIED SOIL CLASSIFICATION	REMARKS
		4							
S-1		3	1.7/2.0		LOOSE	LT TAN	SILTY SAND MED-FINE GRAINED	SM	Hole (Open)
		1							
		15"			MED DENSE	TAN-YELLOW	SILTY SAND TRC. CLAY	SM	
	10.0								
									MOIST TO WET
									H_2O @ ~16' during drilling
							Slightly lighter sands still yellowy tan		

REMARKS CUTTINGS ONLY BETWEEN 25' + 28'

BORING SB01

PAGE 1 OF 2

BORING LOG — NUS CORPORATION

PROJECT: MCAS CHERRY POINT — BORING NO: 5B01 -811

PROJECT NO.: 3F24 — DATE: 10-29-90 — DRILLER: C MINK

ELEVATION: — FIELD GEOLOGIST: RODMAN

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DEPTH FT) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS	REMARKS
				?					
S-2		16/15			DENSE	OLIVE GREEN	SILTY CLAY TRC. SAND	CL	CONTACT MAY BE
	30.0	10/14		30	MED DENSE	↓	ABUNDANT SHELLS		AT ABOUT 27'
				BOTTOM					WHERE DRILLERS
									FELT AUGERS MEET
									MORE RESISTANCE.

REMARKS (*) CONFINING LAYER & CONTACT AT UNIT 5 IS MORE DISTINCT AND SHARPER THAN AT UNIT 10

BORING 5B01

PAGE 2 OF 2

BORING LOG — NUS CORPORATION

1812

PROJECT: MCAS CHERRY POINT — BORING NO: 5B02

PROJECT NO.: 3F24 — DATE: 10-27-90 — DRILLER: R. BILBREY > BOYLES, R. HAMMOCK > BROS

ELEVATION: — FIELD GEOLOGIST: SJ CONTI

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DEPTH FT.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS	REMARKS
	1.0						GRAVEL AND ROAD BASE		MOIST 0 PPM
CS-1 e		41 / 21	1.0/1.5		V DENSE	TAN BLACK	FINE SAND AND COAL		SAMPLE FOR ANAL
1055	2.5	32					FRAG (FILL)		TCL VOL - 2 ml VOA PCBs & TPH 1-16 oz
						YELLOW BRN	SILTY SAND	SM	AUGERED FROM 2.5 TO 33.0
						TO GRAY	SOME		VISUALLY OBS CUTTINGS
							CLAY LENSES		
						TO	SAND IS MORE CLAYEY		12' WATER
						YELLOW			
						BRN			

REMARKS: MOBILE B-80 RIG - HSA (4¼" ID)
SET UP OVER HOLE AT 1020 HRS 10-27-90

BORING 5B02

BORING LOG

NUS CORPORATION

PROJECT: MCAS CHERRY POINT

BORING NO: 5B02

PROJECT NO.: 3F24

DATE: 10-27-90

DRILLER: R. BILBREY > BOYLES
R. HAMMOCK } BROS

ELEVATION:

FIELD GEOLOGIST: S. CONTI

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DEPTH FT) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	UNIFIED SOIL CLASSIFICATION	REMARKS
	35.0								
S-1 @ 1200		9 11	1.5/2.0	36.0	M DENSE	YELLOW BRN	SILTY SAND	SM	MOIST
	37.0	7 9			M STIFF	BLUE GRAY	SILTY CLAY-SOME ROCK FRAG	CL	MOIST → WET 0 PPM
									CONTACT IN SPOON
									≈ 6" OF CLAY AT BOTM TOP 1' IS SAND W/A DARK BRN (LIGNITE APPEARANCE MATL) BETWEEN THE SAND AND CLAY
							BOTM OF AUGERED HOLE @ 35'		

REMARKS

BORING 5B02

PAGE 2 OF 2

BORING LOG

NUS CORPORATION

PROJECT: MCAS CHERRY POINT

BORING NO: 5B03

PROJECT NO.: 3F24

DATE: 10-27-90

DRILLER: R BILBREY } BOYLES BROS
R HAMMOCK

ELEVATION:

FIELD GEOLOGIST: SJ CONTI

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR ROD	DEPTH (FT) OR RUN NO.	BLOWS 6" OR ROD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DEPTH FT) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	UNIFIED SOIL CLASSIFICATION	REMARKS
	0.5		2.0/		MDENSE	BLACK TO	SILTY SAND - TR ORG		MOIST
CS-1 C			2.0			YELLOW BRN	MATL		PUSHED SPLIT SPOON SAMPLER.
1350	2-5								2 PPM HNU TOP 1' SOILED W/ BLACK
									ALMOST OILY - NEAR TRANSSTATION AT SITE
						YELLOW BRN	SILTY SAND		5 OPPM
									WATER ≈ 5'

REMARKS: MOBILE B-80 RIG HSA TO 30'

BORING 5B03

PAGE 1 OF 2

BORING LOG — NUS CORPORATION

PROJECT: MCAS CHERRY POINT — BORING NO: 5B03

PROJECT NO.: 3F34 — DATE: 10-27-90 — DRILLER: R. BILBREY > BOYLES, R HAMMOCK > 3B05

ELEVATION: — FIELD GEOLOGIST: SJ CONTI

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DEGR.FT.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	UNIFIED SOIL CLASSIFICATION	REMARKS
	30.0								
S-1 e		7 9 12 13	1.5/2.0	31.0	M DENSE TO M STIFF	BRN TO BRN GREEN	SILTY SAND TO CLAYEY SAND	SM SC	MOIST 0PPM CONTRAST IN SPOON NOT AS CLAYEY AS 5B02.
1505	32.0						BOTM AUGER HOLE AT 30.0'		

REMARKS

BORING 5B03

PAGE 2 OF 2

BORING LOG — NUS CORPORATION

PROJECT: MCAS CHERRY POINT — BORING NO: 5B04

PROJECT NO.: 3F24 — DATE: 10-28-90 — DRILLER: C. MINK (B80 RIG)

ELEVATION: — FIELD GEOLOGIST: E.J. RODMAN

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (ft) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS	REMARKS
		2			LOOSE	YELLOW TAN	SILTY CLAYEY SAND	SM/	
S-1		4 / 8	1.8/2					SC	(NOT SHARP CONTACT)
		13			MED DENSE	BRN		SM	(20 ppm) MOTTLED
S-2		3 / 4	1.7/2		LOOSE				
		6			MED	LT. TAN	SILTY SAND	SM	
	5.0	9			DENSE	TAN	SILTY SAND TRC. CLAY	SM	(20 ppm)
		5							
S-3		7 / 8	1.5/2			DRK TAN BRN	CLAYEY SAND TRC. SILT	SC	(8 ppm)
		10				LT TAN	SILTY SAND MED. FINE GRAINED	SM	H_2O @ 8'
S-4		2 / 8	1.7/2		LOOSE				gradational change
	10.0	10 / 9				DRK TAN TO YELLOW TAN	SILTY SAND TRC. CLAY	SM	
	15.0								
	20.0						LIGHTER TAN TO GREY SILTY SANDS		
	25.0								

REMARKS: CUTTINGS ONLY 10'-28' // SPLIT SPOONS FOR (LITHO. AND) CHEM ANALYSIS TO 10'. HNu READINGS DROP FROM 20 ppm TO 8 ppm BETWEEN 2' AND THE WATER TABLE.

BORING 5B04

PAGE 1 OF 2

BORING LOG — NUS CORPORATION

1317

PROJECT: MCAS CHERRY POINT — BORING NO: 5B04

PROJECT NO.: 3F24 — DATE: 10-28-90 — DRILLER: C. MINK (B80)

ELEVATION: — FIELD GEOLOGIST: E.J. ROOMAN

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DEPTH) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS	REMARKS
	28.0								
S-5		10 12	2.0/2		MED DENSE	DRK TAN-BRN	SILTY SAND (COMPACTED)	SM	MOTTLED — VERY SHARP CONTACT. (*)
	30.0	13 22		30	DENSE	OLIVE GREEN	SILTY SAND CLAY		w/ SHELLS
				BOTTOM			(VERY DENSE)		
							BOTM @ 30'		

REMARKS: CONFINING LAYER: CONTACT - SHARP; 1/2" OF DARK REDDISH BROWN DISCOLORED SANDS AT THE CONTACT. PHOTOGRAPHED

BORING 5B04

PAGE 2 OF 2

BORING LOG

NUS CORPORATION

PROJECT: MCAS CHERRY POINT

BORING NO: 5B05

PROJECT NO.: 3F34

DATE: 11/7/90

DRILLER: C. MINK (ATV)

ELEVATION:

FIELD GEOLOGIST: E. J. RODMAN

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DEPTH FT.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS	REMARKS
		7			MED DENSE	YELLOW TAN	SILTY SAND TRC. CLAY	SM	MOTTLED
S-1		9 13	1.7/2.0		DENSE	GREY	SILTY SAND	SM	GRADATIONAL CHANGE (50 ppm)
		19				BLACK	OILY (CHARCOAL?) SAND	?	(70 ppm)
S-2		7 9	1.85/2	?	MED DENSE	MED GREY	SILTY SAND	SM	(<20 ppm)
		11 5				YELLOW BRN	SILTY SAND	SM	GRADATIONAL CHANGE
		4		?	LOOSE	MED YELLOW BRN	SILTY SAND	SM	(0 ppm)
S-3		3 2	1.6/2			LT YELLOW BRN	SILTY SAND	SM	GRADATIONAL CHANGE (0 ppm)
		4		?					
S-4		3 2	2/2		LOOSE				SATURATED
	10.0	4 3		10.0	LOOSE	NEARLY WHITE	SAND TRC SILT	SM	
				BOTTOM					
							BOTM @ 10'		

REMARKS ? = NOT SAMPLED INTERVAL RIG = SIMCO ATV

CHEMICAL + LITHOLOGIC SAMPLING

BORING 5B05

PAGE 1 OF 1

BORING LOG — NUS CORPORATION

PROJECT: MCAS CHERRY POINT — BORING NO: 5806

PROJECT NO.: 3F24 — DATE: 11/7/90 — DRILLER: C. MINK (B80)

ELEVATION: — FIELD GEOLOGIST: E. J. RODMAN

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR ROD	DEPTH (FT) OR RUN NO.	BLOWS 6" OR ROD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DOCUMENTED OR SCREENED INTERVAL)	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS	REMARKS
		20			DENSE	MIXED	COAL AND TAN SILTY SAND	?	(0ppm)
S-1		15 / 35	1.5/2		VERY DENSE				
		42							
S-2		10 / 16	1.5/2		MED. DENSE	TAN + LT BRN	MOTTLED SILTY SAND	SM	(0ppm)
		12 / 11							
		4			LOOSE	LT TAN			(0 ppm)
S-3		3 / 4	1.7/2				SILTY SAND	SM	
		6							
S-4		1 / 3	1.6/2		VERY LOOSE				SATURATED
		2 / 2		10.0 BOTTOM					
							BOTTOM @ 10'		

REMARKS: CHEMICAL + LITHOLOGIC SAMPLES
B80 TRUCK RIG

BORING 5806

PAGE 1 OF 1

BORING LOG — NUS CORPORATION

PROJECT: MCAS CHERRY POINT — BORING NO.: SB07

PROJECT NO.: 3F24 — DATE: 11/7/90 — DRILLER: C. MINK (B80 Rig)

ELEVATION: — FIELD GEOLOGIST: E. J. RODMAN

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RUN NO.	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DOCUMENTED) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS	REMARKS
		10			MED DENSE	MIXED	COAL, CEMENT, TAN SANDS		COAL IS FILL MATERIAL.
S-1		12 / 15	2/2				WHITE GREY SILTY SANDS		
		17			DENSE				
				MED DENSE	BLACK →		COAL		
S-2		6 / 8	1.3/2			YELLOW BRN	CLAYEY SAND TRC. SILT	SC	
		9 / 12			MED DENSE				CONTACT NOT OBSERVED
				---?---					
		4			LOOSE				
S-3		6 / 9	1.4/2		MED DENSE	YELLOW BRN	SILTY SAND	SM	
		10							
S-4		4 / 7	1.85/2						
		9 / 16		10.0					
				BOTTOM					
							BOTM @ 10'		

REMARKS: MOISTURE PROBLEMS WITH HNU — NO READINGS OBTAINABLE

BORING SB07

PAGE 1 OF 1

1061
1821

BORING LOG

NUS CORPORATION

PROJECT: MCAS CHERRY POINT
BORING NO: SB08
PROJECT NO.: 3F24
DATE: 10-28-90
DRILLER: BOYLES BROS
ELEVATION:
FIELD GEOLOGIST: BODMAN
WATER LEVEL DATA:
(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RUN NO.	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS	REMARKS
	1.0					LT TAN GRAY	SILTY SAND	SM	MOIST
	2.0				LOOSE	LT GRAY	SAND		MOIST
	3.0					ORANG BRN	SAND		MOIST
	4.0								
	5.0			5.0	LOOSE	DARK GRAY	SILTY SAND	SM	MOIST
							BOTM @ 5'		SHELBY TUBE WAS TAKEN FROM 1' TO 3' FOR DENSITY AND GRAIN SIZE.

REMARKS: BORING DRILLED BY NUS USING HAND AUGER FOR CHEM ANAL.

BORING SB08

PAGE 1 OF 1

BORING LOG — NUS CORPORATION

PROJECT: MCAS CHERRY POINT — BORING NO: 5B09
PROJECT NO.: 3F24 — DATE: 10-28-90 — DRILLER: BOYLES BROS
ELEVATION: — FIELD GEOLOGIST: RODMAN
WATER LEVEL DATA:
(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DEPTH FT) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS	REMARKS
	1.0				LOOSE	LT TAN GRAY	SILTY SAND	SM	DRY TO MOIST
						TO ORANG			
	3.0					BRN			
				4.0		TAN			
	5.0			5.0	LOOSE	TO GRAY	CLAYEY SAND	SC	WET
							BOTM @ 5'		SHELBY TUBE
									TAKEN 1-3 BY
									BOYLES BROS. FOR
									DENSITY/GR. SIZE.

REMARKS: BORING DRILLED BY NUS USING HAND AUGER.
FOR CHEM ANAL

BORING 5B09

PAGE 1 OF 1

BORING LOG

NUS CORPORATION

1823

PROJECT: MCAS CHERRY POINT

BORING NO: SB10

PROJECT NO.: 3F24

DATE: 10-28-90

DRILLER: BOYLES BROS

ELEVATION:

FIELD GEOLOGIST: RODMAN

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DEPTH FT.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS	REMARKS
	1.0				LOOSE	TAN BLACK	SILTY SAND - TR COAL	SM	MOIST (FILL ?)
				2.0		TO			
	3.0				LOOSE	TAN	SILTY SAND	SM	MOIST
	5.0			5.0	LOOSE	BRN GRAY	SILTY SAND - TR CLAY	SM	WET
							BOTH @ 5'		SHELBY TUBE FROM
									1' TO 3' BY BOYLES
									BROS. FOR GR SIZE
									AND DENSITY

REMARKS: BORING DRILLED BY NUS USING HAND AUGER. FOR CHEM ANAL

BORING: SB10

PAGE 1 OF 1

BORING LOG

NUS CORPORATION

824

PROJECT: MCAS CHERRY POINT

BORING NO: SB11

PROJECT NO.: 3F24

DATE: 10-28-90

DRILLER: C. MINK (B80)

ELEVATION:

FIELD GEOLOGIST: E. J. RODMAN

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RUN NO.	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth, ft.) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS	REMARKS
S-1		9 / 12	1.6/2		MED DENSE	BLACK ↓	PEATY SANDS		SHARP CONTACT ?
		15 / 16		DENSE	LT. TAN →		SILTY SAND FINE-MED GRAINED	SM	SOMEWHAT MOTTLED
S-2		13 / 15	1.7/2				(DRKER ~~BLACK~~)		
		17 / 20		5.0			(LITE TAN AGAIN)		
				BOTTOM					
							BOTM @ 5.'		

REMARKS

BORING SB11

PAGE 1 OF 1

BORING LOG

NUS CORPORATION

PROJECT: MCAS CHERRY POINT

BORING NO: SB12

PROJECT NO.: 3F24

DATE: 10-28-90

DRILLER: C. MINK (B80)

ELEVATION:

FIELD GEOLOGIST: E. J. RODMAN

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DEPTH/FT) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS	REMARKS
S-1		4 6	1.5/2		LOOSE	DRK TAN	SILTY SAND TRC. CLAY	SM	
		8 11			MED DENSE	DRK BRN → BLK	PEATY SAND - (ROOTS, SILT + CLAY = MINOR)	?	
S-2		4 6	1.7/2		LOOSE				
		6 10		5.0	MED DENSE	DRK TAN	SILTY SAND TRC. CLAY	SM	
				BOTTOM					
							BOTTM @ 5'		

REMARKS

BORING SB12

PAGE 1 OF 1

BORING LOG — NUS CORPORATION

826

PROJECT: MCAS CHERRY POINT — BORING NO: SB13

PROJECT NO.: 3F24 — DATE: 10-28-90 — DRILLER: C. MINK (B80)

ELEVATION: — FIELD GEOLOGIST: E. J. RODMAN

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DEPTH) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS	REMARKS
S-1		5 / 6	1.6/2		MED DENSE	DRK TAN	SILTY SAND TRC. CLAY	SM	BROKEN GLASS AT 2'
		11 / 11					(MOTTLED W/ DRK BRN SILTY SAND)		
S-2		4 / 3	1.3/2		LOOSE				VERY SHARP CONTACT ?
		4 / 10		5.0	MED DENSE	DRK BRN + BLK	PEATY SAND (W/ ROOTS SILT + CLAY		
				BOTTOM					
							BOTM @ 5'		

REMARKS

BORING SB13

PAGE 1 OF 1

BORING LOG

NUS CORPORATION

1827

PROJECT: MCAS CHERRY POINT

BORING NO: SB14

PROJECT NO.: 3F24

DATE: 10-28-90

DRILLER: C. MINK (B80)

ELEVATION:

FIELD GEOLOGIST: E. J. RODMAN

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DEPTH FT) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS	REMARKS
S-1		6 7	.5/2		MED DENSE	DRK BRN TO BLK	PEATY SAND (W/ROOTS)		
		3 1			VERY LOOSE		(W/SMALL LAYERS OF BRN-YELLOW SILTY SAND)		
S-2		4 2	1.7/2		LOOSE				
		3 1		5.0 BOTTOM	VERY LOOSE	LT. TAN	SILTY SAND MED TO FINE GRAINED	SM	
							BOTTOM 5.0		

REMARKS

BORING SB14

PAGE 1 OF 1

BORING LOG

NUS CORPORATION

1828

PROJECT: MCAS CHERRY POINT

BORING NO: 5B15

PROJECT NO.: 3F24

DATE: 10-28-90

DRILLER: BOYLES BROS

ELEVATION:

FIELD GEOLOGIST: RODMAN

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (Depth/ft) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS	REMARKS
	1.0				LOOSE	LT	SILTY SAND	SM	MOIST
						GRAY TO			TO
	3.0					BLACK	SANDY PEAT/		SATURATED
							SILTY SAND		
	5.0			5.0	LOOSE				
							BOTTOM 5'		

REMARKS: DRILLED BY NUS WITH HAND AUGER. FOR CHEM ANAL

BORING 5B15

PAGE 1 OF 1

BORING LOG

NUS CORPORATION 1829

PROJECT: MCAS CHERRY POINT

BORING NO: 5B16

PROJECT NO.: 3F24

DATE: 11/8/90

DRILLER: C. MINK (ATV)

ELEVATION:

FIELD GEOLOGIST: E.J. RODMAN

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGES (GEOLOGIC) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: ISO DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS	REMARKS
		1							
S-1		2	1.1/2			MED TAN TO GREY	SILTY SAND MIXED w/ MUDDY ORGANICS (ROOTS.)		(0 ppm)
		6							
S-2		2	1.35/2			LT. GREY	CLAYEY SAND FINE GRAINED TRC. SILT	SC	LITTLE ROOTS ← SATURATED →
		2							
		8							
		2				YELLOW TAN TO BRN			
S-3		3	1/2				MED TO COARSE GRAINED SILTY SAND	SM	
		5							
		8							
S-4		1	1.6/2			OLIVE GREEN	CLAYEY SILT / SAND VERY FINE GRAINED.		CONFINING LAYER (*) SEELS
		1							
		3							
		9		10.0					
				BOTTOM			BOTM @ 10'		

REMARKS NO CONTACTS OBSERVED IN SPLIT SPOONS

(*) MAY HAVE THE CONTACT OF CONFINING LAYER AND UPPER MATERIAL.

IT IS A RED/RUST COLORED COARSE GRAINED SAND ~ 2" THICK

BORING 5B16

PAGE ___ OF ___

BORING LOG — NUS CORPORATION

PROJECT: MCAS CHERRY POINT — BORING NO: SB17 — 1830

PROJECT NO.: 3F24 — DATE: 11/8/90 — DRILLER: C. MINK (ATV)

ELEVATION: — FIELD GEOLOGIST: E. J. RODMAN

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DEPTH) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS	REMARKS
		2				DRK BRN	PEATY SAND w/ ROOTS & LEAVES		
S-1		2 / 2	1.4/2			LT. TAN TO BRN	SILTY SAND MED FINE GRAINED		
		1				BLACK	COAL		
S-2		3 / 5	1.3/2			MED BRN TO	MUDDY ORGANICS - SILTY SAND & 1 LARGE PIECE OF WOOD, TOP.		ALL MIXED. SATURATED
		4 / 7				LT. TAN TO GRAY	SILTY SANDS ARE LT. TAN TO GRAY.		
		3							
S-3		2 / 5	1.4/2			LT. TAN	SILTY SANDS MED-FINE GRAD.		MORE WOOD
		9				TO GRAY	TOUCHES OF YELLOW SANDS AT BOTTOM.		
S-4		1 / 3	1.9/2			REDDISH-BRN	SILTY SAND MED-COARSE GRAINED	SC	
		4 / 2				OLIVE GREEN	SILTY CLAY		SHELLS - CONFINING LAYER
				BOTTOM					
							BOTM @ 10'		

REMARKS: NOT ENOUGH SAMPLE FOR LITHOLOGY AT S-2.
NO LITHOLOGIC SAMPLE AT S-4 EITHER
GOOD SAMPLE OF CONTACT.
** SB04 SB16 SB17 — ALL THE SAME CONTACT. VERY DISTINCTIVE.

BORING SB17

PAGE 1 OF 1

BORING LOG

NUS CORPORATION 1831

PROJECT: MCAS CHERRY POINT

BORING NO: SB18

PROJECT NO.: 3F24

DATE: 10-28-90

DRILLER: C MINK 880

ELEVATION:

FIELD GEOLOGIST: E.J. RODMAN

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RUN NO.	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DESCRIBE) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS	REMARKS
		6				DRK BRN	ORGANICS AND SAND		
S-1		10	1.5/2		MED DENSE	LT. TAN	SAND MED TO FINE GRAINED		HNU (2 ppm) PINES IN AREA
		11							
		14							
S-2		6	1.8/2			YELLOW TAN	SILTY SAND TRC. CLAY	SM	(2 ppm) FAIRLY SHARP CONTACT
		8							
		9							
		15							
				---?---		DRK GREY	SILTY SAND (w/ 1" PEAT LENS)	SM	(3 ppm)
		5							
S-3		8	1.8/2			YELLOW TAN	SILTY SAND TRC CLAY	SM	(0 ppm) SHARP CONTACT
		9							
		11							
S-4		8							H_2O at ≅ 8'
		9							
		7							
		3		10.0	LOOSE				(2 ppm)
				BOTTOM					
							BOTM @ 10'		

REMARKS UPPER LIMIT OF DRK GRAY SILTY SAND IS BETWEEN 5'+5.5'

BORING SB18

PAGE 1 OF 1

APPENDIX A.4

UNIT 17

BORING LOG — NUS CORPORATION

PROJECT: MCAS CHERRY POINT
BORING NO: 17GW01
PROJECT NO.: 3F24
DATE: 10-31-90
DRILLER: R. BILBREY ~~R. BIRD~~
ELEVATION: 16.85
FIELD GEOLOGIST: SJ CONTI R. HAMMOCK
WATER LEVEL DATA:
(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RQD	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DEPTH, FT) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS	REMARKS
	0.0				LOOSE	YELLOW BRN	SILTY FINE TO MED		
						TO	SAND		
				4					
	5.0				M.	GRAY			
					DENSE.	BRN			
									HIT WATER @ 6.7' WHILE HSA.
	10.0								
	15.0								SET WELL 4-19
									SAND 20-3
									PELLETS 2-3
				19					
	20.0			20'					
							WELL @ 19'		HSA TO 20' TO
							BOTTOM 20'		SET WELL AT 19

REMARKS: MOBILE B-80 RIG
0748 / 10-31-90 START
USED 4 1/4" ID HSA (NO SAMPLING REQD)

BORING 17GW01

PAGE 1 OF 1

BORING LOG — NUS CORPORATION

1834

PROJECT: MCAS CHERRY POINT — BORING NO: 17GW02

PROJECT NO.: 3F24 — DATE: 10-29-90 — DRILLER: R. BILBREY, R. HAMMOCK } BOYLES BROS

ELEVATION: 20.50 — FIELD GEOLOGIST: SJ CONTI

WATER LEVEL DATA:

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR RUN NO.	DEPTH (FT) OR RUN NO.	BLOWS 6" OR RQD (%)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DEPTH FT) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: SOIL DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	UNIFIED SOIL CLASSIFICATION	REMARKS
	0.0				LOOSE	YELLOW	SILTY FINE TO MED		LOGGED CUTTINGS
					TO	BRN	SAND		TO 28' (HSA)
					MED	TO			
					DENSE	BRN			
	5.0								
				7					
	10.0								
									HIT H_2O ≈ 12'±
	15.0								
	20.0								SET WELL 7-22
									AFTER BACKFILLING
				22					SAND 23-5 PELLETS 5-3
	23.0								THEN SET PROTECTIVE COVER.
S-1 C		7 / 3	15/20		LOOSE	LT GRAY	SILTY FINE SAND		ALMOST WHITE IN
1400	25.0	4 / 5							COLOR.

REMARKS: MOBILE B-80 RIG
SET UP OVER HOLE ≈ 1130
≈1145 HRS START AUGERING.

BORING 17GW02

BORING LOG — NUS CORPORATION

PROJECT: MCAS CHERRY POINT — BORING NO: 17GW02 1035

PROJECT NO.: 3F24 — DATE: 10-29-90 — DRILLER: R. BILBREY, R. HAMMOCK > BOYLES BROS.

ELEVATION: — FIELD GEOLOGIST: SJ CONTI

WATER LEVEL DATA: —

(Date, Time & Conditions)

SAMPLE NO. & TYPE OR FOR	DEPTH (FT) OR RUN NO.	BLOWS 6" OR FOR (FT)	SAMPLE RECOVERY SAMPLE LENGTH	LITHOLOGY CHANGE (DESCRIPTION) OR SCREENED INTERVAL	MATERIAL DESCRIPTION: FOR, DENSITY CONSISTENCY OR ROCK HARDNESS	COLOR	MATERIAL CLASSIFICATION	USCS	REMARKS
	28.0								
S-2 C	-	7 / 7	1.3/2.0		M DENSE	BRN TO	SILTY FINE SAND - FEW	SM	MOIST → WET 0PPM
1420	30.0	7 / 7				LT GRAY	DARKER CLAYEY LENSES		<1" CLAY.
	33.0								
S-3 C		5 / 7	1.3/2.0				SILTY FINE SAND	SM	WET 0PPM
1500	35.0	13 / 13							
	38.0								
S-4 C			0						NO RECOVERY.
1700	40.0								
	43.0								
S-5 C		6 / 9	1.0/2.0		M DENSE		SILTY FINE SAND	SM	MOIST → WET 0PPM
1730	45.0	9 / 12							
10/29	48.0								NOTE SL. CHANGE IN COLOR TO OLIVE.
10/30 S-6 C		10 / 12	1.0/1.5		DENSE	OLIVE GRAY	SILTY FINE TO MED SAND	SM SW	MOIST → WET
1115	49.5	26		49.5					NO CLAY LAYER

REMARKS: BOTTM @ 49.5

NO CONF LAYER ENCOUNTERED ESTIMATE

DID NOT GO DEEPER DUE TO FOOTAGE AND SAMPLING PROBLEMS W/ RIG

BORING 17GW02

PAGE 2 OF 2

APPENDIX B

WELL CONSTRUCTION DIAGRAMS

APPENDIX B.1

UNIT 5

NUS CORPORATION

BORING NO.: 5GW08

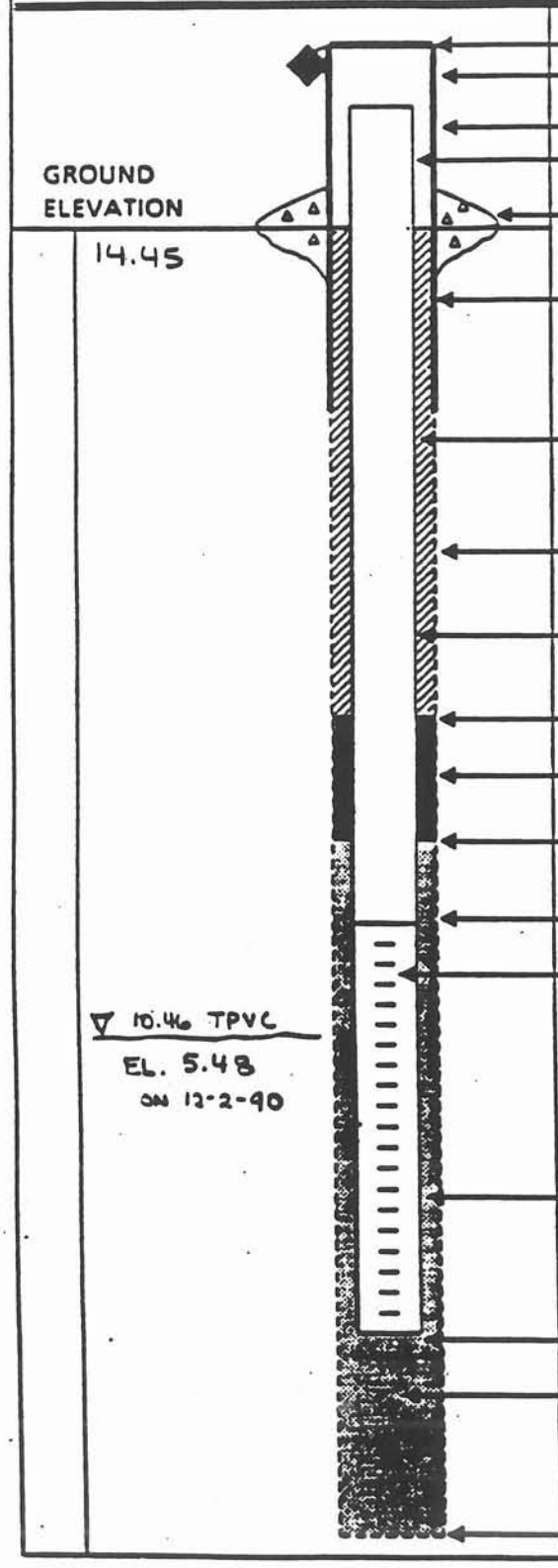
1838

MONITORING WELL SHEET

PROJECT MCAS CHERRY POINT
PROJECT NO. 3F24
ELEVATION 14.45
FIELD GEOLOGIST SJ CONTI

LOCATION SITE 5
BORING 5GW08
DATE 10-23-90

DRILLER R. BILBREY
DRILLING METHOD HSA
DEVELOPMENT METHOD PUMP



ELEVATION OF TOP OF SURFACE CASING: 16.05
ELEVATION OF TOP OF RISER PIPE: 15.94
STICK - UP TOP OF SURFACE CASING: 1.60
STICK - UP RISER PIPE: 1.49
TYPE OF SURFACE SEAL: 5'x5'x6" CONCRETE PAD
I.D. OF SURFACE CASING: 4"
TYPE OF SURFACE CASING: STEEL
RISER PIPE I.D. 2"
TYPE OF RISER PIPE: PVC
BOREHOLE DIAMETER: 8"
TYPE OF BACKFILL: CEMENT/BENTONITE GROUT
ELEVATION / DEPTH TOP OF SEAL: 12.45/2
TYPE OF SEAL: BENTONITE PELLETS
DEPTH TOP OF SAND PACK: 11.45/3
ELEVATION / DEPTH TOP OF SCREEN: 9.45/5
TYPE OF SCREEN: PVC
SLOT SIZE x LENGTH: 20 SLX 10'
I.D. OF SCREEN: 2"
TYPE OF SAND PACK: # 20-30 SAND
ELEVATION / DEPTH BOTTOM OF SCREEN: -0.55/15
ELEVATION / DEPTH BOTTOM OF SAND PACK: -1.55/16
TYPE OF BACKFILL BELOW OBSERVATION WELL: SAND CAVED 16 TO 17
ELEVATION / DEPTH OF HOLE: -2.55/17

NUS CORPORATION

BORING NO.: 5GW09

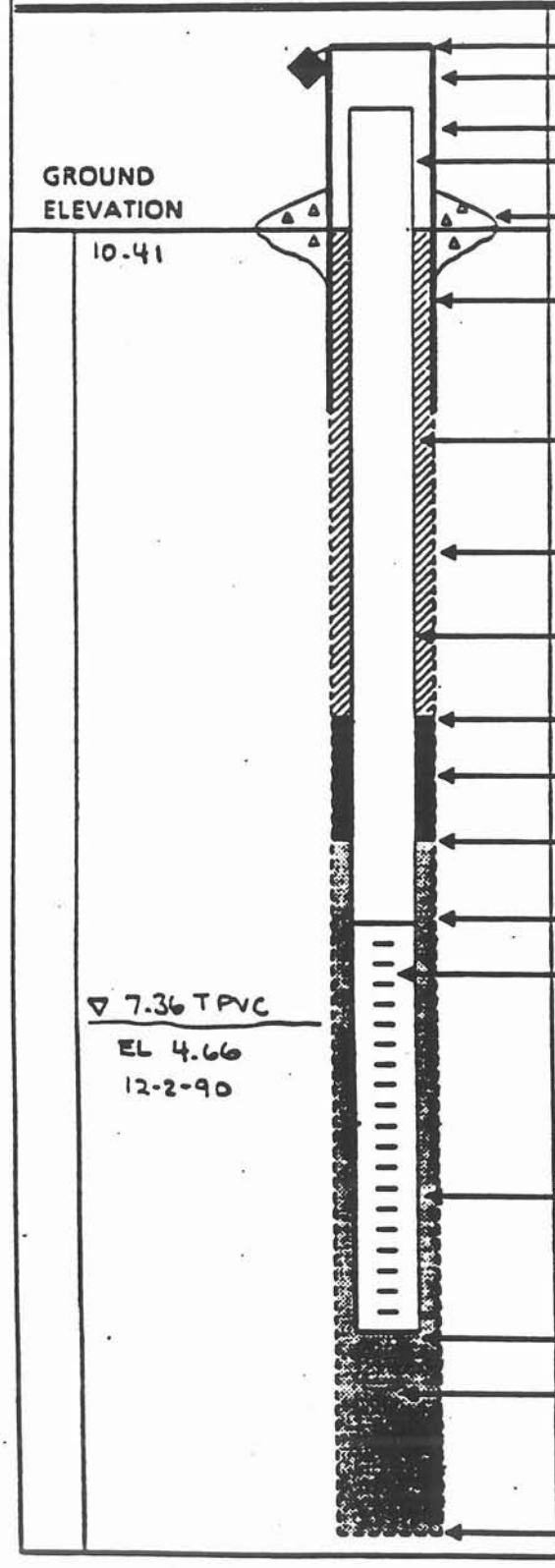
1839

MONITORING WELL SHEET

PROJECT MCAS CHERRY POINT
PROJECT NO. 3F24
ELEVATION 10.41
FIELD GEOLOGIST SJ CONTI

LOCATION SITE 5
BORING 5GW09
DATE 10-28-90

DRILLER R. BILBREY
DRILLING METHOD HSA
DEVELOPMENT METHOD BAILER



ELEVATION OF TOP OF SURFACE CASING: 12.06
ELEVATION OF TOP OF RISER PIPE: 12.02
STICK - UP TOP OF SURFACE CASING: 1.65
STICK - UP RISER PIPE: 1.61
TYPE OF SURFACE SEAL: 5'x 5'x 6" CONCRETE PAD
I.D. OF SURFACE CASING: 4"
TYPE OF SURFACE CASING: STEEL
RISER PIPE I.D. 2"
TYPE OF RISER PIPE: PVC
BOREHOLE DIAMETER: 8"
TYPE OF BACKFILL: CEMENT / BENTONITE GROUT
ELEVATION / DEPTH TOP OF SEAL: 8.91 / 1.5
TYPE OF SEAL: BENTONITE PELLETS
DEPTH TOP OF SAND PACK: 7.91 / 2.5
ELEVATION / DEPTH TOP OF SCREEN: 7.41 / 3
TYPE OF SCREEN: PVC
SLOT SIZE x LENGTH: 20 SLX 10'
I.D. OF SCREEN: 2"
TYPE OF SAND PACK: #20-30 SAND
ELEVATION / DEPTH BOTTOM OF SCREEN: -2.59 / 13
ELEVATION / DEPTH BOTTOM OF SAND PACK: -3.59 / 14
TYPE OF BACKFILL BELOW OBSERVATION WELL: SAND 14-15 CAVED
ELEVATION / DEPTH OF HOLE: -4.59 / 15'

NUS CORPORATION

BORING NO.: 5GW10

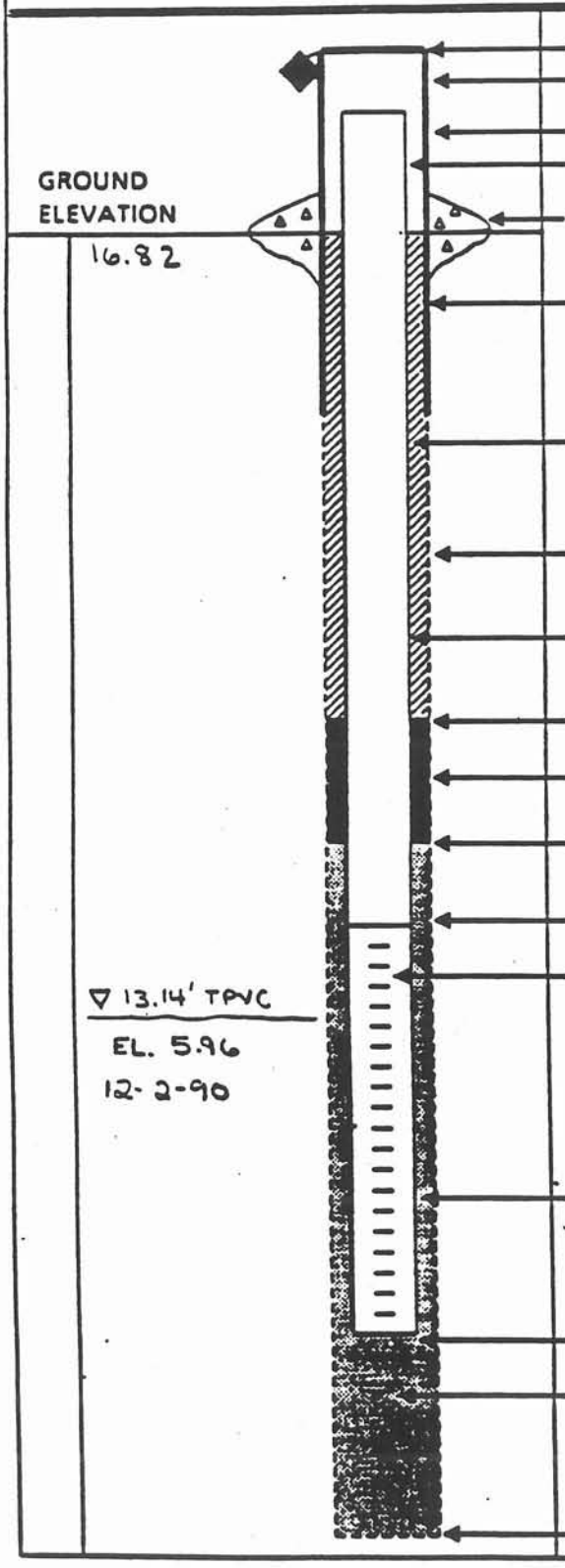
1940

MONITORING WELL SHEET

PROJECT MCAS CHERRY POINT
PROJECT NO. 3F24
ELEVATION 16.82
FIELD GEOLOGIST E RODMAN

LOCATION SITE 5
BORING 5 GW10
DATE 11-6-90

DRILLER C MINK
DRILLING METHOD HSA
DEVELOPMENT METHOD BAILER



ELEVATION OF TOP OF SURFACE CASING: 19.05
ELEVATION OF TOP OF RISER PIPE: 19.10
STICK - UP TOP OF SURFACE CASING: 2.23
STICK - UP RISER PIPE: 2.28
TYPE OF SURFACE SEAL: 5 x 5 x 6" CONCRETE PAD
I.D. OF SURFACE CASING: 4"
TYPE OF SURFACE CASING: STEEL
RISER PIPE I.D. 2"
TYPE OF RISER PIPE: PVC
BOREHOLE DIAMETER: 8"
TYPE OF BACKFILL: CEMENT/BENTONITE
ELEVATION / DEPTH TOP OF SEAL: 11.82 / 5'
TYPE OF SEAL: BENTONITE PELLETS
DEPTH TOP OF SAND PACK: 9.82 / 7'
ELEVATION / DEPTH TOP OF SCREEN: 7.82 / 9'
TYPE OF SCREEN: PVC
SLOT SIZE x LENGTH: 20 SL x 10'
I.D. OF SCREEN: 2"
TYPE OF SAND PACK: # 20-30 SAND
ELEVATION / DEPTH BOTTOM OF SCREEN: -2.18 / 19
ELEVATION / DEPTH BOTTOM OF SAND PACK: -3.18 / 20
TYPE OF BACKFILL BELOW OBSERVATION WELL: SAND
20-22 CAVED.
ELEVATION / DEPTH OF HOLE: -5.18/22'

NUS CORPORATION

BORING NO.: 5GW11

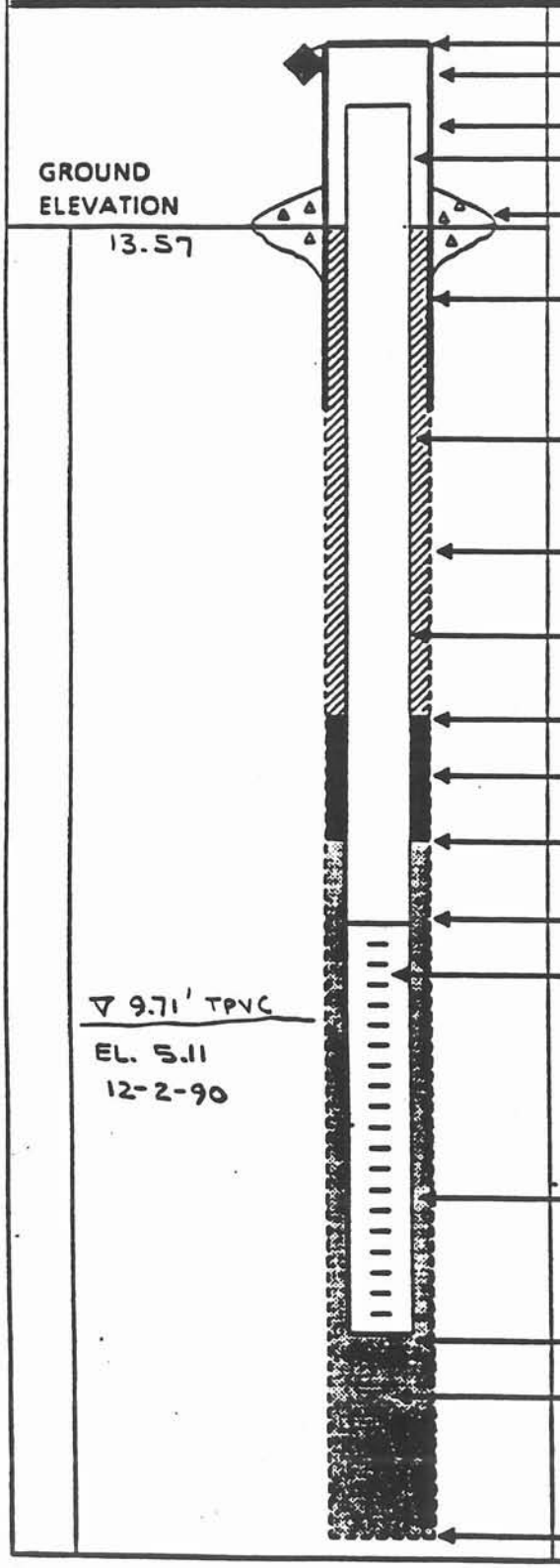
1841

MONITORING WELL SHEET

PROJECT MCAS CHERRY POINT
PROJECT NO. 3F24
ELEVATION 13.57
FIELD GEOLOGIST SJ CONTI

LOCATION SITE 5
BORING 5GW11
DATE 10-29-90

DRILLER R BILBREY
DRILLING METHOD HSA
DEVELOPMENT METHOD WATERRA



ELEVATION OF TOP OF SURFACE CASING: 15.01
ELEVATION OF TOP OF RISER PIPE: 14.82
STICK - UP TOP OF SURFACE CASING: 1.44
STICK - UP RISER PIPE: 1.25
TYPE OF SURFACE SEAL: 5' x 5' x 6" CONCRETE PAD
I.D. OF SURFACE CASING: 4"
TYPE OF SURFACE CASING: STEEL
RISER PIPE I.D. 2"
TYPE OF RISER PIPE: PVC
BOREHOLE DIAMETER: 8"
TYPE OF BACKFILL: CEMENT / BENTONITE GROUT
ELEVATION / DEPTH TOP OF SEAL: 11.57 / 2
TYPE OF SEAL: BENTONITE PELLETS
DEPTH TOP OF SAND PACK: 10.57 / 3
ELEVATION / DEPTH TOP OF SCREEN: 9.57 / 4
TYPE OF SCREEN: PVC
SLOT SIZE x LENGTH: 20 SLX 10'
I.D. OF SCREEN: 2"
TYPE OF SAND PACK: # 20-30
ELEVATION / DEPTH BOTTOM OF SCREEN: -0.43 / 14
ELEVATION / DEPTH BOTTOM OF SAND PACK: -1.43 / 15
TYPE OF BACKFILL BELOW OBSERVATION WELL: SAND
ELEVATION / DEPTH OF HOLE: -1.43 / 15

APPENDIX B.4

UNIT 17

NUS CORPORATION

BORING NO.: 17GW01

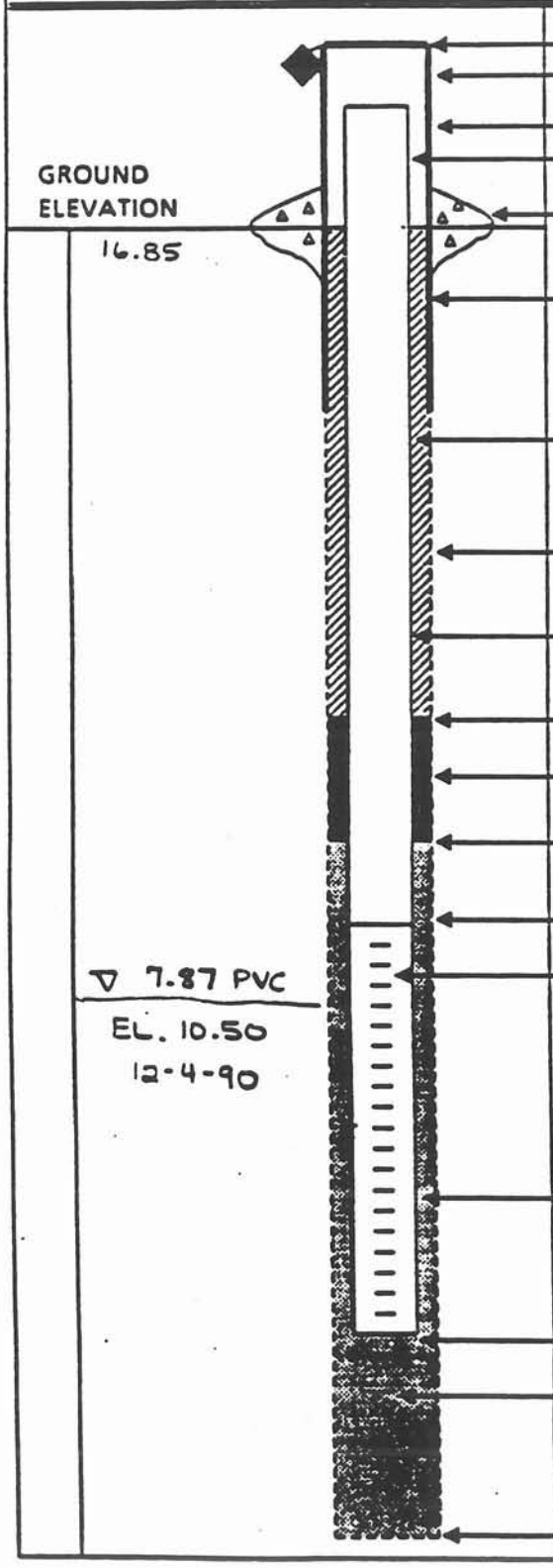
1993

MONITORING WELL SHEET

PROJECT: MCAS CHERRY POINT
PROJECT NO.: 3F24
ELEVATION: 16.85
FIELD GEOLOGIST: SJ CONTI

LOCATION: SITE 17
BORING: 17GW01
DATE: 10-31-90

DRILLER: R. BILBREY
DRILLING METHOD: HSA
DEVELOPMENT METHOD: BAILER



ELEVATION OF TOP OF SURFACE CASING: 18.45
ELEVATION OF TOP OF RISER PIPE: 18.37
STICK - UP TOP OF SURFACE CASING: 1.60
STICK - UP RISER PIPE: 1.52
TYPE OF SURFACE SEAL: 5'x5'x6" CONCRETE PAD
I.D. OF SURFACE CASING: 4"
TYPE OF SURFACE CASING: STEEL
RISER PIPE I.D. 2"
TYPE OF RISER PIPE: PVC
BOREHOLE DIAMETER: 8"
TYPE OF BACKFILL: CEMENT/BENTONITE GROUT
ELEVATION / DEPTH TOP OF SEAL: 14.85 /2'
TYPE OF SEAL: BENTONITE PELLETS
DEPTH TOP OF SAND PACK: 13.85 /3'
ELEVATION / DEPTH TOP OF SCREEN: 12.85 /4'
TYPE OF SCREEN: PVC
SLOT SIZE x LENGTH: 20 SLx15'
I.D. OF SCREEN: 2"
TYPE OF SAND PACK: #20-30 SAND
ELEVATION / DEPTH BOTTOM OF SCREEN: -2.15 /19'
ELEVATION / DEPTH BOTTOM OF SAND PACK: -3.15 /20'
TYPE OF BACKFILL BELOW OBSERVATION WELL: SAND
ELEVATION / DEPTH OF HOLE: -3.15 /20'

NUS CORPORATION

BORING NO.: 17GW02

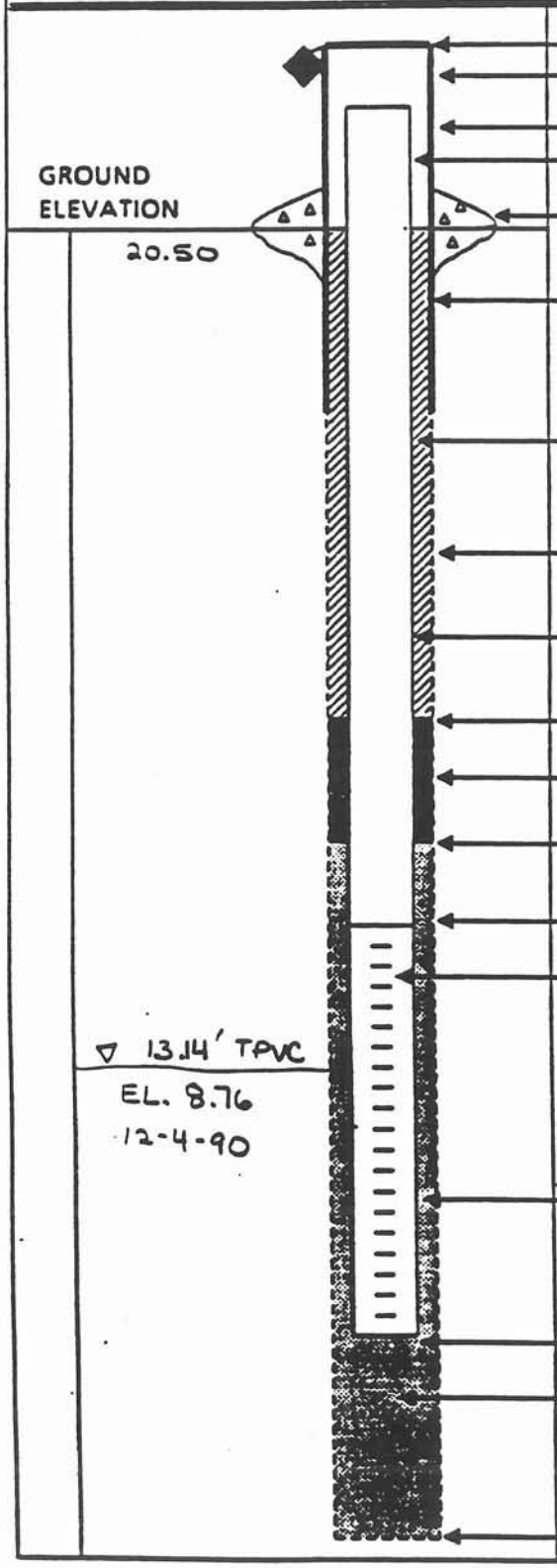
MONITORING WELL SHEET

1844

PROJECT MCAS CHERRY POINT
PROJECT NO. 3F24
ELEVATION 20.50
FIELD GEOLOGIST SJ CONTI

LOCATION SITE 17
BORING 17GW02
DATE 10-29-90

DRILLER R BILBREY
DRILLING METHOD HSA
DEVELOPMENT METHOD BLK PUMP



ELEVATION OF TOP OF SURFACE CASING: 21.93
ELEVATION OF TOP OF RISER PIPE: 21.90
STICK - UP TOP OF SURFACE CASING: 1.43
STICK - UP RISER PIPE: 1.40
TYPE OF SURFACE SEAL: 5'x5'x6" CONCRETE PAD
I.D. OF SURFACE CASING: 4"
TYPE OF SURFACE CASING: STEEL
RISER PIPE I.D. 2"
TYPE OF RISER PIPE: PVC
BOREHOLE DIAMETER: 8"
TYPE OF BACKFILL: CEMENT/BENTONITE GROUT
ELEVATION / DEPTH TOP OF SEAL: 17.50 /3'
TYPE OF SEAL: BENTONITE PELLETS
DEPTH TOP OF SAND PACK: 15.50 / 5'
ELEVATION / DEPTH TOP OF SCREEN: 13.50 / 7'
TYPE OF SCREEN: PVC
SLOT SIZE x LENGTH: 20 SLX 15'
I.D. OF SCREEN: 2"
TYPE OF SAND PACK: # 20-30 SAND
ELEVATION / DEPTH BOTTOM OF SCREEN: -1.50 /22'
ELEVATION / DEPTH BOTTOM OF SAND PACK: -2.50 /23'
TYPE OF BACKFILL BELOW OBSERVATION WELL: SAND
49.5 → 23 SAND/ BENTONITE
ELEVATION / DEPTH OF HOLE: -29 /49.5

APPENDIX C

SLUG TEST DATA AND PERMEABILITY CALCULATIONS

APPENDIX C.1

UNIT 5

CLIENT: DEPT NAVY	FILE NO.: 3F24	BY: SJC 12-3-90	PAGE 1 OF 4
SUBJECT: 5GW08 SLUG TEST - RISING HEAD		CHECKED BY: EJR	DATE: 12-13-90

SEE PRINTOUT FOR DATA

HVORSLEV

$$K = \frac{r^2 \ln(L/R)}{2LT_o}$$

$$= \frac{(.083)^2 \ln(7.97/.33)}{2(7.97)\,.058}$$

$$= \frac{(.083)^2(3.18)}{.92}$$

$$= 2.38 \times 10^{-2} \text{ ft/min}$$

$$= 1.2 \times 10^{-2} \text{ cm/sec}$$

$$= 34 \text{ ft/day}$$

t (min)	H-h/H-Ho
0.00 - 0.58	1.00
0.007 - 0.52	.90
0.01 - 0.49	.84
0.017 - 0.44	.76
0.02 - 0.41	.71
0.027 - 0.37	.64
0.03 - 0.34	.59
0.05 - 0.25	.43
0.10 - 0.14	.24
0.20 - 0.08	.14

r = .083' (2" Φ CASING)

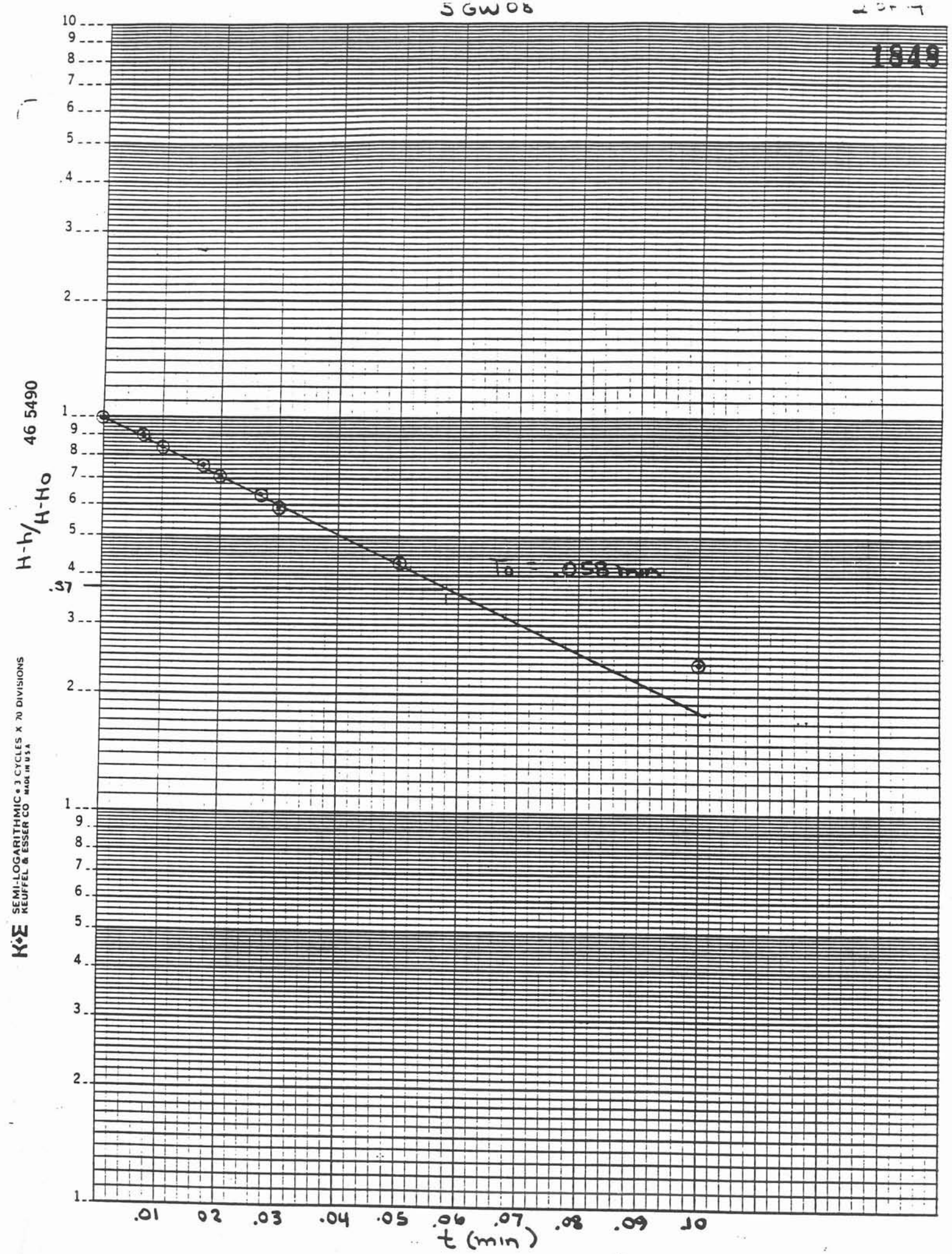
L = 7.97 16 - 8.03

R = .33 (8" Φ HOLE)

T_o = .058 min (from plot)

5GW06

1849


H-h/H-Ho
.37
To = .058 min
t (min)
.01
.02
.03
.04
.05
.06
.07
.08
.09
.10
K+E SEMI-LOGARITHMIC • 3 CYCLES X 70 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.
46 5490

CLIENT: DEPT NAVY	FILE NO.: 3F24	BY: SJC 11-14-90	PAGE 3 OF 4
SUBJECT: 5GW08 SLUG TEST - RISING HEAD		CHECKED BY:	DATE:

2 SECTION SLUG.

SE1000B
Environmental Logger
11/14 10:41

Unit# 00001 Test# 0

INPUT 1: Level (F)

Reference	0.00
Scale factor	9.99
Offset	0.04

Step# 0 11/14 10:30

Elapsed Time	Value
0.0000	- 0.58
0.0033	- 0.55
0.0066	- 0.52
0.0099	- 0.49
0.0133	- 0.46
0.0166	- 0.44
0.0200	- 0.41
0.0233	- 0.39
0.0266	- 0.37
0.0300	- 0.34
0.0333	- 0.33
0.0500	- 0.25
0.0666	- 0.20
0.0833	- 0.17
0.1000	- 0.14
0.1166	- 0.13
0.1333	- 0.11
0.1500	- 0.10
0.1666	- 0.10
0.1833	- 0.09
0.2000	- 0.08
0.2166	- 0.08
0.2333	- 0.07
0.2500	- 0.07
0.2666	- 0.07
0.2833	- 0.06
0.3000	- 0.06
0.3166	- 0.06
0.3333	- 0.06
0.4167	- 0.05
0.5000	- 0.04
0.5833	- 0.04
0.6667	- 0.03
0.7500	- 0.03
0.8333	- 0.02
0.9167	- 0.02
1.0000	- 0.02
1.0833	- 0.02
1.1667	- 0.02
1.2500	- 0.01
1.3333	- 0.01
1.4166	- 0.01
1.5000	- 0.01
1.5833	- 0.01
1.6667	- 0.01
1.7500	- 0.00
1.8333	- 0.00
1.9167	- 0.00
2.0000	- 0.00
2.5000	- 0.00
3.0000	- 0.00
3.5000	0.00
4.0000	0.00
4.5000	0.00
5.0000	0.00
5.5000	0.00
6.0000	0.00
6.5000	0.00
7.0000	0.00
7.5000	0.00
8.0000	0.00
8.5000	0.00
9.0000	0.00
9.5000	0.00
10.0000	0.00

END

NUS CORPORATION

BORING NO.: 5GW 08

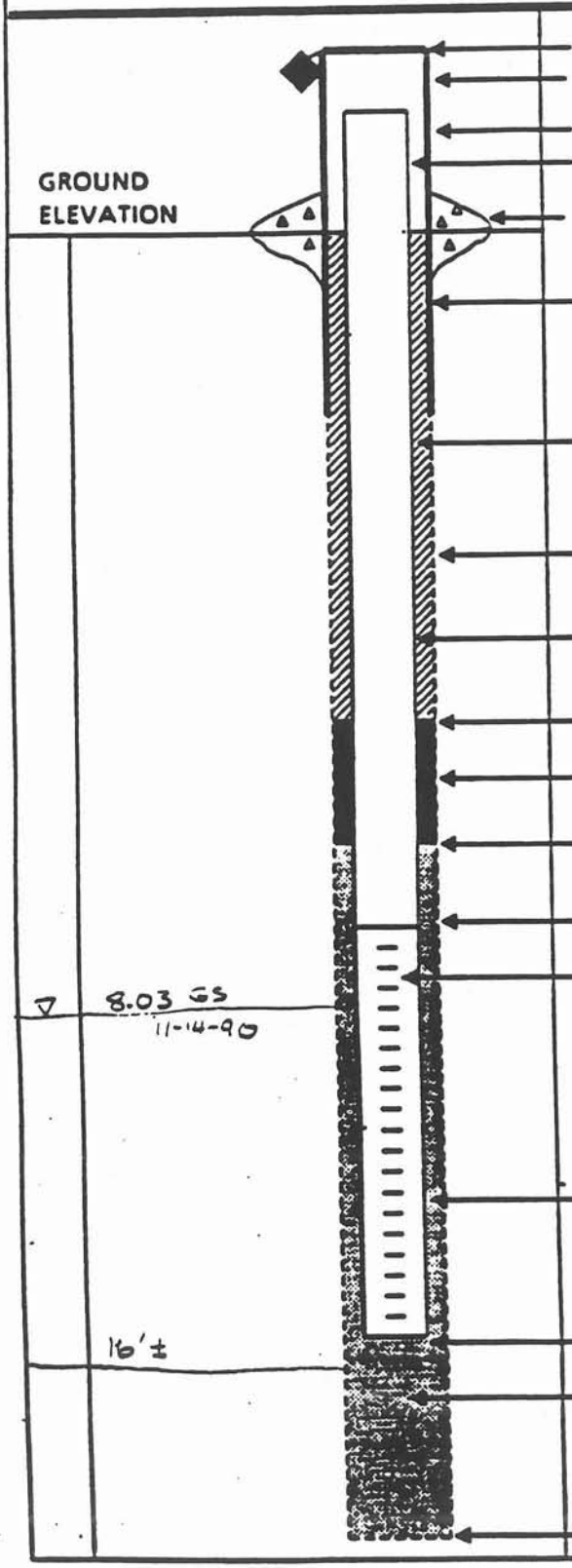
MONITORING WELL SHEET

1850

PROJECT MCAS CHERRY POINT
PROJECT NO. 3F24
ELEVATION
FIELD GEOLOGIST SJ CONTI

LOCATION SITE 5
BORING 5GW08
DATE 10-28-90

DRILLER R. BILBREY
DRILLING METHOD HSA
DEVELOPMENT METHOD PUMP



ELEVATION OF TOP OF SURFACE CASING :
ELEVATION OF TOP OF RISER PIPE:

STICK - UP TOP OF SURFACE CASING:
STICK - UP RISER PIPE :

TYPE OF SURFACE SEAL: 5'x 5' x 6" CONCRETE PAD

I.D. OF SURFACE CASING: 4"
TYPE OF SURFACE CASING: STEEL

RISER PIPE I.D. 2"
TYPE OF RISER PIPE: PVC

BOREHOLE DIAMETER: 8"

TYPE OF BACKFILL: CEMENT / BENTONITE GROUT

ELEVATION / DEPTH TOP OF SEAL: 12

TYPE OF SEAL: BENTONITE PELLETS

DEPTH TOP OF SAND PACK: 13

ELEVATION / DEPTH TOP OF SCREEN: 15

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 20 SLX 10'

I.D. OF SCREEN: 2"

TYPE OF SAND PACK: # 20-30 SAND

ELEVATION / DEPTH BOTTOM OF SCREEN: 15

ELEVATION / DEPTH BOTTOM OF SAND PACK: 16

TYPE OF BACKFILL BELOW OBSERVATION WELL: SAND
CAVED 16 TO 17

ELEVATION / DEPTH OF HOLE: 17

CLIENT: DEPT NAVY	FILE NO.: 3F24	BY: SJC 12-3-90	PAGE 1 OF 4
SUBJECT: 5GW09 SLUG TEST - RISING HEAD		CHECKED BY: EJR	DATE: 12-13-90

SEE PRINTOUT FOR DATA

HVORSLEV

$$K = \frac{r^2 \ln(L/R)}{2LT_0}$$

$$= \frac{(.083)^2 \ln(9.09/.33)}{2(9.09)(.185)}$$

$$= \frac{(.083)^2 (3.32)}{3.36}$$

$= 6.81 \times 10^{-3}$ ft/min

$= 3.5 \times 10^{-3}$ cm/sec

$= 10$ ft/day

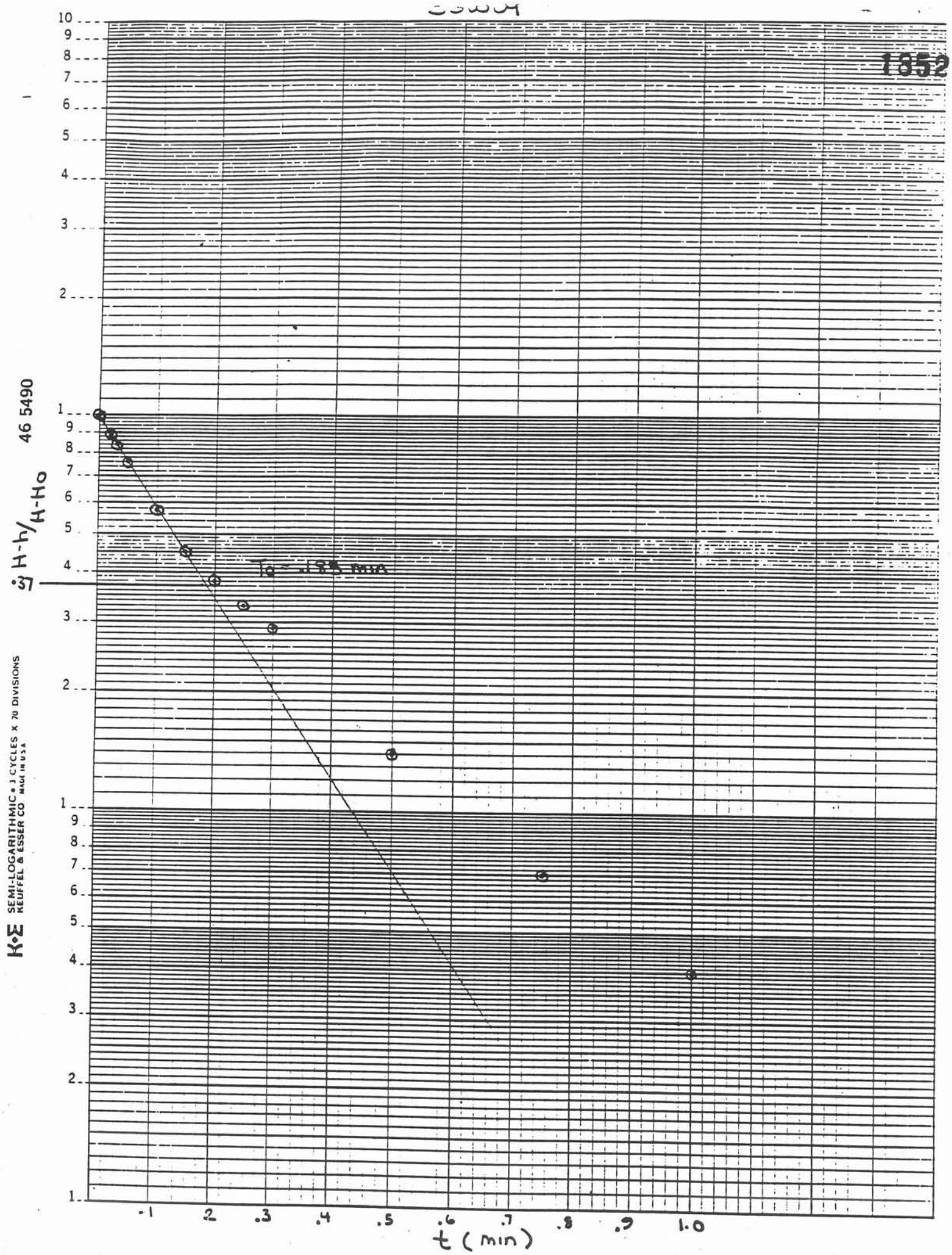
t (min)	H-h/H-Ho
0.00 - 1.81	1.00
0.02 - 1.61	.89
0.03 - 1.52	.84
0.05 - 1.37	.76
.10 - 1.04	.57
.15 .82	.45
.20 .69	.38
.25 .60	.33
.30 .53	.29
.50 .26	.14
.75 .13	.07
1.00 .07	.04

r = .083' (2"Φ CASING)

L = 9.09 14 - 4.91

R = .33 (8"Φ hole)

T_0 = .185 min (from plot)


1852
46 5490
K·E SEMI-LOGARITHMIC 3 CYCLES X 70 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.
$\dot{\eta}$ H-h/H-Ho
T_a ~ .135 min
t (min)
.1
.2
.3
.4
.5
.6
.7
.8
.9
1.0

CLIENT: DEPT NAVY	FILE NO.: 3F24	BY: SJC 11-14-90	PAGE 3 OF 4
SUBJECT: 5GW09 SLUG TEST RISING HEAD		CHECKED BY:	DATE:

2 SECTION SLUG.

SE1000B
Environmental Logger
11/14 11:47

Unit# 00001 Test# 0

INPUT 1: Level (F)

Reference	0.00
Scale factor	9.99
Offset	0.04

Step# 0 11/14 11:37

Elapsed Time		Value
0.0000	-	1.16
0.0033	-	1.74
0.0066	-	1.81
0.0099	-	1.67
0.0133	-	1.70
0.0166	-	1.65
0.0200	-	1.61
0.0233	-	1.59
0.0266	-	1.55
0.0300	-	1.52
0.0333	-	1.49
0.0500	-	1.37
0.0666	-	1.28
0.0833	-	1.14
0.1000	-	1.04
0.1166	-	0.96
0.1333	-	0.88
0.1500	-	0.82
0.1666	-	0.77
0.1833	-	0.73
0.2000	-	0.69
0.2166	-	0.66
0.2333	-	0.63
0.2500	-	0.60
0.2666	-	0.58
0.2833	-	0.56
0.3000	-	0.53
0.3166	-	0.50
0.3333	-	0.47
0.4167	-	0.35
0.5000	-	0.26
0.5833	-	0.20
0.6667	-	0.16
0.7500	-	0.13
0.8333	-	0.10
0.9167	-	0.09
1.0000	-	0.07
1.0833	-	0.06
1.1667	-	0.05
1.2500	-	0.05
1.3333	-	0.05
1.4166	-	0.04
1.5000	-	0.04
1.5833	-	0.04
1.6667	-	0.03
1.7500	-	0.03
1.8333	-	0.03
1.9167	-	0.03
2.0000	-	0.03
2.5000	-	0.02
3.0000	-	0.02
3.5000	-	0.02
4.0000	-	0.02
4.5000	-	0.02
5.0000	-	0.02
5.5000	-	0.02
6.0000	-	0.02
6.5000	-	0.01
7.0000	-	0.02
7.5000	-	0.01
8.0000	-	0.01
8.5000	-	0.01
9.0000	-	0.01
9.5000	-	0.01
10.0000	-	0.01

END

NUS CORPORATION

BORING NO.: 5GW09

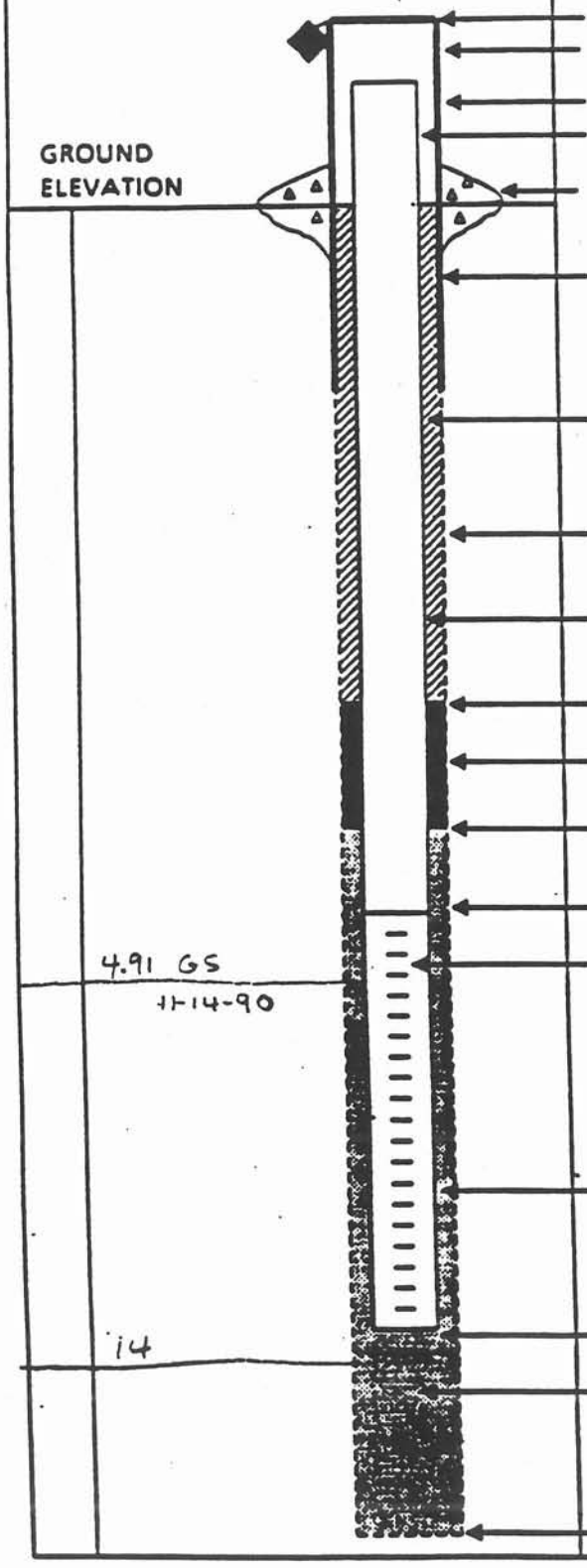
1854

MONITORING WELL SHEET

PROJECT MCAS CHERRY POINT
PROJECT NO. 3F24
ELEVATION
FIELD GEOLOGIST SJ CONTI

LOCATION SITE 5
BORING 5GW09
DATE 10-28-90

DRILLER R. BILBREY
DRILLING METHOD HSA
DEVELOPMENT METHOD BAILER



ELEVATION OF TOP OF SURFACE CASING :
ELEVATION OF TOP OF RISER PIPE:
STICK - UP TOP OF SURFACE CASING:
STICK - UP RISER PIPE :
TYPE OF SURFACE SEAL: 5'x 5'x 6" CONCRETE PAD
I.D. OF SURFACE CASING: 4"
TYPE OF SURFACE CASING: STEEL
RISER PIPE I.D. 2"
TYPE OF RISER PIPE: PVC
BOREHOLE DIAMETER: 8"
TYPE OF BACKFILL: CEMENT / BENTONITE GROUT
ELEVATION / DEPTH TOP OF SEAL: 11.5
TYPE OF SEAL: BENTONITE PELLETS
DEPTH TOP OF SAND PACK: 12.5
ELEVATION / DEPTH TOP OF SCREEN: 13
TYPE OF SCREEN: PVC
SLOT SIZE x LENGTH: 20 SLX 10'
I.D. OF SCREEN: 2"
TYPE OF SAND PACK: #20-30 SAND
ELEVATION / DEPTH BOTTOM OF SCREEN: 13
ELEVATION / DEPTH BOTTOM OF SAND PACK: 14
TYPE OF BACKFILL BELOW OBSERVATION WELL: SAND 14-15 CAVED
ELEVATION / DEPTH OF HOLE: 15'

CLIENT: DEPT NAVY	FILE NO.: 3F24	BY: SJC 12-3-90	PAGE 1 OF 5
SUBJECT: 5GW10 – SLUG TEST – RISING HEAD		CHECKED BY: EJR	DATE: 12-13-90

SEE PRINTOUT FOR DATA

HVORSLEV

$$K = \frac{r^2 \ln(L/R)}{2LT_o}$$

$$= \frac{(.083)^2 \ln(9.14/.33)}{2(9.14)\ .09}$$

$$= \frac{(.083)^2(3.32)}{1.65}$$

$$= 1.39 \times 10^{-2}\ \text{ft/min}$$

$$= 7.0 \times 10^{-3}\ \text{cm/sec}$$

$$= 20\ \text{ft/day}$$

t (min)	H-h/H-Ho
0.00 – 1.86	1.00
0.007 – 1.59	.85
0.01 – 1.54	.83
0.017 – 1.45	.78
0.02 – 1.40	.75
0.03 – 1.27	.68
0.05 – 1.06	.57
0.07 – 0.90	.48
0.10 – 0.63	.34
0.15 – 0.37	.20
0.20 – 0.23	.12
0.25 – 0.16	.09
0.30 – 0.12	.06
0.50 – 0.06	.03

r = .083 (2" Φ CASING)

L = 9.14 20 – 10.86

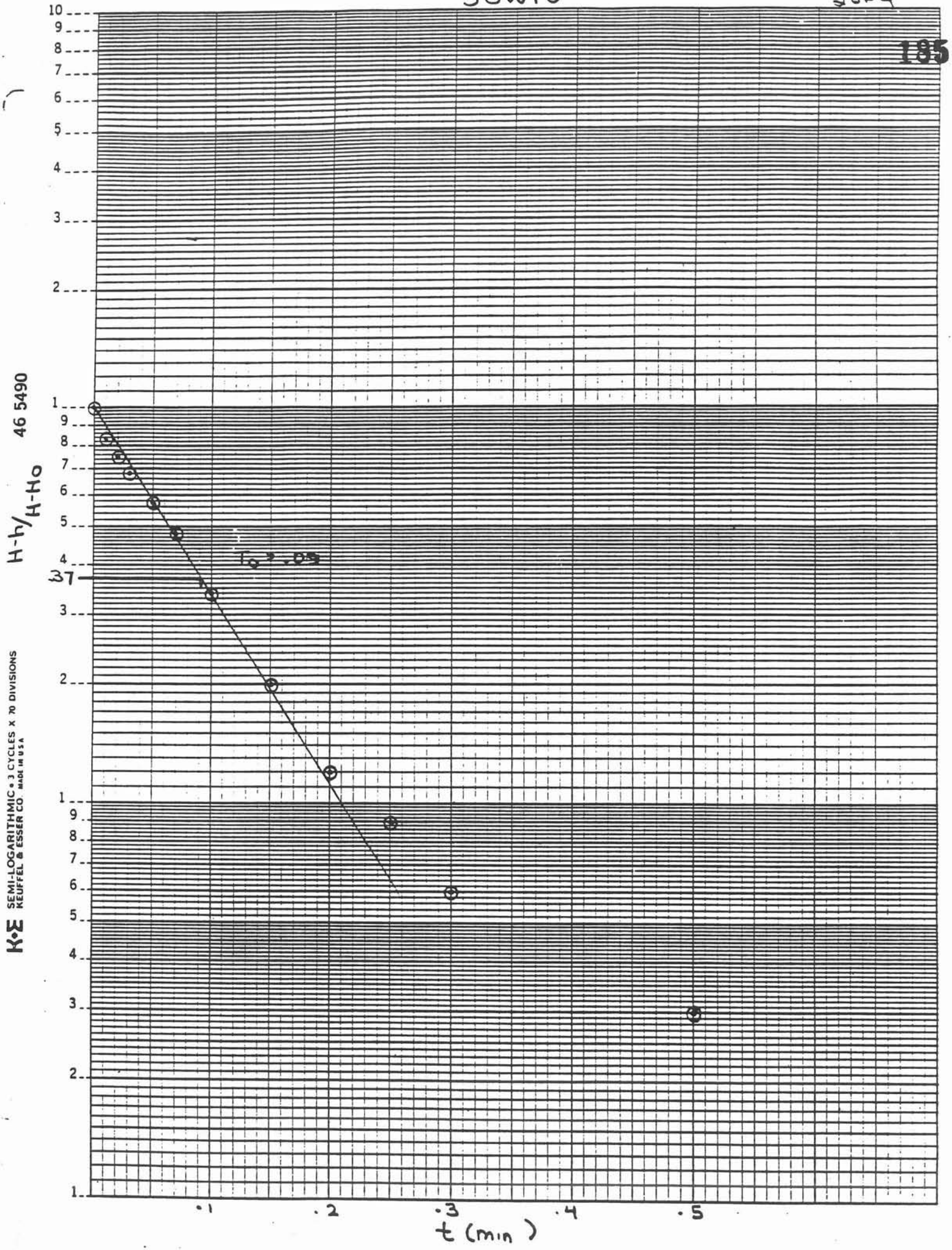
R = .33 (8" Φ HOLE)

T_o = .09 min (from plot)

5GW10

2 OF 4

1856



CLIENT: DEPT NAVY	FILE NO.: 3F24	BY: SJC 11-14-90	PAGE 3 OF 4
SUBJECT: 5GW10 SLUG TEST - RISING HEAD		CHECKED BY:	DATE:

2 SECTION SLUG.

READY
READY

SE1000B
Environmental Logger
11/14 13:14

Unit# 00001 Test# 0

INPUT 1: Level (F)

Reference 0.00
Scale factor 9.99
Offset 0.04

Step# 0 11/14 12:07

Elapsed Time	Value
0.0000	- 1.86
0.0033	- 1.65
0.0066	- 1.59
0.0099	- 1.54
0.0133	- 1.50
0.0166	- 1.45
0.0200	- 1.40
0.0233	- 1.36
0.0266	- 1.32
0.0300	- 1.27
0.0333	- 1.24
0.0500	- 1.06
0.0666	- 0.90
0.0833	- 0.76
0.1000	- 0.63
0.1166	- 0.53
0.1333	- 0.44
0.1500	- 0.37
0.1666	- 0.31
0.1833	- 0.27
0.2000	- 0.23
0.2166	- 0.20
0.2333	- 0.18
0.2500	- 0.16
0.2666	- 0.15
0.2833	- 0.13
0.3000	- 0.12
0.3166	- 0.11
0.3333	- 0.11
0.4167	- 0.08
0.5000	- 0.06
0.5833	- 0.05
0.6667	- 0.05
0.7500	- 0.04
0.8333	- 0.03
0.9167	- 0.03
1.0000	- 0.03
1.0833	- 0.02
1.1667	- 0.02
1.2500	- 0.02
1.3333	- 0.02
1.4166	- 0.01
1.5000	- 0.01
1.5833	- 0.01
1.6667	- 0.01
1.7500	- 0.01
1.8333	- 0.01
1.9167	- 0.01
2.0000	- 0.01
2.5000	- 0.00
3.0000	- 0.00
3.5000	- 0.00
4.0000	- 0.00
4.5000	- 0.00
5.0000	- 0.00
5.5000	- 0.00
6.0000	- 0.00
6.5000	- 0.00
7.0000	- 0.00
7.5000	- 0.00
8.0000	- 0.00
8.5000	- 0.00
9.0000	- 0.00
9.5000	- 0.00
10.0000	- 0.00

END

NUS CORPORATION

BORING NO.: 5GW10

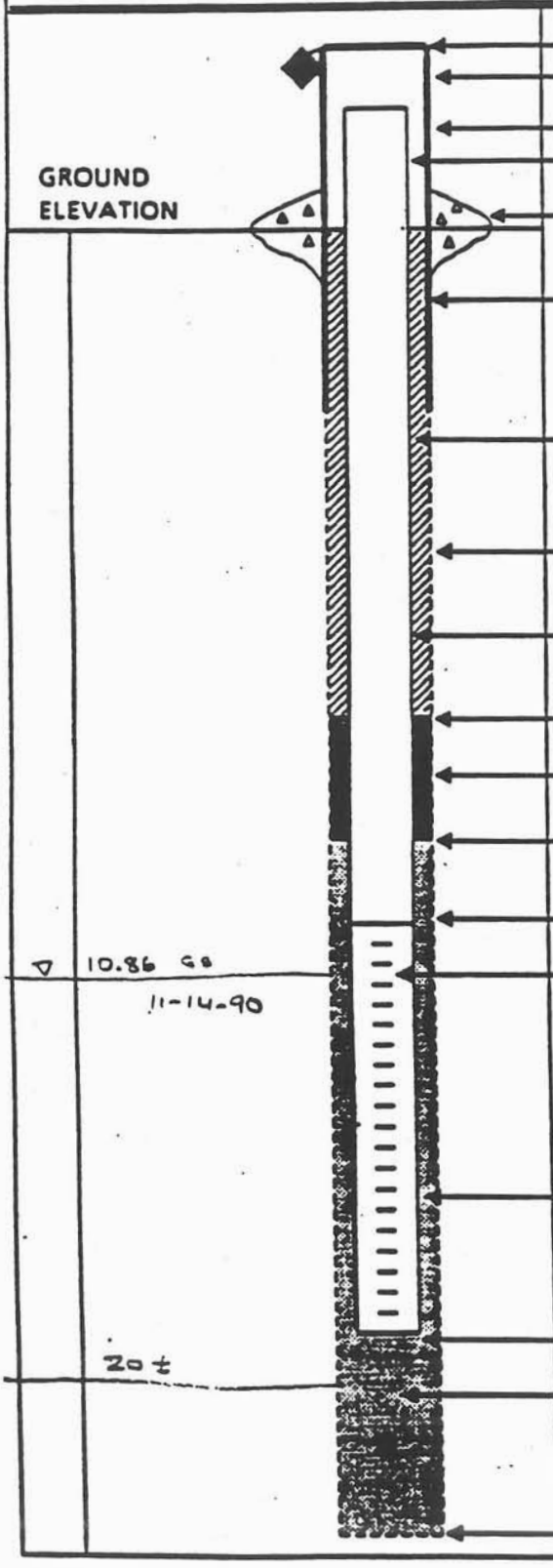
185
4 of 4

MONITORING WELL SHEET

PROJECT MCAS CHERRY POINT
PROJECT NO. 3F24
ELEVATION
FIELD GEOLOGIST E RODMAN

LOCATION SITE 5
BORING 5 GW10
DATE 11-6-90

DRILLER C MINK
DRILLING METHOD HSA
DEVELOPMENT METHOD BAILER



ELEVATION OF TOP OF SURFACE CASING :
ELEVATION OF TOP OF RISER PIPE:

STICK - UP TOP OF SURFACE CASING:
STICK - UP RISER PIPE :

TYPE OF SURFACE SEAL: 5 x 5 x 6" CONCRETE PAD

I.D. OF SURFACE CASING: 4"
TYPE OF SURFACE CASING: STEEL

RISER PIPE I.D. 2"
TYPE OF RISER PIPE: PVC

BOREHOLE DIAMETER: 8"

TYPE OF BACKFILL: CEMENT/BENTONITE

ELEVATION / DEPTH TOP OF SEAL: 15'

TYPE OF SEAL: BENTONITE PELLETS

DEPTH TOP OF SAND PACK: 17'

ELEVATION / DEPTH TOP OF SCREEN: 19'

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 20 SL x 10'

I.D. OF SCREEN: 2"

TYPE OF SAND PACK: # 20-30 SAND

ELEVATION / DEPTH BOTTOM OF SCREEN: 19

ELEVATION / DEPTH BOTTOM OF SAND PACK: 20

TYPE OF BACKFILL BELOW OBSERVATION WELL: SAND
20-22 CAVED.

ELEVATION / DEPTH OF HOLE: 22'

NUS CORPORATION AND SUBSIDIARIES — STANDARD CALCULATION SHEET

185

CLIENT: DEPT NAVY	FILE NO.: 3F24	BY: SJC 12-3-90	PAGE 1 OF 4
SUBJECT: 5GW11 SLUG TEST - RISING HEAD		CHECKED BY: EJR	DATE: 12-12-90

SEE PRINTOUT FOR DATA

HVORSLEV

$$K = \frac{r^2 \ln(L/R)}{2LT_o}$$

$$= \frac{(.083)^2 \ln(7.69/.33)}{2(7.69).62}$$

$$= \frac{(.083)^2(3.15)}{9.54}$$

$$= 2.27 \times 10^{-3} \text{ ft/min}$$

$$= 1.2 \times 10^{-3} \text{ cm/sec}$$

$$\doteq 3 \text{ ft/day}$$

t (min)	H-h/H-Ho
0.00 - 1.64	1.00
0.02 - 1.58	.96
0.03 - 1.53	.93
0.05 - 1.44	.88
0.08 - 1.33	.81
0.10 - 1.28	.78
0.15 - 1.18	.72
0.20 - 1.11	.68
0.25 - 1.05	.64
0.30 - 1.00	.61
0.50 - .73	.44
0.75 - .49	.30
1.00 - .33	.20
2.00 - .07	.04

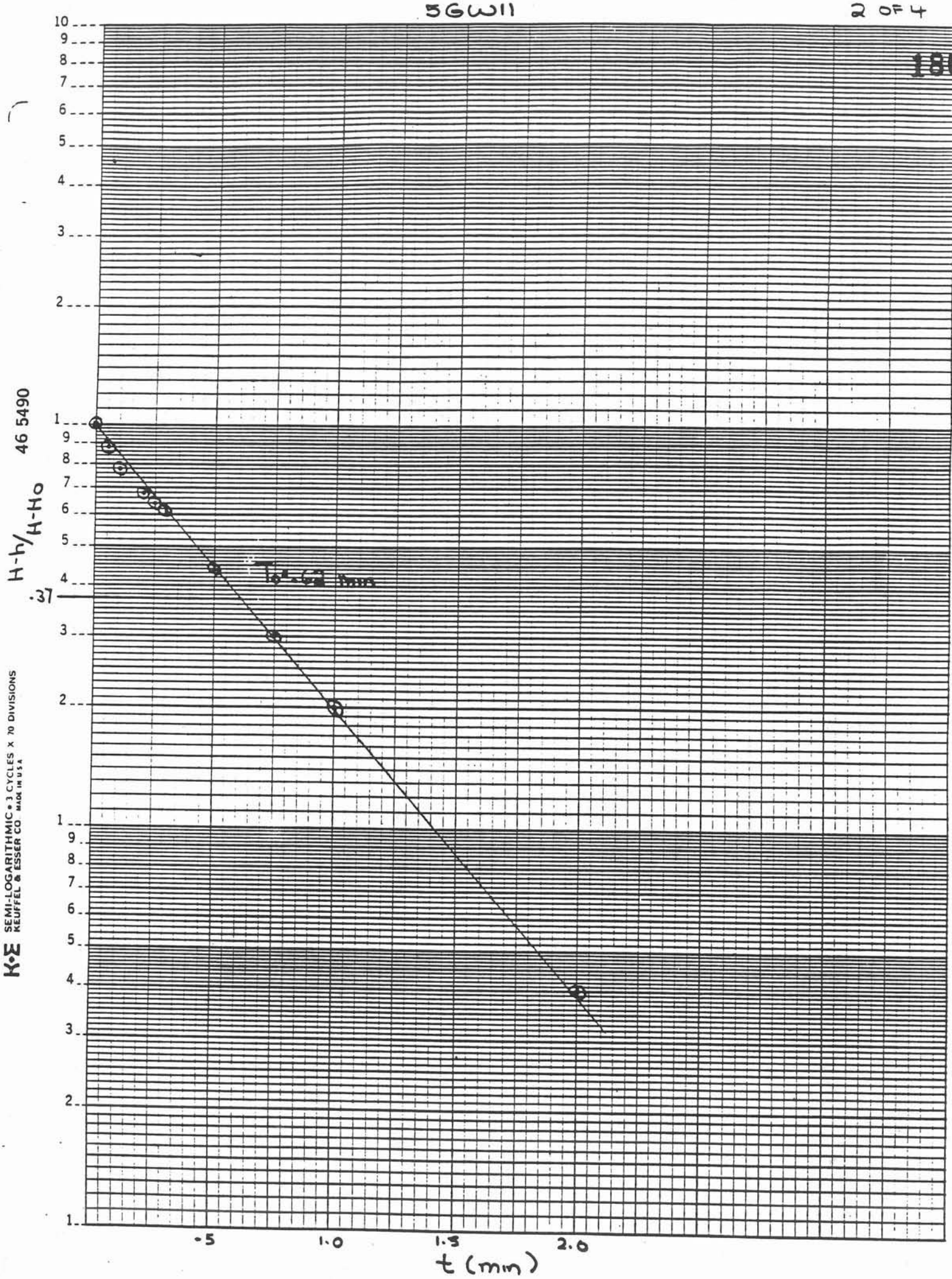
r = .083' (2" Ø CASING)

L = 7.69 15 - 7.31

R = .33 (8" Ø HOLE)

T_o = .62 min (from plot)

1860


H-h/H-Ho
.37
T_{50} = .62 min
.5
1.0
1.5
2.0
t (min)
46 5490
K+E SEMI-LOGARITHMIC • 3 CYCLES X 70 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.

NUS CORPORATION AND SUBSIDIARIES			STANDARD CALCULATION SHEET
CLIENT: DEPT NAVY	FILE NO.: 3F24	BY: SJC 11-14-90	PAGE 3 OF 4
SUBJECT: 5GW11 - SLUG TEST - RISING HEAD		CHECKED BY:	DATE:

2 SECTION SLUG

SE1000B
Environmental Logger
11/14 11:11

Unit# 00001 Test# 0

INPUT 1: Level (F)

Reference	0.00
Scale factor	9.99
Offset	0.04

Step# 0 11/14 11:01

Elapsed Time		Value
0.0000	-	1.96
0.0033	-	1.61
0.0066	-	1.63
0.0099	-	1.64
0.0133	-	1.62
0.0166	-	1.60
0.0200	-	1.58
0.0233	-	1.56
0.0266	-	1.54
0.0300	-	1.53
0.0333	-	1.51
0.0500	-	1.44
0.0666	-	1.38
0.0833	-	1.33
0.1000	-	1.28
0.1166	-	1.25
0.1333	-	1.21
0.1500	-	1.18
0.1666	-	1.16
0.1833	-	1.13
0.2000	-	1.11
0.2166	-	1.09
0.2333	-	1.07
0.2500	-	1.05
0.2666	-	1.03
0.2833	-	1.02
0.3000	-	1.00
0.3166	-	0.98
0.3333	-	0.96
0.4167	-	0.84
0.5000	-	0.73
0.5833	-	0.64
0.6667	-	0.56
0.7500	-	0.49
0.8333	-	0.43
0.9167	-	0.38
1.0000	-	0.33
1.0833	-	0.29
1.1667	-	0.25
1.2500	-	0.22
1.3333	-	0.19
1.4166	-	0.17
1.5000	-	0.15
1.5833	-	0.13
1.6667	-	0.11
1.7500	-	0.10
1.8333	-	0.09
1.9167	-	0.08
2.0000	-	0.07
2.5000	-	0.03
3.0000	-	0.01
3.5000	-	0.00
4.0000	-	0.00
4.5000		0.00
5.0000		0.00
5.5000		0.00
6.0000		0.00
6.5000		0.00
7.0000		0.00
7.5000		0.00
8.0000		0.00
8.5000		0.00
9.0000		0.00
9.5000		0.00
10.0000		0.00

END

NUS CORPORATION

BORING NO.: 5GW11

1862

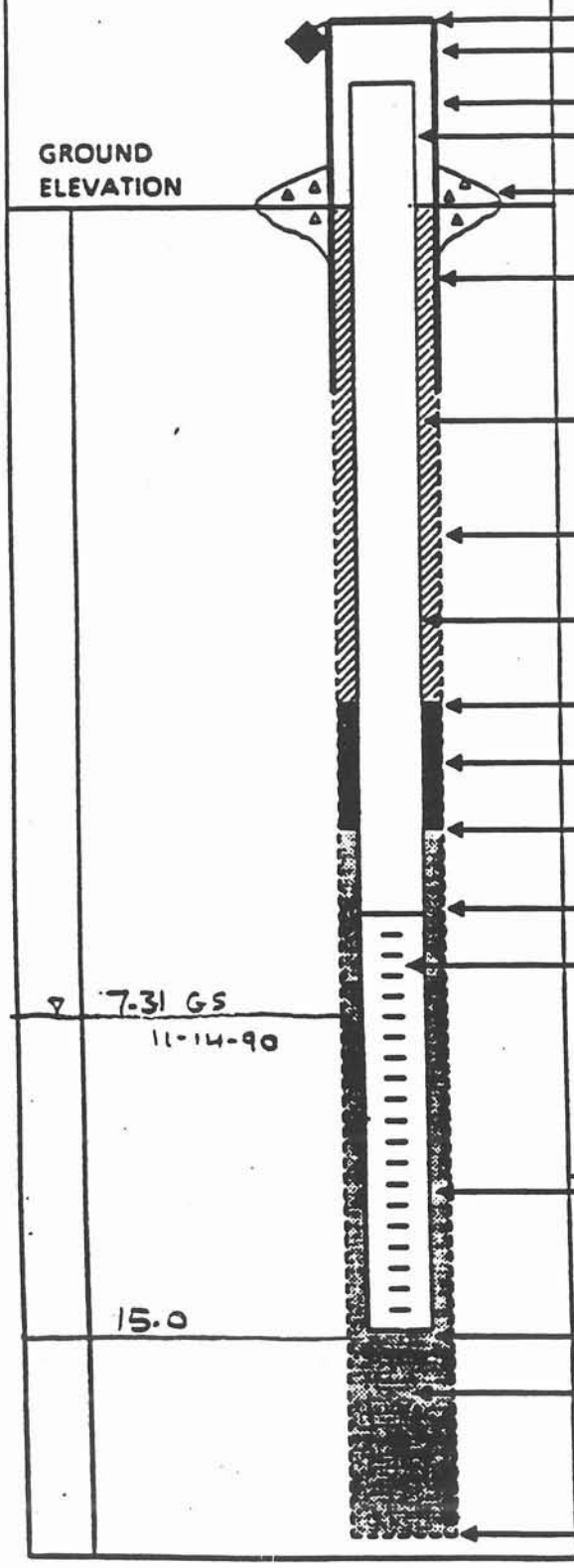
4 OF 4

MONITORING WELL SHEET

PROJECT MCAS CHERRY POINT
PROJECT NO. 3F24
ELEVATION
FIELD GEOLOGIST SJ CONTI

LOCATION SITE 5
BORING 5GW11
DATE 10-29-90

DRILLER R BILBREY
DRILLING METHOD HSA
DEVELOPMENT METHOD WATERRA



ELEVATION OF TOP OF SURFACE CASING :
ELEVATION OF TOP OF RISER PIPE:

STICK - UP TOP OF SURFACE CASING:
STICK - UP RISER PIPE :

TYPE OF SURFACE SEAL: 5' x 5' x 6" CONCRETE PAD

I.D. OF SURFACE CASING: 4"
TYPE OF SURFACE CASING: STEEL

RISER PIPE I.D. 2"
TYPE OF RISER PIPE: PVC

BOREHOLE DIAMETER: 8"

TYPE OF BACKFILL: CEMENT / BENTONITE GROUT

ELEVATION / DEPTH TOP OF SEAL: 12

TYPE OF SEAL: BENTONITE PELLETS

DEPTH TOP OF SAND PACK: 13

ELEVATION / DEPTH TOP OF SCREEN: 14

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 20 SL X 10'

I.D. OF SCREEN: 2"

TYPE OF SAND PACK: # 20-30

ELEVATION / DEPTH BOTTOM OF SCREEN: 14

ELEVATION / DEPTH BOTTOM OF SAND PACK: 15

TYPE OF BACKFILL BELOW OBSERVATION WELL: SAND

ELEVATION / DEPTH OF HOLE: 15

APPENDIX C.4

UNIT 17

NUS CORPORATION

BORING NO.: 17GW02

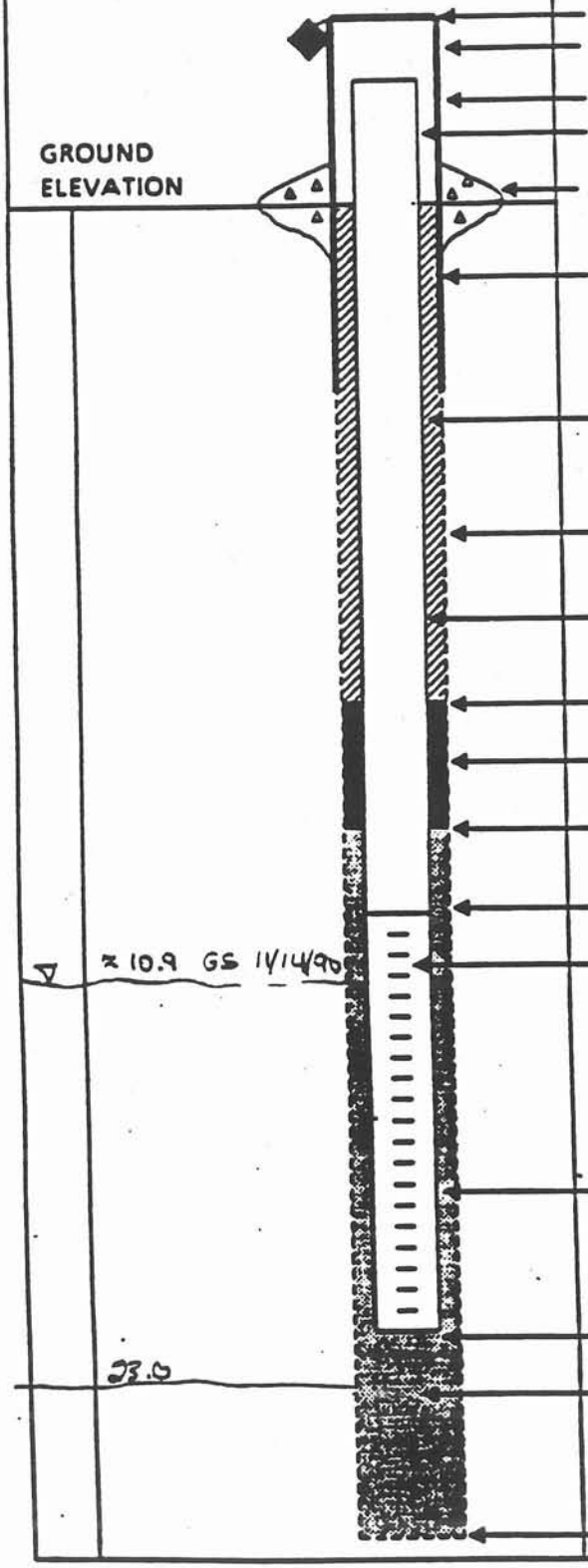
1864

MONITORING WELL SHEET

PROJECT MCAS CHERRY POINT
PROJECT NO. 3F24
ELEVATION
FIELD GEOLOGIST SJ CONTI

LOCATION SITE 17
BORING 17GW02
DATE 10-29-90

DRILLER R BILBREY
DRILLING METHOD HSA
DEVELOPMENT METHOD BIK PUMP



ELEVATION OF TOP OF SURFACE CASING :
ELEVATION OF TOP OF RISER PIPE:
STICK - UP TOP OF SURFACE CASING:
STICK - UP RISER PIPE :
TYPE OF SURFACE SEAL: 5'x5'x6" CONCRETE PAD
I.D. OF SURFACE CASING: 4"
TYPE OF SURFACE CASING: STEEL
RISER PIPE I.D. 2"
TYPE OF RISER PIPE: PVC
BOREHOLE DIAMETER: 8"
TYPE OF BACKFILL: CEMENT/BENTONITE GROUT
ELEVATION / DEPTH TOP OF SEAL: 13'
TYPE OF SEAL: BENTONITE PELLETS
DEPTH TOP OF SAND PACK: 15'
ELEVATION / DEPTH TOP OF SCREEN: 17'
TYPE OF SCREEN: PVC
SLOT SIZE x LENGTH: 20 SLX 15'
I.D. OF SCREEN: 2"
TYPE OF SAND PACK: # 20-30 SAND
ELEVATION / DEPTH BOTTOM OF SCREEN: 22'
ELEVATION / DEPTH BOTTOM OF SAND PACK: 23'
TYPE OF BACKFILL BELOW OBSERVATION WELL: SAND
49.5 → 23 SAND/BENTONITE
ELEVATION / DEPTH OF HOLE: 49.5

NUS CORPORATION AND SUBSIDIARIES — STANDARD CALCULATION SHEET

CLIENT:	FILE NO.:	BY:	PAGE OF
DEPT NAVY	3F24	SJC 11-14-90	186
SUBJECT: 17GW02 - SLUG TEST RISING HEAD		CHECKED BY:	DATE:

2 SECTION SLUG = 5.12'

READY

SE1000B
Environmental Logger
11/14 08:05

Unit# 00001 Test# 0

INPUT 1: Level (F)

Reference	0.00
Scale factor	9.99
Offset	0.04

Step# 0 11/14 07:54

Elapsed Time	Value
0.0000	1.62
0.0033	1.55
0.0066	1.55
0.0099	1.53
0.0133	1.49
0.0166	1.49
0.0200	1.45
0.0233	1.43
0.0266	1.42
0.0300	1.39
0.0333	1.37
0.0500	1.28
0.0666	1.19
0.0833	1.10
0.1000	1.02
0.1166	0.95
0.1333	0.89
0.1500	0.84
0.1666	0.80
0.1833	0.76
0.2000	0.73
0.2166	0.70
0.2333	0.67
0.2500	0.65
0.2666	0.63
0.2833	0.62
0.3000	0.60
0.3166	0.59
0.3333	0.57
0.4167	0.52
0.5000	0.49
0.5833	0.46
0.6667	0.44
0.7500	0.42
0.8333	0.41
0.9167	0.40
1.0000	0.39
1.0833	0.38
1.1667	0.37
1.2500	0.36
1.3333	0.35
1.4166	0.34
1.5000	0.33
1.5833	0.32
1.6667	0.32
1.7500	0.31
1.8333	0.30
1.9167	0.29
2.0000	0.28
2.5000	0.24
3.0000	0.21
3.5000	0.17
4.0000	0.14
4.5000	0.11
5.0000	0.09
5.5000	0.06
6.0000	0.04
6.5000	0.03
7.0000	0.02
7.5000	0.02
8.0000	0.01
8.5000	0.00
9.0000	0.00
9.5000	0.00
10.0000	0.00

END

CLIENT: DEPT NAVY	FILE NO.: 3F24	BY: SJC 12-3-90	PAGE 1 OF 4
SUBJECT: 17GW02 - SLUG TEST - RISING HEAD		CHECKED BY: EJR	DATE: 12-13-90

SEE PRINT OUT FOR DATA

HVORSLEV

$$K = \frac{r^2 \ln(L/R)}{2LT_o}$$

$$= \frac{(.083)^2 \ln(12.1/.33)}{2(12.1).23}$$

$$= \frac{(.083)^2 (3.60)}{5.57}$$

$$= 4.45 \times 10^{-3} \text{ ft/min}$$

$$= 2.3 \times 10^{-3} \text{ cm/sec}$$

$$= 7 \text{ ft/day}$$

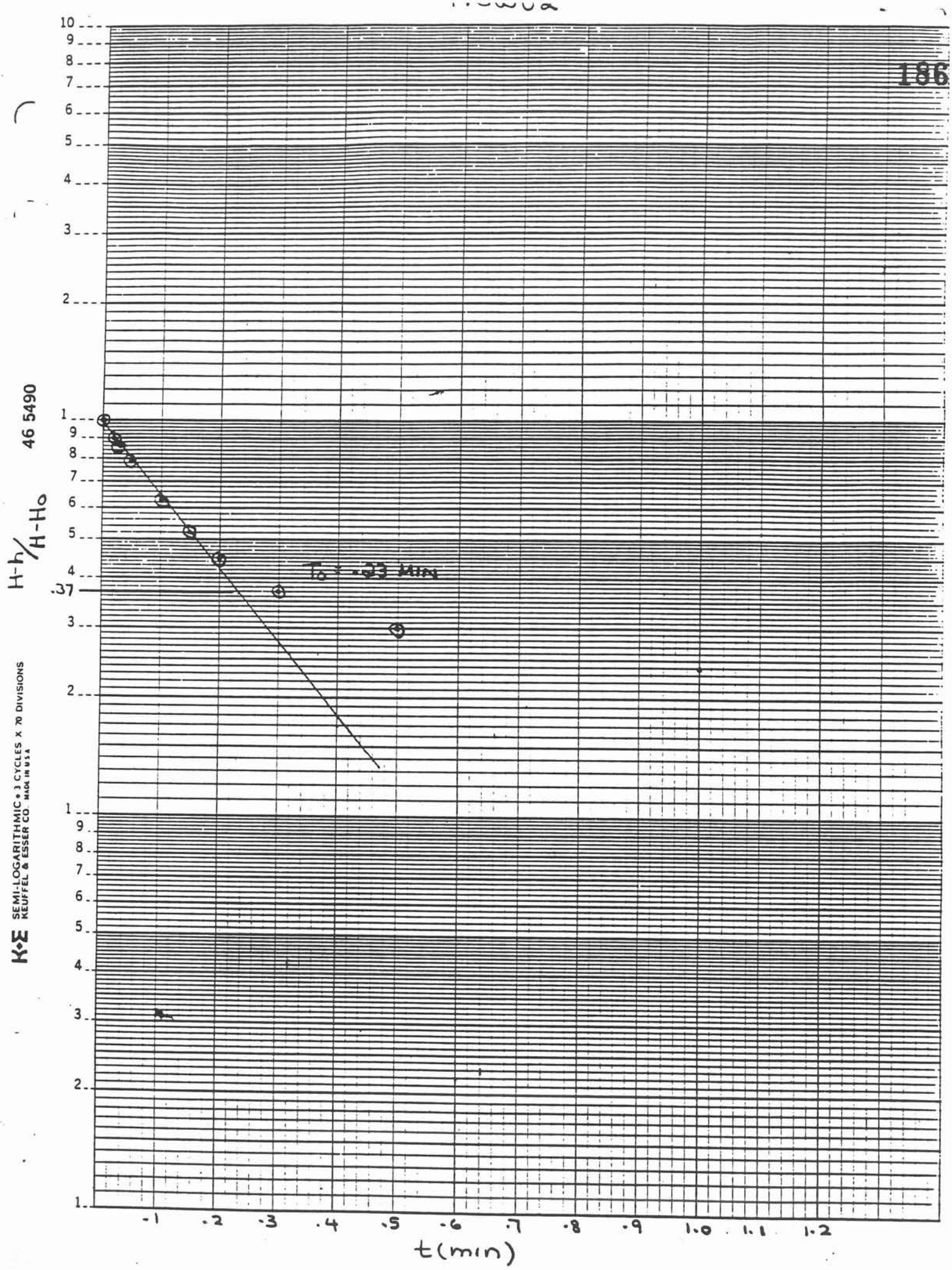
t (min)	H-h/H-Ho
0.00 - 1.62	1.00
0.01 - 1.53	.94
0.02 - 1.45	.90
0.03 - 1.39	.86
0.05 - 1.28	.79
0.10 - 1.02	.63
0.20 - 0.73	.45
0.30 - 0.60	.37
0.50 - 0.49	.30
1.00 - 0.39	.24
2.00 - 0.28	.17
3.00 - 0.21	.13
4.00 - 0.14	.09
5.00 - 0.09	.05
> .15 - 0.84	.52

r = .083' (2"Φ CASING)

L = 12.1 (23 - 10.9 WL)

R = .33 (8"Φ HOLE)

T_o = .23 min (from plot)


46 5490
K+E SEMI-LOGARITHMIC • 3 CYCLES X 70 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.
H-h/H-Ho
.37
To = .23 MIN
.1
.2
.3
.4
.5
.6
.7
.8
.9
1.0
1.1
1.2
t(min)

NUS CORPORATION AND SUBSIDIARIES — STANDARD CALCULATION SHEET

CLIENT: DEPT NAVY	FILE NO.: 3F24	BY: SJC 12-3-90	PAGE 1 OF 4
SUBJECT: 17GW01 – SLUG TEST – RISING HEAD		CHECKED BY: EJR	DATE: 12/13/90

SEE PRINTOUT FOR DATA

HVORSLEV

$$K = \frac{r^2 \ln(L/R)}{2LT_o}$$

$$= \frac{(.083)^2 \ln(14.2/.33)}{2(14.2).15}$$

$$= \frac{(.083)^2(3.76)}{4.26}$$

$$= 6.08 \times 10^{-3} \text{ ft/min}$$

$$= 3.1 \times 10^{-5} \text{ cm/sec}$$

$$= 9 \text{ ft/day}$$

t (min)	H-h/H-Ho
0.00 – 1.87	1.00
0.02 – 1.55	.83
0.05 – 1.28	.68
0.10 – .94	.50
0.15 – .69	.37
0.20 – .51	.27
0.25 – .39	.21
0.30 – .30	.16
0.50 – .15	.08
0.75 – .10	.05
1.00 – .07	.04
2.00 – .03	.02

r = .083 (2" ϕ CASING)

L = 14.2 (WL 5.80 – 20')

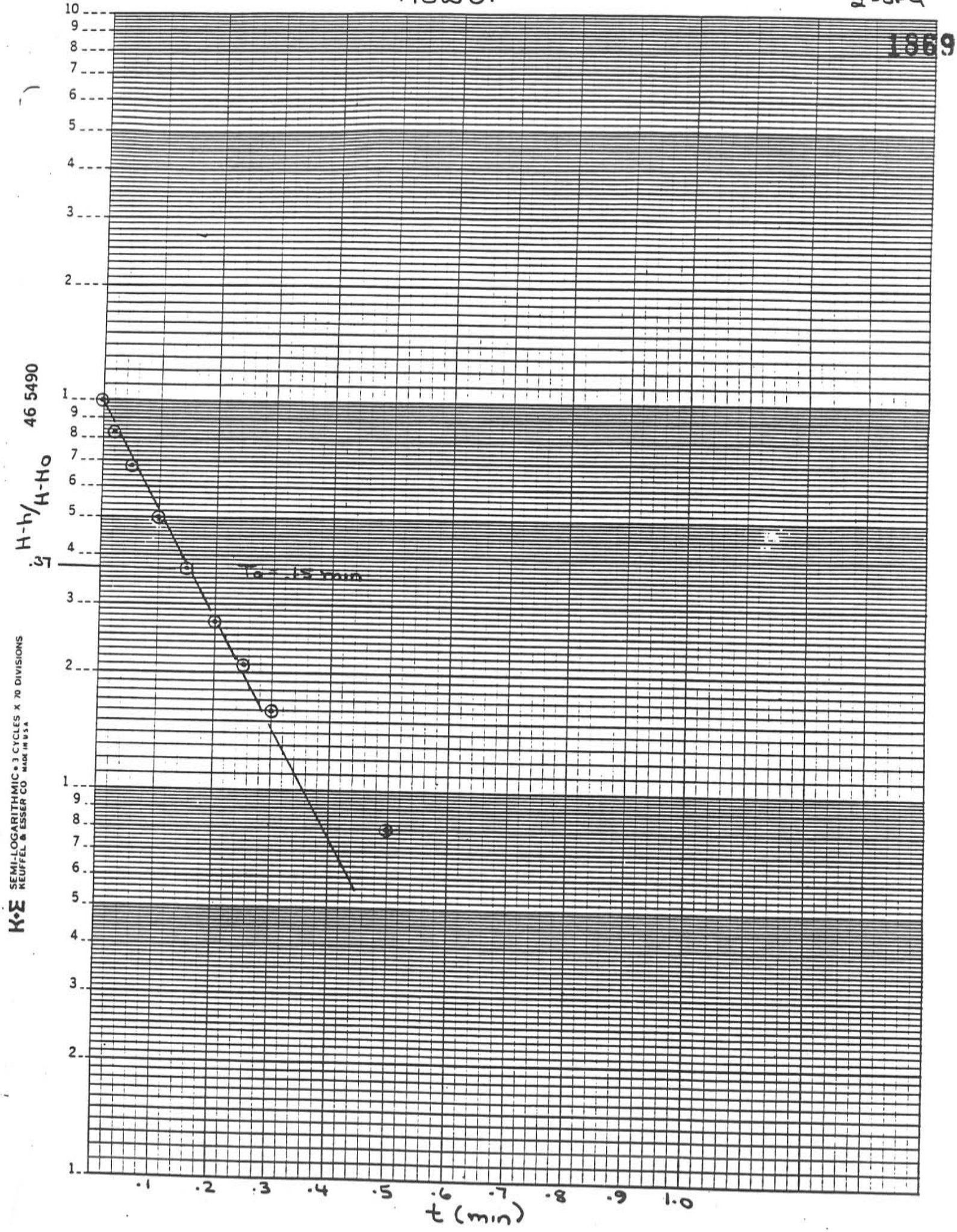
R = .33 (8" ϕ HOLE)

T_o = 0.15 min (FROM PLOT)

17GW01

2-OF4

1869



NUS CORPORATION AND SUBSIDIARIES — **STANDARD CALCULATION SHEET** 1870

CLIENT: DEPT NAVY	FILE NO.: 3F24	BY: SJC 11-14-90	PAGE OF
SUBJECT: 17GW01 - SLUG TEST. RISING HEAD		CHECKED BY:	DATE:

2-SECTION SLUG.

SE1000B
Environmental Logger
11/14 08:41

Unit# 00001 Test# 0

INPUT 1: Level (F)

Reference	0.00
Scale factor	9.99
Offset	0.04

Step# 0 11/14 08:30

Elapsed Time		Value
0.0000	-	1.87
0.0033	-	1.70
0.0066	-	1.71
0.0099	-	1.66
0.0133	-	1.62
0.0166	-	1.59
0.0200	-	1.55
0.0233	-	1.51
0.0266	-	1.49
0.0300	-	1.45
0.0333	-	1.42
0.0500	-	1.28
0.0666	-	1.16
0.0833	-	1.04
0.1000	-	0.94
0.1166	-	0.85
0.1333	-	0.77
0.1500	-	0.69
0.1666	-	0.63
0.1833	-	0.57
0.2000	-	0.51
0.2166	-	0.47
0.2333	-	0.43
0.2500	-	0.39
0.2666	-	0.36
0.2833	-	0.33
0.3000	-	0.30
0.3166	-	0.28
0.3333	-	0.26
0.4167	-	0.19
0.5000	-	0.15
0.5833	-	0.13
0.6667	-	0.11
0.7500	-	0.10
0.8333	-	0.09
0.9167	-	0.08
1.0000	-	0.07
1.0833	-	0.07
1.1667	-	0.06
1.2500	-	0.06
1.3333	-	0.05
1.4166	-	0.05
1.5000	-	0.05
1.5833	-	0.04
1.6667	-	0.04
1.7500	-	0.04
1.8333	-	0.04
1.9167	-	0.04
2.0000	-	0.03
2.5000	-	0.03
3.0000	-	0.02
3.5000	-	0.01
4.0000	-	0.01
4.5000	-	0.01
5.0000	-	0.01
5.5000	-	0.01
6.0000	-	0.01
6.5000	-	0.00
7.0000	-	0.01
7.5000	-	0.00
8.0000	-	0.00
8.5000	-	0.00
9.0000	-	0.00
9.5000	-	0.00
10.0000	-	0.00

END

NUS CORPORATION

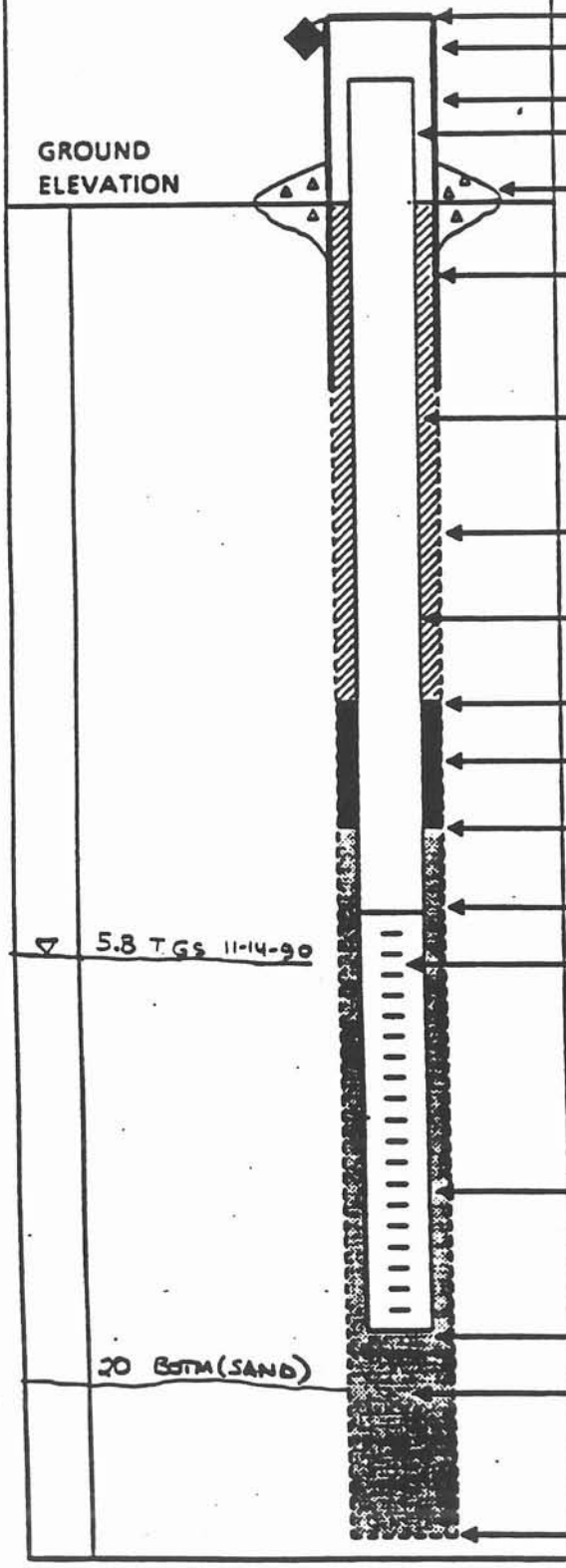
BORING NO.: 17 GW 01

MONITORING WELL SHEET

PROJECT MCAS CHERRY POINT
PROJECT NO. 3F24
ELEVATION
FIELD GEOLOGIST SJ CONTI

LOCATION SITE 17
BORING 17 GW 01
DATE 10-31-90

DRILLER R. BILBREY
DRILLING METHOD HSA
DEVELOPMENT METHOD BAILER



ELEVATION OF TOP OF SURFACE CASING :
ELEVATION OF TOP OF RISER PIPE:

STICK - UP TOP OF SURFACE CASING:
STICK - UP RISER PIPE :

TYPE OF SURFACE SEAL: 5'x5'x6" CONCRETE PAD

I.D. OF SURFACE CASING: 4"
TYPE OF SURFACE CASING: STEEL

RISER PIPE I.D. 2"
TYPE OF RISER PIPE: PVC

BOREHOLE DIAMETER: 8"

TYPE OF BACKFILL: CEMENT/ BENTONITE GROUT

ELEVATION / DEPTH TOP OF SEAL: 12'

TYPE OF SEAL: BENTONITE PELLETS

DEPTH TOP OF SAND PACK: 13'

ELEVATION / DEPTH TOP OF SCREEN: 14'

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: 20 SL x 15'

I.D. OF SCREEN: 2"

TYPE OF SAND PACK: # 20-30 SAND

ELEVATION / DEPTH BOTTOM OF SCREEN: 19'

ELEVATION / DEPTH BOTTOM OF SAND PACK: 20'

TYPE OF BACKFILL BELOW OBSERVATION WELL: SAND

ELEVATION / DEPTH OF HOLE: 20'

APPENDIX D

CHEMICAL ANALYTICAL DATA

LEGEND FOR DATA TABLES

NA	Not Analyzed
U	Chemical not detected at the detection limit shown
J	Estimated value
R	Rejected during validation

APPENDIX D.1

UNIT 5

CHERRY POINT - SITE 5
SOIL
VOLATILE SOLID ANALYSIS (UG/KG)

SAMPLE NUMBER:		5B01-0525	5B02-0103	5B03-0103	5B04-0305	5B04-0525	5B04-0810	5B04-5575	5B05-0305
QC DESIGNATION:	CRQL								
CHLOROMETHANE	10	11 U	11 UJ	12 UJ	11 UJ	11 UJ	12 UJ	12 UJ	11 UJ
BROMOMETHANE	10	11 U	11 UJ	12 UJ	11 UJ	11 UJ	12 UJ	12 UJ	11 UJ
VINYL CHLORIDE	10	11 U	11 UJ	12 UJ	11 UJ	11 UJ	12 UJ	12 UJ	11 UJ
CHLOROETHANE	10	11 U	11 UJ	12 UJ	11 UJ	11 UJ	12 UJ	12 UJ	11 UJ
METHYLENE CHLORIDE	5	23 UJ	8 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	5 UJ
ACETONE	10	22 UJ	12 UJ	12 UJ	11 UJ	11 UJ	10 UJ	12 UJ	11 UJ
CARBON DISULFIDE	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
1,1-DICHLOROETHENE	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
1,1-DICHLOROETHANE	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
1,2-DICHLOROETHENE (TOTAL)	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	R
CHLOROFORM	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
1,2-DICHLOROETHANE	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
2-BUTANONE	10	11 U	11 UJ	12 UJ	11 UJ	11 UJ	12 UJ	12 UJ	11 UJ
1,1,1-TRICHLOROETHANE	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
CARBON TETRACHLORIDE	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
VINYL ACETATE	10	11 U	11 UJ	12 UJ	11 UJ	11 UJ	12 UJ	12 UJ	11 UJ
BROMODICHLOROMETHANE	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
1,2-DICHLOROPROPANE	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
CIS-1,3-DICHLOROPROPENE	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
TRICHLOROETHENE	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
DIBROMOCHLOROMETHANE	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
1,1,2-TRICHLOROETHANE	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
BENZENE	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
TRANS-1,3-DICHLOROPROPENE	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
BROMOFORM	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
4-METHYL-2-PENTANONE	10	11 U	11 UJ	12 UJ	11 UJ	11 UJ	12 UJ	12 UJ	11 UJ
2-HEXANONE	10	11 U	11 UJ	12 UJ	11 UJ	11 UJ	12 UJ	12 UJ	11 UJ
TETRACHLOROETHENE	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
1,1,2,2-TETRACHLOROETHANE	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
TOLUENE	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
CHLOROBENZENE	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
ETHYL BENZENE	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
STYRENE	5	5 U	5 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
TOTAL XYLENES	5	5 U	4 J	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 J
DILUTION FACTOR:		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
DATE SAMPLED:		10/29/90	10/27/90	10/27/90	10/28/90	10/28/90	10/28/90	10/28/90	11/07/90
DATE ANALYZED:		11/09/90	11/12/90	11/12/90	11/11/90	11/10/90	11/10/90	11/10/90	11/20/90
PERCENT MOISTURE:		9	6	20	12	12	16	17	13
ASSOCIATED BLANKS:		5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-003-R
		5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-004-R
		5B02-001-T	5B02-001-T	5B02-001-T	5B02-001-T	5B02-001-T	5B02-001-T	5B02-001-T	5B00-001-T

CHERRY POINT - SITE 5
SOIL
SEMI-VOLATILE SOLID ANALYSES (UG/KG)

SAMPLE NUMBER:		5B01-0525	5B02-0103	5B03-0103	5B04-0305	5B04-0525	5B04-0810	5B04-5575	5B05-0305
QC DESIGNATION:	CRQL								
PHENOL	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
BIS(2-CHLOROETHYL)ETHER	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
2-CHLOROPHENOL	330	NA	NA	NA	390 U	390 U	420 UJ	410 U	390 U
1,3-DICHLOROBENZENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
1,4-DICHLOROBENZENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
BENZYL ALCOHOL	330	NA	NA	NA	390 UJ	390 UJ	420 UJ	410 U	390 U
1,2-DICHLOROBENZENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
2-METHYLPHENOL	330	NA	NA	NA	390 U	390 U	420 UJ	410 U	390 U
BIS(2-CHLOROISOPROPYL)ETHER	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
4-METHYLPHENOL	330	NA	NA	NA	390 U	390 U	420 UJ	410 U	390 U
N-NITROSODI-N-PROPYLAMINE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
HEXACHLOROETHANE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
NITROBENZENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
ISOPHORONE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
2-NITROPHENOL	330	NA	NA	NA	390 U	390 U	420 UJ	410 U	390 U
2,4-DIMETHYLPHENOL	330	NA	NA	NA	390 U	390 U	420 UJ	410 U	390 U
BENZOIC ACID	1600	NA	NA	NA	1900 U	1900 U	2000 UJ	2000 U	1900 U
BIS(2-CHLOROETHOXY)METHANE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
2,4-DICHLOROPHENOL	330	NA	NA	NA	390 U	390 U	420 UJ	410 U	390 U
1,2,4-TRICHLOROBENZENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
NAPHTHALENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
4-CHLORANILINE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
HEXACHLOROBUTADIENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
4-CHLORO-3-METHYLPHENOL	330	NA	NA	NA	390 U	390 U	420 UJ	410 U	390 U
2-METHYLNAPHTHALENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
HEXACHLOROCYCLOPENTADIENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
2,4,6-TRICHLOROPHENOL	330	NA	NA	NA	390 U	390 U	420 UJ	410 U	390 U
2,4,5-TRICHLOROPHENOL	1600	NA	NA	NA	1900 U	1900 U	2000 UJ	2000 U	1900 U
2-CHLORONAPHTHALENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
2-NITROANILINE	1600	NA	NA	NA	1900 U	1900 U	2000 U	2000 U	1900 U
DIMETHYL PHTHALATE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
ACENAPHTHYLENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
2,6-DINITROTOLUENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
3-NITROANILINE	1600	NA	NA	NA	1900 U	1900 U	2000 U	2000 U	1900 U
ACENAPHTHENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
2,4-DINITROPHENOL	1600	NA	NA	NA	1900 U	1900 U	2000 UJ	2000 U	1900 U
4-NITROPHENOL	1600	NA	NA	NA	1900 U	1900 U	2000 UJ	2000 U	1900 U
DIBENZOFURAN	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
2,4-DINITROTOLUENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
DIETHYL PHTHALATE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
4-CHLOROPHENYL-PHENYLETHER	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
FLUORENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
4-NITROANILINE	1600	NA	NA	NA	1900 U	1900 U	2000 U	2000 U	1900 U
4,6-DINITRO-2-METHYLPHENOL	1600	NA	NA	NA	1900 U	1900 U	2000 UJ	2000 U	1900 U
N-NITROSODIPHENLYAMINE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U

CHERRY POINT - SITE 5
SOIL
SEMI-VOLATILE SOLID ANALYSES (UG/KG)

SAMPLE NUMBER:		5B01-0525	5B02-0103	5B03-0103	5B04-0305	5B04-0525	5B04-0810	5B04-5575	5B05-0305
QC DESIGNATION:	CRQL								
4-BROMOPHENYL-PHENYLETHER	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
HEXACHLOROBENZENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
PENTACHLOROPHENOL	1600	NA	NA	NA	1900 U	1900 U	2000 UJ	2000 U	1900 U
PHENANTHRENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
ANTHRACENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
DI-N-BUTYLPHTHALATE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
FLUORANTHENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
PYRENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
BUTYLBENZYLPHTHALATE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
3,3'-DICHLOROBENZIDINE	660	NA	NA	NA	770 U	780 U	840 U	820 U	790 U
BENZO(a)ANTHRACENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
CHRYSENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
BIS(2-ETHYLHEXYL)PHTHALATE	330	NA	NA	NA	210 J	390 U	390 J	410 U	390 U
DI-N-OCTYLPHTHALATE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
BENZO(b)FLUORANTHENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
BENZO(k)FLUORANTHENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
BENZO(a)PYRENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
INDENO(1,2,3-cd)PYRENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
DIBENZ(a,h)ANTHRACENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
BENZO(ghi)PERYLENE	330	NA	NA	NA	390 U	390 U	420 U	410 U	390 U
% MOISTURE:					10	11	18	16	12
DILUTION FACTOR:					1.1	1.1	1.0	1.1	1.1
DATE SAMPLED:					10/28/90	10/28/90	10/28/90	10/28/90	11/07/90
DATE EXTRACTED:					11/04/90	11/04/90	11/04/90	11/04/90	11/13/90
DATE ANALYZED:					12/01/90	12/01/90	12/01/90	12/10/90	12/11/90
ASSOCIATED BLANKS:					5B00-002-R	5B00-002-R	5B00-002-R	5B00-002-R	5B00-003-R
					5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-004-R
									5B00-001-T

NA = NOT ANALYZED

CHERRY POINT - SITE 5
SOIL
PESTICIDE/PCB ANALYSIS (UG/KG)

SAMPLE NUMBER:		5B01-0525	5B02-0103	5B03-0103	5B04-0305	5B04-0525	5B04-0810	5B04-5575	5B05-0305
QC DESIGNATION:	CRQL								
ALPHA-BHC	8.0	NA	NA	NA	4.4 U	4.5 U	4.9 U	4.7 U	4.5 U
BETA-BHC	8.0	NA	NA	NA	4.4 U	4.5 U	4.9 U	4.7 U	4.5 U
DELTA-BHC	8.0	NA	NA	NA	4.4 U	4.5 U	4.9 U	4.7 U	4.5 U
GAMMA-BHC (LINDANE)	8.0	NA	NA	NA	4.4 U	4.5 U	4.9 U	4.7 U	4.5 U
HEPTACHLOR	8.0	NA	NA	NA	4.4 U	4.5 U	4.9 U	4.7 U	4.5 U
ALDRIN	8.0	NA	NA	NA	4.4 U	4.5 U	4.9 U	4.7 U	4.5 U
HEPTACHLOR EPOXIDE	8.0	NA	NA	NA	4.4 U	4.5 U	4.9 U	4.7 U	4.5 U
ENDOSULFAN I	8.0	NA	NA	NA	4.4 U	4.5 U	4.9 U	4.7 U	4.5 U
DIELDRIN	16.0	NA	NA	NA	8.9 U	9.0 U	9.7 U	9.4 U	9.1 U
4,4'-DDE	16.0	NA	NA	NA	8.9 U	9.0 U	9.7 U	9.4 U	9.1 U
ENDRIN	16.0	NA	NA	NA	8.9 U	9.0 U	9.7 U	9.4 U	9.1 U
ENDOSULFAN II	16.0	NA	NA	NA	8.9 U	9.0 U	9.7 U	9.4 U	9.1 U
4,4'-DDD	16.0	NA	NA	NA	8.9 U	9.0 U	9.7 U	9.4 U	9.1 U
ENDOSULFAN SULFATE	16.0	NA	NA	NA	8.9 U	9.0 U	9.7 U	9.4 U	9.1 U
4,4'-DDT	16.0	NA	NA	NA	8.9 U	9.0 U	9.7 U	9.4 U	9.1 U
METHOXYCHLOR	80.0	NA	NA	NA	44 U	45 U	49 U	47 U	45 U
ENDRIN KETONE	16.0	NA	NA	NA	8.9 U	9.0 U	9.7 U	9.4 U	9.1 U
ALPHA-CHLORODANE	80.0	NA	NA	NA	44 U	45 U	49 U	47 U	45 U
GAMMA-CHLORDANE	80.0	NA	NA	NA	44 U	45 U	49 U	47 U	45 U
TOXAPHENE	160.0	NA	NA	NA	89 U	90 U	97 U	94 U	91 U
AROCLOR 1016	80.0	19 U	19 U	200 U	44 U	45 U	49 U	47 U	45 U
AROCLOR 1221	80.0	19 U	19 U	200 U	44 U	45 U	49 U	47 U	45 U
AROCLOR 1232	80.0	19 U	19 U	200 U	44 U	45 U	49 U	47 U	45 U
AROCLOR 1242	80.0	19 U	19 U	200 U	44 U	45 U	49 U	47 U	45 U
AROCLOR 1248	80.0	19 U	19 U	200 U	44 U	45 U	49 U	47 U	45 U
AROCLOR 1254	160.0	37 U	38 U	400 U	89 U	90 U	97 U	94 U	91 U
AROCLOR 1260	160.0	37 U	38 U	5100	220	260	97 U	94 U	91 U
% MOISTURE:		10.4	11.4	16	10	11	18	16	12
DILUTION FACTOR:		371	375	3967	1.0	1.0	1.0	1.0	1.0
DATE SAMPLED:		10/29/90	10/27/90	10/27/90	10/28/90	10/28/90	10/28/90	10/28/90	11/07/90
DATE EXTRACTED:		11/02/90	11/02/90	11/02/90	11/04/90	11/04/90	11/04/90	11/04/90	11/12/90
DATE ANALYZED:		11/15/90	11/15/90	11/16/90	11/24/90	11/24/90	11/24/90	11/24/90	12/06/90
ASSOCIATED BLANKS:		5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-003-R
		5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-004-R
		5B00-002-R	5B00-002-R	5B00-002-R	5B00-002-R	5B00-002-R	5B00-002-R	5B00-002-R	5B00-001-T

NA = NOT ANALYZED

CHERRY POINT - SITE 5
SOIL BORINGS
INORGANIC SOIL ANALYSIS (mg/kg)

SAMPLE NUMBER:			5B01-0525	5B02-0103	5B03-0103	5B04-0305	5B04-0525	5B04-0810	5B04-5575	5B05-0305
QC DESIGNATION:										
	ANALYTICAL METHOD	CRQL								
ALUMINUM	P	40	NA	NA	NA	5570	5580	4620	7050	6080
ANTIMONY	P	12	NA	NA	NA	5.0 U	4.4 U	5.5 U	5.3 U	5.1 UJ
ARSENIC	F	2	NA	NA	NA	3.4	2.6	2.9	2.1	3.2
BARIUM	P	40	NA	NA	NA	13.1	13.7	7.5	10.3	11.8
BERYLLIUM	P	1	NA	NA	NA	0.22 UJ	0.19 UJ	0.24 UJ	0.23 UJ	0.22 UJ
CADMIUM	P	1	NA	NA	NA	1.1 U	0.95 U	1.2 U	1.2 U	1.1 U
CALCIUM	P	1000	NA	NA	NA	3930 J	3660 J	182 J	179 J	268 J
CHROMIUM	P	2	NA	NA	NA	7.0	6.9	7.5	8.9	6.4 J
COBALT	P	10	NA	NA	NA	1.7 U	1.5 U	1.9 U	1.8 U	1.8 U
COPPER	P	5	NA	NA	NA	4.3	2.5	2.9	3.7	0.89 U
IRON	P	20	NA	NA	NA	4700	5880	6040	3870	2810
LEAD	F	0.6	NA	NA	NA	8.0	7.0	1.9	2.3	4.2 J
MAGNESIUM	P	1000	NA	NA	NA	264	303	176	262	171
MANGANESE	P	3	NA	NA	NA	6.9	10.1	3.6	5.8	4.6
MERCURY	CV	0.02	NA	NA	NA	0.11 U	0.11 U	0.12 U	0.12 U	0.11 U
NICKEL	P	8	NA	NA	NA	2.8 U	2.5 U	3.2	3.0 U	2.9 U
POTASSIUM	P	1000	NA	NA	NA	109 U	110 UJ	128 UJ	116 U	112 U
SELENIUM	F	1	NA	NA	NA	0.68 U	0.66 U	0.73 U	0.71 U	0.68 UJ
SILVER	P	2	NA	NA	NA	0.65 U	0.82	0.93	0.72	0.67 U
SODIUM	P	1000	NA	NA	NA	41.3 UJ	59.3 UJ	42.8 UJ	33.9 UJ	43.1 UJ
THALLIUM	F	2	NA	NA	NA	0.68 U	0.66 U	0.73 U	0.71 U	0.23 U
VANADIUM	P	10	NA	NA	NA	11.3	10.9	11.0	12.0	11.0 J
ZINC	P	4	NA	NA	NA	8.8 UJ	10.9 J	4.3 UJ	5.1 UJ	4.5 UJ
	%MOISTURE:					10.3	11.2	17.6	15.8	12.2
	DATE SAMPLED:					10/28/90	10/28/90	10/28/90	10/28/90	11/07/90
	ASSOCIATED BLANKS:					5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-003-R
						5B00-002-R	5B00-002-R	5B00-002-R	5B00-002-R	5B00-004-R
										5B00-001-T

ANALYTICAL METHOD
F - FURNACE
P - ICP/FLAME AA
CV - COLD VAPOR
C - COLORMETRIC

NA = NOT ANALYZED

CHERRY POINT - SITE 5
SOIL
VOLATILE SOLID ANALYSIS (UG/KG)

SAMPLE NUMBER:		5B05-0525	5B05-0525-D	5B05-0810	5B05-5575	5B06-0305	5B06-0525	5B06-0525-D	5B06-0810
QC DESIGNATION:		FIELD DUPLICATES					FIELD DUPLICATES		
	CRQL								
CHLOROMETHANE	10	55 UJ	54 UJ	12 UJ	11 UJ	11 UJ	11 UJ	11 UJ	12 UJ
BROMOMETHANE	10	55 UJ	54 UJ	12 UJ	11 UJ	11 UJ	11 UJ	11 UJ	12 UJ
VINYL CHLORIDE	10	55 UJ	54 UJ	12 UJ	11 UJ	11 UJ	11 UJ	11 UJ	12 UJ
CHLOROETHANE	10	55 UJ	54 UJ	12 UJ	11 UJ	11 UJ	11 UJ	11 UJ	12 UJ
METHYLENE CHLORIDE	5	18 UJ	24 UJ	4 UJ	4 UJ	4 UJ	10 UJ	12 UJ	6 UJ
ACETONE	10	55 UJ	54 UJ	14 UJ	11 UJ	26 UJ	11 UJ	11 UJ	17 UJ
CARBON DISULFIDE	5	27 UJ	27 UJ	6 UJ	6 UJ	5 UJ	6 UJ	6 UJ	6 UJ
1,1-DICHLOROETHENE	5	27 UJ	27 UJ	6 UJ	6 UJ	5 UJ	6 UJ	6 UJ	6 UJ
1,1-DICHLOROETHANE	5	27 UJ	27 UJ	6 UJ	6 UJ	5 UJ	6 UJ	6 UJ	6 UJ
1,2-DICHLOROETHENE (TOTAL)	5	27 UJ	27 UJ	6 UJ	R	5 UJ	6 UJ	6 UJ	6 UJ
CHLOROFORM	5	27 UJ	27 UJ	6 UJ	6 UJ	5 UJ	6 UJ	6 UJ	6 UJ
1,2-DICHLOROETHANE	5	27 UJ	27 UJ	6 UJ	6 UJ	5 UJ	6 UJ	6 UJ	6 UJ
2-BUTANONE	10	55 UJ	54 UJ	12 UJ	11 UJ	11 UJ	11 UJ	11 UJ	12 UJ
1,1,1-TRICHLOROETHANE	5	27 UJ	27 UJ	6 UJ	6 UJ	5 UJ	6 UJ	6 UJ	6 UJ
CARBON TETRACHLORIDE	5	27 UJ	27 UJ	6 UJ	6 UJ	5 UJ	6 UJ	6 UJ	6 UJ
VINYL ACETATE	10	55 UJ	54 UJ	12 UJ	11 UJ	11 UJ	11 UJ	11 UJ	12 UJ
BROMODICHLOROMETHANE	5	27 UJ	27 UJ	6 UJ	6 UJ	5 UJ	6 UJ	6 UJ	6 UJ
1,2-DICHLOROPROPANE	5	27 UJ	27 UJ	6 UJ	6 UJ	5 UJ	6 UJ	6 UJ	6 UJ
CIS-1,3-DICHLOROPROPENE	5	27 UJ	27 UJ	6 UJ	6 UJ	5 UJ	6 UJ	6 UJ	6 UJ
TRICHLOROETHENE	5	27 UJ	27 UJ	6 UJ	6 UJ	5 UJ	6 UJ	6 UJ	6 UJ
DIBROMOCHLOROMETHANE	5	27 UJ	27 UJ	6 UJ	6 UJ	5 UJ	6 UJ	6 UJ	6 UJ
1,1,2-TRICHLOROETHANE	5	27 UJ	27 UJ	6 UJ	6 UJ	5 UJ	6 UJ	6 UJ	6 UJ
BENZENE	5	27 UJ	27 UJ	6 UJ	6 UJ	5 UJ	6 UJ	6 UJ	6 UJ
TRANS-1,3-DICHLOROPROPENE	5	27 UJ	27 UJ	6 UJ	6 UJ	5 UJ	6 UJ	6 UJ	6 UJ
BROMOFORM	5	27 UJ	27 UJ	6 UJ	6 UJ	5 UJ	6 UJ	6 UJ	6 UJ
4-METHYL-2-PENTANONE	10	55 UJ	54 UJ	12 UJ	11 UJ	11 UJ	11 UJ	11 UJ	12 UJ
2-HEXANONE	10	55 UJ	54 UJ	12 UJ	11 UJ	11 UJ	11 UJ	11 UJ	12 UJ
TETRACHLOROETHENE	5	18 J	19 J	6 UJ	6 UJ	5 UJ	6 UJ	6 UJ	6 UJ
1,1,2,2-TETRACHLOROETHANE	5	27 UJ	27 UJ	6 UJ	6 UJ	5 UJ	6 UJ	6 UJ	6 UJ
TOLUENE	5	62 J	55 J	6 UJ	6 UJ	5 UJ	6 UJ	4 J	6 UJ
CHLOROBENZENE	5	27 UJ	27 UJ	6 UJ	6 UJ	5 UJ	6 UJ	6 UJ	6 UJ
ETHYL BENZENE	5	95 J	48 J	6 UJ	6 UJ	5 UJ	6 UJ	6 UJ	6 UJ
STYRENE	5	27 UJ	27 UJ	6 UJ	6 UJ	5 UJ	6 UJ	6 UJ	6 UJ
TOTAL XYLENES	5	840 J	680 J	6 UJ	5 J	5 UJ	6 UJ	6 UJ	6 UJ
DILUTION FACTOR:		5.0	5.0	1.0	1.0	1.0	1.0	1.0	1.0
DATE SAMPLED:		11/07/90	11/07/90	11/07/90	11/07/90	11/07/90	11/07/90	11/07/90	11/07/90
DATE ANALYZED:		11/21/90	11/21/90	11/20/90	11/21/90	11/21/90	11/20/90	11/20/90	11/21/90
PERCENT MOISTURE:		9	8	17	12	7	11	11	16
ASSOCIATED BLANKS:		5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R
		5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R
		5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T

CHERRY POINT - SITE 5
SOIL
SEMI-VOLATILE SOLID ANALYSES (UG/KG)

SAMPLE NUMBER:		5B05-0525	5B05-0525-D	5B05-0810	5B05-5575	5B06-0305	5B06-0525	5B06-0525-D	5B06-0810
QC DESIGNATION:		FIELD DUPLICATES					FIELD DUPLICATES		
	CRQL								
PHENOL	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
BIS(2-CHLOROETHYL)ETHER	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
2-CHLOROPHENOL	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
1,3-DICHLOROBENZENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
1,4-DICHLOROBENZENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
BENZYL ALCOHOL	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
1,2-DICHLOROBENZENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
2-METHYLPHENOL	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
BIS(2-CHLOROISOPROPYL)ETHER	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
4-METHYLPHENOL	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
N-NITROSODI-N-PROPYLAMINE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
HEXACHLOROETHANE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
NITROBENZENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
ISOPHORONE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
2-NITROPHENOL	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
2,4-DIMETHYLPHENOL	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
BENZOIC ACID	1600	23000 U	37000 U	2000 U	2300 U	1800 U	9100 U	3700 U	1900 U
BIS(2-CHLOROETHOXY)METHANE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
2,4-DICHLOROPHENOL	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
1,2,4-TRICHLOROBENZENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
NAPHTHALENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	240 J	400 U
4-CHLORANILINE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
HEXACHLOROBUTADIENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
4-CHLORO-3-METHYLPHENOL	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
2-METHYLNAPHTHALENE	330	8200	7000 J	410 U	480 U	370 U	800 J	450 J	400 U
HEXACHLOROCYCLOPENTADIENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
2,4,6-TRICHLOROPHENOL	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
2,4,5-TRICHLOROPHENOL	1600	23000 U	37000 U	2000 U	2300 U	1800 U	9100 U	3700 U	1900 U
2-CHLORONAPHTHALENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
2-NITROANILINE	1600	23000 U	37000 U	2000 U	2300 U	1800 U	9100 U	3700 U	1900 U
DIMETHYL PHTHALATE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
ACENAPHTHYLENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
2,6-DINITROTOLUENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
3-NITROANILINE	1600	23000 U	37000 U	2000 U	2300 U	1800 U	9100 U	3700 U	1900 U
ACENAPHTHENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
2,4-DINITROPHENOL	1600	23000 U	37000 U	2000 U	2300 U	1800 U	9100 U	3700 U	1900 U
4-NITROPHENOL	1600	23000 U	37000 U	2000 U	2300 U	1800 U	9100 U	3700 U	1900 U
DIBENZOFURAN	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
2,4-DINITROTOLUENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
DIETHYL PHTHALATE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
4-CHLOROPHENYL-PHENYLETHER	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
FLUORENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
4-NITROANILINE	1600	23000 U	37000 U	2000 U	2300 U	1800 U	9100 U	3700 U	1900 U
4,6-DINITRO-2-METHYLPHENOL	1600	23000 U	37000 U	2000 U	2300 U	1800 U	9100 U	3700 U	1900 U
N-NITROSODIPHENLYAMINE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U

CHERRY POINT - SITE 5
SOIL
SEMI-VOLATILE SOLID ANALYSES (UG/KG)

SAMPLE NUMBER:		5B05-0525	5B05-0525-D	5B05-0810	5B05-5575	5B06-0305	5B06-0525	5B06-0525-D	5B06-0810
QC DESIGNATION:		FIELD DUPLICATES					FIELD DUPLICATES		
	CRQL								
4-BROMOPHENYL-PHENYLETHER	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
HEXACHLOROBENZENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
PENTACHLOROPHENOL	1600	23000 U	37000 U	2000 U	2300 U	1800 U	9100 U	3700 U	1900 U
PHENANTHRENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	360 J	400 U
ANTHRACENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
DI-N-BUTYLPHTHALATE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
FLUORANTHENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 UJ	1100 J	400 U
PYRENE	330	2200 J	3100 J	410 U	480 U	370 U	1900 UJ	1200 J	400 U
BUTYLBENZYLPHTHALATE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
3,3'-DICHLOROBENZIDINE	660	9500 U	15000 U	820 U	960 U	740 U	3800 U	1500 U	800 U
BENZO(a)ANTHRACENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 UJ	1100 J	400 U
CHRYSENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 UJ	950 J	400 U
BIS(2-ETHYLHEXYL)PHTHALATE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
DI-N-OCTYLPHTHALATE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
BENZO(b)FLUORANTHENE	330	4700 U	7600 U	410 U	480 U	370 U	730 J *	1700 J *	400 U
BENZO(k)FLUORANTHENE	330	4700 U	7600 U	410 U	480 U	370 U			400 U
BENZO(a)PYRENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 UJ	880 J	400 U
INDENO(1,2,3-cd)PYRENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	590 J	400 U
DIBENZ(a,h)ANTHRACENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	760 U	400 U
BENZO(ghi)PERYLENE	330	4700 U	7600 U	410 U	480 U	370 U	1900 U	440 J	400 U
% MOISTURE:		27	9	16	28	7	9	10	18
DILUTION FACTOR:		10	21	1.0	1.1	1.1	5.3	2.1	1.0
DATE SAMPLED:		11/07/90	11/07/90	11/07/90	11/07/90	11/07/90	11/07/90	11/07/90	11/07/90
DATE EXTRACTED:		11/13/90	11/13/90	11/13/90	11/13/90	11/13/90	12/13/90	11/13/90	11/13/90
DATE ANALYZED:		12/22/90	12/22/90	12/11/90	12/11/90	12/12/90	12/12/90	12/22/90	12/11/90
ASSOCIATED BLANKS:		5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R
		5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R
NA = NOT ANALYZED		5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T

CHERRY POINT - SITE 5
SOIL
PESTICIDE/PCB ANALYSIS (UG/KG)

SAMPLE NUMBER:		5B05-0525	5B05-0525-D	5B05-0810	5B05-5575	5B06-0305	5B06-0525	5B06-0525-D	5B06-0810
QC DESIGNATION:		FIELD DUPLICATES					FIELD DUPLICATES		
	CRQL								
ALPHA-BHC	8.0	5.4 U	4.4 U	4.8 U	5.5 U	4.3 U	4.3 U	4.4 U	4.8 U
BETA-BHC	8.0	5.4 U	4.4 U	4.8 U	5.5 U	4.3 U	4.3 U	4.4 U	4.8 U
DELTA-BHC	8.0	5.4 U	4.4 U	4.8 U	5.5 U	4.3 U	4.3 U	4.4 U	4.8 U
GAMMA-BHC (LINDANE)	8.0	18 J	4.4 UJ	4.8 U	5.5 U	4.3 U	4.3 U	4.4 U	4.8 U
HEPTACHLOR	8.0	5.4 U	4.4 U	4.8 U	5.5 U	4.3 U	4.3 U	4.4 U	4.8 U
ALDRIN	8.0	5,4 U	4.4 U	4.8 U	5.5 U	4.3 U	5.7 J	4.4 UJ	4.8 U
HEPTACHLOR EPOXIDE	8.0	5.4 U	4.4 U	4.8 U	5.8	4.3 U	4.3 U	4.4 U	4.8 U
ENDOSULFAN I	8.0	85	79	4.8 U	5.5 U	4.3 U	4.3 U	4.4 U	4.8 U
DIELDRIN	16.0	45	46	9.5 U	11 U	8.6 U	8.6 U	8.7 U	9.7 U
4,4'-DDE	16.0	11 UJ	31 J	9.5 U	11 U	8.6 U	8.6 U	8.7 U	9.7 U
ENDRIN	16.0	35 J	65 J	9.5 U	11 U	8.6 U	130 J	8.7 UJ	9.7 U
ENDOSULFAN II	16.0	11 U	8.7 U	9.5 U	11 U	8.6 U	310	190	9.7 U
4,4'-DDD	16.0	11 U	8.7 U	9.5 U	11 U	8.6 U	8.6 U	8.7 U	9.7 U
ENDOSULFAN SULFATE	16.0	11 U	8.7 U	9.5 U	11 U	8.6 U	8.6 U	8.7 U	9.7 U
4,4'-DDT	16.0	120 J	300 J	9.5 U	11 U	8.6 U	180 J	190 J	9.7 U
METHOXYCHLOR	80.0	280 J	520 J	48 U	55 U	43 U	210 J	44 UJ	48 U
ENDRIN KETONE	16.0	11 U	8.7 U	9.5 U	11 U	8.6 U	10 J	8.9 J	9.7 U
ALPHA-CHLORODANE	80.0	54 U	44 U	48 U	55 U	43 U	43 U	44 U	48 U
GAMMA-CHLORDANE	80.0	54 U	44 U	48 U	55 U	43 U	43 U	44 U	48 U
TOXAPHENE	160.0	110 U	87 U	95 U	110 U	86 U	86 U	87 U	97 U
AROCLOR 1016	80.0	54 U	44 U	48 U	55 U	43 U	43 U	44 U	48 U
AROCLOR 1221	80.0	54 U	44 U	48 U	55 U	43 U	43 U	44 U	48 U
AROCLOR 1232	80.0	54 U	44 U	48 U	55 U	43 U	43 U	44 U	48 U
AROCLOR 1242	80.0	54 U	44 U	48 U	55 U	43 U	43 U	44 U	48 U
AROCLOR 1248	80.0	54 U	44 U	48 U	55 U	43 U	43 U	44 U	48 U
AROCLOR 1254	160.0	110 U	87 U	95 U	110 U	86 U	86 U	87 U	97 U
AROCLOR 1260	160.0	840 J	1800 J	95 U	110 U	86 U	3900 J	2300 J	97 U
% MOISTURE:		27	8.8	16	28	7.0	8.8	10	18
DILUTION FACTOR:		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
DATE SAMPLED:		11/07/90	11/07/90	11/07/90	11/07/90	11/07/90	11/07/90	11/07/90	11/07/90
DATE EXTRACTED:		11/12/90	11/12/90	11/12/90	11/12/90	11/12/90	11/12/90	11/12/90	11/12/90
DATE ANALYZED:		12/04/90	12/05/90	12/06/90	12/06/90	12/05/90	12/06/90	12/05/90	12/05/90
ASSOCIATED BLANKS:		5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R
		5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R
		5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T

NA = NOT ANALYZED

CHERRY POINT - SITE 5
SOIL BORINGS
INORGANIC SOIL ANALYSIS (mg/kg)

SAMPLE NUMBER:			5B05-0525	5B05-0525-D	5B05-0810	5B05-5575	5B06-0305	5B06-0525	5B06-0525-D	5B06-0810
QC DESIGNATION:			FIELD DUPLICATES					FIELD DUPLICATES		
	ANALYTICAL METHOD	CRQL								
ALUMINUM	P	40	3250	2560	1530	3770	7050	2230	3200	3960
ANTIMONY	P	12	6.3 UJ	4.8 UJ	5.5 UJ	6.1 UJ	4.9 UJ	4.8 UJ	5.0 UJ	5.6 UJ
ARSENIC	F	2	4.2	4.3	1.5	2.5	1.8	12.6	11.4	2.3
BARIUM	P	40	25.4	21.5	3.0	6.1	14.0	48.2	61.9	7.1
BERYLLIUM	P	1	0.27 UJ	0.21 UJ	0.24 UJ	0.27 UJ	0.22 UJ	0.21 UJ	0.22 UJ	0.24 UJ
CADMIUM	P	1	1.6	1.0 U	1.2 U	1.3 U	1.1 U	1.1 U	1.1 U	1.2 U
CALCIUM	P	1000	28300 J	48200 J	74.8 UJ	42.9 UJ	94.3 UJ	6490 J	1580 J	233 J
CHROMIUM	P	2	3.9 J	5.0 J	1.8 J	3.8 J	9.7 J	6.6 J	15.5 J	4.8 J
COBALT	P	10	2.2 U	2.0	1.9 U	2.1 U	1.7 U	1.7 U	2.2	1.9 U
COPPER	P	5	2.7 UJ	5.4 UJ	0.95 U	1.1 U	26.5	22.1	19.2	0.97 U
IRON	P	20	3650	3950	1520	3960	2750	9540	10600	2280
LEAD	F	0.6	21.6 J	16.5 J	1.2 UJ	3.4 J	3.1 J	62.8 J	47.3 J	2.5 J
MAGNESIUM	P	1000	419	631	83.0	133	240	219	207	127
MANGANESE	P	3	9.9	8.8	2.8	3.2	5.2	17.2	18.8	3.0
MERCURY	CV	0.02	0.14 U	0.11 U	0.12 U	0.13 U	0.10 U	0.11 U	0.11 U	0.11 U
NICKEL	P	8	3.5 U	2.7 U	3.1 U	3.5 U	2.8 U	2.7 U	4.8 UJ	3.2 U
POTASSIUM	P	1000	149 UJ	271 UJ	234 UJ	134 U	139 UJ	190 UJ	154 UJ	122 U
SELENIUM	F	1	0.81 UJ	0.66 UJ	0.71 UJ	0.83 UJ	0.63 UJ	0.78 J	1.0 J	0.69 UJ
SILVER	P	2	0.82 U	0.79	0.71 U	0.80 U	0.65 U	1.7	1.9	0.73 U
SODIUM	P	1000	159 UJ	173 UJ	36.1 UJ	42.4 UJ	39.4 UJ	131 UJ	105 UJ	43.5 UJ
THALLIUM	F	2	0.27 UJ	1.1 U	0.24 U	0.28 U	0.21 U	2.1 U	1.1 U	0.23 U
VANADIUM	P	10	8.6 J	11.2 J	4.0 J	6.7 J	17.9 J	18.2 J	17.5 J	8.7 J
ZINC	P	4	10.6 UJ	11.8 UJ	2.0 UJ	3.7 UJ	7.0 UJ	118	126	27.5 UJ
	%MOISTURE:		26.6	8.8	15.8	27.8	7.0	8.8	10.3	17.7
	DATE SAMPLED:		11/07/90	11/07/90	11/07/90	11/07/90	11/07/90	11/07/90	11/07/90	11/07/90
	ASSOCIATED BLANKS:		5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R
			5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R
			5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T

ANALYTICAL METHOD
F - FURNACE
P - ICP/FLAME AA
CV - COLD VAPOR
C - COLORMETRIC

NA = NOT ANALYZED

CHERRY POINT - SITE 5
SOIL
VOLATILE SOLID ANALYSIS (UG/KG)

SAMPLE NUMBER:		5B06-5575	5B07-0305	5B07-0525	5B07-0525-D	5B07-0810	5B07-5575	5B08-0103	5B08-0103-D
QC DESIGNATION:				FIELD DUPLICATES				FIELD DUPLICATES	
	CRQL								
CHLOROMETHANE	10	11 UJ	11 UJ	12 U	12 U	12 UJ	11 U	11 UJ	11 UJ
BROMOMETHANE	10	11 UJ	11 UJ	12 U	12 U	12 UJ	11 U	11 UJ	11 UJ
VINYL CHLORIDE	10	11 UJ	11 UJ	12 U	12 U	12 UJ	11 U	11 UJ	11 UJ
CHLOROETHANE	10	11 UJ	11 UJ	12 U	12 U	12 UJ	11 U	11 UJ	11 UJ
METHYLENE CHLORIDE	5	5 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
ACETONE	10	33 UJ	17 UJ	20 UJ	22 UJ	12 UJ	16 UJ	11 UJ	11 UJ
CARBON DISULFIDE	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
1,1-DICHLOROETHENE	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
1,1-DICHLOROETHANE	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
1,2-DICHLOROETHENE (TOTAL)	5	6 UJ	6 UJ	R	R	6 UJ	R	6 UJ	6 UJ
CHLOROFORM	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
1,2-DICHLOROETHANE	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
2-BUTANONE	10	11 UJ	11 UJ	12 U	12 U	12 UJ	11 U	11 UJ	11 UJ
1,1,1-TRICHLOROETHANE	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
CARBON TETRACHLORIDE	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
VINYL ACETATE	10	11 UJ	11 UJ	12 U	12 U	12 UJ	11 U	11 UJ	11 UJ
BROMODICHLOROMETHANE	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
1,2-DICHLOROPROPANE	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
CIS-1,3-DICHLOROPROPENE	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
TRICHLOROETHENE	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
DIBROMOCHLOROMETHANE	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
1,1,2-TRICHLOROETHANE	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
BENZENE	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
TRANS-1,3-DICHLOROPROPENE	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
BROMOFORM	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
4-METHYL-2-PENTANONE	10	11 UJ	11 UJ	12 U	12 U	12 UJ	11 U	11 UJ	11 UJ
2-HEXANONE	10	11 UJ	11 UJ	12 U	12 U	12 UJ	11 U	11 UJ	11 UJ
TETRACHLOROETHENE	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
1,1,2,2-TETRACHLOROETHANE	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
TOLUENE	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
CHLOROBENZENE	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
ETHYL BENZENE	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
STYRENE	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
TOTAL XYLENES	5	6 UJ	6 UJ	6 U	6 U	6 UJ	5 U	6 UJ	6 UJ
DILUTION FACTOR:		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
DATE SAMPLED:		11/07/90	11/07/90	11/07/90	11/07/90	11/07/90	11/07/90	10/27/90	10/27/90
DATE ANALYZED:		11/21/90	11/21/90	11/18/90	11/18/90	11/21/90	11/18/90	11/12/90	11/12/90
PERCENT MOISTURE:		10	12	15	20	16	8	13	13
ASSOCIATED BLANKS:		5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-001-R	5B00-001-R
		5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-001-F	5B00-001-F
		5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B02-001-T	5B02-001-T

CHERRY POINT - SITE 5
SOIL
SEMI-VOLATILE SOLID ANALYSES (UG/KG)

SAMPLE NUMBER:		5B06-5575	5B07-0305	5B07-0525	5B07-0525-D	5B07-0810	5B07-5575	5B08-0103	5B08-0103-D
QC DESIGNATION:				FIELD DUPLICATES				FIELD DUPLICATES	
	CRQL								
PHENOL	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
BIS(2-CHLOROETHYL)ETHER	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
2-CHLOROPHENOL	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
1,3-DICHLOROBENZENE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
1,4-DICHLOROBENZENE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
BENZYL ALCOHOL	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
1,2-DICHLOROBENZENE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
2-METHYLPHENOL	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
BIS(2-CHLOROISOPROPYL)ETHER	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
4-METHYLPHENOL	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
N-NITROSODI-N-PROPYLAMINE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
HEXACHLOROETHANE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
NITROBENZENE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
ISOPHORONE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
2-NITROPHENOL	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
2,4-DIMETHYLPHENOL	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
BENZOIC ACID	1600	2200 U	1900 U	10000 U	9900 U	2000 U	1800 U	NA	NA
BIS(2-CHLOROETHOXY)METHANE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
2,4-DICHLOROPHENOL	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
1,2,4-TRICHLOROBENZENE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
NAPHTHALENE	330	460 U	390 U	750 J	2000 U	400 U	370 U	NA	NA
4-CHLORANILINE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
HEXACHLOROBUTADIENE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
4-CHLORO-3-METHYLPHENOL	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
2-METHYLNAPHTHALENE	330	460 U	390 U	590 J	2000 U	400 U	370 U	NA	NA
HEXACHLOROCYCLOPENTADIENE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
2,4,6-TRICHLOROPHENOL	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
2,4,5-TRICHLOROPHENOL	1600	2200 U	1900 U	10000 U	9900 U	2000 U	1800 U	NA	NA
2-CHLORONAPHTHALENE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
2-NITROANILINE	1600	2200 U	1900 U	10000 U	9900 U	2000 U	1800 U	NA	NA
DIMETHYL PHTHALATE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
ACENAPHTHYLENE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
2,6-DINITROTOLUENE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
3-NITROANILINE	1600	2200 U	1900 U	10000 U	9900 U	2000 U	1800 U	NA	NA
ACENAPHTHENE	330	460 U	390 U	2200 J	2000 UJ	400 U	370 U	NA	NA
2,4-DINITROPHENOL	1600	2200 U	1900 U	10000 U	9900 U	2000 U	1800 U	NA	NA
4-NITROPHENOL	1600	2200 U	1900 U	10000 U	9900 U	2000 U	1800 U	NA	NA
DIBENZOFURAN	330	460 U	390 U	1900 J	2000 U	400 U	370 U	NA	NA
2,4-DINITROTOLUENE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
DIETHYL PHTHALATE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
4-CHLOROPHENYL-PHENYLETHER	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
FLUORENE	330	460 U	390 U	2500 J	2000 U	400 U	370 U	NA	NA
4-NITROANILINE	1600	2200 U	1900 U	10000 U	9900 U	2000 U	1800 U	NA	NA
4,6-DINITRO-2-METHYLPHENOL	1600	2200 U	1900 U	10000 U	9900 U	2000 U	1800 U	NA	NA
N-NITROSODIPHENLYAMINE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA

CHERRY POINT - SITE 5
SOIL
SEMI-VOLATILE SOLID ANALYSES (UG/KG)

SAMPLE NUMBER:		5B06-5575	5B07-0305	5B07-0525	5B07-0525-D	5B07-0810	5B07-5575	5B08-0103	5B08-0103-D
QC DESIGNATION:				FIELD DUPLICATES				FIELD DUPLICATES	
	CRQL								
4-BROMOPHENYL-PHENYLETHER	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
HEXACHLOROBENZENE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
PENTACHLOROPHENOL	1600	2200 U	1900 U	R	9900 U	2000 U	1800 U	NA	NA
PHENANTHRENE	330	460 U	390 U	17000 J	3200 J	400 U	370 U	NA	NA
ANTHRACENE	330	460 U	390 U	3800 J	2000 UJ	400 U	370 U	NA	NA
DI-N-BUTYLPHTHALATE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
FLUORANTHENE	330	460 U	390 U	15000 J	3100 J	400 U	370 U	NA	NA
PYRENE	330	460 U	390 U	12000 J	2700 J	400 U	370 U	NA	NA
BUTYLBENZYLPHTHALATE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
3,3'-DICHLOROBENZIDINE	660	930 U	790 U	4200 U	4100 U	810 U	750 U	NA	NA
BENZO(a)ANTHRACENE	330	460 U	390 U	6500 J	1800 J	400 U	370 U	NA	NA
CHRYSENE	330	460 U	390 U	5800 J	1600 J	400 U	370 U	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
DI-N-OCTYLPHTHALATE	330	460 U	390 U	2100 U	2000 U	400 U	370 U	NA	NA
BENZO(b)FLUORANTHENE	330	460 U	390 U	6200 J	1600 J	400 U	370 U	NA	NA
BENZO(k)FLUORANTHENE	330	460 U	390 U	3800 J	1400 J	400 U	370 U	NA	NA
BENZO(a)PYRENE	330	460 U	390 U	4800 J	1500 J	400 U	370 U	NA	NA
INDENO(1,2,3-cd)PYRENE	330	460 U	390 U	3500 J	1300 J	400 U	370 U	NA	NA
DIBENZ(a,h)ANTHRACENE	330	460 U	390 U	1400 J	2000 U	400 U	370 U	NA	NA
BENZO(ghi)PERYLENE	330	460 U	390 U	2400 J	910 J	400 U	370 U	NA	NA
% MOISTURE:		26	12	17	16	15	7		
DILUTION FACTOR:		1.1	1.1	5.3	5.3	1.1	1.1		
DATE SAMPLED:		11/07/90	11/07/90	11/07/90	11/07/90	11/07/90	11/07/90		
DATE EXTRACTED:		11/13/90	11/13/90	11/13/90	11/13/90	11/13/90	11/13/90		
DATE ANALYZED:		12/11/90	12/10/90	12/22/90	12/12/90	12/10/90	12/10/90		
ASSOCIATED BLANKS:		5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R		
		5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R		
NA = NOT ANALYZED		5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T		

CHERRY POINT - SITE 5
SOIL
PESTICIDE/PCB ANALYSIS (UG/KG)

SAMPLE NUMBER:		5B06-5575	5B07-0305	5B07-0525	5B07-0525-D	5B07-0810	5B07-5575	5B08-0103	5B08-0103-D
QC DESIGNATION:				FIELD DUPLICATES				FIELD DUPLICATES	
	CRQL								
ALPHA-BHC	8.0	5.3 U	4.5 U	4.8 U	4.7 U	4.6 U	4.3 U	NA	NA
BETA-BHC	8.0	5.3 U	4.5 U	4.8 U	4.7 U	4.6 U	4.3 U	NA	NA
DELTA-BHC	8.0	5.3 U	4.5 U	4.8 U	4.7 U	4.6 U	4.3 U	NA	NA
GAMMA-BHC (LINDANE)	8.0	5.3 U	7.8	4.8 U	4.7 U	4.6 U	4.3 U	NA	NA
HEPTACHLOR	8.0	5.3 U	8.6	4.8 U	4.7 U	4.6 U	4.3 U	NA	NA
ALDRIN	8.0	5.3 U	4.5 U	R	R	4.6 U	4.3 U	NA	NA
HEPTACHLOR EPOXIDE	8.0	5.3 U	4.5 U	4.8 U	4.7 U	4.6 U	4.3 U	NA	NA
ENDOSULFAN I	8.0	5.3 U	4.5 U	4.8 U	4.7 U	4.6 U	4.3 U	NA	NA
DIELDRIN	16.0	11 U	9.1 U	9.6 U	9.4 U	9.3 U	8.6 U	NA	NA
4,4'-DDE	16.0	11 U	9.1 U	9.6 U	9.4 U	9.3 U	8.6 U	NA	NA
ENDRIN	16.0	11 U	9.1 U	9.6 UJ	11 J	9.3 U	8.6 U	NA	NA
ENDOSULFAN II	16.0	11 U	9.1 U	9.6 U	9.4 U	9.3 U	8.6 U	NA	NA
4,4'-DDD	16.0	11 U	9.1 U	9.6 U	9.4 U	9.3 U	8.6 U	NA	NA
ENDOSULFAN SULFATE	16.0	11 U	9.1 U	9.6 U	9.4 U	9.3 U	8.6 U	NA	NA
4,4'-DDT	16.0	11 U	9.1 U	470 J	240 J	9.3 U	8.6 U	NA	NA
METHOXYCHLOR	80.0	53 U	45 U	280 J	160 J	46 U	43 U	NA	NA
ENDRIN KETONE	16.0	11 U	9.1 U	9.6 U	9.4 U	9.3 U	8.6 U	NA	NA
ALPHA-CHLORODANE	80.0	53 U	45 U	48 U	47 U	46 U	43 U	NA	NA
GAMMA-CHLORDANE	80.0	53 U	45 U	48 U	47 U	46 U	43 U	NA	NA
TOXAPHENE	160.0	110 U	91 U	96 U	94 U	93 U	86 U	NA	NA
AROCLOR 1016	80.0	53 U	45 U	48 U	47 U	46 U	43 U	19 U	19 U
AROCLOR 1221	80.0	53 U	45 U	48 U	47 U	46 U	43 U	19 U	19 U
AROCLOR 1232	80.0	53 U	45 U	48 U	47 U	46 U	43 U	19 U	19 U
AROCLOR 1242	80.0	53 U	45 U	48 U	47 U	46 U	43 U	19 U	19 U
AROCLOR 1248	80.0	53 U	45 U	48 U	47 U	46 U	43 U	19 U	19 U
AROCLOR 1254	160.0	110 U	91 U	96 U	94 U	93 U	86 U	38 U	38 U
AROCLOR 1260	160.0	110 U	91 U	590	580	93 U	86 U	380	360
% MOISTURE:		26	12	17	16	15	7	13	11.9
DILUTION FACTOR:		1.0	1.0	1.0	1.0	1.0	1.0	382	378
DATE SAMPLED:		11/07/90	11/07/90	11/07/90	11/07/90	11/07/90	11/07/90	10/27/90	10/27/90
DATE EXTRACTED:		11/12/90	11/12/90	11/12/90	11/12/90	11/12/90	11/12/90	11/02/90	11/02/90
DATE ANALYZED:		12/05/90	12/04/90	12/03/90	12/04/90	12/04/90	12/04/90	11/15/90	11/15/90
ASSOCIATED BLANKS:		5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-001-R	5B00-001-R
		5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-001-F	5B00-001-F
		5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-002-R	5B00-002-R

NA = NOT ANALYZED

CHERRY POINT - SITE 5
SOIL BORINGS
INORGANIC SOIL ANALYSIS (mg/kg)

SAMPLE NUMBER:			5B06-5575	5B07-0305	5B07-0525	5B07-0525-D	5B07-0810	5B07-5575	5B08-0103	5B08-0103-D
QC DESIGNATION:					FIELD DUPLICATES				FIELD DUPLICATES	
	ANALYTICAL METHOD	CRQL								
ALUMINUM	P	40	3110	10400	12400	13200	3730	2830	NA	NA
ANTIMONY	P	12	6.0 UJ	5.1 UJ	5.3 UJ	5.5 UJ	5.2 UJ	4.7 UJ	NA	NA
ARSENIC	F	2	2.1 J	5.4	2.6 J	2.7	4.0	2.5	NA	NA
BARIUM	P	40	6.6	19.6	36.4	35.9	5.9	4.7	NA	NA
BERYLLIUM	P	1	0.26 UJ	0.22 UJ	0.23 UJ	0.24 UJ	0.23 UJ	0.21 UJ	NA	NA
CADMIUM	P	1	1.3 U	1.1 U	1.2 U	1.2 U	1.1 U	1.0 U	NA	NA
CALCIUM	P	1000	158 J	191 J	33000 J	30800 J	251 J	76.0 UJ	NA	NA
CHROMIUM	P	2	4.2 J	17.8 J	30.5 J	28.4 J	5.9 J	4.8 J	NA	NA
COBALT	P	10	2.1 U	1.8 U	1.9	3.6	1.8 U	1.7 U	NA	NA
COPPER	P	5	1.3 UJ	0.89 U	0.92 U	1.3 UJ	0.91 U	0.83 U	NA	NA
IRON	P	20	1950	10200	8370	6450	4000	2490	NA	NA
LEAD	F	0.6	2.9 J	5.2 J	23.1 J	25.8 J	3.3 J	2.5 J	NA	NA
MAGNESIUM	P	1000	100	390	5250	5480	185	85.0	NA	NA
MANGANESE	P	3	2.5	7.0	42.7	40.2	4.1	1.9	NA	NA
MERCURY	CV	0.02	0.13 U	0.11 U	0.17	0.11 U	0.12 U	0.10 U	NA	NA
NICKEL	P	8	3.4 U	2.9 U	29.1	29.0	2.9 U	2.7 U	NA	NA
POTASSIUM	P	1000	132 U	430 UJ	285 UJ	237 UJ	220 UJ	104 U	NA	NA
SELENIUM	F	1	0.80 UJ	0.68 UJ	0.71 UJ	0.71 UJ	0.69 UJ	0.61 UJ	NA	NA
SILVER	P	2	0.79 U	1.6	1.1	1.2	0.76	0.62 U	NA	NA
SODIUM	P	1000	45.7 UJ	576	7290	9710	40.5 UJ	53.1 UJ	NA	NA
THALLIUM	F	2	0.27 U	0.23 U	0.24 UJ	0.24 UJ	0.23 U	0.20 U	NA	NA
VANADIUM	P	10	6.9 J	25.0 J	18.8 J	16.6 J	10.9 J	5.2 J	NA	NA
ZINC	P	4	4.0 UJ	5.9 UJ	567	731	2.7 UJ	2.2 UJ	NA	NA
	%MOISTURE:		26.0	12.0	42.7	15.9	15.2	6.8		
	DATE SAMPLED:		11/07/90	11/07/90	11/07/90	11/07/90	11/07/90	11/07/90		
	ASSOCIATED BLANKS:		5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R		
			5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R		
			5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T		

ANALYTICAL METHOD
F - FURNACE
P - ICP/FLAME AA
CV - COLD VAPOR
C - COLORMETRIC

NA = NOT ANALYZED

CHERRY POINT - SITE 5
SOIL
VOLATILE SOLID ANALYSIS (UG/KG)

SAMPLE NUMBER:		5B08-0305	5B09-0103	5B09-0305	5B10-0103	5B10-0305	5B11-0103	5B11-0305	5B12-0103
QC DESIGNATION:	CRQL								
CHLOROMETHANE	10	13 UJ	11 UJ	12 UJ	11 UJ	12 UJ	11 UJ	11 UJ	12 UJ
BROMOMETHANE	10	13 UJ	11 UJ	12 UJ	11 UJ	12 UJ	11 UJ	11 UJ	12 UJ
VINYL CHLORIDE	10	13 UJ	11 UJ	12 UJ	11 UJ	12 UJ	11 UJ	11 UJ	12 UJ
CHLOROETHANE	10	13 UJ	11 UJ	12 UJ	11 UJ	12 UJ	11 UJ	11 UJ	12 UJ
METHYLENE CHLORIDE	5	7 UJ	6 UJ	6 UJ	5 UJ	6 UJ	5 UJ	6 UJ	4 UJ
ACETONE	10	13 UJ	11 UJ	12 UJ	11 UJ	16 UJ	11 UJ	11 UJ	12 UJ
CARBON DISULFIDE	5	7 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
1,1-DICHLOROETHENE	5	7 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
1,1-DICHLOROETHANE	5	7 UJ	6 UJ	6 UJ	17 J	6 UJ	6 UJ	6 UJ	6 UJ
1,2-DICHLOROETHENE (TOTAL)	5	7 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
CHLOROFORM	5	7 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
1,2-DICHLOROETHANE	5	7 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
2-BUTANONE	10	13 UJ	11 UJ	12 UJ	11 UJ	12 UJ	11 UJ	11 UJ	12 UJ
1,1,1-TRICHLOROETHANE	5	7 UJ	6 UJ	6 UJ	10 J	6 UJ	6 UJ	6 UJ	6 UJ
CARBON TETRACHLORIDE	5	7 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
VINYL ACETATE	10	13 UJ	11 UJ	12 UJ	11 UJ	12 UJ	11 UJ	11 UJ	12 UJ
BROMODICHLOROMETHANE	5	7 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
1,2-DICHLOROPROPANE	5	7 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
CIS-1,3-DICHLOROPROPENE	5	7 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
TRICHLOROETHENE	5	7 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
DIBROMOCHLOROMETHANE	5	7 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
1,1,2-TRICHLOROETHANE	5	7 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
BENZENE	5	7 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
TRANS-1,3-DICHLOROPROPENE	5	7 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
BROMOFORM	5	7 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
4-METHYL-2-PENTANONE	10	13 UJ	11 UJ	12 UJ	11 UJ	12 UJ	11 UJ	11 UJ	12 UJ
2-HEXANONE	10	13 UJ	11 UJ	12 UJ	11 UJ	12 UJ	11 UJ	11 UJ	12 UJ
TETRACHLOROETHENE	5	7 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
1,1,2,2-TETRACHLOROETHANE	5	7 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
TOLUENE	5	7 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
CHLOROBENZENE	5	7 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
ETHYL BENZENE	5	7 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
STYRENE	5	7 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
TOTAL XYLENES	5	7 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ	6 UJ
DILUTION FACTOR:		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
DATE SAMPLED:		10/27/90	10/27/90	10/27/90	10/27/90	10/27/90	10/28/90	10/28/90	10/28/90
DATE ANALYZED:		11/12/90	11/12/90	11/12/90	11/12/90	11/12/90	11/11/90	11/11/90	11/12/90
PERCENT MOISTURE:		24	10	14	12	17	13	12	17
ASSOCIATED BLANKS:		5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R
		5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F
		5B02-001-T	5B02-001-T	5B02-001-T	5B02-001-T	5B02-001-T	5B02-001-T	5B02-001-T	5B02-001-T

CHERRY POINT - SITE 5
SOIL
SEMI-VOLATILE SOLID ANALYSES (UG/KG)

SAMPLE NUMBER:		5B08-0305	5B09-0103	5B09-0305	5B10-0103	5B10-0305	5B11-0103	5B11-0305	5B12-0103
QC DESIGNATION:	CRQL								
PHENOL	330	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	330	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	330	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	330	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	330	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	330	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	330	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	330	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROISOPROPYL)ETHER	330	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	330	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODI-N-PROPYLAMINE	330	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	330	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	330	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	330	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	330	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	330	NA	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	1600	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	330	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	330	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	330	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	330	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORANILINE	330	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	330	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	330	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	330	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	330	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	330	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	1600	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	330	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	1600	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	330	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	330	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	330	NA	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	1600	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	330	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	1600	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	1600	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	330	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	330	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	330	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	330	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	330	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	1600	NA	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	1600	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENLYAMINE	330	NA	NA	NA	NA	NA	NA	NA	NA

CHERRY POINT - SITE 5
SOIL
SEMI-VOLATILE SOLID.ANALYSES (UG/KG)

SAMPLE NUMBER:		5B08-0305	5B09-0103	5B09-0305	5B10-0103	5B10-0305	5B11-0103	5B11-0305	5B12-0103
QC DESIGNATION:	CRQL								
4-BROMOPHENYL-PHENYLETHER	330	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	330	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	1600	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	330	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	330	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	330	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	330	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	330	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	330	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	660	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(a)ANTHRACENE	330	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	330	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	330	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	330	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(b)FLUORANTHENE	330	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(k)FLUORANTHENE	330	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(a)PYRENE	330	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-cd)PYRENE	330	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZ(a,h)ANTHRACENE	330	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(ghi)PERYLENE	330	NA	NA	NA	NA	NA	NA	NA	NA

% MOISTURE:
DILUTION FACTOR:
DATE SAMPLED:
DATE EXTRACTED:
DATE ANALYZED:
ASSOCIATED BLANKS:

NA = NOT ANALYZED

CHERRY POINT - SITE 5
SOIL
PESTICIDE/PCB ANALYSIS (UG/KG)

SAMPLE NUMBER:		5B08-0305	5B09-0103	5B09-0305	5B10-0103	5B10-0305	5B11-0103	5B11-0305	5B12-0103
QC DESIGNATION:	CRQL								
ALPHA-BHC	8.0	NA	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	8.0	NA	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	8.0	NA	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	8.0	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	8.0	NA	NA	NA	NA	NA	NA	NA	NA
ALDRIN	8.0	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	8.0	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	8.0	NA	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	16.0	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	16.0	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN	16.0	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	16.0	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	16.0	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	16.0	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	16.0	NA	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	80.0	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN KETONE	16.0	NA	NA	NA	NA	NA	NA	NA	NA
ALPHA-CHLORODANE	80.0	NA	NA	NA	NA	NA	NA	NA	NA
GAMMA-CHLORDANE	80.0	NA	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	160.0	NA	NA	NA	NA	NA	NA	NA	NA
AROCLOR 1016	80.0	21 U	18 U	21 U	19 U	19 U	2000 U	19 U	220 U
AROCLOR 1221	80.0	21 U	18 U	21 U	19 U	19 U	2000 U	19 U	220 U
AROCLOR 1232	80.0	21 U	18 U	21 U	19 U	19 U	2000 U	19 U	220 U
AROCLOR 1242	80.0	21 U	18 U	21 U	19 U	19 U	2000 U	19 U	220 U
AROCLOR 1248	80.0	21 U	18 U	21 U	19 U	19 U	2000 U	19 U	220 U
AROCLOR 1254	160.0	42 U	37 U	42 U	38 U	39 U	3900 U	38 U	450 U
AROCLOR 1260	160.0	120	360	55	320	39 U	90000	1600	10000
% MOISTURE:		20.2	9.8	13.8	12.7	31.9	15.7	12.4	25.6
DILUTION FACTOR:		417	369	385	377	487	38995	380	4455
DATE SAMPLED:		10/27/90	10/27/90	10/27/90	10/27/90	10/27/90	10/28/90	10/28/90	10/28/90
DATE EXTRACTED:		11/02/90	11/02/90	11/02/90	11/02/90	11/02/90	11/02/90	11/02/90	11/02/90
DATE ANALYZED:		11/15/90	11/15/90	11/15/90	11/15/90	11/15/90	11/16/90	11/15/90	11/16/90
ASSOCIATED BLANKS:		5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R
		5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F
		5B00-002-R	5B00-002-R	5B00-002-R	5B00-002-R	5B00-002-R	5B00-002-R	5B00-002-R	5B00-002-R

NA = NOT ANALYZED

CHERRY POINT - SITE 5
SOIL BORINGS
INORGANIC SOIL ANALYSIS (mg/kg)

SAMPLE NUMBER:			5B08-0305	5B09-0103	5B09-0305	5B10-0103	5B10-0305	5B11-0103	5B11-0305	5B12-0103
QC DESIGNATION:										
	ANALYTICAL METHOD	CRQL								
ALUMINUM	P	40	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	P	12	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	F	2	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	P	40	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	P	1	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	P	1	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	P	1000	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	P	2	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	P	10	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	P	5	NA	NA	NA	NA	NA	NA	NA	NA
IRON	P	20	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	F	0.6	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	P	1000	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	P	3	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	CV	0.02	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	P	8	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	P	1000	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	F	1	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	P	2	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	P	1000	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	F	2	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	P	10	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	P	4	NA	NA	NA	NA	NA	NA	NA	NA

%MOISTURE:
DATE SAMPLED:
ASSOCIATED BLANKS:

ANALYTICAL METHOD
F - FURNACE
P - ICP/FLAME AA
CV - COLD VAPOR
C - COLORMETRIC

NA = NOT ANALYZED

CHERRY POINT - SITE 5
SOIL
VOLATILE SOLID ANALYSIS (UG/KG)

SAMPLE NUMBER:		5B12-0305	5B13-0103	5B13-0305	5B14-0103	5B14-0305	5B15-0103	5B15-0103-D	5B15-0305
QC DESIGNATION:							FIELD DUPLICATES		
	CRQL								
CHLOROMETHANE	10	13 UJ	12 UJ	12 UJ	14 UJ	13 UJ	20 UJ	20 UJ	14 UJ
BROMOMETHANE	10	13 UJ	12 UJ	12 UJ	14 UJ	13 UJ	20 UJ	20 UJ	14 UJ
VINYL CHLORIDE	10	13 UJ	12 UJ	12 UJ	14 UJ	13 UJ	20 UJ	20 UJ	14 UJ
CHLOROETHANE	10	13 UJ	12 UJ	12 UJ	14 UJ	13 UJ	20 UJ	20 UJ	14 UJ
METHYLENE CHLORIDE	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
ACETONE	10	13 UJ	12 UJ	15 UJ	150 UJ	27 UJ	20 UJ	31 UJ	58 UJ
CARBON DISULFIDE	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
1,1-DICHLOROETHENE	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
1,1-DICHLOROETHANE	5	6 UJ	6 UJ	6 UJ	13 J	6 UJ	10 UJ	10 UJ	8 J
1,2-DICHLOROETHENE (TOTAL)	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
CHLOROFORM	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
1,2-DICHLOROETHANE	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
2-BUTANONE	10	13 UJ	12 UJ	12 UJ	14 UJ	13 UJ	20 UJ	20 UJ	14 UJ
1,1,1-TRICHLOROETHANE	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
CARBON TETRACHLORIDE	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
VINYL ACETATE	10	13 UJ	12 UJ	12 UJ	14 UJ	13 UJ	20 UJ	20 UJ	14 UJ
BROMODICHLOROMETHANE	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
1,2-DICHLOROPROPANE	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
CIS-1,3-DICHLOROPROPENE	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
TRICHLOROETHENE	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
DIBROMOCHLOROMETHANE	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
1,1,2-TRICHLOROETHANE	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
BENZENE	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
TRANS-1,3-DICHLOROPROPENE	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
BROMOFORM	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
4-METHYL-2-PENTANONE	10	13 UJ	12 UJ	12 UJ	14 UJ	13 UJ	20 UJ	20 UJ	14 UJ
2-HEXANONE	10	13 UJ	12 UJ	12 UJ	14 UJ	13 UJ	20 UJ	20 UJ	14 UJ
TETRACHLOROETHENE	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
1,1,2,2-TETRACHLOROETHANE	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
TOLUENE	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
CHLOROBENZENE	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
ETHYL BENZENE	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
STYRENE	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
TOTAL XYLENES	5	6 UJ	6 UJ	6 UJ	7 UJ	6 UJ	10 UJ	10 UJ	7 UJ
DILUTION FACTOR:		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
DATE SAMPLED:		10/28/90	10/28/90	10/28/90	10/28/90	10/28/90	10/28/90	10/28/90	10/28/90
DATE ANALYZED:		11/11/90	11/12/90	11/12/90	11/12/90	11/12/90	11/10/90	11/10/90	11/10/90
PERCENT MOISTURE:		21	14	17	31	23	51	51	31
ASSOCIATED BLANKS:		5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R
		5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F
		5B02-001-T	5B02-001-T	5B02-001-T	5B02-001-T	5B02-001-T	5B02-001-T	5B02-001-T	5B02-001-T

CHERRY POINT - SITE 5
SOIL
SEMI-VOLATILE SOLID ANALYSES (UG/KG)

SAMPLE NUMBER:		5B12-0305	5B13-0103	5B13-0305	5B14-0103	5B14-0305	5B15-0103	5B15-0103-D	5B15-0305
QC DESIGNATION:							FIELD DUPLICATES		
	CRQL								
PHENOL	330	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	330	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	330	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	330	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	330	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	330	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	330	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	330	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROISOPROPYL)ETHER	330	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	330	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODI-N-PROPYLAMINE	330	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	330	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	330	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	330	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	330	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	330	NA	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	1600	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	330	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	330	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	330	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	330	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORANILINE	330	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	330	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	330	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	330	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	330	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	330	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	1600	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	330	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	1600	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	330	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	330	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	330	NA	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	1600	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	330	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	1600	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	1600	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	330	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	330	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	330	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	330	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	330	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	1600	NA	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	1600	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENLYAMINE	330	NA	NA	NA	NA	NA	NA	NA	NA

CHERRY POINT - SITE 5
SOIL
SEMI-VOLATILE SOLID ANALYSES (UG/KG)

SAMPLE NUMBER:		5B12-0305	5B13-0103	5B13-0305	5B14-0103	5B14-0305	5B15-0103	5B15-0103-D	5B15-0305
QC DESIGNATION:							FIELD DUPLICATES		
	CRQL								
4-BROMOPHENYL-PHENYLETHER	330	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	330	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	1600	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	330	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	330	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	330	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	330	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	330	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	330	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	660	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(a)ANTHRACENE	330	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	330	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	330	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	330	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(b)FLUORANTHENE	330	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(k)FLUORANTHENE	330	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(a)PYRENE	330	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-cd)PYRENE	330	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZ(a,h)ANTHRACENE	330	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(ghi)PERYLENE	330	NA	NA	NA	NA	NA	NA	NA	NA

% MOISTURE:
DILUTION FACTOR:
DATE SAMPLED:
DATE EXTRACTED:
DATE ANALYZED:
ASSOCIATED BLANKS:

NA = NOT ANALYZED

CHERRY POINT - SITE 5
SOIL
PESTICIDE/PCB ANALYSIS (UG/KG)

SAMPLE NUMBER:		5B12-0305	5B13-0103	5B13-0305	5B14-0103	5B14-0305	5B15-0103	5B15-0103-D	5B15-0305
QC DESIGNATION:							FIELD DUPLICATES		
	CRQL								
ALPHA-BHC	8.0	NA	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	8.0	NA	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	8.0	NA	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	8.0	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	8.0	NA	NA	NA	NA	NA	NA	NA	NA
ALDRIN	8.0	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	8.0	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	8.0	NA	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	16.0	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	16.0	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN	16.0	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	16.0	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	16.0	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	16.0	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	16.0	NA	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	80.0	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN KETONE	16.0	NA	NA	NA	NA	NA	NA	NA	NA
ALPHA-CHLORODANE	80.0	NA	NA	NA	NA	NA	NA	NA	NA
GAMMA-CHLORDANE	80.0	NA	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	160.0	NA	NA	NA	NA	NA	NA	NA	NA
AROCLOR 1016	80.0	25 U	19 U	20 U	23 U	22 U	33 U	31 U	24 U
AROCLOR 1221	80.0	25 U	19 U	20 U	23 U	22 U	33 U	31 U	24 U
AROCLOR 1232	80.0	25 U	19 U	20 U	23 U	22 U	33 U	31 U	24 U
AROCLOR 1242	80.0	25 U	19 U	210	23 U	22 U	33 U	31 U	24 U
AROCLOR 1248	80.0	25 U	19 U	20 U	23 U	22 U	33 U	31 U	24 U
AROCLOR 1254	160.0	50 U	38 U	40 U	47 U	44 U	67 U	61 U	48 U
AROCLOR 1260	160.0	580	2000	630	410	44 U	67 UJ	240 J	48 U
% MOISTURE:		33.8	11.7	17.9	29.7	23.6	51	45.9	29.8
DILUTION FACTOR:		502	378	404	469	435	666	613	475
DATE SAMPLED:		10/28/90	10/28/90	10/28/90	10/28/90	10/28/90	10/28/90	10/28/90	10/28/90
DATE EXTRACTED:		11/02/90	11/02/90	11/02/90	11/02/90	11/02/90	11/02/90	11/02/90	11/02/90
DATE ANALYZED:		11/15/90	11/15/90	11/15/90	11/15/90	11/15/90	11/15/90	11/15/90	11/15/90
ASSOCIATED BLANKS:		5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R
		5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F
		5B00-002-R	5B00-002-R	5B00-002-R	5B00-002-R	5B00-002-R	5B00-002-R	5B00-002-R	5B00-002-R

NA = NOT ANALYZED

CHERRY POINT - SITE 5
SOIL BORINGS
INORGANIC SOIL ANALYSIS (mg/kg)

SAMPLE NUMBER:			5B12-0305	5B13-0103	5B13-0305	5B14-0103	5B14-0305	5B15-0103	5B15-0103-D	5B15-0305
QC DESIGNATION:								FIELD DUPLICATES		
	ANALYTICAL METHOD	CRQL								
ALUMINUM	P	40	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	P	12	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	F	2	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	P	40	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	P	1	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	P	1	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	P	1000	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	P	2	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	P	10	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	P	5	NA	NA	NA	NA	NA	NA	NA	NA
IRON	P	20	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	F	0.6	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	P	1000	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	P	3	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	CV	0.02	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	P	8	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	P	1000	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	F	1	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	P	2	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	P	1000	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	F	2	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	P	10	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	P	4	NA	NA	NA	NA	NA	NA	NA	NA

%MOISTURE:
DATE SAMPLED:
ASSOCIATED BLANKS:

ANALYTICAL METHOD
F - FURNACE
P - ICP/FLAME AA
CV - COLD VAPOR
C - COLORMETRIC

NA = NOT ANALYZED

CHERRY POINT - SITE 5
SOIL
VOLATILE SOLID ANALYSIS (UG/KG)

SAMPLE NUMBER:		5B16-0305	5B16-0525	5B16-0525-D	5B16-0810	5B16-5575	5B17-0305	5B17-0525	5B17-0810
QC DESIGNATION:			FIELD DUPLICATES						
	CRQL								
CHLOROMETHANE	10	12 UJ	14 UJ	13 UJ	14 UJ	12 UJ	15 UJ	12 UJ	14 UJ
BROMOMETHANE	10	12 UJ	14 UJ	13 UJ	14 UJ	12 UJ	15 UJ	12 UJ	14 UJ
VINYL CHLORIDE	10	12 UJ	14 UJ	13 UJ	14 UJ	12 UJ	15 UJ	12 UJ	14 UJ
CHLOROETHANE	10	12 UJ	14 UJ	13 UJ	14 UJ	12 UJ	15 UJ	12 UJ	14 UJ
METHYLENE CHLORIDE	5	3 UJ	4 UJ	4 UJ	7 UJ	5 UJ	5 UJ	6 UJ	7 UJ
ACETONE	10	20 UJ	14 UJ	13 UJ	14 UJ	9 UJ	75 UJ	12 UJ	15 UJ
CARBON DISULFIDE	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	8 UJ	6 UJ	7 UJ
1,1-DICHLOROETHENE	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	8 UJ	6 UJ	7 UJ
1,1-DICHLOROETHANE	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	14 J	6 UJ	7 UJ
1,2-DICHLOROETHENE (TOTAL)	5	6 UJ	7 UJ	6 UJ	R	6 UJ	8 UJ	6 UJ	7 UJ
CHLOROFORM	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	8 UJ	6 UJ	7 UJ
1,2-DICHLOROETHANE	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	8 UJ	6 UJ	7 UJ
2-BUTANONE	10	12 UJ	14 UJ	13 UJ	14 UJ	12 UJ	17 UJ	12 UJ	14 UJ
1,1,1-TRICHLOROETHANE	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	8 UJ	6 UJ	7 UJ
CARBON TETRACHLORIDE	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	8 UJ	6 UJ	7 UJ
VINYL ACETATE	10	12 UJ	14 UJ	13 UJ	14 UJ	12 UJ	15 UJ	12 UJ	14 UJ
BROMODICHLOROMETHANE	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	8 UJ	6 UJ	7 UJ
1,2-DICHLOROPROPANE	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	8 UJ	6 UJ	7 UJ
CIS-1,3-DICHLOROPROPENE	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	8 UJ	6 UJ	7 UJ
TRICHLOROETHENE	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	8 UJ	6 UJ	7 UJ
DIBROMOCHLOROMETHANE	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	8 UJ	6 UJ	7 UJ
1,1,2-TRICHLOROETHANE	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	8 UJ	6 UJ	7 UJ
BENZENE	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	8 UJ	6 UJ	7 UJ
TRANS-1,3-DICHLOROPROPENE	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	8 UJ	6 UJ	7 UJ
BROMOFORM	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	8 UJ	6 UJ	7 UJ
4-METHYL-2-PENTANONE	10	12 UJ	14 UJ	13 UJ	14 UJ	12 UJ	15 UJ	12 UJ	14 UJ
2-HEXANONE	10	12 UJ	14 UJ	13 UJ	14 UJ	12 UJ	15 UJ	12 UJ	14 UJ
TETRACHLOROETHENE	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	8 UJ	6 UJ	7 UJ
1,1,2,2-TETRACHLOROETHANE	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	8 UJ	6 UJ	7 UJ
TOLUENE	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	8 UJ	6 UJ	7 UJ
CHLOROBENZENE	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	8 UJ	6 UJ	7 UJ
ETHYL BENZENE	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	8 UJ	6 UJ	7 UJ
STYRENE	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	8 UJ	6 UJ	7 UJ
TOTAL XYLENES	5	6 UJ	7 UJ	6 UJ	7 UJ	6 UJ	8 UJ	6 UJ	7 UJ
DILUTION FACTOR:		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
DATE SAMPLED:		11/08/90	11/08/90	11/08/90	11/08/90	11/08/90	11/08/90	11/08/90	11/08/90
DATE ANALYZED:		11/21/90	11/21/90	11/21/90	11/20/90	11/21/90	11/21/90	11/21/90	11/21/90
PERCENT MOISTURE:		16	27	21	31	16	35	17	29
ASSOCIATED BLANKS:		5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R
		5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R
		5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T

CHERRY POINT - SITE 5
SOIL
SEMI-VOLATILE SOLID ANALYSES (UG/KG)

SAMPLE NUMBER:		5B16-0305	5B16-0525	5B16-0525-D	5B16-0810	5B16-5575	5B17-0305	5B17-0525	5B17-0810
QC DESIGNATION:			FIELD DUPLICATES						
	CRQL								
PHENOL	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
BIS(2-CHLOROETHYL)ETHER	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
2-CHLOROPHENOL	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
1,3-DICHLOROBENZENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
1,4-DICHLOROBENZENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
BENZYL ALCOHOL	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
1,2-DICHLOROBENZENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
2-METHYLPHENOL	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
BIS(2-CHLOROISOPROPYL)ETHER	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
4-METHYLPHENOL	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
N-NITROSODI-N-PROPYLAMINE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
HEXACHLOROETHANE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
NITROBENZENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
ISOPHORONE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
2-NITROPHENOL	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
2,4-DIMETHYLPHENOL	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
BENZOIC ACID	1600	2000 U	11000 U	4400 U	2900 U	1900 U	2700 U	4000 U	2800 U
BIS(2-CHLOROETHOXY)METHANE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
2,4-DICHLOROPHENOL	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
1,2,4-TRICHLOROBENZENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
NAPHTHALENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
4-CHLORANILINE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
HEXACHLOROBUTADIENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
4-CHLORO-3-METHYLPHENOL	330	420 U	1200 J	900 U	600 U	400 U	550 U	830 U	570 U
2-METHYLNAPHTHALENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
HEXACHLOROCYCLOPENTADIENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
2,4,6-TRICHLOROPHENOL	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
2,4,5-TRICHLOROPHENOL	1600	2000 U	11000 U	4400 U	2900 U	1900 U	2700 U	4000 U	2800 U
2-CHLORONAPHTHALENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
2-NITROANILINE	1600	2000 U	11000 U	4400 U	2900 U	1900 U	2700 U	4000 U	2800 U
DIMETHYL PHTHALATE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
ACENAPHTHYLENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
2,6-DINITROTOLUENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
3-NITROANILINE	1600	2000 U	11000 U	4400 U	2900 U	1900 U	2700 U	4000 U	2800 U
ACENAPHTHENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
2,4-DINITROPHENOL	1600	2000 U	11000 U	4400 U	2900 U	1900 U	2700 U	4000 U	2800 U
4-NITROPHENOL	1600	2000 U	1600 J	4400 U	2900 U	1900 U	2700 U	4000 U	2800 U
DIBENZOFURAN	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
2,4-DINITROTOLUENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
DIETHYL PHTHALATE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
4-CHLOROPHENYL-PHENYLETHER	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
FLUORENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
4-NITROANILINE	1600	2000 U	11000 U	4400 U	2900 U	1900 U	2700 U	4000 U	2800 U
4,6-DINITRO-2-METHYLPHENOL	1600	2000 U	11000 U	4400 U	2900 U	1900 U	2700 U	4000 U	2800 U
N-NITROSODIPHENLYAMINE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U

CHERRY POINT - SITE 5
SOIL
SEMI-VOLATILE SOLID ANALYSES (UG/KG)

SAMPLE NUMBER:		5B16-0305	5B16-0525	5B16-0525-D	5B16-0810	5B16-5575	5B17-0305	5B17-0525	5B17-0810
QC DESIGNATION:			FIELD DUPLICATES						
	CRQL								
4-BROMOPHENYL-PHENYLETHER	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
HEXACHLOROBENZENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
PENTACHLOROPHENOL	1600	2000 U	11000 U	4400 U	2900 U	1900 U	2700 U	4000 U	2800 U
PHENANTHRENE	330	420 U	1100 J	900 U	600 U	400 U	550 U	830 U	570 U
ANTHRACENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
DI-N-BUTYLPHTHALATE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
FLUORANTHENE	330	420 U	1200 J	900 U	600 U	400 U	550 U	830 U	570 U
PYRENE	330	420 U	1000 J	900 U	600 U	400 U	550 U	830 U	570 U
BUTYLBENZYLPHTHALATE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
3,3'-DICHLOROBENZIDINE	660	840 U	4500 U	1800 U	1200 U	800 U	1100 U	1700 U	1100 U
BENZO(a)ANTHRACENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
CHRYSENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
BIS(2-ETHYLHEXYL)PHTHALATE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
DI-N-OCTYLPHTHALATE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
BENZO(b)FLUORANTHENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
BENZO(k)FLUORANTHENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
BENZO(a)PYRENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
INDENO(1,2,3-cd)PYRENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
DIBENZ(a,h)ANTHRACENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
BENZO(ghi)PERYLENE	330	420 U	2300 U	900 U	600 U	400 U	550 U	830 U	570 U
% MOISTURE:		18	24	23	43	13	38	18	39
DILUTION FACTOR:		1.0	5.3	2.1	1.1	1.1	1.1	2.1	1.0
DATE SAMPLED:		11/08/90	11/08/90	11/08/90	11/08/90	11/08/90	11/08/90	11/08/90	11/08/90
DATE EXTRACTED:		11/13/90	11/13/90	11/13/90	11/13/90	11/13/90	11/13/90	11/13/90	11/13/90
DATE ANALYZED:		12/10/90	12/12/90	12/22/90	12/10/90	12/10/90	12/12/90	12/22/90	12/12/90
ASSOCIATED BLANKS:		5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R
		5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R
NA = NOT ANALYZED		5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T

CHERRY POINT - SITE 5
SOIL
PESTICIDE/PCB ANALYSIS (UG/KG)

SAMPLE NUMBER:		5B16-0305	5B16-0525	5B16-0525-D	5B16-0810	5B16-5575	5B17-0305	5B17-0525	5B17-0810
QC DESIGNATION:			FIELD DUPLICATES						
	CRQL								
ALPHA-BHC	8.0	4.9 U	14 J	5.1 UJ	6.9 U	4.6 U	6.3 U	4.8 U	6.6 U
BETA-BHC	8.0	4.9 U	16 J	5.1 UJ	6.9 U	4.6 U	6.3 U	4.8 U	6.6 U
DELTA-BHC	8.0	4.9 U	6.4 J	5.1 UJ	6.9 U	4.6 U	6.3 U	4.8 U	6.6 U
GAMMA-BHC (LINDANE)	8.0	6.7	5.2 U	5.1 U	6.9 U	5.9	6.3 U	4.8 U	6.6 U
HEPTACHLOR	8.0	4.9 U	5.2 U	5.1 U	6.9 U	4.6 U	6.3 U	4.8 U	6.6 U
ALDRIN	8.0	4.9 U	5.2 U	5.1 U	6.9 U	4.6 U	6.3 U	4.8 U	6.6 U
HEPTACHLOR EPOXIDE	8.0	4.9 U	5.2 U	5.1 U	6.9 U	4.6 U	6.3 U	4.8 U	6.6 U
ENDOSULFAN I	8.0	4.9 U	5.2 U	5.1 U	6.9 U	4.6 U	6.3 U	33	6.6 U
DIELDRIN	16.0	9.7 U	10 U	10 U	14 U	9.1 U	13 U	9.5 U	13 U
4,4'-DDE	16.0	9.7 U	10 U	10 U	14 U	9.1 U	13 U	51	13 U
ENDRIN	16.0	9.7 U	77 J	81 J	14 U	9.1 U	13 U	70	13 U
ENDOSULFAN II	16.0	9.7 U	170	190	14 U	9.1 U	13 U	11	13 U
4,4'-DDD	16.0	9.7 U	10 U	15 J	14 U	9.1 U	13 U	9.5 U	13 U
ENDOSULFAN SULFATE	16.0	9.7 U	10 U	10 U	14 U	9.1 U	13 U	9.5 U	13 U
4,4'-DDT	16.0	9.7 U	58 J	72 J	14 U	9.1 U	13 U	110	13 U
METHOXYCHLOR	80.0	49 U	52 U	51 U	69 U	46 U	63 U	48 U	66 U
ENDRIN KETONE	16.0	9.7 U	10 U	10 U	14 U	9.1 U	13 U	9.5 U	13 U
ALPHA-CHLORODANE	80.0	49 U	52 U	51 U	69 U	46 U	63 U	48 U	66 U
GAMMA-CHLORDANE	80.0	49 U	52 U	51 U	69 U	46 U	63 U	48 U	66 U
TOXAPHENE	160.0	97 U	100 U	100 U	140 U	91 U	130 U	95 U	130 U
AROCLOR 1016	80.0	49 U	52 U	51 U	69 U	46 U	63 U	48 U	66 U
AROCLOR 1221	80.0	49 U	52 U	51 U	69 U	46 U	63 U	48 U	66 U
AROCLOR 1232	80.0	49 U	52 U	51 U	69 U	46 U	63 U	48 U	66 U
AROCLOR 1242	80.0	49 U	52 U	51 U	69 U	46 U	63 U	48 U	66 U
AROCLOR 1248	80.0	49 U	52 U	51 U	69 U	46 U	63 U	48 U	66 U
AROCLOR 1254	160.0	97 U	100 U	100 U	140 U	91 U	130 U	95 U	130 U
AROCLOR 1260	160.0	97 U	1900	2400	140 U	91 U	130 U	1200	130 U
% MOISTURE:		18	24	23	43	13	38	18	39
DILUTION FACTOR:		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
DATE SAMPLED:		11/08/90	11/08/90	11/08/90	11/08/90	11/08/90	11/08/90	11/08/90	11/08/90
DATE EXTRACTED:		11/12/90	11/12/90	11/12/90	11/12/90	11/12/90	11/12/90	11/12/90	11/12/90
DATE ANALYZED:		12/04/90	12/04/90	12/05/90	12/04/90	12/04/90	12/05/90	12/05/90	12/05/90
ASSOCIATED BLANKS:		5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R
		5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R
		5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T

NA = NOT ANALYZED

CHERRY POINT - SITE 5
SOIL BORINGS
INORGANIC SOIL ANALYSIS (mg/kg)

SAMPLE NUMBER:			5B16-0305	5B16-0525	5B16-0525-D	5B16-0810	5B16-5575	5B17-0305	5B17-0525	5B17-0810
QC DESIGNATION:				FIELD DUPLICATES						
	ANALYTICAL METHOD	CRQL								
ALUMINUM	P	40	7750	2210	1670	5730	465	4040	2360	7930
ANTIMONY	P	12	5.5 UJ	5.9 UJ	5.7 UJ	7.9 UJ	5.2 UJ	7.1 UJ	5.6 UJ	7.6 UJ
ARSENIC	F	2	0.72 U	3.3	3.0	7.0	0.65 U	0.99	3.4	6.1
BARIUM	P	40	13.7	21.8	16.3	36.1	1.0 UJ	12.1	30.7	18.2
BERYLLIUM	P	1	0.24 UJ	0.68 UJ	0.25 UJ	0.35 UJ	0.23 UJ	0.31 UJ	0.24 UJ	0.33 UJ
CADMIUM	P	1	1.2 U	1.3 U	1.2 U	1.7 U	1.1 U	1.6 U	1.2 U	1.6 U
CALCIUM	P	1000	128 J	1750 J	1700 J	121000 J	36.9 UJ	300 J	563 J	976 J
CHROMIUM	P	2	9.5 J	33.4 J	27.9 J	9.8 J	2.0 J	5.4 J	14.3 J	23.8 J
COBALT	P	10	1.9 U	2.1 U	2.0 U	5.7	1.8 U	4.8	2.8	10.3
COPPER	P	5	0.96 U	9.3 UJ	3.5 UJ	1.4 U	0.91 U	1.2 U	3.4 UJ	1.3 U
IRON	P	20	965	3250	2700	13700	862	1710	1900	11800
LEAD	F	0.6	9.4 J	18.0 J	17.6 J	10.5 J	14.5 J	6.7 J	7.8 J	5.9 J
MAGNESIUM	P	1000	180	214	212	2340	17.1 UJ	141	156	996
MANGANESE	P	3	3.7	13.6	16.0	108	1.6	6.2	6.3	52.4
MERCURY	CV	0.02	0.11 U	0.13 U	0.12 U	0.17 U	0.11 U	0.16 U	0.11 U	0.16 U
NICKEL	P	8	3.1 U	3.4 UJ	4.4 UJ	5.3 UJ	3.0 U	4.0 U	3.2 U	6.3 UJ
POTASSIUM	P	1000	121 U	130 U	125 U	1300	114 U	156 U	123 U	858 UJ
SELENIUM	F	1	0.72 UJ	0.75 UJ	0.76 UJ	0.99 UJ	0.65 UJ	1.1 J	0.70 UJ	0.95 UJ
SILVER	P	2	0.72 U	0.77 U	0.75 U	1.5	0.68 U	0.93 U	0.73 U	2.2
SODIUM	P	1000	55.8 UJ	165 UJ	162 UJ	1420	31.2 UJ	91.1 UJ	162 UJ	147 UJ
THALLIUM	F	2	0.24 U	0.25 U	0.25 U	0.33 UJ	0.22 U	0.31 UJ	2.3 U	0.32 U
VANADIUM	P	10	8.8 J	178 J	99.3 J	14.1 J	2.0 J	8.1 J	11.5 J	28.4 J
ZINC	P	4	4.7 UJ	29.2 UJ	22.8 UJ	30.7 UJ	1.5 UJ	35.0 J	16.1 UJ	32.3 UJ
	%MOISTURE:		17.9	24.0	22.8	42.7	12.9	38.0	18.0	39.3
	DATE SAMPLED:		11/08/90	11/08/90	11/08/90	11/08/90	11/08/90	11/08/90	11/08/90	11/08/90
	ASSOCIATED BLANKS:		5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R
			5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R
			5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T

ANALYTICAL METHOD
F - FURNACE
P - ICP/FLAME AA
CV - COLD VAPOR
C - COLORMETRIC

NA = NOT ANALYZED

CHERRY POINT - SITE 5
SOIL
VOLATILE SOLID ANALYSIS (UG/KG)

SAMPLE NUMBER:		5B17-5575	5B18-0305	5B18-0525	5B18-0810	5B18-5575
QC DESIGNATION:						
	CRQL					
CHLOROMETHANE	10	12 UJ	11 U	11 UJ	13 UJ	12 UJ
BROMOMETHANE	10	12 UJ	11 U	11 UJ	13 UJ	12 UJ
VINYL CHLORIDE	10	12 UJ	11 U	11 UJ	13 UJ	12 UJ
CHLOROETHANE	10	12 UJ	11 U	11 UJ	13 UJ	12 UJ
METHYLENE CHLORIDE	5	5 UJ	26 UJ	5 UJ	6 UJ	6 UJ
ACETONE	10	27 UJ	48 UJ	11 UJ	13 UJ	12 UJ
CARBON DISULFIDE	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
1,1-DICHLOROETHENE	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
1,1-DICHLOROETHANE	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
1,2-DICHLOROETHENE (TOTAL)	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
CHLOROFORM	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
1,2-DICHLOROETHANE	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
2-BUTANONE	10	12 UJ	11 U	11 UJ	13 UJ	12 UJ
1,1,1-TRICHLOROETHANE	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
CARBON TETRACHLORIDE	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
VINYL ACETATE	10	12 UJ	11 U	11 UJ	13 UJ	12 UJ
BROMODICHLOROMETHANE	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
1,2-DICHLOROPROPANE	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
CIS-1,3-DICHLOROPROPENE	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
TRICHLOROETHENE	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
DIBROMOCHLOROMETHANE	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
1,1,2-TRICHLOROETHANE	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
BENZENE	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
TRANS-1,3-DICHLOROPROPENE	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
BROMOFORM	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
4-METHYL-2-PENTANONE	10	12 UJ	11 U	11 UJ	13 UJ	12 UJ
2-HEXANONE	10	12 UJ	11 U	11 UJ	13 UJ	12 UJ
TETRACHLOROETHENE	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
1,1,2,2-TETRACHLOROETHANE	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
TOLUENE	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
CHLOROBENZENE	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
ETHYL BENZENE	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
STYRENE	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
TOTAL XYLENES	5	6 UJ	5 U	5 UJ	6 UJ	6 UJ
DILUTION FACTOR:		1.0	1.0	1.0	1.0	1.0
DATE SAMPLED:		11/08/90	10/28/90	10/28/90	10/28/90	10/28/90
DATE ANALYZED:		11/21/90	11/09/90	11/10/90	11/10/90	11/10/90
PERCENT MOISTURE:		19	9	6	21	14
ASSOCIATED BLANKS:		5B00-003-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R
		5B00-004-R	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F
		5B00-001-T	5B02-001-T	5B02-001-T	5B02-001-T	5B02-001-T

CHERRY POINT - SITE 5
SOIL
SEMI-VOLATILE SOLID ANALYSES (UG/KG)

SAMPLE NUMBER:		5B17-5575	5B18-0305	5B18-0525	5B18-0810	5B18-5575
QC DESIGNATION:	CRQL					
PHENOL	330	430 U	470 U	370 U	430 U	500 U
BIS(2-CHLOROETHYL)ETHER	330	430 U	470 U	370 U	430 U	500 U
2-CHLOROPHENOL	330	430 U	470 U	370 U	430 U	500 U
1,3-DICHLOROBENZENE	330	430 U	470 U	370 U	430 U	500 U
1,4-DICHLOROBENZENE	330	430 U	470 U	370 U	430 U	500 U
BENZYL ALCOHOL	330	430 U	470 UJ	370 U	430 UJ	500 UJ
1,2-DICHLOROBENZENE	330	430 U	470 U	370 U	430 U	500 U
2-METHYLPHENOL	330	430 U	470 U	370 U	430 U	500 U
BIS(2-CHLOROISOPROPYL)ETHER	330	430 U	470 U	370 U	430 U	500 U
4-METHYLPHENOL	330	430 U	470 U	370 U	430 U	500 U
N-NITROSODI-N-PROPYLAMINE	330	430 U	470 U	370 U	430 U	500 U
HEXACHLOROETHANE	330	430 U	470 U	370 U	430 U	500 U
NITROBENZENE	330	430 U	470 U	370 U	430 U	500 U
ISOPHORONE	330	430 U	470 U	370 U	430 U	500 U
2-NITROPHENOL	330	430 U	470 U	370 U	430 U	500 U
2,4-DIMETHYLPHENOL	330	430 U	470 U	370 U	430 U	500 U
BENZOIC ACID	1600	2100 U	2300 U	1800 U	2100 U	2400 U
BIS(2-CHLOROETHOXY)METHANE	330	430 U	470 U	370 U	430 U	500 U
2,4-DICHLOROPHENOL	330	430 U	470 U	370 U	430 U	500 U
1,2,4-TRICHLOROBENZENE	330	430 U	470 U	370 U	430 U	500 U
NAPHTHALENE	330	430 U	470 U	370 U	430 U	500 U
4-CHLORANILINE	330	430 U	470 U	370 U	430 U	500 U
HEXACHLOROBUTADIENE	330	430 U	470 U	370 U	430 U	500 U
4-CHLORO-3-METHYLPHENOL	330	430 U	470 U	370 U	430 U	500 U
2-METHYLNAPHTHALENE	330	430 U	470 U	370 U	430 U	500 U
HEXACHLOROCYCLOPENTADIENE	330	430 U	470 U	370 U	430 U	500 U
2,4,6-TRICHLOROPHENOL	330	430 U	470 U	370 U	430 U	500 U
2,4,5-TRICHLOROPHENOL	1600	2100 U	2300 U	1800 U	2100 U	2400 U
2-CHLORONAPHTHALENE	330	430 U	470 U	370 U	430 U	500 U
2-NITROANILINE	1600	2100 U	2300 U	1800 U	2100 U	2400 U
DIMETHYL PHTHALATE	330	430 U	470 U	370 U	430 U	500 U
ACENAPHTHYLENE	330	430 U	470 U	370 U	430 U	500 U
2,6-DINITROTOLUENE	330	430 U	470 U	370 U	430 U	500 U
3-NITROANILINE	1600	2100 U	2300 U	1800 U	2100 U	2400 U
ACENAPHTHENE	330	430 U	470 U	370 U	430 U	500 U
2,4-DINITROPHENOL	1600	2100 U	2300 U	1800 U	2100 U	2400 U
4-NITROPHENOL	1600	2100 U	2300 U	1800 U	2100 U	2400 U
DIBENZOFURAN	330	430 U	470 U	370 U	430 U	500 U
2,4-DINITROTOLUENE	330	430 U	470 U	370 U	430 U	500 U
DIETHYL PHTHALATE	330	430 U	470 U	370 U	430 U	500 U
4-CHLOROPHENYL-PHENYLETHER	330	430 U	470 U	370 U	430 U	500 U
FLUORENE	330	430 U	470 U	370 U	430 U	500 U
4-NITROANILINE	1600	2100 U	2300 U	1800 U	2100 U	2400 U
4,6-DINITRO-2-METHYLPHENOL	1600	2100 U	2300 U	1800 U	2100 U	2400 U
N-NITROSODIPHENLYAMINE	330	430 U	470 U	370 U	430 U	500 U

CHERRY POINT - SITE 5
SOIL
SEMI-VOLATILE SOLID ANALYSES (UG/KG)

SAMPLE NUMBER:		5B17-5575	5B18-0305	5B18-0525	5B18-0810	5B18-5575
QC DESIGNATION:						
	CRQL					
4-BROMOPHENYL-PHENYLETHER	330	430 U	470 U	370 U	430 U	500 U
HEXACHLOROBENZENE	330	430 U	470 U	370 U	430 U	500 U
PENTACHLOROPHENOL	1600	2100 U	2300 U	1800 U	2100 U	2400 U
PHENANTHRENE	330	430 U	470 U	370 U	430 U	500 U
ANTHRACENE	330	430 U	470 U	370 U	430 U	500 U
DI-N-BUTYLPHTHALATE	330	430 U	470 U	370 U	430 U	500 U
FLUORANTHENE	330	430 U	470 U	370 U	430 U	500 U
PYRENE	330	430 U	470 U	370 U	430 U	500 U
BUTYLBENZYLPHTHALATE	330	430 U	470 U	370 U	430 U	500 U
3,3'-DICHLOROBENZIDINE	660	860 U	950 U	740 U	870 U	1000 U
BENZO(a)ANTHRACENE	330	430 U	470 U	370 U	430 U	500 U
CHRYSENE	330	430 U	470 U	370 U	430 U	500 U
BIS(2-ETHYLHEXYL)PHTHALATE	330	430 U	470 U	370 U	430 U	500 U
DI-N-OCTYLPHTHALATE	330	430 U	470 U	370 U	430 U	500 U
BENZO(b)FLUORANTHENE	330	430 U	470 U	370 U	430 U	500 U
BENZO(k)FLUORANTHENE	330	430 U	470 U	370 U	430 U	500 U
BENZO(a)PYRENE	330	430 U	470 U	370 U	430 U	500 U
INDENO(1,2,3-cd)PYRENE	330	430 U	470 U	370 U	430 U	500 U
DIBENZ(a,h)ANTHRACENE	330	430 U	470 U	370 U	430 U	500 U
BENZO(ghi)PERYLENE	330	430 U	470 U	370 U	430 U	500 U
% MOISTURE:		19	27	6	21	31
DILUTION FACTOR:		1.1	1.1	1.1	1.1	1.0
DATE SAMPLED:		11/08/90	10/28/90	10/28/90	10/28/90	10/28/90
DATE EXTRACTED:		11/13/90	11/04/90	11/04/90	11/04/90	11/04/90
DATE ANALYZED:		12/12/90	12/01/90	12/08/90	12/01/90	12/01/90
ASSOCIATED BLANKS:		5B00-003-R	5B00-002-R	5B00-002-R	5B00-002-R	5B00-002-R
		5B00-004-R	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F
NA = NOT ANALYZED		5B00-001-T				

CHERRY POINT - SITE 5
SOIL
PESTICIDE/PCB ANALYSIS (UG/KG)

SAMPLE NUMBER:		5B17-5575	5B18-0305	5B18-0525	5B18-0810	5B18-5575
QC DESIGNATION:	CRQL					
ALPHA-BHC	8.0	4.9 U	5.5 U	4.3 U	5.0 U	5.8 U
BETA-BHC	8.0	4.9 U	5.5 U	4.3 U	5.0 U	5.8 U
DELTA-BHC	8.0	4.9 U	5.5 U	4.3 U	5.0 U	5.8 U
GAMMA-BHC (LINDANE)	8.0	4.9 U	5.5 U	4.3 U	5.0 U	8.1
HEPTACHLOR	8.0	4.9 U	5.5 U	4.3 U	5.0 U	5.8 U
ALDRIN	8.0	4.9 U	5.5 U	4.3 U	5.0 U	5.8 U
HEPTACHLOR EPOXIDE	8.0	4.9 U	5.5 U	4.3 U	5.0 U	5.8 U
ENDOSULFAN I	8.0	4.9 U	5.5 U	4.3 U	5.0 U	5.8 U
DIELDRIN	16.0	9.9 U	11 U	8.6 U	10 U	12 U
4,4'-DDE	16.0	9.9 U	11 U	8.6 U	10 U	12 U
ENDRIN	16.0	9.9 U	11 U	8.6 U	10 U	12 U
ENDOSULFAN II	16.0	9.9 U	11 U	8.6 U	10 U	12 U
4,4'-DDD	16.0	9.9 U	11 U	8.6 U	10 U	12 U
ENDOSULFAN SULFATE	16.0	9.9 U	11 U	8.6 U	10 U	12 U
4,4'-DDT	16.0	9.9 U	11 U	8.6 U	10 U	12 U
METHOXYCHLOR	80.0	49 U	55 U	43 U	50 U	58 U
ENDRIN KETONE	16.0	9.9 U	11 U	8.6 U	10 U	12 U
ALPHA-CHLORODANE	80.0	49 U	55 U	43 U	50 U	58 U
GAMMA-CHLORDANE	80.0	49 U	55 U	43 U	50 U	58 U
TOXAPHENE	160.0	99 U	110 U	86 U	100 U	120 U
AROCLOR 1016	80.0	49 U	55 U	43 U	50 U	58 U
AROCLOR 1221	80.0	49 U	55 U	43 U	50 U	58 U
AROCLOR 1232	80.0	49 U	55 U	43 U	50 U	58 U
AROCLOR 1242	80.0	49 U	55 U	43 U	50 U	58 U
AROCLOR 1248	80.0	49 U	55 U	43 U	50 U	58 U
AROCLOR 1254	160.0	99 U	110 U	86 U	100 U	120 U
AROCLOR 1260	160.0	99 U	110 U	86 U	100 U	120 U
% MOISTURE:		19	27	6	21	31
DILUTION FACTOR:		1.0	1.0	1.0	1.0	1.0
DATE SAMPLED:		11/08/90	10/28/90	10/28/90	10/28/90	10/28/90
DATE EXTRACTED:		11/12/90	11/04/90	11/04/90	11/04/90	11/04/90
DATE ANALYZED:		12/05/90	11/24/90	11/24/90	11/24/90	11/24/90
ASSOCIATED BLANKS:		5B00-003-R	5B00-001-R	5B00-001-R	5B00-001-R	5B00-001-R
		5B00-004-R	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F
		5B00-001-T	5B00-002-R	5B00-002-R	5B00-002-R	5B00-002-R

NA = NOT ANALYZED

CHERRY POINT - SITE 5
SOIL BORINGS
INORGANIC SOIL ANALYSIS (mg/kg)

SAMPLE NUMBER:			5B17-5575	5B18-0305	5B18-0525	5B18-0810	5B18-5575
QC DESIGNATION:							
	ANALYTICAL METHOD	CRQL					
ALUMINUM	P	40	6640	11000	4860	3350	8370
ANTIMONY	P	12	5.7 UJ	6.1 U	4.2 U	5.0 U	6.4 U
ARSENIC	F	2	0.72 U	4.5	1.3	3.3	3.2
BARIUM	P	40	15.6	16.4	9.6	5.5	13.1
BERYLLIUM	P	1	0.25 UJ	0.27 UJ	0.18 UJ	0.22 UJ	0.28 UJ
CADMIUM	P	1	1.2 U	1.3 U	0.91 U	1.1 U	1.4 U
CALCIUM	P	1000	119 UJ	82.0 J	74.0 J	46.3 J	86.2 J
CHROMIUM	P	2	11.6 J	16.3	4.2	5.7	10.9
COBALT	P	10	2.0 U	2.1 U	1.4 U	1.7 U	2.2 U
COPPER	P	5	0.99 U	2.0	0.93	0.87 U	1.1 U
IRON	P	20	2510	7530	2230	3350	5390
LEAD	F	0.6	3.8 J	5.4	2.7	1.5	3.2
MAGNESIUM	P	1000	268	460	143	140	338
MANGANESE	P	3	4.9	8.1	8.5	2.6	8.8
MERCURY	CV	0.02	0.12 U	0.14 U	0.10 U	0.12 U	0.14 U
NICKEL	P	8	3.2 U	3.5 U	2.4 U	2.8 U	3.6 U
POTASSIUM	P	1000	318 UJ	134 U	91.1 U	109 U	141 U
SELENIUM	F	1	0.72 UJ	0.82 U	0.63 U	0.76 U	0.88 UJ
SILVER	P	2	0.74 U	0.92	0.54 U	0.65 U	0.84 U
SODIUM	P	1000	53.3 UJ	51.6 UJ	29.2 UJ	26.2 UJ	34.1 UJ
THALLIUM	F	2	0.24 U	0.82 U	0.63 U	0.76 U	0.88 U
VANADIUM	P	10	12.0 J	22.3	7.0	8.8	17.7
ZINC	P	4	8.0 UJ	8.3 UJ	5.7 UJ	3.3 UJ	8.8 UJ
	%MOISTURE:		19.2	27.3	6.4	21.3	31.2
	DATE SAMPLED:		11/08/90	10/28/90	10/28/90	10/28/90	10/28/90
	ASSOCIATED BLANKS:		5B00-003-R	5B00-001-F	5B00-001-F	5B00-001-F	5B00-001-F
			5B00-004-R	5B00-002-R	5B00-002-R	5B00-002-R	5B00-002-R
			5B00-001-T				

ANALYTICAL METHOD
F - FURNACE
P - ICP/FLAME AA
CV - COLD VAPOR
C - COLORMETRIC

NA = NOT ANALYZED

CHERRY POINT - SITE 5
SOIL BORINGS
MISCELLANEOUS ANALYTES (MG/KG)

Sample Number	Total Petroleum Hydrocarbons	Total Organic Carbon	BTU Content (BTU/lb)
5B01-0525	11.0 U	NA	NA
5B02-0103	150	NA	NA
5B03-0103	28 UJ	NA	NA
5B04-0525	25.7 UJ	NA	NA
5B04-0305	218	NA	NA
5B04-5575	32.6 UJ	NA	NA
5B04-0810	34.8 UJ	NA	NA
5B05-0525	12,400 J	NA	NA
5B05-0525-D	5720 J	NA	NA
5B05-0305	52.6 J	NA	NA
5B05-5575	11.3 UJ	NA	NA
5B05-0810	17.6 J	NA	NA
5B06-0525	764 J	NA	NA
5B06-0525-D	738 J	NA	NA
5B06-0305	14.7 J	NA	NA
5B06-5575	14.5 J	NA	NA
5B06-0810	12.0 UJ	NA	NA
5B07-0525	312 J	NA	NA
5B07-0525-D	517 J	NA	NA
5B07-0305	12.8 J	NA	NA
5B07-5575	16.2 J	NA	NA
5B07-0810	11.8 UJ	NA	NA
5B08-0115	NA	NA	1000 U
5B08-0103	94.9 UJ	2140	NA
5B08-0103-D	152 UJ	2030	NA
5B08-0305	118	NA	NA
5B09-0115	NA	NA	1000 U

Sample Number	Total Petroleum Hydrocarbons	Total Organic Carbon	BTU Content (BTU/lb)
5B09-0103	20.0 UJ	26,300	NA
5B09-0305	11.7 U	NA	NA
5B10-0115	NA	NA	1000 U
5B10-0103	38.6 UJ	78,100	NA
5B10-0305	12.0 U	NA	NA
5B11-0115	NA	NA	1000 U
5B11-0103	71.4 UJ	398,000	NA
5B11-0305	11.3 U	NA	NA
5B12-0103	202	22,700	NA
5B12-0305	14.5 UJ	NA	NA
5B13-0103	80.2 UJ	54,700	NA
5B13-0305	21.3 UJ	NA	NA
5B14-0103	38.6 UJ	78,100	NA
5B14-0305	18.8 UJ	NA	NA
5B15-0103	2040	68,200	NA
5B15-0103-D	1490	69,800	NA
5B15-0305	56.0 UJ	NA	NA
5B16-0525	1320 J	NA	NA
5B16-0305	12.7 J	NA	NA
5B16-5575	27.5 J	NA	NA
5B16-0810	14.4 UJ	NA	NA
5B17-0525	48.3 J	NA	NA
5B17-0305	33.0 J	NA	NA
5B17-5575	12.3 UJ	NA	NA
5B17-0810	14.1 UJ	NA	NA
5B18-0525	26.3 UJ	NA	NA
5B18-0305	30.5 UJ	NA	NA
5B18-5575	36.9 UJ	NA	NA
5B18-0810	38.8 UJ	NA	NA

CHERRY POINT - SITE 5
SOIL
GRAIN SIZE ANALYSIS (% PASSING)

	No. 34	No. 38	No. 4	No. 10	No. 20	No. 40	No. 60	No. 100	No. 200
5B08-0103	100	100	100	100	99.8	96.5	68.8	32.3	21.0
5B09-0103	100	100	99.0	98.5	97.5	92.3	75.7	34.0	8.9
5B10-0103	100	94.8	87.0	78.4	69.4	61.2	50.2	29.9	12.8
5B11-0103	100	98.6	92.6	85.3	78.7	70.6	56.3	30.9	11.4

CHERRY POINT - SITE 5
SOIL BORINGS
BULK DENSITY

Sample Number	Bulk Density (g/cm^3)
5B08-0103	1.72
5B09-0103	1.57
5B10-0103	1.07
5B11-0103	1.36

CHERRY POINT - SITE 5
GROUNDWATER
VOLATILE AQUEOUS ANALYSIS (UG/L)

SAMPLE NUMBER:		5GW01	5GW02	5GW03	5GW04	5GW05	5GW05-D	5GW07	5GW08
QC DESIGNATION:						FIELD DUPLICATES			
	CRQL								
CHLOROMETHANE	10	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U
BROMOMETHANE	10	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U
VINYL CHLORIDE	10	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U
CHLOROETHANE	10	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U
METHYLENE CHLORIDE	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
ACETONE	10	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U
CARBON DISULFIDE	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
1,1-DICHLOROETHENE	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
1,1-DICHLOROETHANE	5	5 U	11 J	5 UJ	5 UJ	5 UJ	5 UJ	7 J	5 U
1,2-DICHLOROETHENE (TOTAL)	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
CHLOROFORM	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
1,2-DICHLOROETHANE	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
2-BUTANONE	10	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U
1,1,1-TRICHLOROETHANE	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
CARBON TETRACHLORIDE	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
VINYL ACETATE	10	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U
BROMODICHLOROMETHANE	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
1,2-DICHLOROPROPANE	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
CIS-1,3-DICHLOROPROPENE	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
TRICHLOROETHENE	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
DIBROMOCHLOROMETHANE	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
1,1,2-TRICHLOROETHANE	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
BENZENE	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
TRANS-1,3-DICHLOROPROPENE	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
BROMOFORM	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
4-METHYL-2-PENTANONE	10	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U
2-HEXANONE	10	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U
TETRACHLOROETHENE	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
1,1,2,2-TETRACHLOROETHANE	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
TOLUENE	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
CHLOROBENZENE	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
ETHYL BENZENE	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
STYRENE	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
TOTAL XYLENES	5	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U
DILUTION FACTOR:		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
DATE SAMPLED:		11/11/90	11/13/90	11/13/90	11/13/90	11/13/90	11/13/90	11/13/90	11/12/90
DATE ANALYZED:		11/24/90	12/17/90	12/17/90	11/29/90	12/17/90	12/17/90	12/17/90	11/24/90
ASSOCIATED BLANKS:		5GW00-001-T	5GW00-001-F	5GW00-001-F	5GW00-001-F	5GW00-001-F	5GW00-001-F	5GW00-001-F	5GW00-001-T
			5GW00-001-R	5GW00-001-R	5GW00-001-R	5GW00-001-R	5GW00-001-R	5GW00-001-R	

CHERRY POINT - SITE 5

GROUND WATER

SEMIVOLATILE AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:		5GW01	5GW02	5GW03	5GW04	5GW05	5GW05-D	5GW07	5GW08
QC DESIGNATION:						FIELD DUPLICATES			
	CRQL								NA
PHENOL	10	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	10	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	10	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	10	NA	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	10	NA	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	10	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	10	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	10	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROISOPROPYL)ETHER	10	NA	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	10	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODI-N-PROPYLAMINE	10	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	10	NA	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	10	NA	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	10	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	10	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	10	NA	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	50	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	10	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	10	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	10	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	10	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORANILINE	10	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	10	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	10	NA	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	10	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	10	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	10	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	50	NA	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	10	NA	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	50	NA	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	10	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	10	NA	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	10	NA	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	50	NA	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	10	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	50	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	50	NA	NA	NA	NA	NA	NA	NA	NA

CHERRY POINT - SITE 5
GROUND WATER
SEMIVOLATILE AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:		5GW01	5GW02	5GW03	5GW04	5GW05	5GW05-D	5GW07	5GW08
QC DESIGNATION:						FIELD DUPLICATES			
	CRQL								NA
DIBENZOFURAN	10	NA	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	10	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	10	NA	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	10	NA	NA	NA	NA	NA	NA	NA	NA
FLUORENE	10	NA	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	50	NA	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	50	NA	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENLYAMINE	10	NA	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	10	NA	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	10	NA	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	50	NA	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	10	NA	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	10	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	10	NA	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	10	NA	NA	NA	NA	NA	NA	NA	NA
PYRENE	10	NA	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	10	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	20	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(a)ANTHRACENE	10	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	10	NA	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	10	NA	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	10	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(b)FLUORANTHENE	10	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(k)FLUORANTHENE	10	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(a)PYRENE	10	NA	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-cd)PYRENE	10	NA	NA	NA	NA	NA	NA	NA	NA
DIBENZ(a,h)ANTHRACENE	10	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(ghi)PERYLENE	10	NA	NA	NA	NA	NA	NA	NA	NA

DILUTION FACTOR:
DATE SAMPLED:
DATE EXTRACTED:
DATE ANALYZED:
ASSOCIATED BLANKS:

NA = NOT ANALYZED

CHERRY POINT - SITE 5
GROUND WATER
PESTICIDE/PCB AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:		5GW01	5GW02	5GW03	5GW04	5GW05	5GW05-D	5GW07	5GW08
QC DESIGNATION:						FIELD DUPLICATES			
	CRQL								
ALPHA-BHC	0.05	NA	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	0.05	NA	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	0.05	NA	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	0.05	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	0.05	NA	NA	NA	NA	NA	NA	NA	NA
ALDRIN	0.05	NA	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	0.05	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	0.05	NA	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	0.10	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	0.10	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN	0.10	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	0.10	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	0.10	NA	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	0.10	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	0.10	NA	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	0.5	NA	NA	NA	NA	NA	NA	NA	NA
ENDRIN KETONE	0.10	NA	NA	NA	NA	NA	NA	NA	NA
ALPHA-CHLORODANE	0.5	NA	NA	NA	NA	NA	NA	NA	NA
GAMMA-CHLORDANE	0.5	NA	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	1.0	NA	NA	NA	NA	NA	NA	NA	NA
AROCLOR 1016	0.5	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.50 UJ	0.48 U	0.48 U
AROCLOR 1221	0.5	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.50 UJ	0.48 U	0.48 U
AROCLOR 1232	0.5	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.50 UJ	0.48 U	0.48 U
AROCLOR 1242	0.5	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.50 UJ	0.48 U	0.48 U
AROCLOR 1248	0.5	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.50 UJ	0.48 U	0.48 U
AROCLOR 1254	1.0	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	0.99 UJ	0.95 U	0.95 U
AROCLOR 1260	1.0	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	0.99 UJ	0.95 U	0.95 U
DILUTION FACTOR:		9.52	9.52	9.52	9.52	9.52	9.90	9.52	9.52
DATE SAMPLED:		11/11/90	11/13/90	11/13/90	11/13/90	11/13/90	11/13/90	11/13/90	11/12/90
DATE EXTRACTED:		11/15/90	11/19/90	11/19/90	11/19/90	11/19/90	11/28/90	11/19/90	11/15/90
DATE ANALYZED:		12/11/90	12/11/90	12/11/90	12/11/90	12/11/90	12/11/90	12/11/90	12/11/90
ASSOCIATED BLANKS:			5GW00-001-R	5GW00-001-R	5GW00-001-R	5GW00-001-R	5GW00-001-R	5GW00-001-R	
			5GW00-001-F	5GW00-001-F	5GW00-001-F	5GW00-001-F	5GW00-001-F	5GW00-001-F	

NA = NOT ANALYZED

CHERRY POINT - SITE 5
GROUND WATER - UNFILTERED
INORGANIC AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:			5GW01	5GW02	5GW03	5GW04	5GW05	5GW05-D	5GW07	5GW08
QC DESIGNATION:							FIELD DUPLICATES			
	ANALYTICAL METHOD	CRQL								
ALUMINUM	P	200	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	P	60	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	F	10	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	P	200	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	P	5	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	P	5	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	P	5000	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	P	10	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	P	50	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	P	25	NA	NA	NA	NA	NA	NA	NA	NA
IRON	P	100	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	F	3	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	P	5000	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	P	15	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	CV	0.2	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	P	40	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	P	5000	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	F	5	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	P	10	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	P	5000	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	F	10	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	P	50	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	P	20	NA	NA	NA	NA	NA	NA	NA	NA

ANALYTICAL METHOD
F - FURNACE
P - ICP/FLAME AA
CV - COLD VAPOR
C - COLORMETRIC

DATE SAMPLED:
ASSOCIATED BLANKS:

NA = NOT ANALYZED

CHERRY POINT - SITE 5
GROUND WATER - FILTERED
INORGANIC AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:			5GW01 F	5GW02 F	5GW03 F	5GW04 F	5GW05 F	5GW05-D F	5GW07 F	5GW08 F
QC DESIGNATION:							FIELD DUPLICATES			
	ANALYTICAL METHOD	CRQL								
ALUMINUM	P	200	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	P	60	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	F	10	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	P	200	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	P	5	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	P	5	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	P	5000	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	P	10	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	P	50	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	P	25	NA	NA	NA	NA	NA	NA	NA	NA
IRON	P	100	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	F	3	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	P	5000	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	P	15	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	CV	0.2	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	P	40	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	P	5000	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	F	5	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	P	10	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	P	5000	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	F	10	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	P	50	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	P	20	NA	NA	NA	NA	NA	NA	NA	NA

ANALYTICAL METHOD
F - FURNACE
P - ICP/FLAME AA
CV - COLD VAPOR
C - COLORMETRIC

DATE SAMPLED:
ASSOCIATED BLANKS:

NA = NOT ANALYZED

CHERRY POINT - SITE 5
GROUNDWATER
VOLATILE AQUEOUS ANALYSIS (UG/L)

SAMPLE NUMBER:		5GW09	5GW10	5GW11
QC DESIGNATION:				
	CRQL			
CHLOROMETHANE	10	20 U	10 U	10 U
BROMOMETHANE	10	20 U	10 U	10 U
VINYL CHLORIDE	10	20 U	10 U	10 U
CHLOROETHANE	10	20 U	10 U	10 U
METHYLENE CHLORIDE	5	10 U	5 U	5 U
ACETONE	10	20 U	10 U	10 U
CARBON DISULFIDE	5	10 U	5 U	5 U
1,1-DICHLOROETHENE	5	10 U	5 U	5 U
1,1-DICHLOROETHANE	5	33	5 U	5 U
1,2-DICHLOROETHENE (TOTAL)	5	10 U	5 U	5 U
CHLOROFORM	5	10 U	5 U	5 U
1,2-DICHLOROETHANE	5	10 U	5 U	5 U
2-BUTANONE	10	20 U	10 U	10 U
1,1,1-TRICHLOROETHANE	5	10 U	5 U	5 U
CARBON TETRACHLORIDE	5	10 U	5 U	5 U
VINYL ACETATE	10	20 U	10 U	10 U
BROMODICHLOROMETHANE	5	10 U	5 U	5 U
1,2-DICHLOROPROPANE	5	10 U	5 U	5 U
CIS-1,3-DICHLOROPROPENE	5	10 U	5 U	5 U
TRICHLOROETHENE	5	10 U	5 U	5 U
DIBROMOCHLOROMETHANE	5	10 U	5 U	5 U
1,1,2-TRICHLOROETHANE	5	10 U	5 U	5 U
BENZENE	5	10 U	5 U	5 U
TRANS-1,3-DICHLOROPROPENE	5	10 U	5 U	5 U
BROMOFORM	5	10 U	5 U	5 U
4-METHYL-2-PENTANONE	10	20 U	10 U	10 U
2-HEXANONE	10	20 U	10 U	10 U
TETRACHLOROETHENE	5	10 U	5 U	5 U
1,1,2,2-TETRACHLOROETHANE	5	10 U	5 U	5 U
TOLUENE	5	10 U	5 U	5 U
CHLOROBENZENE	5	10 U	5 U	5 U
ETHYL BENZENE	5	10 U	5 U	5 U
STYRENE	5	10 U	5 U	5 U
TOTAL XYLENES	5	10 U	5 U	5 U
DILUTION FACTOR:		2.0	1.0	1.0
DATE SAMPLED:		11/11/90	11/12/90	11/11/90
DATE ANALYZED:		11/24/90	11/24/90	11/23/90
ASSOCIATED BLANKS:		5GW00-001-T	5GW00-001-T	5GW00-001-T

CHERRY POINT - SITE 5
GROUND WATER
SEMIVOLATILE AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:		5GW09	5GW10	5GW11
QC DESIGNATION:				
	CRQL	NA	NA	NA
PHENOL	10	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	10	NA	NA	NA
2-CHLOROPHENOL	10	NA	NA	NA
1,3-DICHLOROBENZENE	10	NA	NA	NA
1,4-DICHLOROBENZENE	10	NA	NA	NA
BENZYL ALCOHOL	10	NA	NA	NA
1,2-DICHLOROBENZENE	10	NA	NA	NA
2-METHYLPHENOL	10	NA	NA	NA
BIS(2-CHLOROISOPROPYL)ETHER	10	NA	NA	NA
4-METHYLPHENOL	10	NA	NA	NA
N-NITROSODI-N-PROPYLAMINE	10	NA	NA	NA
HEXACHLOROETHANE	10	NA	NA	NA
NITROBENZENE	10	NA	NA	NA
ISOPHORONE	10	NA	NA	NA
2-NITROPHENOL	10	NA	NA	NA
2,4-DIMETHYLPHENOL	10	NA	NA	NA
BENZOIC ACID	50	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	10	NA	NA	NA
2,4-DICHLOROPHENOL	10	NA	NA	NA
1,2,4-TRICHLOROBENZENE	10	NA	NA	NA
NAPHTHALENE	10	NA	NA	NA
4-CHLORANILINE	10	NA	NA	NA
HEXACHLOROBUTADIENE	10	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	10	NA	NA	NA
2-METHYLNAPHTHALENE	10	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	10	NA	NA	NA
2,4,6-TRICHLOROPHENOL	10	NA	NA	NA
2,4,5-TRICHLOROPHENOL	50	NA	NA	NA
2-CHLORONAPHTHALENE	10	NA	NA	NA
2-NITROANILINE	50	NA	NA	NA
DIMETHYL PHTHALATE	10	NA	NA	NA
ACENAPHTHYLENE	10	NA	NA	NA
2,6-DINITROTOLUENE	10	NA	NA	NA
3-NITROANILINE	50	NA	NA	NA
ACENAPHTHENE	10	NA	NA	NA
2,4-DINITROPHENOL	50	NA	NA	NA
4-NITROPHENOL	50	NA	NA	NA

CHERRY POINT - SITE 5

GROUND WATER

SEMIVOLATILE AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:		5GW09	5GW10	5GW11
QC DESIGNATION:				
	CRQL	NA	NA	NA
DIBENZOFURAN	10	NA	NA	NA
2,4-DINITROTOLUENE	10	NA	NA	NA
DIETHYL PHTHALATE	10	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	10	NA	NA	NA
FLUORENE	10	NA	NA	NA
4-NITROANILINE	50	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	50	NA	NA	NA
N-NITROSODIPHENLYAMINE	10	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	10	NA	NA	NA
HEXACHLOROBENZENE	10	NA	NA	NA
PENTACHLOROPHENOL	50	NA	NA	NA
PHENANTHRENE	10	NA	NA	NA
ANTHRACENE	10	NA	NA	NA
DI-N-BUTYLPHTHALATE	10	NA	NA	NA
FLUORANTHENE	10	NA	NA	NA
PYRENE	10	NA	NA	NA
BUTYLBENZYLPHTHALATE	10	NA	NA	NA
3,3'-DICHLOROBENZIDINE	20	NA	NA	NA
BENZO(a)ANTHRACENE	10	NA	NA	NA
CHRYSENE	10	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	10	NA	NA	NA
DI-N-OCTYLPHTHALATE	10	NA	NA	NA
BENZO(b)FLUORANTHENE	10	NA	NA	NA
BENZO(k)FLUORANTHENE	10	NA	NA	NA
BENZO(a)PYRENE	10	NA	NA	NA
INDENO(1,2,3-cd)PYRENE	10	NA	NA	NA
DIBENZ(a,h)ANTHRACENE	10	NA	NA	NA
BENZO(ghi)PERYLENE	10	NA	NA	NA

DILUTION FACTOR:

DATE SAMPLED:

DATE EXTRACTED:

DATE ANALYZED:

ASSOCIATED BLANKS:

NA = NOT ANALYZED

CHERRY POINT - SITE 5
GROUND WATER
PESTICIDE/PCB AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:		5GW09	5GW10	5GW11
QC DESIGNATION:	CRQL			
ALPHA-BHC	0.05	NA	NA	NA
BETA-BHC	0.05	NA	NA	NA
DELTA-BHC	0.05	NA	NA	NA
GAMMA-BHC (LINDANE)	0.05	NA	NA	NA
HEPTACHLOR	0.05	NA	NA	NA
ALDRIN	0.05	NA	NA	NA
HEPTACHLOR EPOXIDE	0.05	NA	NA	NA
ENDOSULFAN I	0.05	NA	NA	NA
DIELDRIN	0.10	NA	NA	NA
4,4'-DDE	0.10	NA	NA	NA
ENDRIN	0.10	NA	NA	NA
ENDOSULFAN II	0.10	NA	NA	NA
4,4'-DDD	0.10	NA	NA	NA
ENDOSULFAN SULFATE	0.10	NA	NA	NA
4,4'-DDT	0.10	NA	NA	NA
METHOXYCHLOR	0.5	NA	NA	NA
ENDRIN KETONE	0.10	NA	NA	NA
ALPHA-CHLORODANE	0.5	NA	NA	NA
GAMMA-CHLORDANE	0.5	NA	NA	NA
TOXAPHENE	1.0	NA	NA	NA
AROCLOR 1016	0.5	0.48 U	0.48 U	0.48 U
AROCLOR 1221	0.5	0.48 U	0.48 U	0.48 U
AROCLOR 1232	0.5	0.48 U	0.48 U	0.48 U
AROCLOR 1242	0.5	0.48 U	0.48 U	0.48 U
AROCLOR 1248	0.5	0.48 U	0.48 U	0.48 U
AROCLOR 1254	1.0	0.95 U	0.95 U	0.95 U
AROCLOR 1260	1.0	0.95 U	0.95 U	0.95 U
DILUTION FACTOR:		9.52	9.52	9.52
DATE SAMPLED:		11/11/90	11/12/90	11/11/90
DATE EXTRACTED:		11/15/90	11/15/90	11/15/90
DATE ANALYZED:		12/11/90	12/11/90	12/11/90
ASSOCIATED BLANKS:				

NA = NOT ANALYZED

CHERRY POINT - SITE 5
GROUND WATER - UNFILTERED
INORGANIC AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:			5GW09	5GW10	5GW11
QC DESIGNATION:					
	ANALYTICAL METHOD	CRQL			
ALUMINUM	P	200	NA	NA	NA
ANTIMONY	P	60	NA	NA	NA
ARSENIC	F	10	NA	NA	NA
BARIUM	P	200	NA	NA	NA
BERYLLIUM	P	5	NA	NA	NA
CADMIUM	P	5	NA	NA	NA
CALCIUM	P	5000	NA	NA	NA
CHROMIUM	P	10	NA	NA	NA
COBALT	P	50	NA	NA	NA
COPPER	P	25	NA	NA	NA
IRON	P	100	NA	NA	NA
LEAD	F	3	NA	NA	NA
MAGNESIUM	P	5000	NA	NA	NA
MANGANESE	P	15	NA	NA	NA
MERCURY	CV	0.2	NA	NA	NA
NICKEL	P	40	NA	NA	NA
POTASSIUM	P	5000	NA	NA	NA
SELENIUM	F	5	NA	NA	NA
SILVER	P	10	NA	NA	NA
SODIUM	P	5000	NA	NA	NA
THALLIUM	F	10	NA	NA	NA
VANADIUM	P	50	NA	NA	NA
ZINC	P	20	NA	NA	NA

ANALYTICAL METHOD
F - FURNACE
P - ICP/FLAME AA
CV - COLD VAPOR
C - COLORMETRIC

DATE SAMPLED:
ASSOCIATED BLANKS:

NA = NOT ANALYZED

CHERRY POINT - SITE 5
GROUND WATER - FILTERED
INORGANIC AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:			5GW09 F	5GW10 F	5GW11 F
QC DESIGNATION:					
	ANALYTICAL METHOD	CRQL			
ALUMINUM	P	200	NA	NA	NA
ANTIMONY	P	60	NA	NA	NA
ARSENIC	F	10	NA	NA	NA
BARIUM	P	200	NA	NA	NA
BERYLLIUM	P	5	NA	NA	NA
CADMIUM	P	5	NA	NA	NA
CALCIUM	P	5000	NA	NA	NA
CHROMIUM	P	10	NA	NA	NA
COBALT	P	50	NA	NA	NA
COPPER	P	25	NA	NA	NA
IRON	P	100	NA	NA	NA
LEAD	F	3	NA	NA	NA
MAGNESIUM	P	5000	NA	NA	NA
MANGANESE	P	15	NA	NA	NA
MERCURY	CV	0.2	NA	NA	NA
NICKEL	P	40	NA	NA	NA
POTASSIUM	P	5000	NA	NA	NA
SELENIUM	F	5	NA	NA	NA
SILVER	P	10	NA	NA	NA
SODIUM	P	5000	NA	NA	NA
THALLIUM	F	10	NA	NA	NA
VANADIUM	P	50	NA	NA	NA
ZINC	P	20	NA	NA	NA

ANALYTICAL METHOD
F - FURNACE
P - ICP/FLAME AA
CV - COLD VAPOR
C - COLORMETRIC

DATE SAMPLED:
ASSOCIATED BLANKS:

NA = NOT ANALYZED

CHERRY POINT - SITE 5
GROUNDWATER
MISCELLANEOUS ANALYTES (MG/L)

Sample Number	Total Petroleum Hydrocarbons	Total Organic Carbon	Total Suspended Solids
5GW01	0.19 U	4.08	618
5GW02	0.19 U	NA	121
5GW03	0.19 U	NA	100
5GW04	0.20 U	NA	1230
5GW05	0.19 U	NA	237
5GW05-D	0.19 U	NA	206
5GW07	0.19 U	NA	268
5GW08	0.20	1.57	154
5GW09	0.20 U	4.37	11
5GW10	0.19 U	0.80	93
5GW11	0.20 U	3.11	30
5GW11-D	NA	4.62	NA

CHERRY POINT - SITE 5
SEDIMENT
VOLATILE SOLID ANALYSIS (UG/KG)

SAMPLE NUMBER:		5SD01	5SD02	5SD03	5SD03-D	5SD04	5SD05	5SD06
QC DESIGNATION:				FIELD DUPLICATES				
	CRQL							
CHLOROMETHANE	10	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	10	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	10	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	10	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	5	NA	NA	NA	NA	NA	NA	NA
ACETONE	10	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	5	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	5	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	5	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHENE (TOTAL)	5	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	5	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	5	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	10	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	5	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	5	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	10	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	5	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	5	NA	NA	NA	NA	NA	NA	NA
CIS-1,3-DICHLOROPROPENE	5	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	5	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	5	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	5	NA	NA	NA	NA	NA	NA	NA
BENZENE	5	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	5	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	5	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	10	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	10	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	5	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	5	NA	NA	NA	NA	NA	NA	NA
TOLUENE	5	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	5	NA	NA	NA	NA	NA	NA	NA
ETHYL BENZENE	5	NA	NA	NA	NA	NA	NA	NA
STYRENE	5	NA	NA	NA	NA	NA	NA	NA
TOTAL XYLENES	5	NA	NA	NA	NA	NA	NA	NA

DILUTION FACTOR:
DATE SAMPLED:
DATE ANALYZED:
PERCENT MOISTURE:
ASSOCIATED BLANKS:

NA = NOT ANALYZED

CHERRY POINT - SITE 5
SEDIMENT
SEMI-VOLATILE SOIL ANALYSES (UG/KG)

SAMPLE NUMBER:		5SD01	5SD02	5SD03	5SD03-D	5SD04	5SD05	5SD06
QC DESIGNATION:				FIELD DUPLICATES				
	CRQL							
PHENOL	330	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	330	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	330	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	330	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	330	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	330	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	330	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	330	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROISOPROPYL)ETHER	330	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	330	NA	NA	NA	NA	NA	NA	NA
N-NITROSODI-N-PROPYLAMINE	330	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	330	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	330	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	330	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	330	NA	NA	NA	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	330	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	1600	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	330	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	330	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	330	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	330	NA	NA	NA	NA	NA	NA	NA
4-CHLORANILINE	330	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	330	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	330	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	330	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	330	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	330	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	1600	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	330	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	1600	NA	NA	NA	NA	NA	NA	NA
DIMETHYL PHTHALATE	330	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	330	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	330	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	1600	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	330	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	1600	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	1600	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	330	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	330	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	330	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	330	NA	NA	NA	NA	NA	NA	NA
FLUORENE	330	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	1600	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	1600	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENLYAMINE	330	NA	NA	NA	NA	NA	NA	NA

CHERRY POINT - SITE 5
SEDIMENT
SEMI-VOLATILE SOIL ANALYSES (UG/KG)

SAMPLE NUMBER:		5SD01	5SD02	5SD03	5SD03-D	5SD04	5SD05	5SD06
QC DESIGNATION:				FIELD DUPLICATES				
	CRQL							
4-BROMOPHENYL-PHENYLETHER	330	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	330	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	1600	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	330	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	330	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	330	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	330	NA	NA	NA	NA	NA	NA	NA
PYRENE	330	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	330	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	660	NA	NA	NA	NA	NA	NA	NA
BENZO(a)ANTHRACENE	330	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	330	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	330	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	330	NA	NA	NA	NA	NA	NA	NA
BENZO(b)FLUORANTHENE	330	NA	NA	NA	NA	NA	NA	NA
BENZO(k)FLUORANTHENE	330	NA	NA	NA	NA	NA	NA	NA
BENZO(a)PYRENE	330	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-cd)PYRENE	330	NA	NA	NA	NA	NA	NA	NA
DIBENZ(a,h)ANTHRACENE	330	NA	NA	NA	NA	NA	NA	NA
BENZO(ghi)PERYLENE	330	NA	NA	NA	NA	NA	NA	NA

% MOISTURE:
DILUTION FACTOR:
DATE SAMPLED:
DATE EXTRACTED:
DATE ANALYZED:
ASSOCIATED BLANKS:

NA = NOT ANALYZED

CHERRY POINT - SITE 5
SEDIMENT
PESTICIDE/PCB ANALYSIS (UG/KG)

SAMPLE NUMBER:		5SD01	5SD02	5SD03	5SD03-D	5SD04	5SD05	5SD06
QC DESIGNATION:				FIELD DUPLICATES				
	CRQL							
ALPHA-BHC	8.0	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	8.0	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	8.0	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	8.0	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	8.0	NA	NA	NA	NA	NA	NA	NA
ALDRIN	8.0	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	8.0	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	8.0	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	16.0	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	16.0	NA	NA	NA	NA	NA	NA	NA
ENDRIN	16.0	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	16.0	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD	16.0	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	16.0	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	16.0	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	80.0	NA	NA	NA	NA	NA	NA	NA
ENDRIN KETONE	16.0	NA	NA	NA	NA	NA	NA	NA
ALPHA-CHLORODANE	80.0	NA	NA	NA	NA	NA	NA	NA
GAMMA-CHLORDANE	80.0	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	160.0	NA	NA	NA	NA	NA	NA	NA
AROCLOR 1016	80.0	24 U	25 U	290 U	280 U	120 U	980 U	72 U
AROCLOR 1221	80.0	24 U	25 U	290 U	280 U	120 U	980 U	72 U
AROCLOR 1232	80.0	24 U	25 U	290 U	280 U	120 U	980 U	72 U
AROCLOR 1242	80.0	24 U	25 U	290 U	280 U	120 U	980 U	72 U
AROCLOR 1248	80.0	24 U	25 U	290 U	280 U	120 U	980 U	72 U
AROCLOR 1254	160.0	49 U	49 U	570 U	560 U	240 U	2000 U	140 U
AROCLOR 1260	160.0	49 U	59 J	8500 J	7300 J	240 U	45000 J	730 J
% MOISTURE:		19	19	30	29	83	80	72
DILUTION FACTOR:		1.0	1.0	10.0	10.0	1.0	10.0	1.0
DATE SAMPLED:		11/01/90	11/01/90	11/01/90	11/01/90	11/01/90	11/01/90	11/01/90
DATE EXTRACTED:		11/06/90	11/06/90	11/06/90	11/06/90	11/06/90	11/06/90	11/06/90
DATE ANALYZED:		11/28/90	11/28/90	12/01/90	12/01/90	11/28/90	12/01/90	11/28/90
ASSOCIATED BLANKS:		17S000-001-R	17S000-001-R	17S000-001-R	17S000-001-R	17S000-001-R	17S000-001-R	17S000-001-R

NA = NOT ANALYZED

CHERRY POINT - SITE 5
SEDIMENT
INORGANIC SOIL ANALYSIS (mg/kg)

SAMPLE NUMBER:			5SD01	5SD02	5SD03	5SD03-D	5SD04	5SD05	5SD06
QC DESIGNATION:					FIELD DUPLICATES				
	ANALYTICAL METHOD	CRQL							
ALUMINUM	P	40	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	P	12	NA	NA	NA	NA	NA	NA	NA
ARSENIC	F	2	NA	NA	NA	NA	NA	NA	NA
BARIUM	P	40	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	P	1	NA	NA	NA	NA	NA	NA	NA
CADMIUM	P	1	NA	NA	NA	NA	NA	NA	NA
CALCIUM	P	1000	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	P	2	NA	NA	NA	NA	NA	NA	NA
COBALT	P	10	NA	NA	NA	NA	NA	NA	NA
COPPER	P	5	NA	NA	NA	NA	NA	NA	NA
IRON	P	20	NA	NA	NA	NA	NA	NA	NA
LEAD	F	0.6	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	P	1000	NA	NA	NA	NA	NA	NA	NA
MANGANESE	P	3	NA	NA	NA	NA	NA	NA	NA
MERCURY	CV	0.02	NA	NA	NA	NA	NA	NA	NA
NICKEL	P	8	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	P	1000	NA	NA	NA	NA	NA	NA	NA
SELENIUM	F	1	NA	NA	NA	NA	NA	NA	NA
SILVER	P	2	NA	NA	NA	NA	NA	NA	NA
SODIUM	P	1000	NA	NA	NA	NA	NA	NA	NA
THALLIUM	F	2	NA	NA	NA	NA	NA	NA	NA
VANADIUM	P	10	NA	NA	NA	NA	NA	NA	NA
ZINC	P	4	NA	NA	NA	NA	NA	NA	NA

% SOLIDS:
DATE SAMPLED:
ASSOCIATED BLANKS:

ANALYTICAL METHOD
F - FURNACE
P - ICP/FLAME AA
CV - COLD VAPOR
C - COLORMETRIC

CHERRY POINT - SITE 5
SEDIMENT
MISCELLANEOUS ANALYTES (MG/KG)

Sample Number	Total Organic Carbon
5SD01	96,100
5SD02	133,000
5SD03	69,900
5SD03-D	68,100
5SD04	115,000
5SD05	237,000
5SD06	32,100

TABLE D.1-1

1985/1987 ANALYTICAL RESULTS
UNIT 5

Sample Number:	5GW01			5GW02			5GW03			5GW04			5GW05			5GW06		
Site Number:	5			5			5			5			5			5		
Sample Round:	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Date Sampled:	01/11/85	10/20/85	02/19/87	01/11/85	10/20/85	02/19/87	01/11/85	10/20/85	02/18/87	01/11/85	01/19/85	02/19/87	01/11/85	10/20/85	02/18/87	01/11/85	10/20/85	02/18/87
Sample Type:	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
Volatiles																		
Chloroform																		
1,1-Dichloroethane				7 µg/l	5 µg/l	19 µg/l												
Trichloroethene																		
Inorganics																		
Arsenic						0.014 mg/l			0.004 mg/l									0.001 mg/l
Copper									0.06 mg/l						0.04 mg/l			0.02 mg/l
PCB-1260																		
Phenols						0.02 mg/l									0.03 mg/l			0.06 mg/l
Zinc			0.04 mg/l			0.03 mg/l			0.19 mg/l						0.06 mg/l			0.10 mg/l

TABLE D.1-1
1985/1987 ANALYTICAL RESULTS
UNIT 5
PAGE TWO

Sample Number:	5GW01			5GW02			5GW03			5GW04			5GW05			5GW06		
Site Number:	5			5			5			5			5			5		
Sample Round:	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Date Sampled:	01/11/85	10/20/85	02/19/87	01/11/85	10/20/85	02/19/87	01/11/85	10/20/85	02/18/87	01/11/85	01/19/85	02/19/87	01/11/85	10/20/85	02/18/87	01/11/85	10/20/85	02/18/87
Sample Type:	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
Geochemical Parameters																		
pH	5.40	5.67	5.93	6.4	6.28	6.24	6.72	6.39	6.24	8.81	6.46	6.10	5.26	4.34	4.06	6.05	4.72	4.55
Specific Conductance (µmhos/cm)	580	920	220	700	605	480	890	695	700	260	295	220	300	240	180	560	400	320
Temperature (Celsius)	19°	19.4°	16.1°	17°	18.4°	12.5°	18°	19.5°	16.9°	19°	19.0°	15.4°	19°	19.0°	17.8°	18°	19.4°	17.2°
TOC	26.0 mg/l			43.4 mg/l			58.2 mg/l			19.1 mg/l			22.4 mg/l			20.0 mg/l		
OVA Reading							8 ppm									4 ppm		
TOX (as Cl)				13 µg/l						25 µg/l						13 µg/l		
Oil	1.2 mg/l	31 mg/l	5.6 mg/l				2.1 mg/l	7.7 mg/l		2.1 mg/l		3.8 mg/l	2.4 mg/l			8.7 mg/l	6.5 mg/l	
HNU Reading								9 ppm									2 ppm	
Static Water Level	18.80 ft.	7.42 ft.	8.58 ft.	5.10 ft	4.57 ft	4.98 ft	7.17 ft	6.50 ft	6.92 ft.	7.65 ft.	9.59 ft.	7.10 ft.	11.85 ft	9.28 ft	10.41 ft	9.80 ft	8.69 ft	9.52 ft
Sampling Water Level	9.07 ft.	9.18 ft.		5.23 ft	6.06 ft.		7.19 ft	18.18 ft		7.93 ft.	18.76 ft		12.10 ft	9.89 ft		10.17 ft	9.12 ft	
Total Depth		26.73 ft.	26.22 ft *		26.81 ft	26.52 ft *		26.68 ft.	26.82 ft *		26.82 ft.	26.19 ft. *		26.50 ft	26.79 ft *		26.12 ft	27.30 ft *

TABLE D.1-1
1985/1987 ANALYTICAL RESULTS
UNIT 5
PAGE THREE

Sample Number:	5GW07		5SW01		5SW02	5SW03	5SW04	5SW05	5SD01		5SD02	5SD03	5SD04	5SD05
Site Number:	5		5		5	5	5	5	5		5	5	5	5
Sample Round:	2	3	1	2	3	3	3	3	1	2	3	3	3	3
Date Sampled:	10/20/85	02/19/87	01/11/85	10/20/85	03/03/87	03/03/87	03/03/87	03/03/87	01/11/85	10/20/85	03/03/87	03/03/87	03/03/87	03/03/87
Sample Type:	GW	GW	SW	SW	SW	SW	SW	SW	SD	SD	SD	SD	SD	SD
Volatiles														
Chloroform	8 µg/l													
1,1-Dichloroethane		19 µg/l												
Trichloroethene	18 µg/l			5 µg/l										
Methylene Chloride												22 µg/kg	11 µg/kg	
Inorganics														
Arsenic		0.002 mg/l				0.001 mg/l		0.002 mg/l				7.8 mg/kg	0.3 mg/kg	0.2 mg/kg
Beryllium												1.2 mg/kg		
Cadmium												1.6 mg/kg		
Chromium												40 mg/kg	1 mg/kg	1 mg/kg
Copper											1 mg/kg	41 mg/kg	3 mg/kg	1.0 mg/kg
Cyanide, total (CN)					0.005 mg/l	0.011 mg/l	0.005 mg/l				0.7 mg/kg			
Lead										6 mg/kg		120 mg/kg	8 mg/kg	
Nickel												14 mg/kg		
PCB-1260	35 µg/l	1.1 µg/l										26,000 µg/kg		
Total PCBs in Sediment									0.96 µg/kg					
Phenols														

TABLE D.1-1
1985/1987 ANALYTICAL RESULTS
UNIT 5
PAGE FOUR

Sample Number:	5GW07		5SW01		5SW02	5SW03	5SW04	5SW05	5SD01		5SD02	5SD03	5SD04	5SD05
Site Number:	5		5		5	5	5	5	5		5	5	5	5
Sample Round:	2	3	1	2	3	3	3	3	1	2	3	3	3	3
Date Sampled:	01/19/85	02/19/87	01/11/85	10/20/85	03/03/87	03/03/87	03/03/87	03/03/87	01/11/85	10/20/85	03/03/87	03/03/87	03/03/87	03/03/87
Sample Type:	GW	GW	SW	SW	SW	SW	SW	SW	SD	SD	SD	SD	SD	SD
Inorganics - Continued														
Selenium												0 6 mg/kg		
Zinc		0.08 mg/l									4 mg/kg	80 mg/kg	4 mg/kg	3 mg/kg
Geochemical Parameters														
pH	6.24	5.90		7 10	6.71	6.85	6.78	6.70						
Specific Conductance (µmhos/km)	545	340		2,200	290	310	300	280						
Temperature (Celsius)	14 8°	11.3°	7°	13.0°	17.2°	17 2°	17.1°	17 2°						
TOC			22 7 mg/l											
OVA Reading														
TOX (as Cl)			59 µg/l											
Oil			4 2 mg/l	5 1 mg/l								0 1%	3 2%	
HNU Reading														
Static Water Level														
Sampling Water Level														
Total Depth	10 14 ft.	11.24 ft *												

GW. Groundwater SW: Surface Water SD: Sediment
* From top of PVC pipe.

APPENDIX D.4

UNIT 17

CHERRY POINT - SITE 17
SOIL
PESTICIDE/PCB ANALYSIS (UG/KG)

SAMPLE NUMBER:		17S001-0005	17S001-0005D	17S001-0225	17S002-0005	17S002-0225	17S003-0005	17S003-0225	17S004-0005
QC DESIGNATION:	CRQL	FIELD DUPLICATES							
AROCLOR 1016	80.0	23 U	23 U	24 U	24 U	220 U	230 U	23 U	230 U
AROCLOR 1221	80.0	23 U	23 U	24 U	24 U	220 U	230 U	23 U	230 U
AROCLOR 1232	80.0	23 U	23 U	24 U	24 U	220 U	230 U	23 U	230 U
AROCLOR 1242	80.0	23 U	23 U	24 U	24 U	220 U	230 U	23 U	230 U
AROCLOR 1248	80.0	23 U	23 U	24 U	24 U	220 U	230 U	23 U	230 U
AROCLOR 1254	160.0	46 U	45 U	48 U	47 U	440 U	560 U	47 U	450 U
AROCLOR 1260	160.0	1700 J	1800 J	260 J	1200 J	4100 J	7400 J	1000 J	6700 J
%MOISTURE:		13	12	17	16	9	13	15	11
DILUTION FACTOR:		1.0	1.0	1.0	1.0	10.0	10.0	1.0	10.0
DATE SAMPLED:		10/30/90	10/30/90	10/30/90	10/30/90	10/30/90	10/31/90	10/31/90	10/31/90
DATE EXTRACTED:		11/06/90	11/06/90	11/06/90	11/06/90	11/06/90	11/06/90	11/06/90	11/06/90
DATE ANALYZED:		11/27/90	11/27/90	11/27/90	11/27/90	11/29/90	11/29/90	11/27/90	11/29/90
ASSOCIATED BLANKS:		17S000-001-R	17S000-001-R	17S000-001-R	17S000-001-R	17S000-001-R	17S000-001-R	17S000-001-R	17S000-001-R

CHERRY POINT - SITE 17
SOIL
PESTICIDE/PCB ANALYSIS (UG/KG)

SAMPLE NUMBER:		17S004-0225	17S005-0005	17S006-0005	17S007-0005	17S008-0005	17S009-0005	17S010-0005	17S011-0005
QC DESIGNATION:	CRQL								
AROCLOR 1016	80.0	25 U	23 U	230 U	230 U	2300 U	220 U	210 U	22 U
AROCLOR 1221	80.0	25 U	23 U	230 U	230 U	2300 U	220 U	210 U	22 U
AROCLOR 1232	80.0	25 U	23 U	230 U	230 U	2300 U	220 U	210 U	22 U
AROCLOR 1242	80.0	25 U	23 U	230 U	230 U	2300 U	220 U	210 U	22 U
AROCLOR 1248	80.0	25 U	23 U	230 U	230 U	2300 U	220 U	210 U	22 U
AROCLOR 1254	160.0	50 U	46 U	460 U	460 U	4700 U	440 U	11000 J	44 U
AROCLOR 1260	160.0	62 J	3700 J	4600 J	8300 J	45000 J	7600 J	440 U	880 J
%MOISTURE:		20	13	13	14	15	9	8	10
DILUTION FACTOR:		1.0	1.0	10.0	10.0	100	10.0	10.0	1.0
DATE SAMPLED:		10/31/90	10/30/90	10/30/90	10/31/90	10/31/90	10/30/90	10/30/90	10/31/90
DATE EXTRACTED:		11/06/90	11/06/90	11/06/90	11/06/90	11/06/90	11/06/90	11/06/90	11/06/90
DATE ANALYZED:		11/27/90	11/29/90	11/29/90	11/29/90	11/29/90	11/29/90	11/29/90	11/27/90
ASSOCIATED BLANKS:		17S000-001-R	17S000-001-R	17S000-001-R	17S000-001-R	17S000-001-R	17S000-001-R	17S000-001-R	17S000-001-R

CHERRY POINT - SITE 17
SOIL
PESTICIDE/PCB ANALYSIS (UG/KG)

SAMPLE NUMBER:		17S012-0005	17S013-0005	17S014-0005	17S015-0005	17S016-0005	17S017-0005	17S017-0005D	17S017-0225
QC DESIGNATION:							FIELD DUPLICATES		
	CRQL								
AROCLOR 1016	80.0	230 U	220 U	2200 U	22 U	22 U	240 U	23 U	27 U
AROCLOR 1221	80.0	230 U	220 U	2200 U	22 U	22 U	240 U	23 U	27 U
AROCLOR 1232	80.0	230 U	220 U	2200 U	22 U	22 U	240 U	23 U	27 U
AROCLOR 1242	80.0	230 U	220 U	2200 U	22 U	22 U	240 U	23 U	27 U
AROCLOR 1248	80.0	230 U	220 U	2200 U	22 U	22 U	240 U	23 U	27 U
AROCLOR 1254	160.0	470 U	430 U	120000	400 J	43 U	780 U	46 U	54 U
AROCLOR 1260	160.0	5900 J	21000	4400 U	44 U	110 J	7000 J	13000 J	54 U
%MOISTURE:		15	8	10	9	8	17	14	27
DILUTION FACTOR:		10	10	100	1.0	1.0	10.0	1.0	1.0
DATE SAMPLED:		10/31/90	11/01/90	11/01/90	11/01/90	11/01/90	10/31/90	10/31/90	10/31/90
DATE EXTRACTED:		11/06/90	11/06/90	11/06/90	11/12/90	11/06/90	11/06/90	11/06/90	11/06/90
DATE ANALYZED:		11/29/90	12/01/90	12/01/90	12/06/90	11/27/90	12/01/90	11/27/90	11/27/90
ASSOCIATED BLANKS:		17S000-001-R	17S000-001-R	17S000-001-R	17S000-001-R	17S000-001-R	17S000-001-R	17S000-001-R	17S000-001-R

CHERRY POINT - SITE 17
SOIL
PESTICIDE/PCB ANALYSIS (UG/KG)

SAMPLE NUMBER:		17S017-0335
QC DESIGNATION:		
	CRQL	
AROCLOR 1016	80.0	29 U
AROCLOR 1221	80.0	29 U
AROCLOR 1232	80.0	29 U
AROCLOR 1242	80.0	29 U
AROCLOR 1248	80.0	29 U
AROCLOR 1254	160.0	57 U
AROCLOR 1260	160.0	57 U

%MOISTURE:	30
DILUTION FACTOR:	1.0
DATE SAMPLED:	10/31/90
DATE EXTRACTED:	11/06/90
DATE ANALYZED:	11/27/90
ASSOCIATED BLANKS:	17S000-001-R

CHERRY POINT - SITE 17
SOIL BORINGS
MISCELLANEOUS ANALYTES (MG/KG)

Sample Number	Total Petroleum Hydrocarbons	Total Organic Carbon	BTU Content (BTU/lb)	Bulk Density (g/cm^3)
17SO01-0005	69.0 J	11,600	NA	NA
17SO01-0005-D	273 J	13,000	NA	NA
17SO01-0225	25.8 J	2,390	NA	NA
17SO02-0005	370 J	13,400	NA	NA
17SO02-0225	10.9 UJ	6,580	NA	NA
17SO03-0005	544 J	14,500	NA	NA
17SO03-0225	1040 J	5,880	NA	NA
17SO04-0005	457 J	10,700	NA	NA
17SO04-0225	226 J	4,150	NA	NA
17SO05-0005	4150 J	NA	NA	NA
17SO05-0225	NA	2,840	NA	NA
17SO06-0005	555 J	NA	NA	NA
17SO06-0225	NA	1,750	NA	NA
17SO07-0005	763 J	NA	NA	NA
17SO07-0225	NA	2,340	NA	NA
17SO08-0005	948 J	NA	NA	NA
17SO08-0225	NA	6,840	NA	NA
17SO09-0005	107 J	NA	NA	NA
17SO10-0005	180 J	NA	NA	NA
17SO11-0005	63.3 J	NA	NA	NA
17SO12-0005	202 J	NA	NA	NA
17SO13-0005	853 J	NA	NA	NA
17SO14-0005	2880 J	NA	NA	NA
17SO15-0005	70.1 J	NA	NA	NA
17SO16-0005	125 J	NA	NA	NA
17SO17-0005	139 J	NA	1000 U	1.4

Sample Number	Total Petroleum Hydrocarbons	Total Organic Carbon	BTU Content (BTU/lb)	Bulk Density (g/cm^3)
17SO17-0005-D	177 J	NA	1000 U	NA
17SO17-0225	13.3 UJ	NA	1000 U	1.3
17SO17-0335	17.7 J	NA	1000 U	1.2

CHERRY POINT - SITE 17
SOIL BORINGS
GRAIN SIZE ANALYSES (% PASSING)

Sample Number	>4.75 mm	2 - 4.75 mm	0.425 - 2 mm	0.075 - 0.425 mm	0.005 - 0.075 mm	<0.005 mm
17SO17-0005	0.36	0.63	5.48	81.39	5.02	7.11
17SO17-0005-D	0	0	5.64	80.77	6.26	6.34
17SO17-0225	0.06	1.22	0.23	72.97	9.42	16.09
17SO17-0335	0	0.71	0.13	80.96	7.37	10.83

CHERRY POINT - SITE 17
GROUNDWATER
PESTICIDE/PCB AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:		17GW01	17GW02
QC DESIGNATION:			
	CRQL		
AROCLOR 1016	0.5	0.48 U	0.48 U
AROCLOR 1221	0.5	0.48 U	0.48 U
AROCLOR 1232	0.5	0.48 U	0.48 U
AROCLOR 1242	0.5	0.48 U	0.48 U
AROCLOR 1248	0.5	0.48 U	0.48 U
AROCLOR 1254	1.0	0.95 U	0.95 U
AROCLOR 1260	1.0	0.95 U	0.95 U
DILUTION FACTOR:			
DATE SAMPLED:		11/11/90	11/11/90
DATE EXTRACTED:		11/15/90	11/15/90
DATE ANALYZED:		12/10/90	12/10/90
ASSOCIATED BLANKS:			

NA = NOT ANALYZED

CHERRY POINT - SITE 17
GROUNDWATER
MISCELLANEOUS ANALYTES (MG/L)

Sample Number	Total Petroleum Hydrocarbons	Total Suspended Solids
17GW01	0.20 U	4.0 U
17GW02	0.21 U	716

CHERRY POINT - SITE 17
SEDIMENT
PESTICIDE/PCB ANALYSIS (UG/KG)

SAMPLE NUMBER:		17SD01	17SD02	17SD03	17SD04	17SD04D	17SD05	17SD06	17SD07
QC DESIGNATION:					FIELD DUPLICATES				
	CRQL								
AROCLOR 1016	80.0	26 U	24 U	17 U	23 UJ	20 U	24 U	22 U	25 U
AROCLOR 1221	80.0	26 U	24 U	17 U	23 UJ	20 U	24 U	22 U	25 U
AROCLOR 1232	80.0	26 U	24 U	17 U	23 UJ	20 U	24 U	22 U	25 U
AROCLOR 1242	80.0	26 U	24 U	17 U	23 UJ	20 U	24 U	22 U	25 U
AROCLOR 1248	80.0	26 U	24 U	17 U	23 UJ	20 U	24 U	22 U	25 U
AROCLOR 1254	160.0	51 U	49 U	34 U	46 UJ	41 U	49 U	45 U	49 U
AROCLOR 1260	160.0	270	890	160	46 UJ	130 J	480	430	350
% MOISTURE:		35.9	32.5	3.6	27.4	19.3	32.1	26.1	33.0
DILUTION FACTOR:		513	486	341	458	409	486	446	491
DATE SAMPLED:		11/06/90	11/06/90	11/06/90	11/06/90	11/06/90	11/06/90	11/06/90	11/06/90
DATE EXTRACTED:		11/12/90	11/12/90	11/12/90	11/12/90	11/12/90	11/12/90	11/12/90	11/12/90
DATE ANALYZED:		12/07/90	12/09/90	12/07/90	12/07/90	12/07/90	12/07/90	12/07/90	12/07/90
ASSOCIATED BLANKS:		17SD00-001-R	17SD00-001-R	17SD00-001-R	17SD00-001-R	17SD00-001-R	17SD00-001-R	17SD00-001-R	17SD00-001-R
		5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R
		5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R
		5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T

CHERRY POINT - SITE 17
SEDIMENT
PESTICIDE/PCB ANALYSIS (UG/KG)

SAMPLE NUMBER:		17SD08	17SD09	17SD10	17SD10D	17SD11	17SD12	17SD13	17SD14
QC DESIGNATION:				FIELD DUPLICATES					
	CRQL								
AROCLOR 1016	80.0	27 U	26 U	23 U	23 U	21 U	22 UJ	25 U	24 U
AROCLOR 1221	80.0	27 U	26 U	23 U	23 U	21 U	22 UJ	25 U	24 U
AROCLOR 1232	80.0	27 U	26 U	23 U	23 U	21 U	22 UJ	25 U	24 U
AROCLOR 1242	80.0	27 U	26 U	23 U	23 U	21 U	22 UJ	25 U	24 U
AROCLOR 1248	80.0	27 U	26 U	23 U	23 U	21 U	22 UJ	25 U	24 U
AROCLOR 1254	160.0	53 U	52 U	46 U	46 U	42 U	45 UJ	50 U	48 U
AROCLOR 1260	160.0	440	610	160	94	200	59 J	50 U	170
% MOISTURE:		37.3	35.5	27.8	27.5	21.4	26.8	34.6	31.7
DILUTION FACTOR:		530	515	460	455	422	448	496	481
DATE SAMPLED:		11/06/90	11/06/90	11/06/90	11/06/90	11/06/90	11/06/90	11/06/90	11/06/90
DATE EXTRACTED:		11/12/90	11/12/90	11/12/90	11/12/90	11/12/90	11/12/90	11/12/90	11/12/90
DATE ANALYZED:		12/07/90	12/07/90	12/07/90	12/07/90	12/07/90	12/07/90	12/07/90	12/07/90
ASSOCIATED BLANKS:		17SD00-001-R	17SD00-001-R	17SD00-001-R	17SD00-001-R	17SD00-001-R	17SD00-001-R	17SD00-001-R	17SD00-001-R
		5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R
		5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R
		5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T

CHERRY POINT - SITE 17
SEDIMENT
PESTICIDE/PCB ANALYSIS (UG/KG)

SAMPLE NUMBER:		17SD15	17SD16	17SD17	17SD18
QC DESIGNATION:					
	CRQL				
AROCLOR 1016	80.0	22 U	22 U	43 UJ	23 UJ
AROCLOR 1221	80.0	22 U	22 U	43 UJ	23 UJ
AROCLOR 1232	80.0	22 U	22 U	43 UJ	23 UJ
AROCLOR 1242	80.0	22 U	22 U	43 UJ	23 UJ
AROCLOR 1248	80.0	22 U	22 U	43 UJ	23 UJ
AROCLOR 1254	160.0	44 U	44 U	87 UJ	47 UJ
AROCLOR 1260	160.0	86	160	930 J	47 UJ
% MOISTURE:		25.0	23.7	61.6	28.7
DILUTION FACTOR:		440	435	866	465
DATE SAMPLED:		11/06/90	11/06/90	11/06/90	11/06/90
DATE EXTRACTED:		11/12/90	11/12/90	11/12/90	11/12/90
DATE ANALYZED:		12/07/90	12/07/90	12/06/90	12/06/90
ASSOCIATED BLANKS:		17SD00-001-R	17SD00-001-R	17SD00-001-R	17SD00-001-R
		5B00-003-R	5B00-003-R	5B00-003-R	5B00-003-R
		5B00-004-R	5B00-004-R	5B00-004-R	5B00-004-R
		5B00-001-T	5B00-001-T	5B00-001-T	5B00-001-T

CHERRY POINT - SITE 17
SEDIMENTS
MISCELLANEOUS ANALYTES (MG/KG)

Sample Number	Total Petroleum Hydrocarbons	Total Organic Carbon
17SD01	356 J	5,620 J
17SD02	1,260 J	28,700 J
17SD03	87.6 J	8,990 J
17SD04	118 J	16,500 J
17SD04-D	140 J	6,520 J
17SD05	681 J	13,200 J
17SD06	755 J	16,300 J
17SD07	308 J	2,830 J
17SD08	1,110 J	9,520 J
17SD09	369 J	5,730 J
17SD10	49.4 J	2,690 J
17SD10-D	54.8 J	3,090 J
17SD11	405 J	5,450 J
17SD12	39.9 J	1,620 J
17SD13	21.2 J	1,400 J
17SD14	168 J	3,130 J
17SD15	84.3 J	2,090 J
17SD16	145 J	3,150 J
17SD17	2,630 J	34,700 J
17SD18	101 J	8,380 J

TABLE D.4-1

1985/1987 ANALYTICAL RESULTS
UNIT 17

	Sample Round	Sample Type	Date	PCBs (µg/g)	PCB Species
SEDIMENTS					
17SD01	1	SD	01/14/85	0.87	1260
17SD02	1	SD	01/14/85	0.22	1260
17SD03	1	SD	01/14/85	0.65	1254
17SD06	1	SD	01/14/85	1.1	1260
SOILS					
17SO01	1	SO	01/14/85	5.9	1260
17SO03	1	SO	01/14/85	1.7	1260
17SO04	2	SO	10/17/85	43	1254/1260
17SO06	2	SO	10/17/85	5.1	1260
17SO-1'-I-8	3	SO	03/05/87	1.3	1254
17SO-1'-I-11	3	SO	03/05/87	14	1254/1260
17SO-0'-D-1	3	SO	03/07/87	7.6	1260
17SO-0'-D-2	3	SO	03/07/87	18	1260
17SO-0'-D-3	3	SO	03/07/87	10	1260
17SO-0'-D-4	3	SO	03/07/87	8.7	1260
17SO-0'-D-5	3	SO	03/07/87	7.2	1260
17SO-0'-D-6	3	SO	03/07/87	12	1260
17SO-0'-D-7	3	SO	03/07/87	340	1254
17SO-0'-D-8	3	SO	03/07/87	130	1254/1260
17SO-0'-D-9	3	SO	03/07/87	37	1254/1260
17SO-0'-D-10	3	SO	03/07/87	26	1260
17SO-0'-D-11	3	SO	03/07/87	32	1254/1260
17SO-1'-D-3	3	SO	03/07/87	8.1	1260
17SO-1'-D-4	3	SO	03/07/87	1.3	1260
17SO-1'-D-10	3	SO	03/07/87	1.9	1254/1260
17SO-1'-D-11	3	SO	03/07/87	23	1254/1260

SD Sediment
SO Soil

0' Sample collected at surface
1' Sample collected 1 foot deep
1,2,3 Sampling round

TABLE D.4-2

1985/1987 ANALYTICAL RESULTS - DOWNGRADIENT SEDIMENTS (UNIT 15)
UNIT 17
MCAS, CHERRY POINT, NORTH CAROLINA

SAMPLE COLLECTION AND ANALYSIS

	GWCI	Phenolics	Metals	VOA	PCBs	VOA(1) PP	Cr + 6	CN	EP TOX
15SD09		3	3		3				3
15SD10		3	3		3				3
15SD11		3	3		3				3
15SD12		3	3		3				3

CHEMICAL ANALYTICAL DATA

Sample Number	15SD09	15SD010	15SD011	15SD012
Sample Round: Date Sampled: Sample Type:	3 02/20/87 SD	3 02/20/87 SD	3 02/20/87 SD	3 02/20/87 SD

Cadmium (mg/kg)	2.4	2.3	3.9	1.2
Chromium (mg/kg)	24	27	50	7
Copper (mg/kg)	8	10	8	6
Lead (mg/kg)	14	28	54	160
Nickel (mg/kg)			4	8
Zinc (mg/kg)	28	41	28	53
Silver (mg/kg)		1		
Phenolics (mg/kg)				
PCBs (mg/kg)			6.9	

VOA Volatile Organics
PP Priority Pollutants
CN Cyanide
EP TOX EP Toxicity Extraction Procedure
SD Sediment
1,2,3 Rounds 1, 2, 3
GWCI Groundwater Contaminant Indicators - pH, specific conductance, total organic carbon, total organic halogen.
Metals: Copper, chromium, lead, zinc, cadmium, nickel, silver.
(1) See Appendix A of the Interim RI Report (NUS, November 1988)

TABLE D.4-3

MCAS ANALYTICAL RESULTS
UNIT 17

Date Sampled	Sample Number	PCB Concentration (ppm)
01-17-86	1	<0.5
01-17-86	2	10.0
01-17-86	3	5.8
01-17-86	4	<0.5
01-17-86	5	<0.5
01-17-86	6	0.86
01-17-86	7	46.0
01-17-86	8	26.0
01-17-86	9	<0.5
01-23-86	I-1	<1
01-23-86	I-2	<1
01-23-86	I-3	2
01-23-86	I-4	<1
01-23-86	I-5	<1
01-23-86	I-6	3
01-23-86	I-7	<1
01-23-86	I-8	<1
01-23-86	I-9	<1
01-23-86	I-10	<1

Source: MCAS, Cherry Point, Natural Resources and Environmental Affairs Division, 1986.

APPENDIX D.5

BLANKS

CHERRY POINT
BLANKS
VOLATILE AQUEOUS ANALYSIS (UG/L)

SAMPLE NUMBER:		5B00-001-T	5B00-001-F	5B00-001-R	5B00-002-R	5B00-003-R	5B00-004-R	5B02-001-T	5GW00-001-T
QC DESIGNATION:	CRQL	TRIP BLANK	FIELD BLANK	RINSATE BLANK	RINSATE BLANK	RINSATE BLANK	RINSATE BLANK	TRIP BLANK	TRIP BLANK
CHLOROMETHANE	10	10 U	10 U	10 U	NA	10 U	10 U	10 UJ	10 U
BROMOMETHANE	10	10 U	10 U	10 U	NA	10 U	10 U	10 UJ	10 U
VINYL CHLORIDE	10	10 U	10 U	10 U	NA	10 U	10 U	10 UJ	10 U
CHLOROETHANE	10	10 U	10 U	10 U	NA	10 U	10 U	10 UJ	10 U
METHYLENE CHLORIDE	5	5 U	5 U	5 U	NA	5 U	5 U	4 J	5 U
ACETONE	10	10 U	30	34 J	NA	10 U	31	10 UJ	10 U
CARBON DISULFIDE	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
1,1-DICHLOROETHENE	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
1,1-DICHLOROETHANE	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
1,2-DICHLOROETHENE (TOTAL)	5	R	5 U	5 U	NA	R	5 U	5 UJ	5 U
CHLOROFORM	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
1,2-DICHLOROETHANE	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
2-BUTANONE	10	10 U	4 J	6 J	NA	12	10 U	10 UJ	10 U
1,1,1-TRICHLOROETHANE	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
CARBON TETRACHLORIDE	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
VINYL ACETATE	10	10 U	10 U	10 U	NA	10 U	10 U	10 UJ	10 U
BROMODICHLOROMETHANE	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
1,2-DICHLOROPROPANE	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
CIS-1,3-DICHLOROPROPENE	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
TRICHLOROETHENE	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
DIBROMOCHLOROMETHANE	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
1,1,2-TRICHLOROETHANE	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
BENZENE	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
TRANS-1,3-DICHLOROPROPENE	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
BROMOFORM	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
4-METHYL-2-PENTANONE	10	10 U	10 U	10 U	NA	10 U	10 U	10 UJ	10 U
2-HEXANONE	10	10 U	10 U	10 U	NA	10 U	10 U	10 UJ	10 U
TETRACHLOROETHENE	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
1,1,2,2-TETRACHLOROETHANE	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
TOLUENE	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
CHLOROBENZENE	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
ETHYL BENZENE	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
STYRENE	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
TOTAL XYLENES	5	5 U	5 U	5 U	NA	5 U	5 U	5 UJ	5 U
DILUTION FACTOR:		1.0	1.0	1.0		1.0	1.0	1.0	1.0
DATE SAMPLED:		11/07/90	10/29/90	10/29/90		11/07/90	11/08/90	10/27/90	11/11/90
DATE ANALYZED:		11/18/90	11/09/90	11/09/90		11/18/90	11/17/90	11/11/90	11/23/90

NA = NOT ANALYZED

CHERRY POINT

BLANKS

SEMIVOLATILE AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:		5B00-001-T	5B00-001-F	5B00-001-R	5B00-002-R	5B00-003-R	5B00-004-R	5B02-001-T	5GW00-001-T
QC DESIGNATION:		TRIP BLANK	FIELD BLANK	RINSATE BLANK	RINSATE BLANK	RINSATE BLANK	RINSATE BLANK	TRIP BLANK	TRIP BLANK
	CRQL								
PHENOL	10	9 J	20 U	NA	20 U	9 J	9 J	NA	NA
BIS(2-CHLOROETHYL)ETHER	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
2-CHLOROPHENOL	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
1,3-DICHLOROBENZENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
1,4-DICHLOROBENZENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
BENZYL ALCOHOL	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
1,2-DICHLOROBENZENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
2-METHYLPHENOL	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
BIS(2-CHLOROISOPROPYL)ETHER	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
4-METHYLPHENOL	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
N-NITROSODI-N-PROPYLAMINE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
HEXACHLOROETHANE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
NITROBENZENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
ISOPHORONE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
2-NITROPHENOL	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
2,4-DIMETHYLPHENOL	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
BENZOIC ACID	50	48 U	100 U	NA	100 U	48 U	R	NA	NA
BIS(2-CHLOROETHOXY)METHANE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
2,4-DICHLOROPHENOL	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
1,2,4-TRICHLOROBENZENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
NAPHTHALENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
4-CHLORANILINE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
HEXACHLOROBUTADIENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
4-CHLORO-3-METHYLPHENOL	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
2-METHYLNAPHTHALENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
HEXACHLOROCYCLOPENTADIENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
2,4,6-TRICHLOROPHENOL	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
2,4,5-TRICHLOROPHENOL	50	48 U	100 U	NA	100 U	48 U	R	NA	NA
2-CHLORONAPHTHALENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
2-NITROANILINE	50	48 U	100 U	NA	100 U	48 U	R	NA	NA
DIMETHYL PHTHALATE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
ACENAPHTHYLENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
2,6-DINITROTOLUENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
3-NITROANILINE	50	48 U	100 U	NA	100 U	48 U	R	NA	NA
ACENAPHTHENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
2,4-DINITROPHENOL	50	48 U	100 U	NA	100 U	48 U	R	NA	NA
4-NITROPHENOL	50	48 U	100 U	NA	100 U	48 U	R	NA	NA

CHERRY POINT

BLANKS

SEMIVOLATILE AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:		5B00-001-T	5B00-001-F	5B00-001-R	5B00-002-R	5B00-003-R	5B00-004-R	5B02-001-T	5GW00-001-T
QC DESIGNATION:		TRIP BLANK	FIELD BLANK	RINSATE BLANK	RINSATE BLANK	RINSATE BLANK	RINSATE BLANK	TRIP BLANK	TRIP BLANK
	CRQL								
DIBENZOFURAN	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
2,4-DINITROTOLUENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
DIETHYL PHTHALATE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
4-CHLOROPHENYL-PHENYLETHER	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
FLUORENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
4-NITROANILINE	50	48 U	100 U	NA	100 U	48 U	R	NA	NA
4,6-DINITRO-2-METHYLPHENOL	50	48 U	100 U	NA	100 U	48 U	R	NA	NA
N-NITROSODIPHENLYAMINE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
4-BROMOPHENYL-PHENYLETHER	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
HEXACHLOROBENZENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
PENTACHLOROPHENOL	50	48 U	100 U	NA	100 U	48 U	R	NA	NA
PHENANTHRENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
ANTHRACENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
DI-N-BUTYLPHTHALATE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
FLUORANTHENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
PYRENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
BUTYLBENZYLPHTHALATE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
3,3'-DICHLOROBENZIDINE	20	19 U	40 U	NA	40 U	19 U	R	NA	NA
BENZO(a)ANTHRACENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
CHRYSENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
DI-N-OCTYLPHTHALATE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
BENZO(b)FLUORANTHENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
BENZO(k)FLUORANTHENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
BENZO(a)PYRENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
INDENO(1,2,3-cd)PYRENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
DIBENZ(a,h)ANTHRACENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
BENZO(ghi)PERYLENE	10	10 U	20 U	NA	20 U	10 U	R	NA	NA
DILUTION FACTOR:		0.50	1.0		1.0	0.50	0.50		
DATE SAMPLED:		11/07/90	10/29/90		10/29/90	11/07/90	11/08/90		
DATE EXTRACTED:		11/13/90	11/01/90		11/01/90	11/13/90	11/13/90		
DATE ANALYZED:		12/11/90	11/11/90		11/11/90	12/11/90	12/12/90		

NA = NOT ANALYZED

CHERRY POINT
BLANKS
PESTICIDE/PCB AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:		5B00-001-T	5B00-001-F	5B00-001-R	5B00-002-R	5B00-003-R	5B00-004-R	5B02-001-T	5GW00-001-T
QC DESIGNATION:	CRQL	TRIP BLANK	FIELD BLANK	RINSATE BLANK	RINSATE BLANK	RINSATE BLANK	RINSATE BLANK	TRIP BLANK	TRIP BLANK
ALPHA-BHC	0.05	0.05 U	0.10 U	NA	0.10 U	0.05 U	0.05 U	NA	NA
BETA-BHC	0.05	0.05 U	0.10 U	NA	0.10 U	0.05 U	0.05 U	NA	NA
DELTA-BHC	0.05	0.05 U	0.10 U	NA	0.10 U	0.05 U	0.05 U	NA	NA
GAMMA-BHC (LINDANE)	0.05	0.05 U	0.10 U	NA	0.10 U	0.05 U	0.05 U	NA	NA
HEPTACHLOR	0.05	0.05 U	0.10 U	NA	0.10 U	0.05 U	0.05 U	NA	NA
ALDRIN	0.05	0.05 U	0.10 U	NA	0.10 U	0.05 U	0.05 U	NA	NA
HEPTACHLOR EPOXIDE	0.05	0.05 U	0.10 U	NA	0.10 U	0.05 U	0.05 U	NA	NA
ENDOSULFAN I	0.05	0.05 U	0.10 U	NA	0.10 U	0.05 U	0.05 U	NA	NA
DIELDRIN	0.10	0.10 U	0.20 U	NA	0.20 U	0.10 U	0.10 U	NA	NA
4,4'-DDE	0.10	0.10 U	0.20 U	NA	0.20 U	0.10 U	0.10 U	NA	NA
ENDRIN	0.10	0.10 U	0.20 U	NA	0.20 U	0.10 U	0.10 U	NA	NA
ENDOSULFAN II	0.10	0.10 U	0.20 U	NA	0.20 U	0.10 U	0.10 U	NA	NA
4,4'-DDD	0.10	0.10 U	0.20 U	NA	0.20 U	0.10 U	0.10 U	NA	NA
ENDOSULFAN SULFATE	0.10	0.10 U	0.20 U	NA	0.20 U	0.10 U	0.10 U	NA	NA
4,4'-DDT	0.10	0.10 U	0.20 U	NA	0.20 U	0.10 U	0.10 U	NA	NA
METHOXYCHLOR	0.5	0.48 U	1.0 U	NA	1.0 U	0.48 U	0.48 U	NA	NA
ENDRIN KETONE	0.10	0.10 U	0.20 U	NA	0.20 U	0.10 U	0.10 U	NA	NA
ALPHA-CHLORODANE	0.5	0.48 U	1.0 U	NA	1.0 U	0.48 U	0.48 U	NA	NA
GAMMA-CHLORDANE	0.5	0.48 U	1.0 U	NA	1.0 U	0.48 U	0.48 U	NA	NA
TOXAPHENE	1.0	0.96 U	2.0 U	NA	2.0 U	0.96 U	0.96 U	NA	NA
AROCLOR 1016	0.5	0.48 U	1.0 U	0.50 U	1.0 U	0.48 U	0.48 U	NA	NA
AROCLOR 1221	0.5	0.48 U	1.0 U	0.50 U	1.0 U	0.48 U	0.48 U	NA	NA
AROCLOR 1232	0.5	0.48 U	1.0 U	0.50 U	1.0 U	0.48 U	0.48 U	NA	NA
AROCLOR 1242	0.5	0.48 U	1.0 U	0.50 U	1.0 U	0.48 U	0.48 U	NA	NA
AROCLOR 1248	0.5	0.48 U	1.0 U	0.50 U	1.0 U	0.48 U	0.48 U	NA	NA
AROCLOR 1254	1.0	0.96 U	2.0 U	1.0 U	2.0 U	0.96 U	0.96 U	NA	NA
AROCLOR 1260	1.0	0.96 U	2.0 U	1.0 U	2.0 U	0.96 U	0.96 U	NA	NA
DILUTION FACTOR:		1.0	1.0	10	1.0	1.0	1.0		
DATE SAMPLED:		11/07/90	10/29/90	10/29/90	10/29/90	11/07/90	11/08/90		
DATE EXTRACTED:		11/14/90	11/01/90	11/01/90	11/01/90	11/14/90	11/14/90		
DATE ANALYZED:		12/07/90	11/24/90	11/16/90	11/24/90	12/07/90	12/07/90		

NA = NOT ANALYZED

CHERRY POINT
BLANKS -UNFILTERED
INORGANIC AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:			5B00-001-T	5B00-001-F	5B00-001-R	5B00-002-R	5B00-003-R	5B00-004-R	5B02-001-T	5GW00-001-T
QC DESIGNATION:			TRIP BLANK	FIELD BLANK	RINSATE BLANK	RINSATE BLANK	RINSATE BLANK	RINSATE BLANK	TRIP BLANK	TRIP BLANK
	ANALYTICAL METHOD	CRQL								
ALUMINUM	P	200	8.0	17.0	NA	134	8.6	9.7	NA	NA
ANTIMONY	P	60	4.6 UJ	R	NA	R	4.6 UJ	4.6 UJ	NA	NA
ARSENIC	F	10	0.60 UJ	3.0 U	NA	3.0 U	0.60 U	0.60 U	NA	NA
BARIUM	P	200	0.20 U	1.0 U	NA	1.0 U	0.20 U	0.33	NA	NA
BERYLLIUM	P	5	0.20 UJ	1.0 U	NA	1.8	0.20 UJ	0.20 UJ	NA	NA
CADMIUM	P	5	1.0 U	5.0 U	NA	5.0 U	1.0 U	1.0 U	NA	NA
CALCIUM	P	5000	3.4 J	115	NA	124	3.2 J	2.5 J	NA	NA
CHROMIUM	P	10	1.0 UJ	5.0 U	NA	5.0 U	1.0 UJ	1.0 UJ	NA	NA
COBALT	P	50	1.6 U	8.0 U	NA	8.0 U	1.6 U	1.6 U	NA	NA
COPPER	P	25	0.80 U	4.0 U	NA	4.0 U	0.80 U	0.80 U	NA	NA
IRON	P	100	1.4	56.5	NA	200	2.5	1.8	NA	NA
LEAD	F	3	0.20 U	1.0 U	NA	1.0 U	0.20 U	0.22 J	NA	NA
MAGNESIUM	P	5000	0.98	34.0	NA	52.7	1.4	0.98	NA	NA
MANGANESE	P	15	0.40 U	2.0 U	NA	2.5	0.40 U	0.40 U	NA	NA
MERCURY	CV	0.2	0.096 U	0.20 U	NA	0.20 U	0.095 U	0.10 U	NA	NA
NICKEL	P	40	2.6 U	13.0 U	NA	13.0 U	2.6 U	2.6 U	NA	NA
POTASSIUM	P	5000	101 U	503 U	NA	503 U	101 U	101 U	NA	NA
SELENIUM	F	5	0.60 UJ	3.0 U	NA	3.0 U	0.60 UJ	0.60 UJ	NA	NA
SILVER	P	10	0.60 U	3.0 U	NA	3.0 U	0.60 U	0.60 U	NA	NA
SODIUM	P	5000	11.2	59.1	NA	70.9	11.0	11.9	NA	NA
THALLIUM	F	10	0.20 U	3.0 U	NA	3.0 U	0.20 U	0.20 U	NA	NA
VANADIUM	P	50	1.0 UJ	5.0 U	NA	5.0 U	1.0 UJ	1.0 UJ	NA	NA
ZINC	P	20	1.9	9.4 J	NA	7.0 J	2.9	1.4	NA	NA
ANALYTICAL METHOD	DATE SAMPLED:		11/07/90	10/29/90		10/29/90	11/07/90	11/08/90	10/27/90	

F - FURNACE
P - ICP/FLAME AA
CV - COLD VAPOR
C - COLORMETRIC

NA = NOT ANALYZED

CHERRY POINT
BLANKS -FILTERED
INORGANIC AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:			5B00-001-T F	5B00-001-F F	5B00-001-R F	5B00-002-R F	5B00-003-R F	5B00-004-R F	5B02-001-T F	5GW00-001-T F
QC DESIGNATION:			TRIP BLANK	FIELD BLANK	RINSATE BLANK	RINSATE BLANK	RINSATE BLANK	RINSATE BLANK	TRIP BLANK	TRIP BLANK
	ANALYTICAL METHOD	CRQL								
ALUMINUM	P	200	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	P	60	NA	NA	NA	NA	NA	NA	NA	NA
ARSENIC	F	10	NA	NA	NA	NA	NA	NA	NA	NA
BARIUM	P	200	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	P	5	NA	NA	NA	NA	NA	NA	NA	NA
CADMIUM	P	5	NA	NA	NA	NA	NA	NA	NA	NA
CALCIUM	P	5000	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	P	10	NA	NA	NA	NA	NA	NA	NA	NA
COBALT	P	50	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	P	25	NA	NA	NA	NA	NA	NA	NA	NA
IRON	P	100	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	F	3	NA	NA	NA	NA	NA	NA	NA	NA
MAGNESIUM	P	5000	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	P	15	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	CV	0.2	NA	NA	NA	NA	NA	NA	NA	NA
NICKEL	P	40	NA	NA	NA	NA	NA	NA	NA	NA
POTASSIUM	P	5000	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	F	5	NA	NA	NA	NA	NA	NA	NA	NA
SILVER	P	10	NA	NA	NA	NA	NA	NA	NA	NA
SODIUM	P	5000	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	F	10	NA	NA	NA	NA	NA	NA	NA	NA
VANADIUM	P	50	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	P	20	NA	NA	NA	NA	NA	NA	NA	NA

ANALYTICAL METHOD DATE SAMPLED:
F - FURNACE
P - ICP/FLAME AA
CV - COLD VAPOR
C - COLORMETRIC

NA = NOT ANALYZED

CHERRY POINT
BLANKS
VOLATILE AQUEOUS ANALYSIS (UG/L)

SAMPLE NUMBER:		5GW00-001-R	5GW00-001-F	10GW00-001-R	GW00-002-R	10GW00-001-F	10GW00-001-T	10SW00-001-T	10SD00-001-R
QC DESIGNATION:	CRQL	RINSATE BLANK	FIELD BLANK	RINSATE BLANK	RINSATE BLANK	FIELD BLANK	TRIP BLANK	TRIP BLANK	RINSATE BLANK
CHLOROMETHANE	10	10 UJ	10 UJ	10 U	10 U	NA	4 J	10 UJ	10 UJ
BROMOMETHANE	10	10 UJ	10 UJ	10 U	10 U	NA	10 U	10 UJ	10 UJ
VINYL CHLORIDE	10	10 UJ	10 UJ	10 U	10 U	NA	10 U	10 UJ	10 UJ
CHLOROETHANE	10	10 UJ	10 UJ	10 U	10 U	NA	10 U	10 UJ	10 UJ
METHYLENE CHLORIDE	5	5 UJ	4 J	4 J	5 U	NA	3 J	5 UJ	6 J
ACETONE	10	43 J	44 J	10 U	17 J	NA	10 U	15 J	10 UJ
CARBON DISULFIDE	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
1,1-DICHLOROETHENE	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
1,1-DICHLOROETHANE	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
1,2-DICHLOROETHENE (TOTAL)	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
CHLOROFORM	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
1,2-DICHLOROETHANE	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
2-BUTANONE	10	10 UJ	10 UJ	10 U	10 U	NA	10 UJ	10 UJ	10 UJ
1,1,1-TRICHLOROETHANE	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
CARBON TETRACHLORIDE	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
VINYL ACETATE	10	10 UJ	10 UJ	10 U	10 U	NA	10 UJ	10 UJ	10 UJ
BROMODICHLOROMETHANE	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
1,2-DICHLOROPROPANE	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
CIS-1,3-DICHLOROPROPENE	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
TRICHLOROETHENE	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
DIBROMOCHLOROMETHANE	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
1,1,2-TRICHLOROETHANE	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
BENZENE	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
TRANS-1,3-DICHLOROPROPENE	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
BROMOFORM	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
4-METHYL-2-PENTANONE	10	10 UJ	10 UJ	10 U	10 U	NA	10 U	10 UJ	10 UJ
2-HEXANONE	10	10 UJ	10 UJ	10 U	10 U	NA	10 U	10 UJ	10 UJ
TETRACHLOROETHENE	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
1,1,2,2-TETRACHLOROETHANE	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
TOLUENE	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
CHLOROBENZENE	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
ETHYL BENZENE	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
STYRENE	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
TOTAL XYLENES	5	5 UJ	5 UJ	5 U	5 U	NA	5 U	5 UJ	5 UJ
DILUTION FACTOR:		1.0	1.0	1.0	1.0		1.0	1.0	1.0
DATE SAMPLED:		11/13/90	11/13/90	11/29/90	12/04/90		11/27/90	12/02/90	12/02/90
DATE ANALYZED:		11/28/90	11/29/90	12/07/90	12/14/90		12/04/90	12/13/90	12/13/90

NA = NOT ANALYZED

CHERRY POINT

BLANKS

SEMIVOLATILE AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:		5GW00-001-R	5GW00-001-F	10GW00-001-R	GW00-002-R	10GW00-001-F	10GW00-001-T	10SW00-001-T	10SD00-001-R
QC DESIGNATION:		RINSATE BLANK	FIELD BLANK	RINSATE BLANK	RINSATE BLANK	FIELD BLANK	TRIP BLANK	TRIP BLANK	RINSATE BLANK
	CRQL								
PHENOL	10	NA	NA	NA	10 U	10 U	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	10	NA	NA	NA	10 U	10 U	NA	NA	NA
2-CHLOROPHENOL	10	NA	NA	NA	10 U	10 U	NA	NA	NA
1,3-DICHLOROBENZENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
1,4-DICHLOROBENZENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
BENZYL ALCOHOL	10	NA	NA	NA	10 U	10 U	NA	NA	NA
1,2-DICHLOROBENZENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
2-METHYLPHENOL	10	NA	NA	NA	10 U	10 U	NA	NA	NA
BIS(2-CHLOROISOPROPYL)ETHER	10	NA	NA	NA	10 U	10 U	NA	NA	NA
4-METHYLPHENOL	10	NA	NA	NA	10 U	10 U	NA	NA	NA
N-NITROSODI-N-PROPYLAMINE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
HEXACHLOROETHANE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
NITROBENZENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
ISOPHORONE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
2-NITROPHENOL	10	NA	NA	NA	10 U	10 U	NA	NA	NA
2,4-DIMETHYLPHENOL	10	NA	NA	NA	10 U	10 U	NA	NA	NA
BENZOIC ACID	50	NA	NA	NA	48 U	49 U	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
2,4-DICHLOROPHENOL	10	NA	NA	NA	10 U	10 U	NA	NA	NA
1,2,4-TRICHLOROBENZENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
NAPHTHALENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
4-CHLORANILINE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
HEXACHLOROBUTADIENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	10	NA	NA	NA	10 U	10 U	NA	NA	NA
2-METHYLNAPHTHALENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
2,4,6-TRICHLOROPHENOL	10	NA	NA	NA	10 U	10 U	NA	NA	NA
2,4,5-TRICHLOROPHENOL	50	NA	NA	NA	48 U	49 U	NA	NA	NA
2-CHLORONAPHTHALENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
2-NITROANILINE	50	NA	NA	NA	48 U	49 U	NA	NA	NA
DIMETHYL PHTHALATE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
ACENAPHTHYLENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
2,6-DINITROTOLUENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
3-NITROANILINE	50	NA	NA	NA	48 U	49 U	NA	NA	NA
ACENAPHTHENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
2,4-DINITROPHENOL	50	NA	NA	NA	48 U	49 U	NA	NA	NA
4-NITROPHENOL	50	NA	NA	NA	48 U	49 U	NA	NA	NA

CHERRY POINT

BLANKS

SEMIVOLATILE AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:		5GW00-001-R	5GW00-001-F	10GW00-001-R	GW00-002-R	10GW00-001-F	10GW00-001-T	10SW00-001-T	10SD00-001-R
QC DESIGNATION:		RINSATE BLANK	FIELD BLANK	RINSATE BLANK	RINSATE BLANK	FIELD BLANK	TRIP BLANK	TRIP BLANK	RINSATE BLANK
	CRQL								
DIBENZOFURAN	10	NA	NA	NA	10 U	10 U	NA	NA	NA
2,4-DINITROTOLUENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
DIETHYL PHTHALATE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	10	NA	NA	NA	10 U	10 U	NA	NA	NA
FLUORENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
4-NITROANILINE	50	NA	NA	NA	48 U	49 U	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	50	NA	NA	NA	48 U	49 U	NA	NA	NA
N-NITROSODIPHENLYAMINE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	10	NA	NA	NA	10 U	10 U	NA	NA	NA
HEXACHLOROBENZENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
PENTACHLOROPHENOL	50	NA	NA	NA	48 U	49 U	NA	NA	NA
PHENANTHRENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
ANTHRACENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
DI-N-BUTYLPHTHALATE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
FLUORANTHENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
PYRENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
BUTYLBENZYLPHTHALATE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
3,3'-DICHLOROBENZIDINE	20	NA	NA	NA	19 U	20 U	NA	NA	NA
BENZO(a)ANTHRACENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
CHRYSENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
DI-N-OCTYLPHTHALATE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
BENZO(b)FLUORANTHENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
BENZO(k)FLUORANTHENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
BENZO(a)PYRENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
INDENO(1,2,3-cd)PYRENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
DIBENZ(a,h)ANTHRACENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
BENZO(ghi)PERYLENE	10	NA	NA	NA	10 U	10 U	NA	NA	NA
DILUTION FACTOR:					1.0	1.0			
DATE SAMPLED:					12/04/90	12/04/90			
DATE EXTRACTED:					12/06/90	12/06/90			
DATE ANALYZED:					12/18/90	12/15/90			

NA = NOT ANALYZED

CHERRY POINT
BLANKS
PESTICIDE/PCB AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:		5GW00-001-R	5GW00-001-F	10GW00-001-R	GW00-002-R	10GW00-001-F	10GW00-001-T	10SW00-001-T	10SD00-001-R
QC DESIGNATION:	CRQL	RINSATE BLANK	FIELD BLANK	RINSATE BLANK	RINSATE BLANK	FIELD BLANK	TRIP BLANK	TRIP BLANK	RINSATE BLANK
ALPHA-BHC	0.05	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA
BETA-BHC	0.05	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA
DELTA-BHC	0.05	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA
GAMMA-BHC (LINDANE)	0.05	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA
HEPTACHLOR	0.05	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA
ALDRIN	0.05	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA
HEPTACHLOR EPOXIDE	0.05	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA
ENDOSULFAN I	0.05	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA
DIELDRIN	0.10	NA	NA	NA	0.10 U	0.10 U	NA	NA	NA
4,4'-DDE	0.10	NA	NA	NA	0.10 U	0.10 U	NA	NA	NA
ENDRIN	0.10	NA	NA	NA	0.10 U	0.10 U	NA	NA	NA
ENDOSULFAN II	0.10	NA	NA	NA	0.10 U	0.10 U	NA	NA	NA
4,4'-DDD	0.10	NA	NA	NA	0.10 U	0.10 U	NA	NA	NA
ENDOSULFAN SULFATE	0.10	NA	NA	NA	0.10 U	0.10 U	NA	NA	NA
4,4'-DDT	0.10	NA	NA	NA	0.10 U	0.10 U	NA	NA	NA
METHOXYCHLOR	0.5	NA	NA	NA	0.51 U	0.49 U	NA	NA	NA
ENDRIN KETONE	0.10	NA	NA	NA	0.10 U	0.10 U	NA	NA	NA
ALPHA-CHLORODANE	0.5	NA	NA	NA	0.51 U	0.49 U	NA	NA	NA
GAMMA-CHLORDANE	0.5	NA	NA	NA	0.51 U	0.49 U	NA	NA	NA
TOXAPHENE	1.0	NA	NA	NA	1.0 U	0.97 U	NA	NA	NA
AROCLOR 1016	0.5	0.48 U	0.48 U	NA	0.51 U	0.49 U	NA	NA	NA
AROCLOR 1221	0.5	0.48 U	0.48 U	NA	0.51 U	0.49 U	NA	NA	NA
AROCLOR 1232	0.5	0.48 U	0.48 U	NA	0.51 U	0.49 U	NA	NA	NA
AROCLOR 1242	0.5	0.48 U	0.48 U	NA	0.51 U	0.49 U	NA	NA	NA
AROCLOR 1248	0.5	0.48 U	0.48 U	NA	0.51 U	0.49 U	NA	NA	NA
AROCLOR 1254	1.0	0.95 U	0.95 U	NA	1.0 U	0.97 U	NA	NA	NA
AROCLOR 1260	1.0	0.95 U	0.95 U	NA	1.0 U	0.97 U	NA	NA	NA
DILUTION FACTOR:		9.52	9.52		1.0	1.0			
DATE SAMPLED:		11/13/90	11/13/90		12/04/90	12/04/90			
DATE EXTRACTED:		11/19/90	11/19/90		12/06/90	12/06/90			
DATE ANALYZED:		12/11/90	12/11/90		01/10/91	01/10/91			

NA = NOT ANALYZED

CHERRY POINT
BLANKS -UNFILTERED
INORGANIC AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:			5GW00-001-R	5GW00-001-F	10GW00-001-R	GW00-002-R	10GW00-001-F	10GW00-001-T	10SW00-001-T	10SD00-001-R
QC DESIGNATION:			RINSATE BLANK	FIELD BLANK	RINSATE BLANK	RINSATE BLANK	FIELD BLANK	TRIP BLANK	TRIP BLANK	RINSATE BLANK
	ANALYTICAL METHOD	CRQL								
ALUMINUM	P	200	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	P	60	NA	NA	23.0 U	30.0 U	23.0 U	NA	NA	NA
ARSENIC	F	10	NA	NA	3.0 U	3.0 UJ	3.0 U	NA	NA	NA
BARIUM	P	200	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	P	5	NA	NA	1.0 U	1.8 UJ	1.0 U	NA	NA	NA
CADMIUM	P	5	NA	NA	5.0 U	5.0 U	5.0 U	NA	NA	NA
CALCIUM	P	5000	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	P	10	NA	NA	5.0 UJ	6.0 U	5.0 UJ	NA	NA	NA
COBALT	P	50	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	P	25	NA	NA	4.0 U	5.0 U	4.0 U	NA	NA	NA
IRON	P	100	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	F	3	NA	NA	1.0 UJ	2.0 U	1.0 UJ	NA	NA	NA
MAGNESIUM	P	5000	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	P	15	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	CV	0.2	NA	NA	0.20 U	0.20 UJ	0.20 U	NA	NA	NA
NICKEL	P	40	NA	NA	13.0 U	12.0 U	13.0 U	NA	NA	NA
POTASSIUM	P	5000	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	F	5	NA	NA	3.0 U	3.0 UJ	3.0 U	NA	NA	NA
SILVER	P	10	NA	NA	3.0 U	5.0 U	3.0 U	NA	NA	NA
SODIUM	P	5000	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	F	10	NA	NA	1.0 UJ	2.0 U	1.0 UJ	NA	NA	NA
VANADIUM	P	50	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	P	20	NA	NA	5.0 U	5.2 UJ	5.2	NA	NA	NA
DATE SAMPLED:					11/29/90	12/04/90	12/04/90			

ANALYTICAL METHOD
F - FURNACE
P - ICP/FLAME AA
CV - COLD VAPOR
C - COLORMETRIC

NA = NOT ANALYZED

CHERRY POINT
BLANKS -FILTERED
INORGANIC AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:			5GW00-001-R F	5GW00-001-F F	10GW00-001-R F	GW00-002-R F	10GW00-001-F F	10GW00-001-T F	10SW00-001-T F	10SD00-001-R F
QC DESIGNATION:			RINSATE BLANK	FIELD BLANK	RINSATE BLANK	RINSATE BLANK	FIELD BLANK	TRIP BLANK.	TRIP BLANK	RINSATE BLANK
	ANALYTICAL METHOD	CRQL								
ALUMINUM	P	200	NA	NA	NA	NA	NA	NA	NA	NA
ANTIMONY	P	60	NA	NA	23.0 U	30.0 U	23.0 U	NA	NA	NA
ARSENIC	F	10	NA	NA	3.0 U	3.0 UJ	3.0 U	NA	NA	NA
BARIUM	P	200	NA	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	P	5	NA	NA	1.0 U	1.8 UJ	1.0 U	NA	NA	NA
CADMIUM	P	5	NA	NA	5.0 U	5.0 U	5.0 U	NA	NA	NA
CALCIUM	P	5000	NA	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	P	10	NA	NA	5.0 U	6.0 U	5.0 U	NA	NA	NA
COBALT	P	50	NA	NA	NA	NA	NA	NA	NA	NA
COPPER	P	25	NA	NA	4.0 U	5.0 U	4.0 U	NA	NA	NA
IRON	P	100	NA	NA	NA	NA	NA	NA	NA	NA
LEAD	F	3	NA	NA	1.1 J	2.0 U	1.0 UJ	NA	NA	NA
MAGNESIUM	P	5000	NA	NA	NA	NA	NA	NA	NA	NA
MANGANESE	P	15	NA	NA	NA	NA	NA	NA	NA	NA
MERCURY	CV	0.2	NA	NA	0.20 U	0.20 UJ	0.20 U	NA	NA	NA
NICKEL	P	40	NA	NA	13.0 U	12.0 U	13.0 U	NA	NA	NA
POTASSIUM	P	5000	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	F	5	NA	NA	3.0 U	3.0 UJ	3.0 UJ	NA	NA	NA
SILVER	P	10	NA	NA	3.0 U	5.0 U	3.0 U	NA	NA	NA
SODIUM	P	5000	NA	NA	NA	NA	NA	NA	NA	NA
THALLIUM	F	10	NA	NA	1.0 UJ	2.0 U	1.0 UJ	NA	NA	NA
VANADIUM	P	50	NA	NA	NA	NA	NA	NA	NA	NA
ZINC	P	20	NA	NA	10.3	25.6	10.4	NA	NA	NA
ANALYTICAL METHOD	DATE SAMPLED:				11/29/90	12/04/90	12/04/90			

F - FURNACE
P - ICP/FLAME AA
CV - COLD VAPOR
C - COLORMETRIC

NA = NOT ANALYZED

CHERRY POINT
BLANKS
VOLATILE AQUEOUS ANALYSIS (UG/L)

SAMPLE NUMBER:		10B01-001-T	16SD00-001-T	17S000-001-R	17SD00-001-R
QC DESIGNATION:		TRIP BLANK	TRIP BLANK	RINSATE BLANK	RINSATE BLANK
	CRQL				
CHLOROMETHANE	10	10 U	10 UJ	NA	NA
BROMOMETHANE	10	10 U	10 UJ	NA	NA
VINYL CHLORIDE	10	10 U	10 UJ	NA	NA
CHLOROETHANE	10	10 U	10 UJ	NA	NA
METHYLENE CHLORIDE	5	5 U	5 UJ	NA	NA
ACETONE	10	10 U	32 J	NA	NA
CARBON DISULFIDE	5	5 U	5 UJ	NA	NA
1,1-DICHLOROETHENE	5	5 U	5 UJ	NA	NA
1,1-DICHLOROETHANE	5	5 U	5 UJ	NA	NA
1,2-DICHLOROETHENE (TOTAL)	5	5 U	5 UJ	NA	NA
CHLOROFORM	5	5 U	5 UJ	NA	NA
1,2-DICHLOROETHANE	5	5 U	5 UJ	NA	NA
2-BUTANONE	10	10 U	10 UJ	NA	NA
1,1,1-TRICHLOROETHANE	5	5 U	5 UJ	NA	NA
CARBON TETRACHLORIDE	5	5 U	5 UJ	NA	NA
VINYL ACETATE	10	10 U	10 UJ	NA	NA
BROMODICHLOROMETHANE	5	5 U	5 UJ	NA	NA
1,2-DICHLOROPROPANE	5	5 U	5 UJ	NA	NA
CIS-1,3-DICHLOROPROPENE	5	5 U	5 UJ	NA	NA
TRICHLOROETHENE	5	5 U	5 UJ	NA	NA
DIBROMOCHLOROMETHANE	5	5 U	5 UJ	NA	NA
1,1,2-TRICHLOROETHANE	5	5 U	5 UJ	NA	NA
BENZENE	5	5 U	5 UJ	NA	NA
TRANS-1,3-DICHLOROPROPENE	5	5 U	5 UJ	NA	NA
BROMOFORM	5	5 U	5 UJ	NA	NA
4-METHYL-2-PENTANONE	10	10 U	10 UJ	NA	NA
2-HEXANONE	10	10 U	10 UJ	NA	NA
TETRACHLOROETHENE	5	5 U	5 UJ	NA	NA
1,1,2,2-TETRACHLOROETHANE	5	5 U	5 UJ	NA	NA
TOLUENE	5	5 U	5 UJ	NA	NA
CHLOROBENZENE	5	5 U	5 UJ	NA	NA
ETHYL BENZENE	5	5 U	5 UJ	NA	NA
STYRENE	5	5 U	5 UJ	NA	NA
TOTAL XYLENES	5	5 U	5 UJ	NA	NA
DILUTION FACTOR:		1.0	1.0		
DATE SAMPLED:		10/24/90	11/15/90		
DATE ANALYZED:		11/07/90	11/29/90		

NA = NOT ANALYZED

CHERRY POINT

BLANKS

SEMIVOLATILE AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:		10B01-001-T	16SD00-001-T	17S000-001-R	17SD00-001-R
QC DESIGNATION:		TRIP BLANK	TRIP BLANK	RINSATE BLANK	RINSATE BLANK
	CRQL				
PHENOL	10	NA	NA	NA	NA
BIS(2-CHLOROETHYL)ETHER	10	NA	NA	NA	NA
2-CHLOROPHENOL	10	NA	NA	NA	NA
1,3-DICHLOROBENZENE	10	NA	NA	NA	NA
1,4-DICHLOROBENZENE	10	NA	NA	NA	NA
BENZYL ALCOHOL	10	NA	NA	NA	NA
1,2-DICHLOROBENZENE	10	NA	NA	NA	NA
2-METHYLPHENOL	10	NA	NA	NA	NA
BIS(2-CHLOROISOPROPYL)ETHER	10	NA	NA	NA	NA
4-METHYLPHENOL	10	NA	NA	NA	NA
N-NITROSODI-N-PROPYLAMINE	10	NA	NA	NA	NA
HEXACHLOROETHANE	10	NA	NA	NA	NA
NITROBENZENE	10	NA	NA	NA	NA
ISOPHORONE	10	NA	NA	NA	NA
2-NITROPHENOL	10	NA	NA	NA	NA
2,4-DIMETHYLPHENOL	10	NA	NA	NA	NA
BENZOIC ACID	50	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	10	NA	NA	NA	NA
2,4-DICHLOROPHENOL	10	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	10	NA	NA	NA	NA
NAPHTHALENE	10	NA	NA	NA	NA
4-CHLORANILINE	10	NA	NA	NA	NA
HEXACHLOROBUTADIENE	10	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	10	NA	NA	NA	NA
2-METHYLNAPHTHALENE	10	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	10	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	10	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	50	NA	NA	NA	NA
2-CHLORONAPHTHALENE	10	NA	NA	NA	NA
2-NITROANILINE	50	NA	NA	NA	NA
DIMETHYL PHTHALATE	10	NA	NA	NA	NA
ACENAPHTHYLENE	10	NA	NA	NA	NA
2,6-DINITROTOLUENE	10	NA	NA	NA	NA
3-NITROANILINE	50	NA	NA	NA	NA
ACENAPHTHENE	10	NA	NA	NA	NA
2,4-DINITROPHENOL	50	NA	NA	NA	NA
4-NITROPHENOL	50	NA	NA	NA	NA

CHERRY POINT

BLANKS

SEMIVOLATILE AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:		10B01-001-T	16SD00-001-T	17S000-001-R	17SD00-001-R
QC DESIGNATION:		TRIP BLANK	TRIP BLANK	RINSATE BLANK	RINSATE BLANK
	CRQL				
DIBENZOFURAN	10	NA	NA	NA	NA
2,4-DINITROTOLUENE	10	NA	NA	NA	NA
DIETHYL PHTHALATE	10	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	10	NA	NA	NA	NA
FLUORENE	10	NA	NA	NA	NA
4-NITROANILINE	50	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	50	NA	NA	NA	NA
N-NITROSODIPHENLYAMINE	10	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	10	NA	NA	NA	NA
HEXACHLOROBENZENE	10	NA	NA	NA	NA
PENTACHLOROPHENOL	50	NA	NA	NA	NA
PHENANTHRENE	10	NA	NA	NA	NA
ANTHRACENE	10	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	10	NA	NA	NA	NA
FLUORANTHENE	10	NA	NA	NA	NA
PYRENE	10	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	10	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	20	NA	NA	NA	NA
BENZO(a)ANTHRACENE	10	NA	NA	NA	NA
CHRYSENE	10	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	10	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	10	NA	NA	NA	NA
BENZO(b)FLUORANTHENE	10	NA	NA	NA	NA
BENZO(k)FLUORANTHENE	10	NA	NA	NA	NA
BENZO(a)PYRENE	10	NA	NA	NA	NA
INDENO(1,2,3-cd)PYRENE	10	NA	NA	NA	NA
DIBENZ(a,h)ANTHRACENE	10	NA	NA	NA	NA
BENZO(ghi)PERYLENE	10	NA	NA	NA	NA

DILUTION FACTOR:

DATE SAMPLED:

DATE EXTRACTED:

DATE ANALYZED:

NA = NOT ANALYZED

CHERRY POINT
BLANKS
PESTICIDE/PCB AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:		10B01-001-T	16SD00-001-T	17S000-001-R	17SD00-001-R
QC DESIGNATION:		TRIP BLANK	TRIP BLANK	RINSATE BLANK	RINSATE BLANK
	CRQL				
ALPHA-BHC	0.05	NA	NA	NA	NA
BETA-BHC	0.05	NA	NA	NA	NA
DELTA-BHC	0.05	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	0.05	NA	NA	NA	NA
HEPTACHLOR	0.05	NA	NA	NA	NA
ALDRIN	0.05	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	0.05	NA	NA	NA	NA
ENDOSULFAN I	0.05	NA	NA	NA	NA
DIELDRIN	0.10	NA	NA	NA	NA
4,4'-DDE	0.10	NA	NA	NA	NA
ENDRIN	0.10	NA	NA	NA	NA
ENDOSULFAN II	0.10	NA	NA	NA	NA
4,4'-DDD	0.10	NA	NA	NA	NA
ENDOSULFAN SULFATE	0.10	NA	NA	NA	NA
4,4'-DDT	0.10	NA	NA	NA	NA
METHOXYCHLOR	0.5	NA	NA	NA	NA
ENDRIN KETONE	0.10	NA	NA	NA	NA
ALPHA-CHLORODANE	0.5	NA	NA	NA	NA
GAMMA-CHLORDANE	0.5	NA	NA	NA	NA
TOXAPHENE	1.0	NA	NA	NA	NA
AROCLOR 1016	0.5	NA	NA	0.50 U	0.50 U
AROCLOR 1221	0.5	NA	NA	0.50 U	0.50 U
AROCLOR 1232	0.5	NA	NA	0.50 U	0.50 U
AROCLOR 1242	0.5	NA	NA	0.50 U	0.50 U
AROCLOR 1248	0.5	NA	NA	0.50 U	0.50 U
AROCLOR 1254	1.0	NA	NA	1.0 U	1.0 U
AROCLOR 1260	1.0	NA	NA	1.0 U	1.0 U
DILUTION FACTOR:				10	10
DATE SAMPLED:				10/31/90	11/06/90
DATE EXTRACTED:				11/06/90	11/13/90
DATE ANALYZED:				11/16/90	12/06/90

NA = NOT ANALYZED

CHERRY POINT
BLANKS -UNFILTERED
INORGANIC AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:			10B01-001-T	16SD00-001-T	17S000-001-R	17SD00-001-R
QC DESIGNATION:			TRIP BLANK	TRIP BLANK	RINSATE BLANK	RINSATE BLANK
	ANALYTICAL METHOD	CRQL				
ALUMINUM	P	200	NA	NA	NA	NA
ANTIMONY	P	60	NA	NA	NA	NA
ARSENIC	F	10	NA	NA	NA	NA
BARIUM	P	200	NA	NA	NA	NA
BERYLLIUM	P	5	NA	NA	NA	NA
CADMIUM	P	5	NA	NA	NA	NA
CALCIUM	P	5000	NA	NA	NA	NA
CHROMIUM	P	10	NA	NA	NA	NA
COBALT	P	50	NA	NA	NA	NA
COPPER	P	25	NA	NA	NA	NA
IRON	P	100	NA	NA	NA	NA
LEAD	F	3	NA	NA	NA	NA
MAGNESIUM	P	5000	NA	NA	NA	NA
MANGANESE	P	15	NA	NA	NA	NA
MERCURY	CV	0.2	NA	NA	NA	NA
NICKEL	P	40	NA	NA	NA	NA
POTASSIUM	P	5000	NA	NA	NA	NA
SELENIUM	F	5	NA	NA	NA	NA
SILVER	P	10	NA	NA	NA	NA
SODIUM	P	5000	NA	NA	NA	NA
THALLIUM	F	10	NA	NA	NA	NA
VANADIUM	P	50	NA	NA	NA	NA
ZINC	P	20	NA	NA	NA	NA

ANALYTICAL METHOD DATE SAMPLED:
F - FURNACE
P - ICP/FLAME AA
CV - COLD VAPOR
C - COLORMETRIC

NA = NOT ANALYZED

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CHERRY POINT
BLANKS -FILTERED
INORGANIC AQUEOUS ANALYSIS (ug/l)

SAMPLE NUMBER:			10B01-001-T F	16SD00-001-T F	17S000-001-R F	17SD00-001-R F
QC DESIGNATION:			TRIP BLANK	TRIP BLANK	RINSATE BLANK	RINSATE BLANK
	ANALYTICAL METHOD	CRQL				
ALUMINUM	P	200	NA	NA	NA	NA
ANTIMONY	P	60	NA	NA	NA	NA
ARSENIC	F	10	NA	NA	NA	NA
BARIUM	P	200	NA	NA	NA	NA
BERYLLIUM	P	5	NA	NA	NA	NA
CADMIUM	P	5	NA	NA	NA	NA
CALCIUM	P	5000	NA	NA	NA	NA
CHROMIUM	P	10	NA	NA	NA	NA
COBALT	P	50	NA	NA	NA	NA
COPPER	P	25	NA	NA	NA	NA
IRON	P	100	NA	NA	NA	NA
LEAD	F	3	NA	NA	NA	NA
MAGNESIUM	P	5000	NA	NA	NA	NA
MANGANESE	P	15	NA	NA	NA	NA
MERCURY	CV	0.2	NA	NA	NA	NA
NICKEL	P	40	NA	NA	NA	NA
POTASSIUM	P	5000	NA	NA	NA	NA
SELENIUM	F	5	NA	NA	NA	NA
SILVER	P	10	NA	NA	NA	NA
SODIUM	P	5000	NA	NA	NA	NA
THALLIUM	F	10	NA	NA	NA	NA
VANADIUM	P	50	NA	NA	NA	NA
ZINC	P	20	NA	NA	NA	NA

ANALYTICAL METHOD DATE SAMPLED:
F - FURNACE
P - ICP/FLAME AA
CV - COLD VAPOR
C - COLORMETRIC

NA = NOT ANALYZED

CHERRY POINT
BLANKS
MISCELLANEOUS AQUEOUS ANALYTES (MG/L)

Sample Number	Total Petroleum Hydrocarbons	Total Organic Carbon	Total Suspended Solids	Biological Oxygen Demand	Cyanide
5B00-001-F	0.19 U	0.80	NA	NA	NA
5B00-001-R	0.19 U	0.81	NA	NA	NA
5B00-003-R	0.19 U	NA	NA	NA	NA
5GW00-001-F	0.19 U	NA	4.0 U	NA	NA
5GW00-001-R	0.20 U	NA	4.0 U	NA	NA
10GW00-001-F	NA	0.65	NA	2.0 U	NA
10GW00-001-R	NA	0.61	4.0 U	2.0 U	NA
10GW00-002-R	NA	0.70	4.0 U	2.0 U	10.0 U
16GW00-001-F	NA	NA	NA	NA	10.0 U
16SD00-001-R	NA	NA	4.0 U	NA	10.0 UR
17SO00-001-R	0.20 U	0.76	NA	NA	NA
17SD00-001-R	0.19 U	0.68	NA	NA	NA

APPENDIX E

RFI ACTION LEVELS

NUS CORPORATION AND SUBSIDIARIES — STANDARD CALCULATION SHEET

CLIENT: MCAS, Cherry Point	FILE NO.: 3F24-0302	BY: AEH	PAGE 1 OF 1
SUBJECT: Action Levels		CHECKED BY: GLZ	DATE: 04/02/91

Objective

Determine action levels for soil and groundwater, based on EPA guidance

Relevant Equations

Groundwater:

Class A/B carcinogens –

$$\text{Concentration (mg/L)} = \frac{10^{-6}}{\text{CSF}\,\frac{\text{kg-day}}{\text{mg}}} \times \frac{70\text{ kg}}{2\text{ L/day}} = \frac{3.5\times10^{-5}}{\text{CSF}}$$

Class C carcinogens –

$$\text{Concentration (mg/L)} = \frac{10^{-5}}{\text{CSF kg-day/mg}} \times \frac{70\text{ kg}}{2\text{ L/day}} = \frac{3.5\times10^{-4}}{\text{CSF}}$$

Noncarcinogens

$$\text{Concentration} = \frac{\text{RFD mg/kg-day} \times 70\text{ kg}}{2\text{ L/day}} = 35\text{ RFD}$$

Soil:

Class A/B Carcinogens –

$$\text{Concentration (mg/kg)} = \frac{10^{-6}}{\text{CSF kg-day/mg}} \times \frac{70\text{ kg}}{100\text{ mg/day}} \times 10^{6}\text{ mg/kg} = \frac{0.7}{\text{CSF}}$$

Class C carinogens –

$$\text{Concentration (mg/kg)} = \frac{10^{-5}}{\text{CSF kg-day/mg}} \times \frac{70\text{ kg}}{100\text{ mg/day}} \times 10^{6}\text{ mg/kg} = \frac{7}{\text{CSF}}$$

Noncarinogens –

$$\text{Concentration (mg/kg)} = \frac{\text{RFD mg/kg-day} \times 16\text{ kg} \times 10^{6}\text{ mg/kg}}{200\text{ mg/day}} = 80{,}000\text{ RFD}$$

RCRA ACTION LEVELS
CHERRY POINT RFI

MARCH 15, 1991

CALCULATION OF THE ACTION LEVELS AS PER THE PROPOSED CORRECTIVE ACTION RULE (JULY 27, 19

COMPOUND	CARCINOGENIC CLASS	MCL mg/l	RfD (oral) mg/kg/day	CSF (oral) kg-day/mg	SOIL ACTION LEVELS mg/kg CARC.	SOIL ACTION LEVELS mg/kg NONCARC.	GRDWATER ACTION LEVEL mg/l CARC.	GRDWATER ACTION LEVEL mg/l NONCARC.
Acetone			1.00E-01			8.00E+03		3.50E+00
2-Butanone			5.00E-02			4.00E+03		1.75E+00
Benzene	A	5.00E-03		2.90E-02	2.41E+01		1.21E-03	
Toluene	D	1.00E+00	2.00E-01			1.60E+04		7.00E+00
Ethylbenzene	D	7.00E-01	1.00E-01			8.00E+03		3.50E+00
Xylenes	D	1.00E+01	2.00E+00			1.60E+05		7.00E+01
Chlorobenzene	D	1.00E-01	2.00E-02			1.60E+03		7.00E-01
1,1,2,2-Tetrachloroethane	C			2.00E-01	3.50E+01		1.75E-03	
1,1,1-Trichloroethane	D	2.00E-01	9.00E-02			7.20E+03		3.15E+00
1,1-Dichloroethane	C		1.00E-01			8.00E+03		3.50E+00
1,2-Dichloroethane	B2	5.00E-03		9.10E-02	7.69E+00		3.85E-04	
Chloroethane		-	-	-	-	-	-	-
Tetrachloroethene	B2	5.00E-03	1.00E-02	5.10E-02	1.37E+01	8.00E+02	6.86E-04	3.50E-01
Trichloroethene	B2	5.00E-03		1.10E-02	6.36E+01		3.18E-03	
1,2-Dichloroethene (total)	D	1.00E-01	2.00E-02			1.60E+03		7.00E-01
1,1-Dichloroethene	C	7.00E-03	9.00E-03	6.00E-01	1.17E+01	7.20E+02	5.83E-04	3.15E-01
Vinyl chloride	A	2.00E-03		1.90E+00	3.68E-01		1.84E-05	
Carbon tetrachloride	B2	5.00E-03	7.00E-04	1.30E-01	5.38E+00	5.60E+01	2.69E-04	2.45E-02
Chloroform	B2	1.00E-01	1.00E-02	6.10E-03	1.15E+02	8.00E+02	5.74E-03	3.50E-01
Methylene chloride	B2	5.00E-03	6.00E-02	7.50E-03	9.33E+01	4.80E+03	4.67E-03	2.10E+00
Chloromethane	C			1.30E-02	5.38E+02		2.69E-02	
Carbon disulfide			1.00E-01			8.00E+03		3.50E+00
Phenol	D		6.00E-01			4.80E+04		2.10E+01
4-Methylphenol	C		5.00E-02			4.00E+03		1.75E+00
2,4-Dimethylphenol			2.00E-02			1.60E+03		7.00E-01
4-Chloro-3-methylphenol			2.00E+00			1.60E+05		7.00E+01
4-Nitrophenol	-	-	-	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	B2	4.00E-03	2.00E-02	1.40E-02	5.00E+01	1.60E+03	2.50E-03	7.00E-01
Diethylphthalate	D		8.00E-01			6.40E+04		2.80E+01
Acenaphthene			6.00E-02			4.80E+03		2.10E+00
Anthracene			3.00E-01			2.40E+04		1.05E+01
Benzo(a)anthracene	B2	1.00E-04		1.67E+00	4.19E-01		2.10E-05	
Benzo(b)fluoranthene	B2	2.00E-04		1.61E+00	4.35E-01		2.17E-05	
Benzo(g,h,i)perylene	D							
Benzo(a)pyrene	B2	2.00E-04		1.15E+01	6.09E-02		3.04E-06	
Chrysene	B2	2.00E-04		5.06E-02	1.38E+01		6.92E-04	
Dibenzo(a,h)anthracene	B2	3.00E-04		1.28E+01	5.47E-02		2.73E-06	
Fluoranthene			4.00E-02			3.20E+03		1.40E+00
Fluorene	D		4.00E-02			3.20E+03		1.40E+00

COMPOUND	CARCINOGENIC CLASS	MCL mg/l	RfD (oral) mg/kg/day	CSF (oral) kg-day/mg	SOIL ACTION LEVELS mg/kg CARC.	SOIL ACTION LEVELS mg/kg NONCARC.	GRDWATER ACTION LEVEL mg/l CARC.	GRDWATER ACTION LEVEL mg/l NONCARC.
Indeno(1,2,3-cd)pyrene	B2	4.00E-04		2.67E+00	2.62E-01		1.31E-05	
Naphthalene	D		4.00E-03			3.20E+02		1.40E-01
2-Methylnaphthalene								
Phenanthrene	-	-	-	-	-	-	-	-
Pyrene	D		3.00E-02			2.40E+03		1.05E+00
1,4-Dichlorobenzene	C	7.50E-02		2.40E-02	2.92E+02		1.46E-02	
Dibenzofuran	-	-	-	-	-	-	-	-
alpha-BHC	B2			6.30E+00	1.11E-01		5.56E-06	
beta-BHC	C			1.80E+00	3.89E+00		1.94E-04	
gamma-BHC	B2	2.00E-04	3.00E-04	1.30E+00	5.38E-01	2.40E+01	2.69E-05	1.05E-02
delta-BHC	-	-	-	-	-	-	-	-
Heptachlor	B2	4.00E-04	5.00E-04	4.50E+00	1.56E-01	4.00E+01	7.78E-06	1.75E-02
Heptachlor epoxide	B2	2.00E-04		9.10E+00	7.69E-02		3.85E-06	
DDT	B2		5.00E-04	3.40E-01	2.06E+00	4.00E+01	1.03E-04	1.75E-02
DDD	B2		5.00E-04	2.40E-01	2.92E+00	4.00E+01	1.46E-04	1.75E-02
DDE	B2		5.00E-04	3.40E-01	2.06E+00	4.00E+01	1.03E-04	1.75E-02
Endrin	D	2.00E-02	3.00E-04			2.40E+01		1.05E-02
Endrin ketone	-	-	-	-	-	-	-	-
Endosulfan I			5.00E-05			4.00E+00		1.75E-03
Endosulfan II			5.00E-05			4.00E+00		1.75E-03
Endosulfan sulfate	-	-	-	-	-	-	-	-
Aldrin	B2		3.00E-05	1.70E+01	4.12E-02	2.40E+00	2.06E-06	1.05E-03
Dieldrin	B2		5.00E-05	1.60E+01	4.38E-02	4.00E+00	2.19E-06	1.75E-03
Methoxychlor		4.00E-02	5.00E-03			4.00E+02		1.75E-01
Aroclor 1254	B2	5.00E-04		7.70E+00	9.09E-02		4.55E-06	
Aroclor 1260	B2	5.00E-04		7.70E+00	9.09E-02		4.55E-06	
Antimony		1.00E-02	4.00E-04			3.20E+01		1.40E-02
Arsenic		5.00E-02	1.00E-03			8.00E+01		3.50E-02
Barium		2.00E+00	5.00E-02			4.00E+03		1.75E+00
Beryllium	B2	1.00E-03	5.00E-03	4.30E+00	1.63E-01	4.00E+02	8.14E-06	1.75E-01
Cadmium		5.00E-03	5.00E-04			4.00E+01		1.75E-02
Chromium (III)		1.00E-01	1.00E+00			8.00E+04		3.50E+01
Copper		1.30E+00	3.70E-02			2.96E+03		1.30E+00
Lead		5.00E-03	1.40E-03			1.12E+02		4.90E-02
Manganese			1.00E-01			8.00E+03		3.50E+00
Mercury		2.00E-03	3.00E-04			2.40E+01		1.05E-02
Nickel		1.00E-01	2.00E-02			1.60E+03		7.00E-01
Silver		5.00E-02	3.00E-03			2.40E+02		1.05E-01
Vanadium			7.00E-03			5.60E+02		2.45E-01
Zinc			2.00E-01			1.60E+04		7.00E+00
Cyanide		2.00E-01	2.00E-02			1.60E+03		7.00E-01

APPENDIX F

REPRESENTATIVE CONCENTRATIONS

NUS CORPORATION AND SUBSIDIARIES — STANDARD CALCULATION SHEET

CLIENT: MCAS, Cherry Point	FILE NO.: 3F24-0302	BY: AEH	PAGE 1 OF 3
SUBJECT: Representative Concentrations		CHECKED BY: GZZ	DATE: 04/01/91

Calculate Standard Deviation

$$S = \sqrt{\frac{\sum X_i^2 - \frac{(\sum x_i)^2}{n}}{n-1}}$$

where: S = standard deviation of sample set
X_i = individual sample value
n = number of samples

Sample Calculation

benzo(a)anthracene in soil (0.5-2.5') (Unit 5)

X_i	X_i^2
195*	38025
3050*	9,302,500
1000*	1,000,000
4200	17,640,000
800*	640,000
415*	172,225
185*	34,225
Σ= 9845	Σ= 28,826,975

*= ½ detection limit

n = 7

$$S = \sqrt{\frac{28,826,975 - \frac{(9845)^2}{7}}{6}} = 1580.12$$

NUS CORPORATION AND SUBSIDIARIES — STANDARD CALCULATION SHEET

CLIENT:	FILE NO.:	BY:	PAGE 2 OF 3
MCAS, Cherry Point	3F24-0302	AEH	
SUBJECT: Representative Concentration		CHECKED BY: GLZ	DATE: 04/01/91

Calculate 95% Confidence Limit

$$UCL = \bar{X} \pm t_{1-\frac{\alpha}{2}} \frac{S}{\sqrt{n}}$$

$df = n-1 = 7-1 = 6$

$\alpha = 5\% = 0.05$

$\alpha/2 = 0.025$

$1-\alpha/2 = 0.975$

$t_{1-\alpha/2} =$ (Table A-2, Gilbert, 1989)

$$UCL = \frac{9845}{7} + 2.447\left(\frac{1580.12}{\sqrt{7}}\right)$$

$UCL = 2867.85$

2867.85 < 4200 (max. concentration) ∴ use 2900

Sample Calculation

chloroform in groundwater (Unit 16)

X_i	X_i^2
2.5*	6.25
2.5*	6.25
2.5*	6.25
14*	196
2.5*	6.25
25*	625
2.5*	6.25
2.5*	6.25
25*	625
2.5*	6.25
4	16
2.5*	6.25
2.5*	6.25
Σ= 90.5	Σ: 1518.25

* = Nondetection limit

NUS CORPORATION AND SUBSIDIARIES — STANDARD CALCULATION SHEET

CLIENT: MCAS, Cherry Point	FILE NO.: 3F24-0302	BY: AEH	PAGE 3 OF 3
SUBJECT: Representative Concentration		CHECKED BY: GLZ	DATE: 04/01/91

$$S = \sqrt{\frac{1518.25 - \frac{(90.5)^2}{13}}{12}} = 8.60$$

$$df = 13 - 1 = 12$$

$$UCL = \frac{90.5}{13} + 2.179\left(\frac{8.60}{\sqrt{13}}\right) = 12.16$$

12.16 > 4 (max. conc) ∴ use 4

Table A2 Quantiles of the t Distribution (Values of t Such That 100p% of the Distribution Is Less Than t_p)

Degrees of Freedom	$t_{0.60}$	$t_{0.70}$	$t_{0.80}$	$t_{0.90}$	$t_{0.95}$	$t_{0.975}$	$t_{0.990}$	$t_{0.995}$
1	.325	.727	1.376	3.078	6.314	12.706	31.821	63.657
2	.289	.617	1.061	1.886	2.920	4.303	6.965	9.925
3	.277	.584	.978	1.638	2.353	3.182	4.541	5.841
4	.271	.569	.941	1.533	2.132	2.776	3.747	4.604
5	.267	.559	.920	1.476	2.015	2.571	3.365	4.032
6	.265	.553	.906	1.440	1.943	2.447	3.143	3.707
7	.263	.549	.896	1.415	1.895	2.365	2.998	3.499
8	.262	.546	.889	1.397	1.860	2.306	2.896	3.355
9	.261	.543	.883	1.383	1.833	2.262	2.821	3.250
10	.260	.542	.879	1.372	1.812	2.228	2.764	3.169
11	.260	.540	.876	1.363	1.796	2.201	2.718	3.106
12	.259	.539	.873	1.356	1.782	2.179	2.681	3.055
13	.259	.538	.870	1.350	1.771	2.160	2.650	3.012
14	.258	.537	.868	1.345	1.761	2.145	2.624	2.977
15	.258	.536	.866	1.341	1.753	2.131	2.602	2.947
16	.258	.535	.865	1.337	1.746	2.120	2.583	2.921
17	.257	.534	.863	1.333	1.740	2.110	2.567	2.898
18	.257	.534	.862	1.330	1.734	2.101	2.552	2.878
19	.257	.533	.861	1.328	1.729	2.093	2.539	2.861
20	.257	.533	.860	1.325	1.725	2.086	2.528	2.845
21	.257	.532	.859	1.323	1.721	2.080	2.518	2.831
22	.256	.532	.858	1.321	1.717	2.074	2.508	2.819
23	.256	.532	.858	1.319	1.714	2.069	2.500	2.807
24	.256	.531	.857	1.318	1.711	2.064	2.492	2.797
25	.256	.531	.856	1.316	1.708	2.060	2.485	2.787
26	.256	.531	.856	1.315	1.706	2.056	2.479	2.779
27	.256	.531	.855	1.314	1.703	2.052	2.473	2.771
28	.256	.530	.855	1.313	1.701	2.048	2.467	2.763
29	.256	.530	.854	1.311	1.699	2.045	2.462	2.756
30	.256	.530	.854	1.310	1.697	2.042	2.457	2.750
40	.255	.529	.851	1.303	1.684	2.021	2.423	2.704
60	.254	.527	.848	1.296	1.671	2.000	2.390	2.660
120	.254	.526	.845	1.289	1.658	1.980	2.358	2.617
∞	.253	.524	.842	1.282	1.645	1.960	2.326	2.576

Source: From Fisher and Yates, 1974. Used by permission.
This table is first used in Section 4.4.2.

APPENDIX F.4

UNIT 17

UPPER 95% CONFIDENCE LIMIT ON THE ARITHMETIC MEAN

Enter Chemical: Aroclor-1260
Enter Matrix: Soil

Enter number of samples: 17
Degrees of Freedom: 16

Enter sample results (use 1/2 CRDL for non-detects)

Sample No.	Sample Results	(Xi-Xbar)**2
1	1800	33389363
2	1200	40683386
3	7400	31809.77
4	6700	771503.9
5	3700	15041622
6	4600	8870586.
7	8300	520774.5
8	45000	1.4004e9
9	7600	468.5952
10	220	54145358
11	880	44867932
12	5900	2816869.
13	21000	1.8014e8
14	4400	10101927
15	22	57098470
16	110	55776296
17	10000	5864374.
18		0
19		0
20		0
21		0
22		0
23		0
24		0
25		0
26		0
27		0
28		0
29		0
30		0

Arith. Mean: 7578.353 Std. Dev.: 10927.32

Upper 95% confidence limit on mean: 13196.91

Representative Concentration: 13196.91

UPPER 95% CONFIDENCE LIMIT ON THE ARITHMETIC MEAN

Enter Chemical: Aroclor-1254
Enter Matrix: Soil

Enter number of samples: 17
Degrees of Freedom: 16

Enter sample results (use 1/2 CRDL for non-detects)

Sample No.	Sample Results	(Xi-Xbar)**2
1	23	63355045
2	24	63339127
3	280	59329866
4	225	60180175
5	23	63355045
6	230	60102624
7	230	60102624
8	2350	31726050
9	220	60257776
10	11000	9104774.
11	22	63370965
12	235	60025123
13	215	60335427
14	120000	1.255e10
15	400	57495644
16	22	63370965
17	205	60490879
18		0
19		0
20		0
21		0
22		0
23		0
24		0
25		0
26		0
27		0
28		0
29		0
30		0

Arith. Mean: 7982.588 Std. Dev.: 28986.90

Upper 95% confidence limit on mean: 22886.94

Representative Concentration: 22886.94

UPPER 95% CONFIDENCE LIMIT ON THE ARITHMETIC MEAN

1995

Enter Chemical: Aroclor-1260
Enter Matrix: Sediment

Enter number of samples: 18
Degrees of Freedom: 17

Enter sample results (use 1/2 CRDL for non-detects)

Sample No.	Sample Results	(Xi-Xbar)**2
1	270	1209.494
2	890	342485.0
3	160	20960.60
4	76	52339.27
5	480	30702.83
6	430	15680.60
7	350	2045.049
8	440	18285.05
9	610	93160.60
10	127	31604.94
11	200	10978.38
12	59	60406.72
13	25	78275.60
14	170	18165.05
15	86	47863.72
16	160	20960.60
17	930	390902.8
18	23	79398.72
19		0
20		0
21		0
22		0
23		0
24		0
25		0
26		0
27		0
28		0
29		0
30		0

Arith. Mean: 304.7778 Std. Dev.: 278.1689

Upper 95% confidence limit on mean: 443.1200

Representative Concentration: 443.1200

APPENDIX F.1

UNIT 5

UPPER 95% CONFIDENCE LIMIT ON THE ARITHMETIC MEAN

Enter Chemical: Benzo(a)anthracene
Enter Matrix: Soil

Enter number of samples: 7
Degrees of Freedom: 6

Enter sample results (use 1/2 CRDL for non-detects)

Sample No.	Sample Results	(Xi-Xbar)**2
1	195	1467559.
2	3050	2701327.
3	1000	165184.2
4	4200	7804041.
5	800	367755.6
6	415	982930.6
7	185	1491888.
8		0
9		0
10		0
11		0
12		0
13		0
14		0
15		0
16		0
17		0
18		0
19		0
20		0
21		0
22		0
23		0
24		0
25		0
26		0
27		0
28		0
29		0
30		0

Arith. Mean: 1406.429 Std. Dev.: 1580.121

Upper 95% confidence limit on mean: 2867.849

Representative Concentration: 2867.849

UPPER 95% CONFIDENCE LIMIT ON THE ARITHMETIC MEAN

Enter Chemical: Benzo(b)fluoranthene
Enter Matrix: Soil

Enter number of samples: 7
Degrees of Freedom: 6

Enter sample results (use 1/2 CRDL for non-detects)

Sample No.	Sample Results	(Xi-Xbar)**2
1	195	1235273.
2	3050	3040041.
3	600	499041.3
4	3900	6726613.
5	800	256469.9
6	415	794644.9
7	185	1257602.
8		0
9		0
10		0
11		0
12		0
13		0
14		0
15		0
16		0
17		0
18		0
19		0
20		0
21		0
22		0
23		0
24		0
25		0
26		0
27		0
28		0
29		0
30		0

Arith. Mean: 1306.429 Std. Dev.: 1517.107

Upper 95% confidence limit on mean: 2709.569

Representative Concentration: 2709.569

UPPER 95% CONFIDENCE LIMIT ON THE ARITHMETIC MEAN

Enter Chemical: Benzo(k)fluoranthene
Enter Matrix: Soil

Enter number of samples: 7
Degrees of Freedom: 6

Enter sample results (use 1/2 CRDL for non-detects)

Sample No.	Sample Results	(Xi-Xbar)**2
1	195	856946.9
2	3050	3722143.
3	600	271143.4
4	2600	2188286.
5	800	102857.7
6	415	498032.7
7	185	875561.2
8		0
9		0
10		0
11		0
12		0
13		0
14		0
15		0
16		0
17		0
18		0
19		0
20		0
21		0
22		0
23		0
24		0
25		0
26		0
27		0
28		0
29		0
30		0

Arith. Mean: 1120.714 Std. Dev.: 1191.286

Upper 95% confidence limit on mean: 2222.510

Representative Concentration: 2222.510

UPPER 95% CONFIDENCE LIMIT ON THE ARITHMETIC MEAN

2000

Enter Chemical: Benzo(a)pyrene
Enter Matrix: Soil

Enter number of samples: 7
Degrees of Freedom: 6

Enter sample results (use 1/2 CRDL for non-detects)

Sample No.	Sample Results	(Xi-Xbar)**2
1	195	1114533.
2	3050	3237429.
3	910	116086.2
4	3200	3799715.
5	800	203143.4
6	415	698418.4
7	185	1135747.
8		0
9		0
10		0
11		0
12		0
13		0
14		0
15		0
16		0
17		0
18		0
19		0
20		0
21		0
22		0
23		0
24		0
25		0
26		0
27		0
28		0
29		0
30		0

Arith. Mean: 1250.714 Std. Dev.: 1310.539

Upper 95% confidence limit on mean: 2462.804

Representative Concentration: 2462.804

UPPER 95% CONFIDENCE LIMIT ON THE ARITHMETIC MEAN

2001

Enter Chemical: Dibenzo(a,h)anthracene
Enter Matrix: Soil

Enter number of samples: 7
Degrees of Freedom: 6

Enter sample results (use 1/2 CRDL for non-detects)

Sample No.	Sample Results	(Xi-Xbar)**2
1	195	540225
2	3050	4494400
3	665	70225
4	1200	72900
5	800	16900
6	415	265225
7	185	555025
8		0
9		0
10		0
11		0
12		0
13		0
14		0
15		0
16		0
17		0
18		0
19		0
20		0
21		0
22		0
23		0
24		0
25		0
26		0
27		0
28		0
29		0
30		0

Arith. Mean: 930 Std. Dev.: 1001.241

Upper 95% confidence limit on mean: 1856.027

Representative Concentration: 1856.027

UPPER 95% CONFIDENCE LIMIT ON THE ARITHMETIC MEAN

2002

Enter Chemical: Indeno(1,2,3-cd)pyrene
Enter Matrix: Soil

Enter number of samples: 7
Degrees of Freedom: 6

Enter sample results (use 1/2 CRDL for non-detects)

Sample No.	Sample Results	(Xi-Xbar)**2
1	195	849030.6
2	3050	3738698.
3	770	120012.8
4	2400	1647556.
5	800	100127.0
6	415	492002.0
7	185	867559.2
8		0
9		0
10		0
11		0
12		0
13		0
14		0
15		0
16		0
17		0
18		0
19		0
20		0
21		0
22		0
23		0
24		0
25		0
26		0
27		0
28		0
29		0
30		0

Arith. Mean: 1116.429 Std. Dev.: 1141.270

Upper 95% confidence limit on mean: 2171.965 Representative Concentration: 2171.965

UPPER 95% CONFIDENCE LIMIT ON THE ARITHMETIC MEAN

2003

Enter Chemical: Dieldrin
Enter Matrix: Soil

Enter number of samples: 7
Degrees of Freedom: 6

Enter sample results (use 1/2 CRDL for non-detects)

Sample No.	Sample Results	(Xi-Xbar)**2
1	4.5	133.5676
2	46	896.5747
3	43	725.9176
4	4.8	126.7233
5	5	122.2604
6	4.8	126.7233
7	4.3	138.2304
8		0
9		0
10		0
11		0
12		0
13		0
14		0
15		0
16		0
17		0
18		0
19		0
20		0
21		0
22		0
23		0
24		0
25		0
26		0
27		0
28		0
29		0
30		0

Arith. Mean: 16.05714 Std. Dev.: 19.45078

Upper 95% confidence limit on mean: 34.04676

Representative Concentration: 34.04676

UPPER 95% CONFIDENCE LIMIT ON THE ARITHMETIC MEAN

(2004

Enter Chemical: Aroclor-1260
Enter Matrix: Soil

Enter number of samples: 18
Degrees of Freedom: 17

Enter sample results (use 1/2 CRDL for non-detects)

Sample No.	Sample Results	(Xi-Xbar)**2
1	18.5	42313218
2	19	42306713
3	5100	2025957.
4	260	39229692
5	1300	27283501
6	3100	11719401
7	580	35323541
8	370	37863853
9	360	37987020
10	320	38481689
11	90000	6.9683e9
12	10000	12087018
13	2000	20460796
14	410	37373184
15	140	40747299
16	2200	18691451
17	1200	28338174
18	43	41995080
19		0
20		0
21		0
22		0
23		0
24		0
25		0
26		0
27		0
28		0
29		0
30		0

Arith. Mean: 6523.361 Std. Dev.: 20979.79

Upper 95% confidence limit on mean: 16957.28 Representative Concentration: 16957.28

APPENDIX G

RISK ASSESSMENT CALCULATIONS

NUS CORPORATION AND SUBSIDIARIES — STANDARD CALCULATION SHEET

CLIENT: MCAS Cherry Point	FILE NO.: 3F24-0302	BY: AEH	PAGE 1 OF 2
SUBJECT: Dermal contact w/ Surface Soil		CHECKED BY: GLE	DATE: 04/01/91

Objective

Determine intakes and carcinogenic / noncarcinogenic risks through dermal contact with surface soil

Relevant Equation

$$\text{Intake} = \frac{C_{soil} \times SA \times AF \times ABS \times EF \times ED \times 10^{-6}}{BW \times LT \times AT}$$

where:
- C_{soil} = chemical concentration in soil
- SA = skin surface area available for contact (cm^2/day)
- AF = adherence factor (mg soil/cm^2)
- ABS = absorption factor (dimensionless)
- EF = exposure frequency (days/yr)
- ED = exposure duration (years)
- BW = receptor body weight (kg)
- LT = lifetime (years)
- AT = averaging time (days/year)
- 10^{-6} = conversion factor (kg/mg)

Assumptions

SA = 3160 cm^2 (head, arms, hands, neck) - adults
2260 cm^2 - adolescent trespassers
AF = 1.45 mg/cm^2 (commercial potting soil)
ABS = 0.10 - volatiles
0.05 - semivolatiles, pesticides
0.03 - PCBs
0 - metals
EF = 12 days/yr (1 day/month)
ED = 20 years (carcinogenic risk only)
BW = 70 kg - adults
50 kg - adolescent trespassers
AT = 365 days/yr
LT = 70 years (carcinogenic risk only)

CLIENT: MCAS, Cherry Point	FILE NO.: 3F24-0302	BY: AEH	PAGE 2 OF 2
SUBJECT: Dermal Contact w/ Soil		CHECKED BY: GLE	DATE: 04/01/91

Sample calculation

Dieldrin — concentration = 0.034 mg/kg

Noncarcinogenic risk (adults) —

$$\text{Intake} = \frac{\left(0.034\,\frac{mg}{kg}\right)\left(3160\,\frac{cm^2}{day}\right)\left(0.05\right)\left(1.45\,\frac{mg}{cm^2}\right)\left(12\,\frac{days}{yr}\right)\left(10^{-6}\,\frac{kg}{mg}\right)}{(70\,kg)\left(365\,\frac{days}{yr}\right)} = 3.66\times10^{-9}\,\frac{mg}{kg\text{-}day}$$

Hazard Quotient = Intake / Reference Dose

$$= 3.66\times10^{-9}\,\frac{mg}{kg\text{-}day} \Big/ 5\times10^{-5}\,\frac{mg}{kg\text{-}day}$$

$$= 7.3\times10^{-5}$$

Carcinogenic risk —

$$\text{Intake} = \frac{\left(0.034\,\frac{mg}{kg}\right)\left(3160\,\frac{cm^2}{day}\right)\left(0.05\right)\left(1.45\,\frac{mg}{cm^2}\right)\left(12\,\frac{days}{yr}\right)\left(10^{-6}\,\frac{kg}{mg}\right)\left(20\,yr\right)}{(70\,kg)\left(365\,\frac{days}{yr}\right)(70\,yr)} = 1.05\times10^{-9}\,\frac{mg}{kg\text{-}da}$$

Risk = Intake × CSF

$$= \left(1.05\times10^{-9}\,\frac{mg}{kg\text{-}day}\right)\left(16\,\frac{kg\text{-}day}{mg}\right)$$

$$= 1.7\times10^{-8}$$

Reference: EPA, December 1989. Risk Assessment Guidance for Superfund - Volume I - Human Health Evaluation Manual (Part A) - Interim Final. EPA 540/1-89-002

CLIENT: MCAS Cherry Point	FILE NO.: 3F24-0302	BY: AEH	PAGE 1 OF 2
SUBJECT: Incidental Ingestion of Soil		CHECKED BY: GLZ	DATE: 04/01/91

Objective

Determine intakes and carcinogenic/noncarcinogenic risks through incidental ingestion of surface soil

Relevant Equation

$$\text{Intake} = \frac{C_{soil} \times IR \times F_i \times EF \times ED \times 10^{-6}}{BW \times LT \times AT}$$

where:
- C_{soil} = chemical concentration in soil (mg/kg)
- IR = ingestion rate (mg soil/day)
- F_i = fraction ingested from contaminated source (decimal fraction)
- EF = exposure frequency (days/yr)
- ED = exposure duration (years)
- BW = receptor body weight (kg)
- AT = averaging time (days/yr)
- 10^{-6} = conversion factor (kg/mg)
- LT = lifetime (years)

Assumptions

- IR = 100 mg/day (age groups > 6 yrs)
- F_i = 0.10 (10% from contaminated source)
- EF = 12 days/yr (1 day/month)
- ED = 20 years (carcinogenic risk only)
- BW = 70 kg - adult base personnel
  - 50 kg - adolescent trespassers
- AT = 365 days/yr
- LT = 70 years. (carcinogenic risk only)

NUS CORPORATION AND SUBSIDIARIES	STANDARD CALCULATION SHEET

CLIENT: MCAS Cherry Point	FILE NO.: 3F24-0302	BY: AEH	PAGE 2 OF 2
SUBJECT: Incidental Ingestion of Soil		CHECKED BY: GLT	DATE: 04/01/91

Sample Calculations

Dieldrin - Concentration = 0.034 mg/kg (Unit 5)

Noncarcinogenic risk (adolescents)

$$\text{Intake} = \frac{\left(0.034\,\frac{mg}{kg}\right)\left(100\,\frac{mg}{day}\right)(0.10)\left(\frac{12\,days}{yr}\right)\left(\frac{10^{-6}\,kg}{mg}\right)}{(50\,kg)\left(\frac{365\,days}{yr}\right)} = 2.24\times10^{-10}\,\frac{mg}{kg\text{-}day}$$

Hazard Quotient = Intake / Reference Dose

$$= 2.24\times10^{-10}\,mg/kg/day \,/\, 5\times10^{-5}\,mg/kg/day$$

$$= 4.5\times10^{-6}$$

Carcinogenic Risk (adults)

$$\text{Intake} = \frac{\left(0.034\,\frac{mg}{kg}\right)\left(100\,\frac{mg}{day}\right)(0.10)\left(\frac{12\,days}{yr}\right)\left(\frac{10^{-6}\,kg}{mg}\right)(20\,yr)}{(70\,kg)(70\,yr)\left(\frac{365\,days}{yr}\right)} = 4.56\times10^{-11}\,\frac{mg}{kg\,day}$$

Risk = Intake × Cancer Slope Factor

$$= \left(4.56\times10^{-11}\,\frac{mg}{kg\cdot day}\right)\left(16\,\frac{kg\text{-}day}{mg}\right) = 7.3\times10^{-10}$$

Reference: EPA, December 1989. Risk Assessment Guidance for Superfund - Volume I - Human Health Evaluation Manual (Part A) - Interim Final. EPA 540/1-89-002

CLIENT: MCAS, Cherry Point	FILE NO.: 3F24-0302	BY: AEH	PAGE 1 OF 2
SUBJECT: Ingestion of Groundwater		CHECKED BY: GLB	DATE: 04/01/91

Objective

Determine intakes and carcinogenic/noncarcinogenic risks through ingestion of groundwater

Relevant Equation

$$\text{Intake} = \frac{C_{water} \times IR \times EF \times ED}{BW \times LT \times AT}$$

where: C_{water} = chemical concentration in groundwater (mg/L)
IR = ingestion rate (L/day)
EF = exposure frequency (days/year)
ED = exposure duration (years)
BW = body weight (kg)
LT = lifetime (years)
AT = averaging time (days/year).

Assumptions

IR = 2 L/day - adult
1 L/day - children
EF = 365 days/year (constant exposure)
ED = 70 years (lifetime exposure) (carcinogenic risk only)
BW = 70 kg (adults)
10 kg (children)
LT = 70 years (carcinogenic risk only)
AT = 365 days/year

NUS CORPORATION AND SUBSIDIARIES — STANDARD CALCULATION SHEET

CLIENT:	FILE NO.:	BY:	PAGE 2 OF 2
MCAS Cherry Point	3F24-0302	AEH	
SUBJECT: Ingestion of Groundwater		CHECKED BY: GLZ	DATE: 04/01/91

Sample Calculations

Methylene chloride - Concentration = 0.007 mg/L

Noncarcinogenic risk - child resident -

$$\text{Intake} = \frac{\left(0.007\frac{mg}{L}\right)\left(1\frac{L}{day}\right)\left(365\frac{days}{yr}\right)}{(10\,kg)\left(365\frac{days}{yr}\right)} = 7\times10^{-4}\frac{mg}{kg\text{-}day}$$

Hazard Quotient = Intake / Reference Dose

$$= 7\times10^{-4}\frac{mg}{kg\text{-}day} \Big/ 6\times10^{-2}\frac{mg}{kg\text{-}day}$$

$$= 1.2\times10^{-2}$$

Carcinogenic risk - adult -

$$\text{Intake} = \frac{\left(0.007\frac{mg}{L}\right)\left(2\frac{L}{day}\right)\left(365\frac{days}{yr}\right)(70\,yr)}{(70\,kg)(70\,yr)\left(365\frac{days}{yr}\right)} = 2\times10^{-4}\frac{mg}{kg\text{-}day}$$

Risk = Intake × Cancer Slope Factor

$$= \left(2\times10^{-4}\frac{mg}{kg\text{-}day}\right)\left(7.5\times10^{-3}\frac{kg\text{-}day}{mg}\right)$$

$$= 1.5\times10^{-6}$$

Reference: EPA, December 1989. Risk Assessment Guidance for Superfund - Volume I - Human Health Evaluation Manual (Part A) - Interim Final. EPA 540/1-89-002

CLIENT: MCAS, Cherry Point	FILE NO.: 3F24-0302	BY: AEH	PAGE 1 OF 2
SUBJECT: Ingestion of Fish		CHECKED BY: GLZ	DATE: 04/01/91

Objective

Determine intakes and carcinogenic/noncarcinogenic risks through ingestion of fish.

Relevant Equation

$$\text{Intake} = \frac{C_{water} \times BCF \times IR \times F_i \times EF \times ED \times 10^{-3}}{BW \times LT \times AT}$$

where:
- C_{water} = maximum concentration in surface water (µg/L
- BCF = chemical-specific bioconcentration factor (µg/kg/µg/L)
- IR = ingestion rate (kg/meal)
- F_i = fraction ingested from contaminated source (decimal fraction)
- EF = exposure frequency (meals/year)
- ED = exposure duration (yr)
- BW = receptor body weight (kg)
- LT = lifetime (yr)
- AT = averaging time (days/yr)
- 10^{-3} = conversion factor (mg/µg)

Assumptions

- IR = 0.284 kg/meal (EPA, December 1989)
- F_i = 0.10 (conservative assumption)
- EF = 48 meals/yr (EPA, December 1989)
- ED = 30 years (average time at one residence) (carc. risk only)
- BW = 70 kg - adult
- LT = 70 yr (carcinogenic risk only)
- AT = 365 days/yr

NUS CORPORATION AND SUBSIDIARIES — STANDARD CALCULATION SHEET

CLIENT: MCAS, Cherry Point	FILE NO.: 3F24-0302	BY: AEH	PAGE 2 OF 2
SUBJECT:		CHECKED BY: GLZ	DATE: 04/01/91

Sample Calculations

Chloroform in water – concentration = 17 µg/L (Unit 16)

Noncarcinogenic risk –

$$\text{Intake} = \frac{\left(17\,\frac{\mu g}{L}\right)\left(5.56\,\frac{\mu g}{kg}\,\frac{L}{\mu g}\right)\left(0.284\,\frac{kg}{meal}\right)\left(48\,\frac{meal}{yr}\right)(0.10)\left(10^{-3}\,\frac{mg}{\mu g}\right)}{(70\,kg)\left(365\,\frac{day}{yr}\right)} = 5.04\times10^{-6}\,\frac{mg}{kg\text{-}day}$$

Hazard Quotient = Intake / Reference Dose

$$= 5.04\times10^{-6}\,\frac{mg}{kg\text{-}day} \Big/ 1\times10^{-2}\,\frac{mg}{kg\text{-}day}$$

$$= 5.04\times10^{-4}$$

Carcinogenic Risk –

$$\text{Intake} = \frac{\left(17\,\frac{\mu g}{L}\right)\left(5.56\,\frac{\mu g}{kg}\,\frac{L}{\mu g}\right)\left(0.284\,\frac{kg}{meal}\right)\left(48\,\frac{meal}{yr}\right)(0.10)\left(10^{-3}\,\frac{mg}{\mu g}\right)(30\,yr)}{(70\,kg)\left(365\,\frac{day}{yr}\right)(70\,yr)} = 2.16\times10^{-6}\,\frac{mg}{kg\text{-}day}$$

Risk = Intake × CSF

$$= \left(2.16\times10^{-6}\,\frac{mg}{kg\text{-}day}\right)\left(6.1\times10^{-3}\,\frac{kg\text{-}day}{mg}\right) =$$

$$= 1.3\times10^{-8}$$

APPENDIX G.1

UNIT 5

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: UNIT 5
LOCATION: MCAS, CHERRY POINT
DATE: 03/28/91

EXPOSURE SCENARIO NUMBER 1 - BASE PERSONNEL

RELEVANT EQUATIONS: DEX = (C x SA x AF x ABS x EF x ED)/(BW x AT x LT x 1E6)

ASSUMPTIONS: ADULT:

C	= CONCENTRATION IN SOIL (MG/KG)		
SA	= EXPOSED SURFACE AREA OF SKIN (SQ CM/DAY):		3160
AF	= ADHERENCE FACTOR (MG/SQ CM):		1.45
ABS	= ABSORPTION FRACTION: (DECIMAL FRACTION)	VOCS:	.1
		BNAS/PESTICIDES:	.05
		PCBS:	.03
EF1	= YOUTH EXPOSURE FREQUENCY (DAYS/YEAR)		0
EF2	= ADULT EXPOSURE FREQUENCY (DAYS/YEAR):		12
ED	= ADULT EXPOSURE DURATION (YEARS):		20
BW1	= BODY WEIGHT ADOLESCENT (KG):		0
BW2	= BODY WEIGHT ADULT (KG):		70
AT	= AVERAGING TIME (DAYS/YEAR):		365
LT	= LIFETIME (YEARS):		70

DETERMINE CONVERSION FACTORS:
DEX = (C)*(1MG/1000 UG)*(SA SQ CM)*(AF MG/SQ CM)*(ABS)*(EF DAYS/YEAR)/(AT DAYS/YEAR)/(BW KG)/(1 KG/1E6 MG)*

DOSEyouth = (CF1)*(C)*(ABS) CF1 = 0 * ED AND LT ARE USED FOR CARCINOGENIC RISK CALCULATION ONLY.
DOSEadult = (CF2)*(C)*(ABS) CF2 = 2.152e-9 (NOT USED IN CONVERSION FACTORS)

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)
UNIT 5
EXPOSURE SCENARIO NUMBER 1 - BASE PERSONNEL
CALCULATE DOSES:

CHEMICAL	C (UG/KG)	ABSORPTION FRACTION	YOUTH DOSE (MG/KG/DAY)	ADULT DOSE (MG/KG/DAY)	TIME-WEIGHTED DOSE (MG/KG/DAY)	RFD (MG/KG/DAY)	CSF (KG-DAY/MG)
Benzo(a)anthracene	2900	.05	0	3.120e-7	8.915e-8		1.67e0
Benzo(b)fluoranthene	2700	.05	0	2.905e-7	8.301e-8		1.61e0
Benzo(k)fluoranthene	2200	.05	0	2.367e-7	6.763e-8		1.61e0
Benzo(a)pyrene	2500	.05	0	2.690e-7	7.686e-8		1.15e1
Dibenzo(a,h)anthracene	1200	.05	0	1.291e-7	3.689e-8		1.28e1
Indeno(1,2,3-cd)pyrene	2200	.05	0	2.367e-7	6.763e-8		2.67e0
Dieldrin	34	.05	0	3.658e-9	1.045e-9	5e-5	1.6e1
Aroclor	17000	.03	0	1.098e-6	3.136e-7		7.7e0
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
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			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE THREE)
UNIT 5
EXPOSURE SCENARIO NUMBER 1 - BASE PERSONNEL
DETERMINE HAZARD INDICES AND CANCER RISK:

CHEMICAL	HAZARD INDEX YOUTH	HAZARD INDEX ADULT	CANCER RISK LIFETIME
Benzo(a)anthracene	0	0	1.489e-7
Benzo(b)fluoranthene	0	0	1.336e-7
Benzo(k)fluoranthene	0	0	1.089e-7
Benzo(a)pyrene	0	0	8.839e-7
Dibenzo(a,h)anthracene	0	0	4.722e-7
Indeno(1,2,3-cd)pyrene	0	0	1.806e-7
Dieldrin	0	7.317e-5	1.672e-8
Aroclor	0	0	2.415e-6
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
TOTAL	0	7.317e-5	4.359e-6

2017

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: UNIT 5
LOCATION: MCAS, CHERRY POINT
DATE: 03/28/91

EXPOSURE SCENARIO NUMBER 2 - ADOLESCENT TRESPASSERS

RELEVANT EQUATIONS: DEX = (C x SA x AF x ABS x EF x ED)/(BW x AT x LT x 1E6)

ASSUMPTIONS: ADULT:

C	= CONCENTRATION IN SOIL (MG/KG)		
SA	= EXPOSED SURFACE AREA OF SKIN (SQ CM/DAY):		2260
AF	= ADHERENCE FACTOR (MG/SQ CM):		1.45
ABS	= ABSORPTION FRACTION: (DECIMAL FRACTION)	VOCS:	.1
		BNAS/PESTICIDES:	.05
		PCBS:	.03
EF1	= YOUTH EXPOSURE FREQUENCY (DAYS/YEAR)		12
EF2	= ADULT EXPOSURE FREQUENCY (DAYS/YEAR):		0
ED	= YOUTH EXPOSURE DURATION (YEARS):		0
BW1	= BODY WEIGHT ADOLESCENT (KG):		50
BW2	= BODY WEIGHT ADULT (KG):		0
AT	= AVERAGING TIME (DAYS/YEAR):		365
LT	= LIFETIME (YEARS):		70

DETERMINE CONVERSION FACTORS:
DEX = (C)*(1MG/1000 UG)*(SA SQ CM)*(AF MG/SQ CM)*(ABS)*(EF DAYS/YEAR)/(AT DAYS/YEAR)/(BW KG)/(1 KG/1E6 MG)*

DOSEyouth = (CF1)*(C)*(ABS) CF1 = 2.155e-9 * ED AND LT ARE USED FOR CARCINOGENIC RISK CALCULATION ONLY.
DOSEadult = (CF2)*(C)*(ABS) CF2 = 0 (NOT USED IN CONVERSION FACTORS)

2013

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)
UNIT 5
EXPOSURE SCENARIO NUMBER 2 - ADOLESCENT TRESPASSERS
CALCULATE DOSES:

CHEMICAL	C (UG/KG)	ABSORPTION FRACTION	YOUTH DOSE (MG/KG/DAY)	ADULT DOSE (MG/KG/DAY)	TIME-WEIGHTED DOSE (MG/KG/DAY)	RFD (MG/KG/DAY)	CSF (KG-DAY/MG)
Benzo(a)anthracene	2900	.05	3.124e-7	0	0		1.67e0
Benzo(b)fluoranthene	2700	.05	2.909e-7	0	0		1.61e0
Benzo(k)fluoranthene	2200	.05	2.370e-7	0	0		1.61e0
Benzo(a)pyrene	2500	.05	2.693e-7	0	0		1.15e1
Dibenzo(a,h)anthracene	1200	.05	1.293e-7	0	0		1.28e1
Indeno(1,2,3-cd)pyrene	2200	.05	2.370e-7	0	0		2.67e0
Dieldrin	34	.05	3.663e-9	0	0	5e-5	1.6e1
Aroclor	17000	.03	1.099e-6	0	0		7.7e0
			0	0	0		
			0	0	0		
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RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE THREE)
UNIT 5
EXPOSURE SCENARIO NUMBER 2 - ADOLESCENT TRESPASSERS
DETERMINE HAZARD INDICES AND CANCER RISK:

CHEMICAL	HAZARD INDEX YOUTH	HAZARD INDEX ADULT	CANCER RISK LIFETIME
Benzo(a)anthracene	0	0	0
Benzo(b)fluoranthene	0	0	0
Benzo(k)fluoranthene	0	0	0
Benzo(a)pyrene	0	0	0
Dibenzo(a,h)anthracene	0	0	0
Indeno(1,2,3-cd)pyrene	0	0	0
Dieldrin	7.326e-5	0	0
Aroclor	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
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	0	0	0
TOTAL	7.326e-5	0	0

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: UNIT 5
LOCATION: MCAS, CHERRY POINT
DATE: 03/28/91

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH PICA INGESTION ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

EXPOSURE SCENARIO NUMBER 1 - BASE PERSONNEL AND ADOLESCENT TRESPASSERS

REFERENCE: EPA, DECEMBER 1989

RELEVANT EQUATION: IEX = (C x IR x Fi x EF x ED)/(BW x LT x 365 x 1E6)

WHERE:
C = MEAN CONCENTRATION IN SOIL SAMPLE (MG/KG)
IR = SOIL INGESTION RATE (MG/EVENT)
EF = EXPOSURE FREQUENCY (EVENTS/YEAR)
Fi = FRACTION FROM CONTAMINATED SOURCE
ED = EXPOSURE DURATION (YEARS)
BW = BODY WEIGHT (KG)
LT = LIFETIME (YEARS)

ENTER INPUT PARAMETERS:

ADULT:		YOUTH:	
IR:	100	IR:	100
EF:	12	EF:	12
Fi:	.1	Fi:	.1
ED:	20	ED:	0
BW:	70	BW:	50
LT:	70	LT:	70

DETERMINE CONVERSION FACTORS:

ADULT:
CF: 4.697e-9 (AVG ANNUAL DOSE)

YOUTH:
CF: 6.575e-9 (AVG ANNUAL DOSE)

2021

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)
UNIT 5
EXPOSURE SCENARIO NUMBER 1 - BASE PERSONNEL AND ADOLESCENT TRESPASSERS
CALCULATE DOSES:

CHEMICAL	C (MG/KG)	YOUTH DOSE (MG/KG/DAY)	ADULT DOSE (MG/KG/DAY)	TIME-WEIGHTED DOSE (MG/KG/DAY)	RFD (MG/KG/DAY)	CSF (KG-DAY/MG)
Benzo(a)anthracene	2.9	1.907e-8	1.362e-8	3.892e-9		1.67e0
Benzo(b)fluoranthene	2.7	1.775e-8	1.268e-8	3.623e-9		1.61e0
Benzo(k)fluoranthene	2.2	1.447e-8	1.033e-8	2.952e-9		1.61e0
Benzo(a)pyrene	2.5	1.644e-8	1.174e-8	3.355e-9		1.15e1
Dibenzo(a,h)anthracene	1.2	7.890e-9	5.636e-9	1.610e-9		1.28e1
Indeno(1,2,3-cd)pyrene	2.2	1.447e-8	1.033e-8	2.952e-9		2.67e0
Dieldrin	.034	2.24e-10	1.60e-10	4.56e-11	5e-5	1.6e1
Aroclor	17	1.118e-7	7.984e-8	2.281e-8		7.7e0
		0	0	0		
		0	0	0		
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RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE THREE)
UNIT 5
EXPOSURE SCENARIO NUMBER 1 - BASE PERSONNEL AND ADOLESCENT TRESPASSERS
DETERMINE HAZARD INDICES AND CANCER RISK:

CHEMICAL	HAZARD INDEX ADOLESCENT	HAZARD INDEX ADULT	CANCER RISK LIFETIME
Benzo(a)anthracene	0	0	6.499e-9
Benzo(b)fluoranthene	0	0	5.833e-9
Benzo(k)fluoranthene	0	0	4.753e-9
Benzo(a)pyrene	0	0	3.858e-8
Dibenzo(a,h)anthracene	0	0	2.061e-8
Indeno(1,2,3-cd)pyrene	0	0	7.882e-9
Dieldrin	4.471e-6	3.194e-6	7.30e-10
Aroclor	0	0	1.757e-7
	0	0	0
	0	0	0
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	0	0	0
TOTAL	4.471e-6	3.194e-6	2.605e-7

2023

RISK ASSESSMENT SPREADSHEET - INGESTION OF GAME FISH

SITE NAME: UNIT 5
LOCATION: MCAS, CHERRY POINT, NORTH CAROLINA
DATE: 05/01/91

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH INGESTION OF GAME FISH ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

EXPOSURE SCENARIO NUMBER 1 - FISH INGESTION BY ADULTS

REFERENCE: EPA, DECEMBER 1989

RELEVANT EQUATION: IEX = (C x BCF x IR x FI x EF x ED)/(BW x AT x LT)

ASSUMPTIONS:

C	= CONCENTRATION IN SURFACE WATER BODY (UG/L)	
BCF	= BIOCONCENTRATION FACTOR (UG/KG/UG/L)	
IR	= AVERAGE FISH INGESTION RATE (KG/MEAL):	.284
FI	= FRACTION INGESTED FROM CONTAMINATED SOURCE: (DIMENSIONLESS)	.1
EF	= EXPOSURE FREQUENCY (MEALS/YEAR):	48
ED	= EXPOSURE DURATION (YEARS)*:	30
BW	= RECEPTOR BODY WEIGHT (KG):	70
AT	= AVERAGING TIME (DAYS/YEAR):	365
LT	= LIFETIME (YEARS)*:	70

* ED AND LT USED FOR CARCINOGENIC RISK CHARACTERIZATION ONLY

DETERMINE CONVERSION FACTORS:

ANNUAL AVERAGE INTAKE:	CF1 =	5.335e-8
LIFETIME AVERAGE INTAKE:	CF2 =	2.287e-8

2024

RISK ASSESSMENT SPREADSHEET - INGESTION OF GAME FISH (PAGE TWO)
UNIT 5
EXPOSURE SCENARIO NUMBER 1 - FISH INGESTION BY ADULTS
CALCULATE DOSES:

CHEMICAL	C (UG/L)	BCF (UG/KG/UG/L)	ANNUAL AVERAGE DOSE (MG/KG/DAY)	LIFETIME AVERAGE DOSE (MG/KG/DAY)	RFD (MG/KG/DAY)	CSF (KG-DAY/MG)
Arsenic	2	3.33e2	3.553e-5	1.523e-5	1e-3	
			0	0		
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RISK ASSESSMENT SPREADSHEET - INGESTION OF GAME FISH (PAGE THREE)
UNIT 5
EXPOSURE SCENARIO NUMBER 1 - FISH INGESTION BY ADULTS
DETERMINE HAZARD INDICES AND CANCER RISK:

CHEMICAL	HAZARD INDEX	CANCER RISK LIFETIME
Arsenic	3.553e-2	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
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	0	0
	0	0
	0	0
	0	0
	0	0
TOTAL	3.553e-2	0

RISK ASSESSMENT SPREADSHEET - SURFACE WATER EXPOSURES

SITE NAME: UNIT 5
LOCATION: MCAS, CHERRY POINT, NORTH CAROLINA
DATE: 05/01/91

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
TWO EXPOSURE SCENARIOS ARE CONSIDERED: DERMAL CONTACT WITH WATER AND
ACCIDENTAL INGESTION OF WATER DURING SWIMMING. ASSUMPTIONS ARE OUTLINED BELOW.

EXPOSURE SCENARIO NUMBER 1 - ADULT RECREATIONAL EXPOSURES

REFERENCE: EPA, DECEMBER 1989

INGESTION: IEX = (C x CR x ET x EF x ED)/(BW x LT x 365) * ED AND LT TERMS FOR CARCINOGENIC RISK ASSESSMENT ONLY.

WHERE:
C = SURFACE WATER CONCENTRATION (MG/L)
CR = CONTACT RATE (LITERS/HOUR)
ET = EXPOSURE TIME (HOURS/DAY)
EF = EXPOSURE FREQUENCY (DAYS/YEAR)
ED = EXPOSURE DURATION (YEARS)*
BW = BODY WEIGHT (KG)
LT = LIFETIME (YEARS)*

DERMAL CONTACT: DEX = (C x SA x PC x ET x EF)/(BW x LT x 1000 x 365)

WHERE:
C = SURFACE WATER CONCENTRATION (MG/L)
SA = SURFACE AREA AVAILABLE FOR CONTACT (SQ CM)
PC = DERMAL PERMEABILITY CONSTANT (CM/HR)
ET = EXPOSURE TIME (HOURS/DAY)
EF = EXPOSURE FREQUENCY (DAYS/YEAR)
ED = EXPOSURE DURATION (YEARS)*
BW = BODY WEIGHT (KG)
LT = LIFETIME (YEARS)*

ENTER INPUT PARAMETERS:

INGESTION:	ADULT EXPOSURE		YOUTH EXPOSURE		
CR:	.05	CONVERSION	N/A	CONVERSION	
ET:	2.6	FACTOR= 1.018e-4	N/A	FACTOR=	N/A
EF:	20		N/A		
ED:	30	TIME-WEIGHTED CONVERSION	N/A		
BW:	70	FACTOR= 4.361e-5	N/A		
LT:	70		N/A		

DERMAL:	ADULT EXPOSURE		YOUTH EXPOSURE		
SA:	19400	CONVERSION	N/A	CONVERSION	
PC:	8e-4	FACTOR= 3.159e-5	N/A	FACTOR=	N/A
ET:	2.6		N/A		
EF:	20	TIME-WEIGHTED CONVERSION	N/A		
ED:	30	FACTOR= 1.354e-5	N/A		
BW:	70		N/A		
LT:	70		N/A		

RISK ASSESSMENT SPREADSHEET - SWIMMING (PAGE TWO)
UNIT 5
EXPOSURE SCENARIO NUMBER 1 - ADULT RECREATIONAL EXPOSURES
CALCULATE HAZARD INDICES (YOUTH):

CHEMICAL	CONCENTRATION (MG/L)	INGESTION DOSE-YOUTH	DERMAL DOSE-YOUTH	REFERENCE DOSE ING.	YOUTH HAZARD INDEX-ING.	YOUTH HAZARD INDEX-DERMAL	TOTAL HAZARD INDEX
Trichloroethene	.005	N/A	N/A		0	0	0
Arsenic	.002	N/A	N/A	1e-3	N/A	N/A	N/A
Cyanide	.011	N/A	N/A	2e-2	N/A	N/A	N/A
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
		N/A	N/A		0	0	0
TOTAL HAZARD INDEX					N/A	N/A	N/A

2023

RISK ASSESSMENT SPREADSHEET - SWIMMING (PAGE THREE)
UNIT 5
EXPOSURE SCENARIO NUMBER 1 - ADULT RECREATIONAL EXPOSURES
CALCULATE HAZARD INDICES (ADULT):

CHEMICAL	CONCENTRATION (MG/L)	INGESTION DOSE-ADULT	DERMAL DOSE-ADULT	REFERENCE DOSE-ING.	ADULT HAZARD INDEX-ING.	ADULT HAZARD INDEX-DERMAL	TOTAL HAZARD INDEX
Trichloroethene	.005	5.088e-7	1.579e-7		0	0	0
Arsenic	.002	2.035e-7	6.317e-8	1e-3	2.035e-4	6.317e-5	2.667e-4
Cyanide	.011	1.119e-6	3.475e-7	2e-2	5.597e-5	1.737e-5	7.334e-5
		0	0		0	0	0
		0	0		0	0	0
		0	0		0	0	0
		0	0		0	0	0
		0	0		0	0	0
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		0	0		0	0	0
		0	0		0	0	0
		0	0		0	0	0
TOTAL HAZARD INDEX					2.595e-4	8.055e-5	3.400e-4

RISK ASSESSMENT SPREADSHEET - SWIMMING (PAGE FOUR)
UNIT 5
EXPOSURE SCENARIO NUMBER 1 - ADULT RECREATIONAL EXPOSURES
CALCULATE INCREMENTAL CANCER RISK

CHEMICAL	CONCENTRATION (MG/L)	INGESTION DOSE-ADULT	DERMAL DOSE-ADULT	CANCER SLOPE FACTOR-ING.	CANCER RISK INGESTION	CANCER RISK DERMAL	TOTAL CANCER RISK
Trichloroethene	.005	2.181e-7	6.769e-8	1.1e-2	2.399e-9	7.45e-10	3.143e-9
Arsenic	.002	8.722e-8	2.707e-8		0	0	0
Cyanide	.011	4.797e-7	1.489e-7		0	0	0
		0	0		0	0	0
		0	0		0	0	0
		0	0		0	0	0
		0	0		0	0	0
		0	0		0	0	0
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		0	0		0	0	0
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		0	0		0	0	0
		0	0		0	0	0
		0	0		0	0	0
		0	0		0	0	0
TOTAL RISK					2.399e-9	7.45e-10	3.143e-9

APPENDIX G.4

UNIT 17

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: UNIT 17
LOCATION: MCAS, CHERRY POINT
DATE: 03/27/91

EXPOSURE SCENARIO NUMBER 1 - BASE PERSONNEL

RELEVANT EQUATIONS: DEX = (C x SA x AF x ABS x EF x ED)/(BW x AT x LT x 1E6)

ASSUMPTIONS: ADULT:

C	= CONCENTRATION IN SOIL (MG/KG)		
SA	= EXPOSED SURFACE AREA OF SKIN (SQ CM/DAY):		3160
AF	= ADHERENCE FACTOR (MG/SQ CM):		1.45
ABS	= ABSORPTION FRACTION: (DECIMAL FRACTION)	VOCS:	.1
		BNAS/PESTICIDES:	.05
		PCBS:	.03
EF1	= YOUTH EXPOSURE FREQUENCY (DAYS/YEAR)		0
EF2	= ADULT EXPOSURE FREQUENCY (DAYS/YEAR):		12
ED	= ADULT EXPOSURE DURATION (YEARS):		20
BW1	= BODY WEIGHT ADOLESCENT (KG):		0
BW2	= BODY WEIGHT ADULT (KG):		70
AT	= AVERAGING TIME (DAYS/YEAR):		365
LT	= LIFETIME (YEARS):		70

DETERMINE CONVERSION FACTORS:
DEX = (C)*(1MG/1000 UG)*(SA SQ CM)*(AF MG/SQ CM)*(ABS)*(EF DAYS/YEAR)/(AT DAYS/YEAR)/(BW KG)/(1 KG/1E6 MG)*

DOSEyouth = (CF1)*(C)*(ABS) CF1 = 0 * ED AND LT ARE USED FOR CARCINOGENIC RISK CALCULATION ONLY.
DOSEadult = (CF2)*(C)*(ABS) CF2 = 2.152e-9 (NOT USED IN CONVERSION FACTORS)

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)
UNIT 17
EXPOSURE SCENARIO NUMBER 1 - BASE PERSONNEL
CALCULATE DOSES:

CHEMICAL	C (UG/KG)	ABSORPTION FRACTION	YOUTH DOSE (MG/KG/DAY)	ADULT DOSE (MG/KG/DAY)	TIME-WEIGHTED DOSE (MG/KG/DAY)	RFD (MG/KG/DAY)	CSF (KG-DAY/MG)
Aroclor (total)	36000	.03	0	2.324e-6	6.641e-7		7.7e0
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
			0	0	0		
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			0	0	0		

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE THREE)
UNIT 17
EXPOSURE SCENARIO NUMBER 1 - BASE PERSONNEL
DETERMINE HAZARD INDICES AND CANCER RISK:

CHEMICAL	HAZARD INDEX YOUTH	HAZARD INDEX ADULT	CANCER RISK LIFETIME
Aroclor (total)	0	0	5.113e-6
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
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	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
TOTAL	0	0	5.113e-6

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: UNIT 17
LOCATION: MCAS, CHERRY POINT
DATE: 03/27/91

EXPOSURE SCENARIO NUMBER 2 - ADOLESCENT TRESPASSERS

RELEVANT EQUATIONS: DEX = (C x SA x AF x ABS x EF x ED)/(BW x AT x LT x 1E6)

ASSUMPTIONS: YOUTH:

C	= CONCENTRATION IN SOIL (MG/KG)		
SA	= EXPOSED SURFACE AREA OF SKIN (SQ CM/DAY):		2260
AF	= ADHERENCE FACTOR (MG/SQ CM):		1.45
ABS	= ABSORPTION FRACTION: (DECIMAL FRACTION)	VOCS:	.1
		BNAS/PESTICIDES:	.05
		PCBS:	.03
EF1	= YOUTH EXPOSURE FREQUENCY (DAYS/YEAR)		12
EF2	= ADULT EXPOSURE FREQUENCY (DAYS/YEAR):		0
ED	= YOUTH EXPOSURE DURATION (YEARS):		0
BW1	= BODY WEIGHT ADOLESCENT (KG):		50
BW2	= BODY WEIGHT ADULT (KG):		0
AT	= AVERAGING TIME (DAYS/YEAR):		365
LT	= LIFETIME (YEARS):		70

DETERMINE CONVERSION FACTORS:
DEX = (C)*(1MG/1000 UG)*(SA SQ CM)*(AF MG/SQ CM)*(ABS)*(EF DAYS/YEAR)/(AT DAYS/YEAR)/(BW KG)/(1 KG/1E6 MG)*

DOSEyouth = (CF1)*(C)*(ABS) CF1 = 2.155e-9 * ED AND LT ARE USED FOR CARCINOGENIC RISK CALCULATION ONLY.
DOSEadult = (CF2)*(C)*(ABS) CF2 = 0 (NOT USED IN CONVERSION FACTORS)

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)
UNIT 17
EXPOSURE SCENARIO NUMBER 2 - ADOLESCENT TRESPASSERS
CALCULATE DOSES:

CHEMICAL	C (UG/KG)	ABSORPTION FRACTION	YOUTH DOSE (MG/KG/DAY)	ADULT DOSE (MG/KG/DAY)	TIME-WEIGHTED DOSE (MG/KG/DAY)	RFD (MG/KG/DAY)	CSF (KG-DAY/MG)
Aroclor (total)	36000	.03	2.327e-6	0	0		7.7e0
			0	0	0		
			0	0	0		
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RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE THREE)
UNIT 17
EXPOSURE SCENARIO NUMBER 2 - ADOLESCENT TRESPASSERS
DETERMINE HAZARD INDICES AND CANCER RISK:

CHEMICAL	HAZARD INDEX YOUTH	HAZARD INDEX ADULT	CANCER RISK LIFETIME
Aroclor (total)	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
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	0	0	0
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	0	0	0
	0	0	0
TOTAL	0	0	0

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: UNIT 17
LOCATION: MCAS, CHERRY POINT
DATE: 03/27/91

EXPOSURE SCENARIO NUMBER 3 - BASE PERSONNEL - SEDIMENT

RELEVANT EQUATIONS: DEX = (C x SA x AF x ABS x EF x ED)/(BW x AT x LT x 1E6)

ASSUMPTIONS: ADULT:

C	= CONCENTRATION IN SOIL (MG/KG)		
SA	= EXPOSED SURFACE AREA OF SKIN (SQ CM/DAY):		3160
AF	= ADHERENCE FACTOR (MG/SQ CM):		1.45
ABS	= ABSORPTION FRACTION: (DECIMAL FRACTION)	VOCS:	.1
		BNAS/PESTICIDES:	.05
		PCBS:	.03
EF1	= YOUTH EXPOSURE FREQUENCY (DAYS/YEAR)		0
EF2	= ADULT EXPOSURE FREQUENCY (DAYS/YEAR):		12
ED	= ADULT EXPOSURE DURATION (YEARS):		20
BW1	= BODY WEIGHT ADOLESCENT (KG):		0
BW2	= BODY WEIGHT ADULT (KG):		70
AT	= AVERAGING TIME (DAYS/YEAR):		365
LT	= LIFETIME (YEARS):		70

DETERMINE CONVERSION FACTORS:
DEX = (C)*(1MG/1000 UG)*(SA SQ CM)*(AF MG/SQ CM)*(ABS)*(EF DAYS/YEAR)/(AT DAYS/YEAR)/(BW KG)/(1 KG/1E6 MG)*

DOSEyouth = (CF1)*(C)*(ABS) CF1 = 0 * ED AND LT ARE USED FOR CARCINOGENIC RISK CALCULATION ONLY.
DOSEadult = (CF2)*(C)*(ABS) CF2 = 2.152e-9 (NOT USED IN CONVERSION FACTORS)

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)
UNIT 17
EXPOSURE SCENARIO NUMBER 3 - BASE PERSONNEL - SEDIMENT
CALCULATE DOSES:

CHEMICAL	C (UG/KG)	ABSORPTION FRACTION	YOUTH DOSE (MG/KG/DAY)	ADULT DOSE (MG/KG/DAY)	TIME-WEIGHTED DOSE (MG/KG/DAY)	RFD (MG/KG/DAY)	CSF (KG-DAY/MG)
Aroclor (total)	440	.03	0	2.841e-8	8.116e-9		7.7e0
			0	0	0		
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RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE THREE)
UNIT 17
EXPOSURE SCENARIO NUMBER 3 - BASE PERSONNEL - SEDIMENT
DETERMINE HAZARD INDICES AND CANCER RISK:

CHEMICAL	HAZARD INDEX YOUTH	HAZARD INDEX ADULT	CANCER RISK LIFETIME
Aroclor (total)	0	0	6.249e-8
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
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	0	0	0
	0	0	0
	0	0	0
TOTAL	0	0	6.249e-8

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL

SITE NAME: UNIT 17
LOCATION: MCAS, CHERRY POINT
DATE: 03/27/91

EXPOSURE SCENARIO NUMBER 4 - ADOLESCENT TRESPASSERS - SEDIMENT

RELEVANT EQUATIONS: DEX = (C x SA x AF x ABS x EF x ED)/(BW x AT x LT x 1E6)

ASSUMPTIONS: YOUTH:

C	= CONCENTRATION IN SOIL (MG/KG)		
SA	= EXPOSED SURFACE AREA OF SKIN (SQ CM/DAY):		2260
AF	= ADHERENCE FACTOR (MG/SQ CM):		1.45
ABS	= ABSORPTION FRACTION: (DECIMAL FRACTION)	VOCS:	.1
		BNAS/PESTICIDES:	.05
		PCBS:	.03
EF1	= YOUTH EXPOSURE FREQUENCY (DAYS/YEAR)		12
EF2	= ADULT EXPOSURE FREQUENCY (DAYS/YEAR):		0
ED	= YOUTH EXPOSURE DURATION (YEARS):		0
BW1	= BODY WEIGHT ADOLESCENT (KG):		50
BW2	= BODY WEIGHT ADULT (KG):		0
AT	= AVERAGING TIME (DAYS/YEAR):		365
LT	= LIFETIME (YEARS):		70

DETERMINE CONVERSION FACTORS:
DEX = (C)*(1MG/1000 UG)*(SA SQ CM)*(AF MG/SQ CM)*(ABS)*(EF DAYS/YEAR)/(AT DAYS/YEAR)/(BW KG)/(1 KG/1E6 MG)*

DOSEyouth = (CF1)*(C)*(ABS) CF1 = 2.155e-9 * ED AND LT ARE USED FOR CARCINOGENIC RISK CALCULATION ONLY.
DOSEadult = (CF2)*(C)*(ABS) CF2 = 0 (NOT USED IN CONVERSION FACTORS)

RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE TWO)
UNIT 17
EXPOSURE SCENARIO NUMBER 4 - ADOLESCENT TRESPASSERS - SEDIMENT
CALCULATE DOSES:

CHEMICAL	C (UG/KG)	ABSORPTION FRACTION	YOUTH DOSE (MG/KG/DAY)	ADULT DOSE (MG/KG/DAY)	TIME-WEIGHTED DOSE (MG/KG/DAY)	RFD (MG/KG/DAY)	CSF (KG-DAY/MG)
Aroclor (total)	440	.03	2.844e-8	0	0		7.7e0
			0	0	0		
			0	0	0		
			0	0	0		
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RISK ASSESSMENT SPREADSHEET - DIRECT DERMAL CONTACT WITH SOIL (PAGE THREE)
UNIT 17
EXPOSURE SCENARIO NUMBER 4 - ADOLESCENT TRESPASSERS - SEDIMENT
DETERMINE HAZARD INDICES AND CANCER RISK:

CHEMICAL	HAZARD INDEX YOUTH	HAZARD INDEX ADULT	CANCER RISK LIFETIME
Aroclor (total)	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
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	0	0	0
	0	0	0
TOTAL	0	0	0

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: UNIT 17
LOCATION: MCAS, CHERRY POINT
DATE: 03/27/91

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH PICA INGESTION ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

EXPOSURE SCENARIO NUMBER 1 - BASE PERSONNEL AND ADOLESCENT TRESPASSERS

REFERENCE: EPA, DECEMBER 1989

RELEVANT EQUATION: IEX = (C x IR x Fi x EF x ED)/(BW x LT x 365 x 1E6)

WHERE:
C = MEAN CONCENTRATION IN SOIL SAMPLE (MG/KG)
IR = SOIL INGESTION RATE (MG/EVENT)
EF = EXPOSURE FREQUENCY (EVENTS/YEAR)
Fi = FRACTION FROM CONTAMINATED SOURCE
ED = EXPOSURE DURATION (YEARS)
BW = BODY WEIGHT (KG)
LT = LIFETIME (YEARS)

ENTER INPUT PARAMETERS:

ADULT:		YOUTH:	
IR:	100	IR:	100
EF:	12	EF:	12
Fi:	.1	Fi:	.1
ED:	20	ED:	0
BW:	70	BW:	50
LT:	70	LT:	70

DETERMINE CONVERSION FACTORS:

ADULT:
CF: 4.697e-9 (AVG ANNUAL DOSE)

YOUTH:
CF: 6.575e-9 (AVG ANNUAL DOSE)

2044

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)
UNIT 17
EXPOSURE SCENARIO NUMBER 1 - BASE PERSONNEL AND ADOLESCENT TRESPASSERS
CALCULATE DOSES:

CHEMICAL	C (MG/KG)	YOUTH DOSE (MG/KG/DAY)	ADULT DOSE (MG/KG/DAY)	TIME-WEIGHTED DOSE (MG/KG/DAY)	RFD (MG/KG/DAY)	CSF (KG-DAY/MG)
Aroclor (total)	36	2.367e-7	1.691e-7	4.831e-8		7.7e0
		0	0	0		
		0	0	0		
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2045

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE THREE)
UNIT 17
EXPOSURE SCENARIO NUMBER 1 - BASE PERSONNEL AND ADOLESCENT TRESPASSERS
DETERMINE HAZARD INDICES AND CANCER RISK:

CHEMICAL	HAZARD INDEX ADOLESCENT	HAZARD INDEX ADULT	CANCER RISK LIFETIME
Aroclor (total)	0	0	3.720e-7
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
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	0	0	0
	0	0	0
TOTAL	0	0	3.720e-7

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL

SITE NAME: UNIT 17
LOCATION: MCAS, CHERRY POINT
DATE: 03/27/91

HAZARD INDICES AND INCREMENTAL CANCER RISKS ARE CALCULATED BY THIS SPREADSHEET.
EXPOSURES THROUGH PICA INGESTION ARE CONSIDERED.
ASSUMPTIONS ARE OUTLINED BELOW.

EXPOSURE SCENARIO NUMBER 2 - BASE PERSONNEL AND ADOLESCENT TRESPASSERS - SEDIMENT

REFERENCE: EPA, DECEMBER 1989

RELEVANT EQUATION: IEX = (C x IR x Fi x EF x ED)/(BW x LT x 365 x 1E6)

WHERE:
C = MEAN CONCENTRATION IN SOIL SAMPLE (MG/KG)
IR = SOIL INGESTION RATE (MG/EVENT)
EF = EXPOSURE FREQUENCY (EVENTS/YEAR)
Fi = FRACTION FROM CONTAMINATED SOURCE
ED = EXPOSURE DURATION (YEARS)
BW = BODY WEIGHT (KG)
LT = LIFETIME (YEARS)

ENTER INPUT PARAMETERS:

ADULT:		YOUTH:	
IR:	100	IR:	100
EF:	12	EF:	12
Fi:	.1	Fi:	.1
ED:	20	ED:	0
BW:	70	BW:	50
LT:	70	LT:	70

DETERMINE CONVERSION FACTORS:

ADULT:
CF: 4.697e-9 (AVG ANNUAL DOSE)

YOUTH:
CF: 6.575e-9 (AVG ANNUAL DOSE)

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE TWO)
UNIT 17
EXPOSURE SCENARIO NUMBER 2 - BASE PERSONNEL AND ADOLESCENT TRESPASSERS - SEDIMENT
CALCULATE DOSES:

CHEMICAL	C (MG/KG)	YOUTH DOSE (MG/KG/DAY)	ADULT DOSE (MG/KG/DAY)	TIME-WEIGHTED DOSE (MG/KG/DAY)	RFD (MG/KG/DAY)	CSF (KG-DAY/MG)
Aroclor (total)	.44	2.893e-9	2.067e-9	5.90e-10		7.7e0
		0	0	0		
		0	0	0		
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		0	0	0		
		0	0	0		
		0	0	0		

RISK ASSESSMENT SPREADSHEET - INCIDENTAL INGESTION OF SOIL (PAGE THREE)
UNIT 17
EXPOSURE SCENARIO NUMBER 2 - BASE PERSONNEL AND ADOLESCENT TRESPASSERS - SEDIMENT
DETERMINE HAZARD INDICES AND CANCER RISK:

CHEMICAL	HAZARD INDEX ADOLESCENT	HAZARD INDEX ADULT	CANCER RISK LIFETIME
Aroclor (total)	0	0	4.546e-9
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
TOTAL	0	0	4.546e-9