3R - 75

REPORTS

DATE:

1999

RECEIVED
MAR 31 2000
Oil Conservation Division

BURLINGTON RESOURCES

SAN JUAN DIVISION

March 29, 2000

Certified: P 895 114 539

Bill Olson
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505

RE: 1999 Annual Groundwater Investigation and Remediation Reports
San Juan Basin, New Mexico

Dear Mr. Olson:

As required in Burlington Resources' approved Groundwater Investigation and Remediation Plan dated August, 1998, enclosed are the 1999 annual reports for Burlington's groundwater impact sites in the San Juan Basin. Separate reports are enclosed for the following locations:

Cozzens B#1
Fogelson #4-1
Hampton #4M
Johnson Federal #4 Metering Station
Standard Oil Com. #1
Taylor Com. #2A

If you have questions or additional information is needed, please contact me at (505) 326-9841.

Sincerely,

Ed Hasely
Sr. Staff Environmental Representative

Attachments - Groundwater Investigation and Remediation Reports

cc: Denny Foust - NMOCD Aztec
Bruce Gantner - BR
PNM - Maureen Gannon (Cozzens B#1, Hampton #4M)
EPFS - Scott Pope (Fogelson #4-1, Johnson Fed. #4, Standard Oil Com.#1)
Facility Files
Correspondence

3535 East 30th St., 87402-8801, P.O. Box 4289, Farmington, New Mexico 87499-4289, Telephone 505-326-9700, Fax 505-326-9833

BURLINGTON RESOURCES 1999 ANNUAL GROUNDWATER REPORT

Taylor Com. #2A

SITE DETAILS

Location: Unit Letter A, Section 17, Township 30N, Range 11W; San Juan County, New Mexico
Land Type: Fee

PREVIOUS ACTIVITIES

During a spill cleanup on the subject location, Burlington Resources excavated into an apparent abandon earthen pit. As excavation of impacted soils continued, groundwater was encountered at approximately 9 feet below the ground surface. Impacted soils continued to be excavated to the extent practical until the "core" of impacted soils had been removed (approximate depth of 12 ft.). The excavation was backfilled with clean fill.

1999 ACTIVITIES

A groundwater monitoring well was installed in the center of the former earthen pit in May 1999. After developing the well and allowing it to stabilize, the well was purged and sampled on May 27, 1999.

Two downgradient groundwater monitoring wells were installed in October 1999. After developing the wells and allowing them to stabilize, the wells were purged and sampled on October 21, 1999.

Quarterly groundwater monitoring continued through 1999. A summary of the groundwater analytical data is presented in Table 1. A site map is presented as Figure 1.

CONCLUSIONS

Analytical results of groundwater sampling from the source monitoring well in the initial sampling event on May 27, 1999 show levels of benzene above New Mexico Groundwater Standards. All subsequent quarterly sampling from the source well and the two additional downgradient wells have shown all BTEX constituents to be below standards.

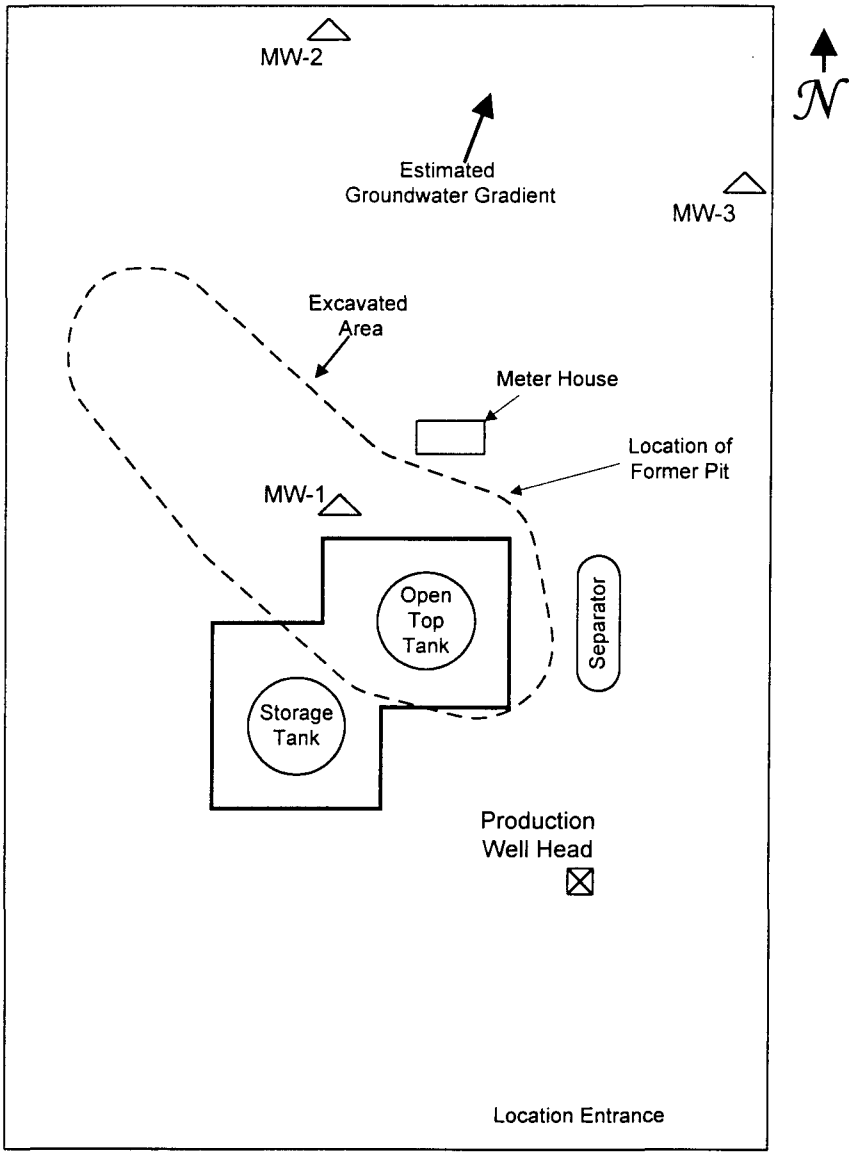
RECOMMENDATIONS

- Burlington Resources proposes to continue quarterly sampling at this site.
- Upon receiving analytical results below standards for one full year, Burlington Resources will request official closure of this site.

Attachments: Figure 1 - Site Map
Table 1 - Groundwater Sampling Results Summary
1999 Groundwater Analytical Results
Drilling Logs/Wellbore Diagrams
Letter to Olson dated August 13, 1999 including the Drilling Log/Wellbore Diagram

Figure 1

Taylor Com 2A - Site Diagram



Legend

MW-9 Monitoring Well

Excavation Area

Earthen Berm

3/28/00 LEH

Table 1

Groundwater Monitoring Well Sampling

Well Name	MW #	Sample Date	B (ppb)	T (ppb)	E (ppb)	X (ppb)	BTEX (ppb)	DTW (ft)
Standard			*10*	*750*	*750*	*620*		
Taylor #2A	1	5/27/99	**64**	<0.5	23	98	185	
		9/1/99	<0.5	<0.5	1.3	1.6	2.9	3.72
		10/21/99	0.7	1.9	1.2	3.5	7.3	
		1/19/00	0.6	1.9	0.8	3.3	6.6	9.94
	2	10/21/99	<0.5	<0.5	<0.5	<0.5	0	
		1/19/00	<0.5	<0.5	<0.5	<0.5	0	9.4
	3	10/21/99	<0.5	<0.5	<0.5	<0.5	0	
		1/19/00	<0.5	<0.5	<0.5	<0.5	0	8.35

1999 GROUNDWATER ANALYTICAL RESULTS

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 21057
PROJECT NAME : BURLINGTON DRILLING

PINNACLE I.D.: 905106

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	BR-TAYLOR MW1	AQUEOUS	5/27/99	NA	5/28/99	1
02	BR-FOGELSON MW1	AQUEOUS	5/27/99	NA	5/28/99	10

PARAMETER	DET. LIMIT	UNITS	BR-TAYLOR MW1	BR-FOGELSON MW1
BENZENE	0.5	**UG/L**	**64**	**5.0**
TOLUENE	0.5	UG/L	< 0.5	< 5.0
ETHYLBENZENE	0.5	**UG/L**	**23**	**210**
TOTAL XYLENES	0.5	**UG/L**	**98**	**420**
SURROGATE:				
TRIFLUOROTOLUENE (%)			85	95
SURROGATE LIMITS	(69 - 117)			

CHEMIST NOTES:
N/A

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession: 905635
Client: PINNACLE LABORATORIES
Project Number: 905106
Project Name: PHIL
Project Location: BURLINGTON DRILLING
Test: Group of Single Wetchem
Matrix: WATER
QC Level: I

Lab ID: 001
Client Sample Id: 905106-01
Sample Date/Time: 27-MAY-99 1015
Received Date: 29-MAY-99

Parameters:	Units:	Results:	Rpt Lmts:	Q:	Batch:	Analyst:
CHLORIDE (4500-CL E)	MG/L	45	2		CKW22C	WH
NITRITE-NITRATE, NITROGEN (353.2)	MG/L	2.0	0.1		N3W36A	WH
SULFATE (375.4/4500E/9038)	MG/L	1000	200	+	SEW052	BE
TOTAL DISSOLVED SOLIDS (160.1)	MG/L	1800	5		TDW027	ED

Comments:

"Method Report Summary"

Accession Number: 905635
Client: PINNACLE LABORATORIES
Project Number: 905106
Project Name: PHIL
Project Location: BURLINGTON DRILLING
Test: Group of Single Wetchem

Client Sample Id:	Parameter:	Unit:	Result:
905106-01	CHLORIDE (4500-CL E)	MG/L	45
	NITRITE-NITRATE, NITROGEN (353.2)	MG/L	2.0
	SULFATE (375.4/4500E/9038)	MG/L	1000
	TOTAL DISSOLVED SOLIDS (160.1)	MG/L	1800
905106-02	CHLORIDE (4500-CL E)	MG/L	430
	SULFATE (375.4/4500E/9038)	MG/L	9300
	TOTAL DISSOLVED SOLIDS (160.1)	MG/L	14000

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession: 905635
Client: PINNACLE LABORATORIES
Project Number: 905106
Project Name: PHIL
Project Location: BURLINGTON DRILLING
Test: RCRA METALS - AXIAL
Matrix: WATER
QC Level: I

Lab Id: 001 Sample Date/Time: 27-MAY-99 1015
Client Sample Id: 905106-01 Received Date: 29-MAY-99

Parameters:	Units:	Results:	Rpt Lmts:	Q:	Batch:	Analyst:
SILVER (6010B)	MG/L	ND	0.005		AYW154	GSP
ARSENIC (6010B)	MG/L	ND	0.005		RYW154	GSP
BARIUM (6010B)	MG/L	0.38	0.01		BYW154	GSP
CADMIUM (6010B)	MG/L	ND	0.005		CYW154	GSP
CHROMIUM (6010B)	MG/L	0.008	0.005		HYW154	GSP
MERCURY (7470A)	MG/L	ND	0.0002		M7W047	JL
LEAD (6010B)	MG/L	0.042	0.005		PYW154	GSP
SELENIUM (6010B)	MG/L	ND	0.01		SYW154	GSP

Comments:

"Method Report Summary"

Accession Number: 905635
Client: PINNACLE LABORATORIES
Project Number: 905106
Project Name: PHIL
Project Location: BURLINGTON DRILLING
Test: RCRA METALS - AXIAL

Client Sample Id:	Parameter:	Unit:	Result:
905106-01	BARIUM (6010B)	MG/L	0.38
	CHROMIUM (6010B)	MG/L	0.008
	LEAD (6010B)	MG/L	0.042
905106-02	ARSENIC (6010B)	MG/L	0.006
	BARIUM (6010B)	MG/L	0.14
	CHROMIUM (6010B)	MG/L	0.019
	LEAD (6010B)	MG/L	0.007

Pinnacle Laboratories, Inc. Interlab Chain of Custody

Network Project Manager: Kimberly D. McNeill

Pinnacle Laboratories, Inc.
2709-D Pan American Freeway, NE
Albuquerque, New Mexico 87107
(505) 344-3777 Fax (505) 344-4413

1145 905635

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Metals (8) RCRA	RCRA TCLP METALS	Metals-13 PP List	Metals-TAL		TOX	TOC	Gen Chemistry: Cl, SO4, NO2/NO3	TDS	Oil and Grease	Volatile Organics GC/MS (8260)	BOD	COD	PESTICIDES/PCB (608/8080)	8270 BY GC/MS	PNA (8310)	8240 (TCLP 1311) ZHE	Herbicides (615/8150)	Base/Neutral Acid Compounds GC/MS (625/8270)	URANIUM	RADIUM 226+228	Gross Alpha/Beta	TO-14	NUMBER OF CONTAINERS
905106-01	5/27	1015	AQ	1	X							X	X															
-02	"	1215	"	2	X							X	X															

PROJECT INFORMATION		SAMPLE RECEIPT		SAMPLES SENT TO:	
PROJECT #:	905106	Total Number of Containers		PENSACOLA - STL-FL	X
PROJ. NAME:	PHIL	Chain of Custody Seals		PORTLAND - ESL-OR	
QC LEVEL:	STD. IV	Received Intact?		STL - CT	
QC REQUIRED:	MS MSD BLANK	Received Good Cond./Cold		STL- NEW JERSEY	
TAT:	STANDARD RUSH!!	LAB NUMBER:		N. CREEK	
				BARRINGER	
				SEQUOIA	

DUE DATE: 6/11
RUSH SURCHARGE: —
CLIENT DISCOUNT: —
SPECIAL CERTIFICATION REQUIRED: YES (NO)

COMMENTS:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.
Signature: Francine Tonino Time: 1700	Signature: Time:
Printed Name: Francine Tonino Date: 5/28/99	Printed Name: Date:
Pinnacle Laboratories, Inc.	Company
RECEIVED BY: 1.	**RECEIVED BY: 2**
Signature: Time: 1000	Signature: Time:
Printed Name: R. ELSPERMAN Date: 5/29/99	Printed Name: Date:
Company STL-FL	Company

Pinnacle Laboratories Inc.

CHAIN OF CUSTODY

DATE: _____ PAGE: ___ OF ___

PLI Accession #: 905106

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER:

COMPANY: Philip Services
ADDRESS: 4000 Monroe Rd
Farmington, NM 87401
PHONE: (505) 326-2262
FAX:

BILL TO: Cecil Irby
COMPANY: Philip Services
ADDRESS: 4000 Monroe Rd
Farmington, NM 87401

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.
BR-TaylorMW1	5/27	1015	water	01
BR-FogelsonMW1	5/27	1215	water	02

	01	02	NUMBER OF CONTAINERS
Petroleum Hydrocarbons (418.1) TRPH			
(MOD.8015) Diesel/Direct Inject			
(M8015) Gas/Purge & Trap			
8021 (BTEX)/8015 (Gasoline) MTBE			
8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE	X	X	
8021 (TCL)			
8021 (EDX)			
8021 (HALO)			
8021 (CUST)			
504.1 EDB ☐ / DBCP ☐			
8260 (TCL) Volatile Organics			
8260 (Full) Volatile Organics			
8260 (CUST) Volatile Organics			
8260 (Landfill) Volatile Organics			
Pesticides /PCB (608/8081/8082)			
Herbicides (615/8151)			
Base/Neutral/Acid Compounds GC/MS (625/8270)			
Polynuclear Aromatics (610/8310/8270-SIMS)			
General Chemistry: Cl, SO_4, NO_2 NO_3, TDS	X	X	5
Priority Pollutant Metals (13)			
Target Analyte List Metals (23)			
RCRA Metals (8)	X	X	5
RCRA Metals by TCLP (Method 1311)			
Metals:			

PROJECT INFORMATION

PROJ. NO.: 21057
PROJ. NAME: Burlington Drilling
P.O. NO.:
SHIPPED VIA:

SAMPLE RECEIPT

NO. CONTAINERS	10
CUSTODY SEALS	Y / N / NA
RECEIVED INTACT	Yes
BLUE ICE/ICE	4°C

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☒ 1 WEEK (NORMAL) ☐

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE [ ]

RELINQUISHED BY: 1.

Signature: P. Cheney Time: 1521
Printed Name: P. Cheney Date: 5/27/98
Company:
See reverse side (Force Magure)

RECEIVED BY: 1.

Signature: Time:
Printed Name: Date:
Company:

RELINQUISHED BY: 2.

Signature: Time:
Printed Name: Date:
Company:

RECEIVED BY: (LAB) 2.

Signature: Francine Tonvio Time: 1010
Printed Name: Francine Tonvio Date: 5/28/98
Pinnacle Laboratories Inc.

11/10/98 PLI Inc.: Pinnacle Laboratories, Inc. • 2709-D Pan American Freeway, NE • Albuquerque, New Mexico 87107 • (505) 344-3777 • Fax (505) 344-4413 • E-mail: PIN_LAB@WORLDNET.ATT.NET

DISTRIBUTION: White - PLI, Canary - Originator

Water Sampling Data

PHILIP SERVICES CORP.

Location No. TAYLOR COM #2A

Serial No. WSD-

Group List Number

Sample Type: ☒ Groundwater ☐ Surface Water ☐ Other Date 9/1/99

Project Name BURLINGTON WATER SAMPLING Project No. 62800023

Project Manager C. IRBY Phase.Task No.

Site Name TAYLOR ~~GAS~~ COM # 2A, MW 1

Sampling Specifications

Requested Sampling Depth Interval (feet)

Requested Wait Following Development/Purging (hours)

Initial Measurements

Time Elapsed From Final Development/Purging (hours)

Initial Water Depth (feet) 3.72' 3:50 pm

Nonaqueous Liquids Present (Describe)

Water Quality/Water Collection

DO = Dissolved Oxygen; Cond. = Conductivity

Date	Time	Sampler Initials	Water Quality Readings: Temp. (°C)	pH	DO (mg/L)	Cond. (µmhos/cm)	Water Collection Data: Volume Removed (gallons)	Removal Rate (gal/min)	Pump Intake Depth (feet)	Bail	Final Water Depth (feet)	Notes (Explain in Comments Below)
9/1/99	4:15 pm	CC					~7	7 gal/10 min		X	6.51'	

Sample Containers

Container Type: G = Clear Glass; A = Amber Glass; P = Plastic; V = VOA Vial (Glass); O = Other (Specify)

Preservatives: H = HCl; N = HNO_3; S = H_2SO_4; A = NaOH; O = Other (Specify); — = None

Analytical Parameter List	Container: Number	Type	Volume (mL)	Field Filtered: Yes	No	Preserved	Cooled During Collection: Yes	No	Comments
8021									

Filter Type Chain-of-Custody Form Number

Comments SOME SUSPENDED FINE BLACK SEDIMENT DURING BAILING, CLEAR DURING SAMPLING

Signature Cathy Cullers Date 9/2/99 Reviewer Date

Form A0202 Rev. 02/24/94

HYDROCARBON ODOR DURING BAILING

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

CLIENT	: PHILIP ENVIRONMENTAL	PINNACLE ID	: 909019
PROJECT #	: (none)	DATE RECEIVED	: 9/3/99
PROJECT NAME	: BURL. DRILLING	REPORT DATE	: 9/14/99

PIN ID. #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	TAYI OR COM #2A MW1	AQUEOUS	9/1/99
02	COZZENS B#1 MW1	AQUEOUS	9/2/99
03	COZZENS B#1 MW2	AQUEOUS	9/2/99

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED / 8015 GRO
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : (none)
PROJECT NAME : BURL. DRILLING

PINNACLE I.D.: 909019

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	TAYLOR COM #2A MW1	AQUEOUS	9/1/99	NA	9/9/99	1
02	COZZENS B#1 MW1	AQUEOUS	9/2/99	NA	9/10/99	1
03	COZZENS B#1 MW2	AQUEOUS	9/2/99	NA	9/9/99	100

PARAMETER	DET. LIMIT	UNITS	TAYLOR COM #2A MW1	COZZENS B#1 MW1	COZZENS B#1 MW2
FUEL HYDROCARBONS	50	**UG/L**	**120**	**930**	**11000**
HYDROCARBON RANGE			**C6-C14**	**C6-C14**	**C6-C14**
HYDROCARBONS QUANTITATED USING			**GASOLINE**	**GASOLINE**	**GASOLINE**
BENZENE	0.5	UG/L	< 0.5	**2.6**	**120**
TOLUENE	0.5	UG/L	< 0.5	**2.1**	**55**
ETHYLBENZENE	0.5	**UG/L**	**1.3**	**5.6**	**440**
TOTAL XYLENES	0.5	**UG/L**	**1.6**	**22**	**450**
METHYL-t-BUTYL ETHER	2.5	UG/L	< 2.5	< 2.5	< 250
SURROGATE:					
BROMOFLUOROBENZENE (%)			104	114	99
SURROGATE LIMITS	(80 - 120)				

CHEMIST NOTES:
N/A

Pinnacle Laboratories Inc.

CHAIN OF CUSTODY

DATE: 9/2/99 PAGE: 1 OF 1

PLI Accession #: 909019

PLEASE FILL THIS FORM IN COMPLETELY. SHADED AREAS ARE FOR LAB USE ONLY.

PROJECT MANAGER: CECIL IRBY

COMPANY: PHILIP SERVICES CORP
ADDRESS: 4000 MONROE
FARMINGTON, NM 8740[illegible]
PHONE: 505-326-2262
FAX: 505-326-2388

BILL TO: SAME
COMPANY
ADDRESS:

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.	NUMBER OF CONTAINERS
TAYLOR [illegible] COM #2A-SMW1	9/1/99	4:15pm	AQ	01	2
COZZENS B#1 MW1	9/2/99	1:00pm	AQ	02	2
COZZENS B#1 MW2	9/2/99	1:15pm	AQ	03	2

ANALYSIS REQUEST

Petroleum Hydrocarbons (418.1) TRPH	(MOD.8015) Diesel/Direct Inject	(M8015) Gas/Purge & Trap	8021 (BTEX)/8015 (Gasoline) MTBE	8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE	8021 (TCL)	8021 (EDX)	8021 (HALO)	8021 (CUST)	504.1 EDB ☐ / DBCP ☐	8260 (TCL) Volatile Organics	8260 (Full) Volatile Organics	8260 (CUST) Volatile Organics	8260 (Landfill) Volatile Organics	Pesticides /PCB (608/8081/8082)	Herbicides (615/8151)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Polynuclear Aromatics (610/8310/8270-SIMS)	General Chemistry:		Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by TCLP (Method 1311)	Metals:		
			X																							
			X																							
			X																							

PROJECT INFORMATION

PROJ. NO.:
PROJ. NAME: BURL, DRILLING
P.O. NO.:
SHIPPED VIA: GREYHOUND

SAMPLE RECEIPT

NO. CONTAINERS	6
CUSTODY SEALS	Y/N/NA
RECEIVED INTACT	Y/N
BLUE ICE/ICE	Y/N

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☒

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.
Signature: Cathy Collicott Time: 3pm	Signature: Time:
Printed Name: CATHY COLLICOTT Date: 9/2/99	Printed Name: Date:
Company: PHILIP SERVICES	Company:
See reverse side (Force Majeure)	
RECEIVED BY: 1.	**RECEIVED BY: (LAB) 2.**
Signature: Time:	Signature: Time: 1446
Printed Name: Date:	Printed Name: Date: 9/3/99
Company:	Pinnacle Laboratories Inc.

PLI Inc - Pinnacle Laboratories, Inc. • 2709-D Pan American Freeway, NE • Albuquerque, New Mexico 87107 • (505) 344-3777 • Fax (505) 344-4413 • E-mail: PIN_LAB@WORLDNET.ATT.NET

DISTRIBUTION: White - PLI, Canary - Originator

PHILIP ENVIRONMENTAL

Well Number MW-1 ☐ Development ☒ Purging

Serial No. WDPD-

WELL DEVELOPMENT AND PURGING DATA

Page 1 of 2

Project Name BURLINGTON DRILLING Project Manager L. THOMPSON Project No. 62800085

Client Company BURLINGTON Phase.Task No.

Site Name TAYLOR COM #2A Site Address

Development Criteria

☒ 3 to 5 Casing Volumes of Water Removal
☒ Stabilization of Indicator Parameters
☐ Other

Methods of Development

Pump	Bailer
☐ Centrifugal	☐ Bottom Valve
☐ Submersible	☐ Double Check Valve
☐ Peristaltic	☐ Stainless-steel Kemmerer

☐ Other

Water Volume Calculation

Initial Depth of Well (feet) 15'
Initial Depth to Water (feet) 4.16'
Height of Water Column in Well (feet) 10.84
Diameter (inches): Well ____ Gravel Pack ____

Item	Water Volume in Well: Cubic Feet	Water Volume in Well: Gallons	Gallons to be Removed
Well Casing		2	6
Gravel Pack			
Drilling Fluids			
Total			6-10

Instruments

Serial No. (if applicable)

☒ pH Meter
☐ DO Monitor
☒ Conductivity Meter
☒ Temperature Meter
☐ Other

Water Disposal

DUMP ON GROUND

Water Removal Data

Date	Time	Development Method: Pump	Development Method: Bailer	Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gallons): Increment	Water Volume Removed (gallons): Cumulative	Product Volume Removed (gallons): Increment	Product Volume Removed (gallons): Cumulative	Temperature (°C)	pH	Conductivity (mmhos/cm)	Dissolved Oxygen (mg/L)	Comments
10/2/99	6:07						2	2			59.1	6.6	4000		WATER CLEAR
	6:12						2	4			59.1	6.8	3630		
	6:16						2	6			59.7	6.8	3580		WATER CLOUDY
	6:20						2	8			59.8	7.0	3330		W/ BLACK SED
↓	6:23						2	10			59.4	6.9	3230		

Circle the date and time that the development criteria are met.

Comments WATER HAS STRONG ODOR

Developer's Signature(s) Cathy Cullwell Date 10/2/99 Reviewer ____ Date ____

MW 1 p 2 of 2

Water Sampling Data

PHILIP SERVICES CORP.

Location No. _____

Serial No. WSD- _____

Group List Number _____

Sample Type: ☒ Groundwater ☐ Surface Water ☐ Other _____ Date 10/21/99

Project Name BURLINGTON GROUNDWATER Project No. C02800086

Project Manager R. THOMPSON Phase.Task No. _____

Site Name TAYLOR COM #2A

Sampling Specifications

Requested Sampling Depth Interval (feet) _____

Requested Wait Following Development/Purging (hours) _____

Initial Measurements

Time Elapsed From Final Development/Purging (hours) _____

Initial Water Depth (feet) _____

Nonaqueous Liquids Present (Describe) _____

Water Quality/Water Collection

DO = Dissolved Oxygen; Cond. = Conductivity

Date	Time	Sampler Initials	Water Quality Readings: Temp. (°C)	pH	DO (mg/L)	Cond. (µmhos/cm)	Water Collection Data: Volume Removed (gallons)	Removal Rate (gal/min)	Pump Intake Depth (feet)	Bail	Final Water Depth (feet)	Notes (Explain in Comments Below)

Sample Containers

Container Type: G = Clear Glass; A = Amber Glass; P = Plastic; V = VOA Vial (Glass); O = Other (Specify)

Preservatives: H = HCl; N = HNO_3; S = H_2SO_4; A = NaOH; O = Other (Specify); – = None

Analytical Parameter List	Container: Number	Type	Volume (mL)	Field Filtered: Yes	No	Preserved	Cooled During Collection: Yes	No	Comments
BTEX	2	VOA			X	HCl	X		@ 30pm

Filter Type _____ Chain-of-Custody Form Number C2401

Comments _____

Signature Cathy Cullwell Date 10/21/99 Reviewer _____ Date _____

Form A0202 Rev. 02/24/94

PHILIP ENVIRONMENTAL

Well Number MW-2 ☐ Development ☒ Purging

WELL DEVELOPMENT AND PURGING DATA

Serial No. WDPD-

Page 1 of 2

Project Name BURLINGTON Drilling Project Manager R. THOMPSON Project No. 62800056

Client Company BURLINGTON Phase.Task No.

Site Name TAYLOR COM #2A Site Address

Development Criteria

☒ 3 to 5 Casing Volumes of Water Removal
☐ Stabilization of Indicator Parameters
☒ Other WATER CLARITY

Methods of Development

Pump	Bailer
☐ Centrifugal	☐ Bottom Valve
☐ Submersible	☐ Double Check Valve
☐ Peristaltic	☐ Stainless-steel Kemmerer

☐ Other

Water Volume Calculation

Initial Depth of Well (feet) 15'
Initial Depth to Water (feet) 4.53'
Height of Water Column in Well (feet) 10.37'
Diameter (inches): Well 2 Gravel Pack

Item	Water Volume in Well: Cubic Feet	Water Volume in Well: Gallons	Gallons to be Removed
Well Casing		2	6-10
Gravel Pack			
Drilling Fluids			
Total			

Instruments

Serial No. (if applicable)

☒ pH Meter
☐ DO Monitor
☒ Conductivity Meter
☒ Temperature Meter
☐ Other

Water Disposal

DUMP ON GROUND

Water Removal Data

Date	Time	Development Method: Pump	Development Method: Bailer	Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gallons): Increment	Water Volume Removed (gallons): Cumulative	Product Volume Removed (gallons): Increment	Product Volume Removed (gallons): Cumulative	Temperature (°C)	pH	Conductivity (mmhos/cm)	Dissolved Oxygen (mg/L)	Comments
10/21/99	4:18						2	2			68.1	7.1	1940		WATER CLOUDY
	4:25						2	4			63.6	6.8	1862		
	4:29						2	6			62.5	6.8	1871		
	4:33						2	8			62.4	6.7	1960		
	4:37						2	10			62.5	6.8	2020		WATER MORE CLEAR
	4:41						2	12			61.4	6.8	2230		
	4:45						2	14			61.8	6.8	2280		
	4:53						7	21			58.3	6.9	2630		
	4:57						2	23			61.1	6.9	2750		WATER MORE CLEAR

Circle the date and time that the development criteria are met.

Comments

Developer's Signature(s) Cathy Cullivan Date 10/21/99 Reviewer Date

MW2 p2 of 2

Water Sampling Data

PHILIP SERVICES CORP

Serial No. WSD-

Location No. _____

Group List Number _____

Sample Type: ☒ Groundwater ☐ Surface Water ☐ Other _____ Date 10/21/99

Project Name BURLINGTON DRILLING Project No. 62800080

Project Manager R. THOMPSON Phase.Task No. _____

Site Name TAYLOR COM #2A

Sampling Specifications

Requested Sampling Depth Interval (feet) _____

Requested Wait Following Development/Purging (hours) _____

Initial Measurements

Time Elapsed From Final Development/Purging (hours) _____

Initial Water Depth (feet) _____

Nonaqueous Liquids Present (Describe) _____

Water Quality/Water Collection

DO = Dissolved Oxygen; Cond. = Conductivity

Date	Time	Sampler Initials	Water Quality Readings: Temp. (°C)	pH	DO (mg/L)	Cond. (µmhos/cm)	Water Collection Data: Volume Removed (gallons)	Removal Rate (gal/min)	Pump Intake Depth (feet)	Bail	Final Water Depth (feet)	Notes (Explain in Comments Below)

Sample Containers

Container Type: G = Clear Glass; A = Amber Glass; P = Plastic; V = VOA Vial (Glass); O = Other (Specify)
Preservatives: H = HCl; N = HNO_3; S = H_2SO_4; A = NaOH; O = Other (Specify); — = None

Analytical Parameter List	Container: Number	Type	Volume (mL)	Field Filtered: Yes	No	Preserved	Cooled During Collection: Yes	No	Comments
BTEX	2	VOA			X	HCl	X		5:00pm

Filter Type _____ Chain-of-Custody Form Number C 2401

Comments _____

Signature Cathy Williams Date 10/21/99 Reviewer _____ Date _____

Form A0202 Rev. 02/24/94

PHILIP ENVIRONMENTAL

Well Number MW 3 ☐ Development ☒ Purging

WELL DEVELOPMENT AND PURGING DATA

Serial No. WDPD-

Project Name BURLINGTON DRILLING Project Manager R. THOMSON Project No. 62800086

Client Company BURLINGTON Phase.Task No.

Site Name TAYLOR COM #2A Site Address

Development Criteria

☒ 3 to 5 Casing Volumes of Water Removal
☐ Stabilization of Indicator Parameters
☒ Other Watuclearsup

Water Volume Calculation

Initial Depth of Well (feet) 15'
Initial Depth to Water (feet) 4.36'
Height of Water Column in Well (feet) 10.64'
Diameter (inches): Well 2 Gravel Pack

Item	Water Volume in Well: Cubic Feet	Water Volume in Well: Gallons	Gallons to be Removed
Well Casing		2	
Gravel Pack			
Drilling Fluids			
Total			6-10

Instruments

Serial No. (if applicable)

☒ pH Meter
☐ DO Monitor
☒ Conductivity Meter
☒ Temperature Meter
☐ Other

Methods of Development

Pump	Bailer
☐ Centrifugal	☒ Bottom Valve
☐ Submersible	☐ Double Check Valve
☐ Peristaltic	☐ Stainless-steel Kemmerer

☐ Other

Water Disposal

DUMP ON GROUND

Water Removal Data

Date	Time	Development Method: Pump	Development Method: Bailer	Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gallons): Increment	Water Volume Removed (gallons): Cumulative	Product Volume Removed (gallons): Increment	Product Volume Removed (gallons): Cumulative	Temperature (°C)	pH	Conductivity (mmhos/cm)	Dissolved Oxygen (mg/l)	Comments
10/21/99	5:15						2	2			62.6	6.6	5540		WATER V. CLOUDY
	5:20						2	4			61.1	6.7	4490		
	5:24						2	6			61.7	6.8	4020		
	5:28						2	8			60.1	6.9	3790		
	5:31						2	10			60.1	6.9	3570		WATER CLEARING UP
	5:35						2	12			60.7	6.9	3480		
	5:39						2	14			60.6	6.9	3280		
	5:47						7	21			58.8	7.0	3270		
	5:53						2	23			59.7	7.0	3190		
	5:55						1	24			60.1	7.0	3170		

Circle the date and time that the development criteria are met.

Comments DTW AFTER BAILING 4.53'

Developer's Signature(s) Cathy Cullicott Date 10/21/99 Reviewer Date

MW3 p2 of 2

Water Sampling Data

PHILIP SERVICES GROUP

Serial No. WSD-

Location No. _____

Group List Number _____

Sample Type: ☒ Groundwater ☐ Surface Water ☐ Other _____ Date 10/21/99

Project Name BURLINGTON DRILLING Project No. 62800086

Project Manager R. THOMPSON Phase.Task No. _____

Site Name TAYLOR COM #2A

Sampling Specifications

Requested Sampling Depth Interval (feet) _____

Requested Wait Following Development/Purging (hours) _____

Initial Measurements

Time Elapsed From Final Development/Purging (hours) _____

Initial Water Depth (feet) _____

Nonaqueous Liquids Present (Describe) _____

Water Quality/Water Collection

DO = Dissolved Oxygen; Cond. = Conductivity

Date	Time	Sampler Initials	Water Quality Readings: Temp. (°C)	pH	DO (mg/L)	Cond. (µmhos/cm)	Water Collection Data: Volume Removed (gallons)	Removal Rate (gal/min)	Pump Intake Depth (feet)	Bail	Final Water Depth (feet)	Notes (Explain in Comments Below)

Container Type: G = Clear Glass; A = Amber Glass; P = Plastic; V = VOA Vial (Glass); O = Other (Specify)

Sample Containers

Preservatives: H = HCl; N = HNO_3; S = H_2SO_4; A = NaOH; O = Other (Specify); – = None

Analytical Parameter List	Container: Number	Type	Volume (mL)	Field Filtered: Yes	No	Preserved	Cooled During Collection: Yes	No	Comments
BTEX	2	VOA			X	HCl	X		5:55 pm

Filter Type _____ Chain-of-Custody Form Number C 2401

Comments _____

Signature Cathy Cullwell Date 10/21/99 Reviewer _____ Date _____

Form A0202 Rev. 02/24/94

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800086
PROJECT NAME : BURLINGTON DRILLING

PINNACLE I.D.: 910079

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	TAYLOR MW-1	AQUEOUS	10/21/99	NA	10/26/99	1
02	TAYLOR MW-2	AQUEOUS	10/21/99	NA	10/26/99	1
03	TAYLOR MW-3	AQUEOUS	10/21/99	NA	10/26/99	1

PARAMETER	DET. LIMIT	UNITS	TAYLOR MW-1	TAYLOR MW-2	TAYLOR MW-3
BENZENE	0.5	**UG/L**	**0.7**	< 0.5	< 0.5
TOLUENE	0.5	**UG/L**	**1.9**	< 0.5	< 0.5
ETHYLBENZENE	0.5	**UG/L**	**1.2**	< 0.5	< 0.5
TOTAL XYLENES	0.5	**UG/L**	**3.5**	< 0.5	< 0.5

SURROGATE:				
BROMOFLUOROBENZENE (%)		106	98	102
SURROGATE LIMITS	(80 - 120)			

CHEMIST NOTES:
N/A

Chain of Custody Record

PHILIP ENVIRONMENTAL

4000 Monroe Road
Farmington, NM 87401
(505) 326-2262 Phone
(505) 326-2388 FAX

COC Serial No. C 2401

Project Name: Burlington Drilling
Project Number: 62800086 Phase . Task
Samplers: C. Cullicott
Laboratory: Name: Pinnacle
Location: Albuquerque

Sample Number (and depth)	Date	Time	Matrix	Total Number of Bottles	Type of Analysis and Bottle: BTEX	Comments
TAYLOR MW-1	10/21	6:30pm	AQ	2	X	910079-01
TAYLOR MW-2	10/21	5pm	↓	↓	↓	-02
TAYLOR MW-3	10/21	5:55pm	↓	↓	↓	-03

Relinquished by:

Signature	Date	Time
Cathy Cullicott	10/22/99	7am

Received By:

Signature	Date	Time
[illegible]	10/22/99	18[illegible]

Samples iced: ☒ Yes ☐ No

Preservatives (ONLY for Water Samples)
- ☐ Cyanide ..... Sodium hyroxide (NaOH)
- ☒ Volatile Organic Analysis ..... Hydrochloric acid (HCl)
- ☐ Metals ..... Nitric acid (HNO_3)
- ☐ TPH (418.1) ..... Sulfuric acid (H_2SO_4)
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____

Carrier: GREYHOUND
Airbill No. GL11606650265

Shipping and Lab Notes:
ICE — 3.6°C
6 VIALS ✓

DRILLING LOGS/WELLBORE DIAGRAMS

RECORD OF SUBSURFACE EXPLORATION

Philip Environmental Services Corp.
4000 Monroe Road
Farmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2388

Borehole # 1
Well # MW2
Page 1 of 2

Project Name BURLINGTON DRILLING
Project Number 68000KG Phase 35
Project Location TAYLOR COM #2A

Elevation
Borehole Location T30N R11W S17 A
GWL Depth 3.96'
Logged By C. CULLICOTT
Drilled By E. PADILLA & D. PADILLA
Date/Time Started 10/14/99 10:30am
Date/Time Completed 10/14/99 11:30am

Well Logged By C. CULLICOTT
Personnel On-Site E. PADILLA, D. PADILLA, & R. THOMPSON
Contractors On-Site
Client Personnel On-Site JEFF S.

Drilling Method MUGER
Air Monitoring Method PID

Depth (Feet)		Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NDU BZ	BH	B	Drilling Conditions & Blow Counts
0										
5	(1)	5-6'		(1) 18" RECOVERY BELOW WATER TABLE. UPPER 17" - BROWN CLAYEY SAND						(1) 5 BLOWS BZ 0.0 PPM HS 0.0 PPM
10	(2)	10-11½'		LOWER 1" GRAVELLY/CLAYEY SAND W/ SILTSTONE						(2) 4 BLOWS BZ 0.0 PPM HS 0.0 PPM
TD 15	(3)	14'		(2) FULL RECOVERY SATURATED BROWN SAND, CLEAN						(3)
20				HIT COBBLES @ 13' SETTING WELL @ 15'						
25				TO 15'						
30										
36										
40										

Comments: DTW MW1 3.92' TD 14.4'
SUNNY, WARM

Geologist Signature Cathy Cullicott

IONITORING WELL INSTALLATION RECORD

lilip Environmental Services Corp.
200 Marvel Road
rmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2388

Borehole # 1
Well # MW 2
Page 2 of 2

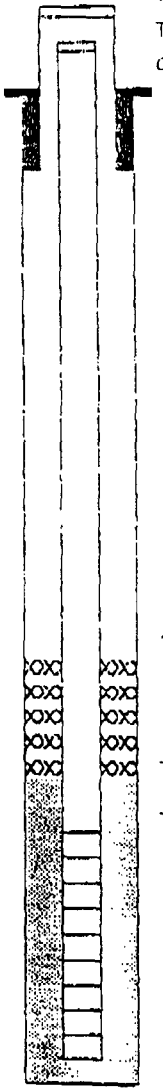
Project Name BURLINGTON DRILLING
Project Number 62800086 Phase 35
Project Location TAYLOR COM #2A

On-Site Geologist C. CULLICOTT
Personnel On-Site E. PADILLA, D. PADILLA, S. THOMPSON
Contractors On-Site
Client Personnel On-Site JEFF S.

Elevation
Well Location T30N R11W S17A
SWL Depth 3.96'
Installed By E. PADILLA
D. PADILLA
Date/Time Started 10/14/99 10:30 am
Date/Time Completed 10/14/99 11:30 am

Depths in Reference to Ground Surface

Item	Material	Depth
Top of Protective Casing		
Bottom of Protective Casing		
Top of Permanent Borehole Casing		
Bottom of Permanent Borehole Casing		
Top of Concrete		
Bottom of Concrete		
Top of Grout		
Bottom of Grout		
Top of Well Riser	2"	GS
Bottom of Well Riser	2"	5'
Top of Well Screen	2"	5'
Bottom of Well Screen	2"	15'
Top of Peltonite Seal	BENT	GS
Bottom of Peltonite Seal	CHIPS	3'
Top of Gravel Pack	CO	3'
Bottom of Gravel Pack	SAND	15'
Top of Natural Cave-In		
Bottom of Natural Cave-In		
Top of Groundwater		3.96'
Total Depth of Borehole		15'



Top of Protective Casing
Top of Riser
Ground Surface
Top of Seal GS
Top of Gravel Pack 3'
Top of Screen 5'
Bottom of Screen 15'
Bottom of Borehole 15'

Comments: LW FELL DRY & DEVELOPED W/ 7 GALLONS WATER REMOVED. DTW 5.16' AFTER BAILING. WELL IS A GOOD PRODUCER. INITIAL VERY TURBID W/ SLIGHT SHEEN & ODOR. SEDIMENT - NO SHEEN OR ODOR

Geologist Signature Cathy Cullicott

RECORD OF SUBSURFACE EXPLORATION

Philip Environmental Services Corp.
5000 Monroe Road
Farmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2388

Borehole # 2
Well # MW3
Page 1 of 2

Project Name BURLINGTON DRILLING
Project Number 42900086 Phase 35
Project Location TAYLOR COM #2A

Elevation
Borehole Location T30N R11W S17A
GWL Depth 3.56'
Logged By C. CULLICOTT
Drilled By E. PADILLA & D. PADILLA

Date/Time Started 10/14/99 11:30 am
Date/Time Completed 10/14/99 12:30 PM

Well Logged By C. CULLICOTT
Personnel On-Site E. PADILLA, D. PADILLA, R. THOMPSON
Contractors On-Site Ø
Client Personnel On-Site Ø

Drilling Method AUGER
Air Monitoring Method PID

Depth (Feet)		Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NDU BZ	BH	S	Drilling Conditions & Blow Counts
0										
5	(1)	5-7'		(1) 16" RECOVERY BELOW WATERTABLE BROWN FINE CLAYEY SAND UPPER 12" W/ PATCHES OF SOME GRAY CLAY THEN 2" OF BROWN CLAY W/ OILY APPEARANCE AND SOME FIBERS OF ? THEN 2" OF GRAY SAND.						(1) 4 BLOWS SS 0.0 PPM HS 0.0 PPM
10	(2)	10-11½		(2) 12" AS COLORED UPPER 4" BROWN SAND. NEXT 4" GREY CLAYEY SAND 2" + GREY CLAY 2", W/ OILY/BLACK APPEARANCE LAST 4" BROWN SAND, POORLY SORTED, >60% COARSE.						(2) 3 BLOWS SS 0.0 PPM HS 2.9 PPM
15										
20										
25										
30				COBBLES @ 13'						
35				TD, 15'						
40										

Comments: SUNNY, WARM

Geologist Signature Cathy Cullicott

ONITORING WELL INSTALLATION RECORD

Borehole # 2
Well # MW3
Page 2 of 2

illip Environmental Services Corp.
)00 Marvex Road
rmington, New Mexico 87401
(08) 326-2262 FAX (505) 326-2388

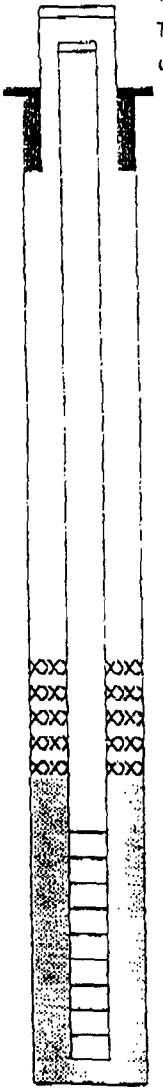
Project Name BURLINGTON DRILLING
Project Number 6280086 Phase 35
Project Location TAYLOR COM #2A

Elevation
Well Location T30N R11W S17A
SWL Depth 3.56'
Installed By E. PADILLA / D. PADILLA
Date/Time Started 10/14/99 11:30am
Date/Time Completed 10/14/99 12:30pm

On-Site Geologist C. CULLIGOTT
Personnel On-Site E. PADILLA, D. PADILLA, R. THOMPSON
Contractors On-Site 2
Client Personnel On-Site 0

Depths in Reference to Ground Surface

Item	Material	Depth
Top of Protective Casing		
Bottom of Protective Casing		
Top of Permanent Borehole Casing		
Bottom of Permanent Borehole Casing		
Top of Concrete		
Bottom of Concrete		
Top of Grout		
Bottom of Grout		
Top of Well Riser	2"	6.5
Bottom of Well Riser	2"	5'
Top of Well Screen	2"	5'
Bottom of Well Screen	2"	15'
Top of Peltonite Seal	BENT.	6.5
Bottom of Peltonite Seal	CHIPS	3'
Top of Gravel Pack	CO	3'
Bottom of Gravel Pack	SAND	15'
Top of Natural Cave-In		
Bottom of Natural Cave-In		
Top of Groundwater		3.56
Total Depth of Borehole		15'



Top of Protective Casing
Top of Riser
Ground Surface
Top of Seal 6.5
Top of Gravel Pack 3'
Top of Screen 5'
Bottom of Screen 15'
Bottom of Borehole 15'

Comments: WELL DEVELOPED W/ 7 gallons Removed
DTW after Bailing 3.65'
well is good producer,
water is very turbid
with Brown sediment.

Geologist Signature Cathy Culligott

LETTER TO MR. OLSON
DATED AUGUST 13, 1999

BURLINGTON RESOURCES

SAN JUAN DIVISION

August 13, 1999

Certified Mail: Z 186 732 850

Bill Olson
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505

RE: Taylor Com. #2A
Unit Letter A, Section 17, Township 30N, Range 11W
Notification of Groundwater above Benzene Standard

Dear Mr. Olson:

As a follow-up to the E-mail dated July 30, 1999, this letter is Burlington Resources' (BR) notification of groundwater that exceeded the benzene standard at the subject location. All other BTEX constituents were below the standards, but benzene was over 10 uG/L. BR is also proposing a plan of action to address the groundwater concerns at the Taylor Com. #2A.

During a spill cleanup on the subject location, BR excavated into an apparent abandoned earthen pit. As the excavation of impacted soils continued, groundwater was encountered at approximately 9 feet below ground surface. Impacted soils continued to be excavated to the extent practical until the "core" of impacted soils had been removed (approximate depth of 12 ft.). The excavation was backfilled with clean fill. BR then installed a temporary groundwater monitoring well in the center of the former earthen pit on May 19, 1999. After developing the well and allowing it to stabilize for one week, the well was purged and sampled on May 27, 1999. The sample results are as follows:

	Lab Results (uG/L)	Standard (uG/L)
Benzene	64	10
Toluene	<0.5	750
Ethylbenzene	23	750
Total Xylenes	98	640

Included with this letter are the groundwater lab analysis, the drilling log, and the monitoring well installation record.

Plan of Action:

BR proposes to complete the existing temporary monitoring well as the permanent source well and proceed with quarterly sampling for BTEX constituents. Due to the shallow depth of the groundwater, the relatively low contaminant level, and apparent groundwater flow direction (toward the Animas River), we feel additional monitoring wells are not justified at this time. If the sampling shows the water is below standards for 4 consecutive quarters, BR proposes no additional investigation/remediation work at this site. The 2-inch PVC casing would be

removed to the extent practical from the monitoring well and the wellbore would be filled to surface with a bentonite/cement grout.

If after four quarters of sampling, the source monitoring well continues to test above standards, BR will initiate additional investigation work including possible downgradient wells and soil borings to identify the extent of the impact and potential additional sources.

Please provide written correspondence concerning our proposed plan of action. If you have questions or additional information is needed, please contact me at (505) 326-9841.

Sincerely,

Ed Hasely
Sr. Staff Environmental Representative

Attachments: Drilling Log/Wellbore Diagram
Analytical Results

cc: Denny Foust - NMOCD Aztec
Johnny Ellis (letter only)
Bruce Gantner (letter only)
Facility File
Correspondence

Drilling Log/Wellbore Diagram

RECORD OF SUBSURFACE EXPLORATION

Borehole # 1
Well # MW-1 (I)
Page 1 of 1

Philip Environmental Services Corp.
4000 Monroe Road
Farmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2388

Project Name
Project Number 21073 Phase 1000.99
Project Location Taylor

Elevation
Borehole Location Taylor
GWL Depth 5'
Logged By P. Cheney
Drilled By K. Padilla
Date/Time Started 5/19 1113
Date/Time Completed 5/19

Well Logged By P. Cheney
Personnel On-Site Cheney, K. Padilla, D. Padilla
Contractors On-Site
Client Personnel On-Site Ed Hasely

Drilling Method 4 1/4" HSA
Air Monitoring Method PID

Depth (Feet)	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NDU BZ	BH	S	Drilling Conditions & Blow Counts
0			Pit excavated and back filled to ≃ 12' (Ed Hasely). 1st sample at 5-7'						
5	5 7	18"	brown silty clay w/ black staining, soft, moderate plasticity wet at ≃ 9'			0.0		1.5	BC = 3 S/HS = 87.0
10	10 12	24"	Dark gray to black, fine grained silty sand, poorly sorted, HC odor			1.1		1.4	BC = 2 S/HS = 2415.0
15	15 17	2"	coarse grained, well sorted sand			0.5		1.4	BC = 5 (4") S/HS: not enough sample to log and bag
20			TD = 15' Set 10' of 2" screen from 15' to 5', silica sand to 3', bentonite to ground surface						
25									
30									
35									
40									

Comments: Materials: 1 silt trap, 1-10' screen, 1-5' riser, 4 sacks silica sand

Geologist Signature [signature]

MONITORING WELL INSTALLATION RECORD

Phillip Environmental Services Corp.
4000 Monroe Road
Farmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2388

Borehole # 1
Well # MW-1
Page 1 of 1

Project Name
Project Number 21073 Phase 1000.99
Project Location Taylor

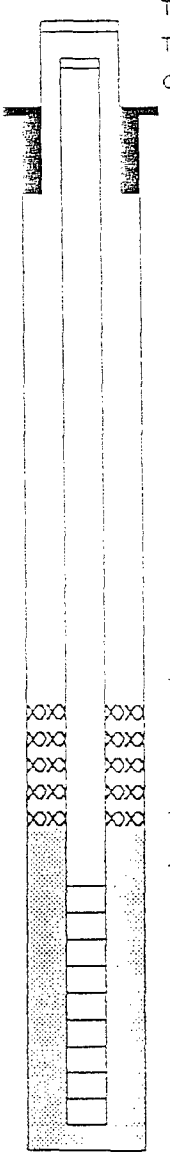
Elevation
Well Location Taylor
GWL Depth ~ 9'
Installed By R. Padilla

Date/Time Started 5/19 1113
Date/Time Completed 5/19

On-Site Geologist P. Cheney
Personnel On-Site Cheney, Padilla, D. Padilla
Contractors On-Site
Client Personnel On-Site Ed Hasely

Depths in Reference to Ground Surface

Item	Material	Depth
Top of Protective Casing		
Bottom of Protective Casing		
Top of Permanent Borehole Casing		
Bottom of Permanent Borehole Casing		
Top of Concrete		N.A.
Bottom of Concrete		N.A
Top of Grout		N.A.
Bottom of Grout		N.A
Top of Well Riser		Ground Surface
Bottom of Well Riser		5'
Top of Well Screen		5'
Bottom of Well Screen		15'
Top of Peltonite Seal		Ground Surface
Bottom of Peltonite Seal		3'
Top of Gravel Pack		3'
Bottom of Gravel Pack		15'
Top of Natural Cave-In		N.A.
Bottom of Natural Cave-In		N.A
Top of Groundwater		9'
Total Depth of Borehole		15'



Top of Protective Casing
Top of Riser
Ground Surface
Top of Seal Ground Surface
Top of Gravel Pack 3'
Top of Screen 5'
Bottom of Screen 15'
Bottom of Borehole 15'

Comments: Materials: 1 silt trap, 1-10' screen, 1-5' riser, 4 sacks silica sand, 1 sack bentonite

Geologist Signature Paul Cheney

Analytical Results - Groundwater

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

Pinnacle Lab ID number **905106**
June 14, 1999

PHILIP ENVIRONMENTAL
4000 MONROE ROAD
FARMINGTON, NM 87401

Project Name BURLINGTON DRILLING
Project Number 21057

Attention: PAUL CHENEY

On 5/28/99 Pinnacle Laboratories, Inc. Inc., (ADHS License No. AZ0592), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

EPA method 8021 was performed by Pinnacle Laboratories, Inc., Albuquerque, NM.

All other parameters were performed by Severn Trent (FL) Inc., Pensacola, FL.

If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph. D.
General Manager

MR: mt

Enclosure

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

CLIENT	: PHILIP ENVIRONMENTAL	PINNACLE ID	: 905106
PROJECT #	: 21057	DATE RECEIVED	: 5/28/99
PROJECT NAME	: BURLINGTON DRILLING	REPORT DATE	: 6/14/99

PIN ID. #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	BR-TAYLOR MW1	AQUEOUS	5/27/99
02	BR-FOGELSON MW1	AQUEOUS	5/27/99

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 21057
PROJECT NAME : BURLINGTON DRILLING

PINNACLE I.D.: 905106

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	BR-TAYLOR MW1	AQUEOUS	5/27/99	NA	5/28/99	1
02	BR-FOGELSON MW1	AQUEOUS	5/27/99	NA	5/28/99	10

PARAMETER	DET. LIMIT	UNITS	BR-TAYLOR MW1	BR-FOGELSON MW1
BENZENE	0.5	**UG/L**	**64**	**5.0**
TOLUENE	0.5	UG/L	< 0.5	< 5.0
ETHYLBENZENE	0.5	**UG/L**	**23**	**210**
TOTAL XYLENES	0.5	**UG/L**	**98**	**420**
SURROGATE:				
TRIFLUOROTOLUENE (%)			85	95
SURROGATE LIMITS	(69 - 117)			

CHEMIST NOTES:
N/A

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 905106
BLANK I. D.	: 052899	DATE EXTRACTED	: NA
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 5/28/99
PROJECT #	: 21057	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: BURLINGTON DRILLING		

PARAMETER	UNITS	
BENZENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
ETHYLBENZENE	UG/L	<0.5
TOTAL XYLENES	UG/L	<0.5
SURROGATE:		
TRIFLUOROTOLEUEN (%)		100
SURROGATE LIMITS:	(69 - 117)	

CHEMIST NOTES:
N/A

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

TEST	: EPA 8021 MODIFIED		
MSMSD #	: 905111-01	PINNACLE I.D.	: 905106
CLIENT	: PHILIP ENVIRONMENTAL	DATE EXTRACTED	: NA
PROJECT #	: 21057	DATE ANALYZED	: 5/28/99
PROJECT NAME	: BURLINGTON DRILLING	SAMPLE MATRIX	: AQUEOUS
		UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	10.0	10.1	101	10.5	105	4	(80 - 120)	20
TOLUENE	<0.5	10.0	10.5	105	10.5	105	0	(80 - 120)	20
ETHYLBENZENE	<0.5	10.0	10.8	108	10.8	108	0	(80 - 120)	20
TOTAL XYLENES	<0.5	30.0	32.2	107	32.0	107	1	(80 - 120)	20

CHEMIST NOTES:
N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Committed To *Your* Success

Severn Trent Laboratories
11 East Olive Road
Pensacola FL 32514

Tel: (850) 474-1001
Fax: (850) 478-2671

SIGNATURE PAGE

Reviewed by: _____
STL Project Manager

Client:	PINNACLE LABORATORIES ALBUQUERQUE, NEW MEXICO
Project Name:	PHIL
Project Number:	905106
Project Location:	BURLINGTON DRILLING
Accession Number:	905635
Project Manager:	KIMBERLY D. MCNEILL
Sampled By:	N/S

SEVERN TRENT LABORATORIES, INC. – PENSACOLA, FLORIDA
STATE CERTIFICATIONS

Alabama Department of Environmental Management, Laboratory ID No. 40150 (Drinking Water by Reciprocity with FL)

Arizona Department of Health Services, Lab ID No. AZ0589 (Hazardous Waste & Wastewater)

Arkansas Department of Pollution Control and Ecology, (No Laboratory ID No. assigned by state) (Environmental)

State of California, Department of Health Services, Laboratory ID No. 2338 (Hazardous Waste and Wastewater)

State of Connecticut, Department of Health Services, Connecticut Lab Approval No. PH-0697 (Drinking Water, Hazardous Waste and Wastewater)

Delaware Health & Social Services, Division of Public Health, Laboratory ID No. FL094 (Drinking Water by Reciprocity with FL)

Florida DOH Laboratory ID No. 81142 (Drinking Water), Laboratory ID No. E81010 (Hazardous Waste and Wastewater)

Florida, Radioactive Materials License No. G0733-1

Foreign Soil Permit, Permit No. S-37599

Kansas Department of Health & Environment, Laboratory ID No. E10253 (Wastewater and Hazardous Waste)

Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet, Laboratory ID No. 90043 (Drinking Water)

State of Louisiana, DHH, Office of Public Health Division of Laboratories, Laboratory ID No. 98-25 (Drinking Water)

State of Maryland, DH&MH Laboratory ID No. 233 (Drinking Water by Reciprocity with Florida)

Commonwealth of Massachusetts, DEP, Laboratory ID No. M-FL094 (Hazardous Waste and Wastewater)

State of Michigan, Bureau of E&OccH, Laboratory ID No.9912 (Drinking Water by Reciprocity with Florida)

New Hampshire DES, Laboratory ID No. 250598-A (Wastewater)

State of New Jersey, Department of Environmental Protection & Energy, Laboratory ID No. 49006 (Wastewate and Hazardous Waster)

New York State, Department of Health, Laboratory ID No. 11503 (Wastewater and Solids/Hazardous Waste)

North Carolina Department of Environment, Health, & Natural Resources, Laboratory ID No. 314 (Hazardous Waste and Wastewater)

North Dakota DH&Consol Labs, Laboratory ID No. R-108 (Hazardous Waste and Wastewater by Reciprocity with Florida)

State of Oklahoma, Oklahoma Department of Environmental Quality, Laboratory ID No. 9810 (Hazardous Waste and Wastewater)

Commonwealth of Pennsylvania, Department of Environmental Resources, Laboratory ID No. 68-467 (Drinking Water)

South Carolina DH&EC, Laboratory ID No. 96026 (Wastewater by Reciprocity with FL and Solids/Hazardous Waste by Reciprocity with CA)

Tennessee Department of Health & Environment, Laboratory ID No. 02907 (Drinking Water)

Tennessee Division of Underground Storage Tanks Approved Laboratory

Virginia Department of General Services, Laboratory ID No. 00008 (Drinking Water by Reciprocity with FL)

State of Washington, Department of Ecology, Laboratory ID No. C282 (Hazardous Waste and Wastewater)

West Virginia Division of Environmental Protection, Office of Water Resources, Laboratory ID No. 136 (Hazardous Waste and Wastewater by Reciprocity with FL)

American Industrial Hygiene Association (AIHA) Accredited Laboratory, Laboratory ID No. 9133

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

Analysis Report

Analysis: Group of Single Wetchem

Accession:	905635
Client:	PINNACLE LABORATORIES
Project Number:	905106
Project Name:	PHIL
Project Location:	BURLINGTON DRILLING
Department:	WET CHEM

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession: 905635
Client: PINNACLE LABORATORIES
Project Number: 905106
Project Name: PHIL
Project Location: BURLINGTON DRILLING
Test: Group of Single Wetchem
Matrix: WATER
QC Level: I

Lab ID: 001
Client Sample Id: 905106-01
Sample Date/Time: 27-MAY-99 1015
Received Date: 29-MAY-99

Parameters:	Units:	Results:	Rpt Lmts:	Q:	Batch:	Analyst:
CHLORIDE (4500-CL E)	MG/L	45	2		CKW22C	WH
NITRITE-NITRATE, NITROGEN (353.2)	MG/L	2.0	0.1		N3W36A	WH
SULFATE (375.4/4500E/9038)	MG/L	1000	200	+	SEW052	BE
TOTAL DISSOLVED SOLIDS (160.1)	MG/L	1800	5		TDW027	ED

Comments:

Taylor Com #2A

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession: 905635
Client: PINNACLE LABORATORIES
Project Number: 905106
Project Name: PHIL
Project Location: BURLINGTON DRILLING
Test: Group of Single Wetchem
Matrix: WATER
QC Level: I

Lab ID: 002
Client Sample Id: 905106-02
Sample Date/Time: 27-MAY-99 1215
Received Date: 29-MAY-99

Parameters:	Units:	Results:	Rpt Lmts:	Q:	Batch:	Analyst:
CHLORIDE (4500-CL E)	MG/L	430	10	+	CKW22C	WH
NITRITE-NITRATE, NITROGEN (353.2)	MG/L	ND	0.1		N3W36A	WH
SULFATE (375.4/4500E/9038)	MG/L	9300	2000	+	SEW052	BE
TOTAL DISSOLVED SOLIDS (160.1)	MG/L	14000	5		TDW027	ED

Comments:

Fogelson 4-1

"Method Report Summary"

Accession Number: 905635
Client: PINNACLE LABORATORIES
Project Number: 905106
Project Name: PHIL
Project Location: BURLINGTON DRILLING
Test: Group of Single Wetchem

Client Sample Id:	Parameter:	Unit:	Result:
905106-01	CHLORIDE (4500-CL E)	MG/L	45
	NITRITE-NITRATE, NITROGEN (353.2)	MG/L	2.0
	SULFATE (375.4/4500E/9038)	MG/L	1000
	TOTAL DISSOLVED SOLIDS (160.1)	MG/L	1800
905106-02	CHLORIDE (4500-CL E)	MG/L	430
	SULFATE (375.4/4500E/9038)	MG/L	9300
	TOTAL DISSOLVED SOLIDS (160.1)	MG/L	14000

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

Analysis Report

Analysis: RCRA METALS - AXIAL

Accession:	905635
Client:	PINNACLE LABORATORIES
Project Number:	905106
Project Name:	PHIL
Project Location:	BURLINGTON DRILLING
Department:	METALS

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession: 905635
Client: PINNACLE LABORATORIES
Project Number: 905106
Project Name: PHIL
Project Location: BURLINGTON DRILLING
Test: RCRA METALS - AXIAL
Matrix: WATER
QC Level: I

Lab Id: 001
Client Sample Id: 905106-01
Sample Date/Time: 27-MAY-99 1015
Received Date: 29-MAY-99

Parameters:	Units:	Results:	Rpt Lmts:	Q:	Batch:	Analyst:
SILVER (6010B)	MG/L	ND	0.005		AYW154	GSP
ARSENIC (6010B)	MG/L	ND	0.005		RYW154	GSP
BARIUM (6010B)	MG/L	0.38	0.01		BYW154	GSP
CADMIUM (6010B)	MG/L	ND	0.005		CYW154	GSP
CHROMIUM (6010B)	MG/L	0.008	0.005		HYW154	GSP
MERCURY (7470A)	MG/L	ND	0.0002		M7W047	JL
LEAD (6010B)	MG/L	0.042	0.005		PYW154	GSP
SELENIUM (6010B)	MG/L	ND	0.01		SYW154	GSP

Comments:

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"FINAL REPORT FORMAT - SINGLE"

Accession: 905635
Client: PINNACLE LABORATORIES
Project Number: 905106
Project Name: PHIL
Project Location: BURLINGTON DRILLING
Test: RCRA METALS - AXIAL
Matrix: WATER
QC Level: I

Lab Id: 002 Sample Date/Time: 27-MAY-99 1215
Client Sample Id: 905106-02 Received Date: 29-MAY-99

Parameters:	Units:	Results:	Rpt Lmts:	Q:	Batch:	Analyst:
SILVER (6010B)	MG/L	ND	0.005		AYW154	GSP
ARSENIC (6010B)	MG/L	0.006	0.005		RYW154	GSP
BARIUM (6010B)	MG/L	0.14	0.01		BYW154	GSP
CADMIUM (6010B)	MG/L	ND	0.005		CYW154	GSP
CHROMIUM (6010B)	MG/L	0.019	0.005		HYW154	GSP
MERCURY (7470A)	MG/L	ND	0.0002		M7W047	JL
LEAD (6010B)	MG/L	0.007	0.005		PYW154	GSP
SELENIUM (6010B)	MG/L	ND	0.01		SYW154	GSP

Comments:

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"Method Report Summary"

Accession Number: 905635
Client: PINNACLE LABORATORIES
Project Number: 905106
Project Name: PHIL
Project Location: BURLINGTON DRILLING
Test: RCRA METALS - AXIAL

Client Sample Id:	Parameter:	Unit:	Result:
905106-01	BARIUM (6010B)	MG/L	0.38
	CHROMIUM (6010B)	MG/L	0.008
	LEAD (6010B)	MG/L	0.042
905106-02	ARSENIC (6010B)	MG/L	0.006
	BARIUM (6010B)	MG/L	0.14
	CHROMIUM (6010B)	MG/L	0.019
	LEAD (6010B)	MG/L	0.007

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Data Qualifiers for Final Report

STL-Pensacola Inorganic/Organic and AFCEE Projects (under QAPP)

J4	(For positive results)	Temperature limits exceeded (≤2°C or ≥ 6°C)
J5	(TICs)	The reported value is quantitated as a TIC; therefore, it is estimated
J6	(For positive results)	LCS or Surrogate %R is > upper control limit (UCL) or < lower control limit (LCL)
J7	(For positive results)	The reported value is > the laboratory MDL and < lowest calibration standards; therefore, the quantitation is an estimation.
J (AFCEE description)	The analyte was positively identified, the quantitation is an estimation	
R1	(For nondetects)	Temperature limits exceeded (≤2°C or ≥ 6°C)
R2	Improper preservation, no preservative present in sample upon receipt	
R3	Improper preservation, incorrect preservative present in sample upon receipt	
R4	Holding time exceeded	
R5	Collection requirements not met, improper container used for sample	
R6	LCS or surrogate %R is < LCL and analyte is not detected or surrogate %R is < 10% for detects/nondetects	
R7	Internal standard area outside –50% to +100% of initial calibration midpoint standard.	
R8	Second source calibration verification exceeds acceptance criteria.	
R9	Improper preservation, sample not filtered in the field.	
R (AFCEE description)	The data are unusable due to deficiencies in the ability to analyze the sample and meet QC criteria	
F	< laboratory or AFCEE RL and > laboratory MDL	
F (AFCEE description)	The analyte was positively identified but the associated numerical value is below the AFCEE or lab RL	
U2	< Laboratory MDL (value for result will be the MDL, never below the MDL)	
U (AFCEE description)	The analyte was analyzed for but not detected. The associated numerical value is at or below the MDL	
B (AFCEE description)	The analyte was found in the associated blank, as well as in the sample	
@	Adjusted reporting limit due to sample matrix (dilution prior to digestion and/or analysis)	
+	Elevated reporting limit due to dilution into calibration range	
*	Elevated reporting limit due to matrix interference (dilution prior to digestion and/or analysis)	
#	Elevated reporting limit due to insufficient sample size	
D	Diluted out	
M	A matrix effect was present (sample was analyzed twice to confirm or chromatogram had interfering peaks)	
S	Incorrect sample amount was submitted to the laboratory for analysis	
T	Second-column confirmation exceeded the SW-846 criteria of 40% RPD for this compound.	

ND = Not Detected at or above the STL-Pensacola reporting limit (RL)
IDL = Laboratory Instrument Detection Limit
RL = Reporting Limit (AFCEE RLs are listed in the AFCEE QAPP)
N/S = Not Submitted N/A = Not Applicable
MDL = Laboratory Method Detection Limit

Any time a sample arrives at the laboratory improperly preserved (at improper pH or temperature) or after holding time has expired or prepared or analyzed after holding time, client must be notified in writing (i.e. case narrative)

Florida Projects Inorganic/Organic
Refer to back side of this page

ICR Projects Inorganic/Organic

A1	Acceptable	R6	Rejected

Examples: ICR Flags
R6 = Laboratory extracted the sample but the refrigerator malfunctioned so the extract became warm and client was notified
R6 = Sample arrived in laboratory in good condition; however, the laboratory did not analyze it within EPA's established holding time limit.

CLP and CLP-like Projects: Refer to referenced CLP Statement of Work (SOW) for explanation of data qualifiers

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

Quality Control Report

Analysis: Group of Single Wetchem

Accession:	905635
Client:	PINNACLE LABORATORIES
Project Number:	905106
Project Name:	PHIL
Project Location:	BURLINGTON DRILLING
Department:	WET CHEM

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"WetChem Quality Control Report"

Parameter:	CHLORIDE	NO2NO3	SULFATE	TDS
Batch Id:	CKW22C	N3W36A	SEW052	TDW027
Blank Result:	<2	<0.1	<5	<5
Anal. Method:	CL4500E	353.2	375.4	160.1
Prep. Method:	N/A	N/A	N/A	N/A
Analysis Date:	02-JUN-99	07-JUN-99	02-JUN-99	03-JUN-99
Prep. Date:	01-JUN-99	01-JUN-99	02-JUN-99	02-JUN-99
Sample Duplication				
Sample Dup:	905608-10	905611-1	905608-9	905635-1
Rept Limit:	<2	<0.1	<5	<5
Sample Result:	48.4	<0.1	19	1794
Dup Result:	48.4	<0.1	19	1856
Sample RPD:	0	N/C	0 G	3
Max RPD:	20	0.1	5	17
Dry Weight%	N/A	N/A	N/A	N/A
Matrix Spike				
Sample Spiked:	905608-10	905611-1	905608-9	N/A
Rept Limit:	<2	<0.1	<5	N/A
Sample Result:	48.4	<0.1	19	
Spiked Result:	73.4	0.97	38	
Spike Added:	25.0	1.00	20	
% Recovery:	100	97	95	
% Rec Limits:	79-132	71-123	61-138	
Dry Weight%	N/A	N/A	N/A	
ICV				
ICV Result:	50.2	1.94	20	
True Result:	50.0	2.00	20	
% Recovery:	100	97	100	
% Rec Limits:	90-110	90-110	90-110	
LCS				
LCS Result:				296
True Result:				293
% Recovery:				101
% Rec Limits:				73-125

"Quality Control Comments"

Batch Id:	Comments:
TDW027	906013-1,2,3,4,5,6,7,8,9,10 were added to batch on 03-Jun-99
TDW027	906043-1,2,3 were added to batch on 04-Jun-99

----- Common Footnotes WetChem -----

N/A = NOT APPLICABLE.
N/S = NOT SUBMITTED.
N/C = SAMPLE AND DUPLICATE RESULTS ARE AT OR BELOW STL REPORTING LIMIT; THEREFORE, THE RPD IS "NOT CALCULABLE" AND NO CONTROL LIMITS APPLY.
N/D = NOT DETECTED AT OR ABOVE THE STL-PENSACOLA REPORTING LIMIT (RL).
R = REACTIVE
T = TOTAL
G = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X STL REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE RESULT IS AT OR BELOW STL REPORTING LIMIT; THEREFORE, THE RESULTS ARE "IN CONTROL".
Q = THE ANALYTICAL (POST-DISTILLATION) SPIKE IS REPORTED DUE TO PERCENT RECOVERY BEING OUTSIDE ACCEPTANCE LIMITS ON THE MATRIX (PRE-DISTILLATION) SPIKE.
# = ELEVATED REPORTING LIMIT DUE TO INSUFFICIENT SAMPLE.
+ = ELEVATED REPORTING LIMIT DUE TO DILUTION INTO CALIBRATION RANGE.
* = ELEVATED REPORTING LIMIT DUE TO MATRIX INTERFERENCE (DILUTION PRIOR DIGESTION AND/OR ANALYSIS).
@ = ADJUSTED REPORTING LIMIT DUE TO SAMPLE MATRIX (DILUTION PRIOR TO DIGESTION AND/OR ANALYSIS).
P = ANALYTICAL (POST DIGESTION) SPIKE.
I = DUPLICATE INJECTION.
& = AUTOMATED
F = SAMPLE SPIKED > 4 X SPIKE CONCENTRATION.
N/C+ = NOT CALCULABLE
H = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X STL REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE STL REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL".
A = SAMPLE AND DUPLICATE RESULTS ARE "OUT OF CONTROL".
Z = THE SAMPLE RESULT FOR THE SPIKE IS BELOW THE REPORTING LIMIT. HOWEVER, THIS RESULT IS REPORTED FOR ACCURATE QC CALCULATIONS.
NH= SAMPLE AND / OR DUPLICATE RESULT IS BELOW 5 X STL REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE STL REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL". SAMPLE IS NON-HOMOGENEOUS.
(*) = REPORTING LIMITS RAISED DUE TO CLP METHOD NOT REQUIRING A CONCENTRATION STEP FOR CN.
(CA) = SEE CORRECTIVE ACTIONS FORM.
**= MATRIX INTERFERENCE
SW-846, 3rd Edition, latest EPA-approved edition.
EPA 600/4-79-020, Revised March 1983.
STANDARD METHODS, For the Examination of Water and Wastewater, latest EPA-approved edition.
NIOSH Manual of Analytical Methods, 4th Edition.
ANNUAL BOOK OF ASTM STANDARDS, VOLUMES 11.01 and 11.02, latest EPA-approved edition.
METHODS FOR THE DETERMINATION OF INORGANIC SUBSTANCES IN ENVIRONMENTAL SAMPLES, EPA600/R-93/100, AUGUST 1993
METHODS FOR SOIL ANALYSIS, PART 2, CHEMICAL AND MICROBILOGICAL PROPERTIES, 2ND EDITION.
STL-PN USES THE MOST CURRENT PROMULGATED METHODS FROM THE REFERENCES LISTED ABOVE.

1. COLIFORM. COLIFORM PRECISION IS MEASURED BY THE ABSOLUTE DIFFERENCE BETWEEN THE LOGARITHM OF COLONIES PER 100 MLS OF SAMPLE ON DUPLICATE PLATES.
2. PH. PH PRECISION IS MEASURED BY THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE ANALYSIS.
3. FLASHPOINT. FLASHPOINT PRECISION IS MEASURED BY THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE ANALYSIS.

RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION).
RPD LMTS = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES.
COE = EPA/COE, EPA/CE-81-1, 1981, AMMONIA, TKN, NO3-NO2, T-PO4 AND PHENOL PREPARATION METHODS.
SAMPLES AND QC SAMPLES ARE NOT ADJUSTED FOR DRY WEIGHT UNLESS REQUESTED BY THE CLIENT.

DPH = DOLLY P. HWANG	RB = REBECCA BROWN	WH = WENDY HAGGARD
ED = ESTHER DANTIN	CR = CYNTHIA ROBERTS	AB = AMY BRADLEY
BE = BETTY EVERTON	PLD = PAULA L. DOUGHTY	
RH = RICKY HAGENDORFER	LT = LISA TORRES	

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

Quality Control Report

Analysis: RCRA METALS - AXIAL

Accession:	905635
Client:	PINNACLE LABORATORIES
Project Number:	905106
Project Name:	PHIL
Project Location:	BURLINGTON DRILLING
Department:	METALS

SEVERN TRENT LABORATORIES 11 East Olive Road Pensacola, Florida 32514 (850) 474-1001

"Metals Quality Control Report"

Parameter:	SILVER	ARSENIC	BARIUM	CADMIUM	CHROMIUM	MERCURY
Batch Id:	AYW154	RYW154	BYW154	CYW154	HYW154	M7W047
Blank Result:	<0.005	<0.005	<0.01	<0.005	<0.005	<0.0002
Anal. Method:	6010B	6010B	6010B	6010B	6010B	7470A
Prep. Method:	3010A	3010A	3010A	3010A	3010A	7470A
Analysis Date:	08-JUN-99	08-JUN-99	08-JUN-99	08-JUN-99	08-JUN-99	09-JUN-99
Prep. Date:	07-JUN-99	07-JUN-99	07-JUN-99	07-JUN-99	07-JUN-99	09-JUN-99
Sample Duplication						
Sample Dup:	905635-2	905635-2	905635-2	905635-2	905635-2	905588-1
Rept Limit:	<0.005	<0.005	<0.01	<0.005	<0.005	<0.0002
Sample Result:	0.55	1.0	1.1	0.48	0.99	0.0050
Dup Result:	0.54	1.0	1.1	0.48	0.99	0.0048
Sample RPD:	2	0	0	0	0	4
Max RPD:	20	20	20	20	20	20
Dry Weight%	N/A	N/A	N/A	N/A	N/A	N/A
Matrix Spike						
Sample Spiked:	905635-2	905635-2	905635-2	905635-2	905635-2	905588-1
Rept Limit:	<0.005	<0.005	<0.01	<0.005	<0.005	<0.0002
Sample Result:	<0.005	0.006	0.14	<0.005	0.019	<0.0002
Spiked Result:	0.55	1.0	1.1	0.48	0.99	0.0050
Spike Added:	0.5	1.0	1.0	0.5	1.0	0.0050
% Recovery:	110	99	96	96	97	100
% Rec Limits:	75-125	75-125	75-125	75-125	75-125	75-125
Dry Weight%	N/A	N/A	N/A	N/A	N/A	N/A
ICV						
ICV Result:	0.49	1.0	1.0	0.50	1.0	0.0039
True Result:	0.5	1.0	1.0	0.5	1.0	0.0040
% Recovery:	98	100	100	100	100	98
% Rec Limits:	90-110	90-110	90-110	90-110	90-110	90-110
LCS						
LCS Result:	0.52	1.0	1.0	0.52	1.0	0.0051
True Result:	0.5	1.0	1.0	0.5	1.0	0.0050
% Recovery:	104	100	100	104	100	102
% Rec Limits:	80-120	80-120	80-120	80-120	80-120	85-115

"Metals Quality Control Report"

Parameter:	LEAD	SELENIUM
Batch Id:	PYW154	SYW154
Blank Result:	<0.005	<0.01
Anal. Method:	6010B	6010B
Prep. Method:	3010A	3010A
Analysis Date:	08-JUN-99	08-JUN-99
Prep. Date:	07-JUN-99	07-JUN-99
Sample Duplication		
Sample Dup:	905635-2	905635-2
Rept Limit:	<0.005	<0.01
Sample Result:	0.96	1.0
Dup Result:	0.97	1.0
Sample RPD:	1	0
Max RPD:	20	20
Dry Weight%	N/A	N/A
Matrix Spike		
Sample Spiked:	905635-2	905635-2
Rept Limit:	<0.005	<0.01
Sample Result:	0.007	<0.01
Spiked Result:	0.96	1.0
Spike Added:	1.0	1.0
% Recovery:	95	100
% Rec Limits:	75-125	75-125
Dry Weight%	N/A	N/A
ICV		
ICV Result:	0.98	0.99
True Result:	1.0	1.0
% Recovery:	98	99
% Rec Limits:	90-110	90-110
LCS		
LCS Result:	1.0	0.99
True Result:	1.0	1.0
% Recovery:	100	99
% Rec Limits:	80-120	80-120

--- Data Qualifiers for Metals QC Report ----

N/A = NOT APPLICABLE.
N/S = NOT SUBMITTED.
N/C = SAMPLE AND DUPLICATE RESULTS ARE AT OR BELOW THE REPORTING LIMIT; THEREFORE, THE RPD IS "NOT CALCULABLE" AND NO CONTROL LIMITS APPLY.
N/D = NOT DETECTED AT OR ABOVE THE STL-PENSACOLA REPORTING LIMIT (RL).
DISS. OR D = DISSOLVED
T & D = TOTAL AND DISSOLVED
R = REACTIVE
T = TOTAL
G = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X THE REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE RESULT IS AT OR BELOW STL REPORTING LIMIT; THEREFORE, THE RESULTS ARE "IN CONTROL".
Q = THE ANALYTICAL (POST-DIGESTION) SPIKE IS REPORTED DUE TO PERCENT RECOVERY BEING OUTSIDE ACCEPTANCE LIMITS ON THE MATRIX (PRE-DIGESTION) SPIKE.
# = ELEVATED REPORTING LIMIT DUE TO INSUFFICIENT SAMPLE.
+ = ELEVATED REPORTING LIMIT DUE TO DILUTION INTO CALIBRATION RANGE.
* = ELEVATED REPORTING LIMIT DUE TO MATRIX INTERFERENCE. (DILUTION PRIOR TO ANALYSIS)
@ = ADJUSTED REPORTING LIMIT DUE TO SAMPLE MATRIX. (DILUTION PRIOR TO DIGESTION)
P = ANALYTICAL (POST DIGESTION) SPIKE.
I = DUPLICATE INJECTION.
& = AUTOMATED
F = SAMPLE SPIKED > 4 X SPIKE CONCENTRATION.
N/C+ = NOT CALCULABLE
N/C* = NOT CALCULABLE; SAMPLE SPIKED > 4 X SPIKE CONCENTRATION.
H = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X STL REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE STL REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL".
A = SAMPLE AND DUPLICATE RESULTS ARE "OUT OF CONTROL".
Z = THE SAMPLE RESULT FOR THE SPIKE IS BELOW THE STL REPORTING LIMIT. HOWEVER, THIS RESULT IS REPORTED FOR ACCURATE QC CALCULATIONS.
NH= THE RELATIVE PERCENT DIFFERENCE (RPD) EXCEEDS THE STL CONTROL LIMIT AND IS "OUT OF CONTROL; DUE TO A NON-HOMOGENEOUS SAMPLE MATRIX.
J = (FLORIDA DEP 'J' FLAG) - MATRIX SPIKE AND POST SPIKE RECOVERY IS OUT OF THE ACCEPTABLE RANGE. SEE OUT OF CONTROL EVENTS FORM.
U = (FLORIDA DEP 'U' FLAG) - THE COMPOUND WAS ANALYZED FOR, BUT NOT DETECTED.
S = METHOD OF STANDARD ADDITIONS (MSA) WAS PERFORMED ON THIS SAMPLE.
M = A MATRIX EFFECT WAS PRESENT (SAMPLE WAS ANALYZED TWICE TO CONFIRM).
SCN = SEE CASE NARRATIVE.

FROM QUALITY CONTROL REPORT:
RPD= RELATIVE PERCENT DEVIATION.
REPT LIMIT= REPORTING LIMIT BASED ON METHOD DETECTION LIMIT STUDIES.

NOTE: ALL RESULTS REPORTED UNDER 'SAMPLE DUPLICATION' ARE THE MS/MSD.

NOTE: THE UNITS REPORTED ON THE QUALITY CONTROL REPORT ARE REPORTED ON AN AS RUN BASIS. (NOT ADJUSTED FOR DRY WEIGHT).

SW-846, 3rd Edition.
EPA 600/4-79-020, Revised March 1983.
NIOSH Manual of Analytical Methods, 4th Edition.
Standard Methods For the Examination of Water and Wastewater, 18th Edition, 1992.
Methods For the Determination of Metals in Environmental Samples - Supplement I, EPA 600/R-94-111, May 1994.

GSP = GARY ST PERE LT = LISA TORRES KN = KAREN NALL
CH = CHRIS HIGH JL = JANET LECLEAR MPE = MARTY EDWARDS

SEVERN TRENT LABORATORIES, [redacted] 11 East Olive Rd Pensacola [redacted] 32514 (850) 474-1001

Data Qualifiers for Final Report

STL-Pensacola Inorganic/Organic and AFCEE Projects (under QAPP)

J4	(For positive results)	Temperature limits exceeded (≤2°C or ≥ 6°C)
J5	(TICs)	The reported value is quantitated as a TIC; therefore, it is estimated
J6	(For positive results)	LCS or Surrogate %R is > upper control limit (UCL) or < lower control limit (LCL)
J7	(For positive results)	The reported value is > the laboratory MDL and < lowest calibration standards; therefore, the quantitation is an estimation.
J (AFCEE description)	The analyte was positively identified, the quantitation is an estimation	
R1	(For nondetects)	Temperature limits exceeded (≤2°C or ≥ 6°C)
R2	Improper preservation, no preservative present in sample upon receipt	
R3	Improper preservation, incorrect preservative present in sample upon receipt	
R4	Holding time exceeded	
R5	Collection requirements not met, improper container used for sample	
R6	LCS or surrogate %R is < LCL and analyte is not detected or surrogate %R is < 10% for detects/nondetects	
R7	Internal standard area outside –50% to +100% of initial calibration midpoint standard.	
R8	Second source calibration verification exceeds acceptance criteria.	
R9	Improper preservation, sample not filtered in the field.	
R (AFCEE description)	The data are unusable due to deficiencies in the ability to analyze the sample and meet QC criteria	
F	< laboratory or AFCEE RL and > laboratory MDL	
F (AFCEE description)	The analyte was positively identified but the associated numerical value is below the AFCEE or lab RL	
U2	≤ Laboratory MDL (value for result will be the MDL, never below the MDL)	
U (AFCEE description)	The analyte was analyzed for but not detected. The associated numerical value is at or below the MDL	
B (AFCEE description)	The analyte was found in the associated blank, as well as in the sample	
@	Adjusted reporting limit due to sample matrix (dilution prior to digestion and/or analysis)	
+	Elevated reporting limit due to dilution into calibration range	
*	Elevated reporting limit due to matrix interference (dilution prior to digestion and/or analysis)	
#	Elevated reporting limit due to insufficient sample size	
D	Diluted out	
M	A matrix effect was present (sample was analyzed twice to confirm or chromatogram had interfering peaks)	
S	Incorrect sample amount was submitted to the laboratory for analysis	
T	Second-column confirmation exceeded the SW-846 criteria of 40% RPD for this compound.	

ND = Not Detected at or above the STL-Pensacola reporting limit (RL) N/S = Not Submitted N/A = Not Applicable
IDL = Laboratory Instrument Detection Limit MDL = Laboratory Method Detection Limit
RL = Reporting Limit (AFCEE RLs are listed in the AFCEE QAPP)

Any time a sample arrives at the laboratory improperly preserved (at improper pH or temperature) or after holding time has expired or prepared or analyzed after holding time, client must be notified in writing (i.e. case narrative)

Florida Projects Inorganic/Organic
Refer to back side of this page

ICR Projects Inorganic/Organic

A1	Acceptable	R6	Rejected

Examples: ICR Flags
R6 = Laboratory extracted the sample but the refrigerator malfunctioned so the extract became warm and client was notified
R6 = Sample arrived in laboratory in good condition; however, the laboratory did not analyze it within EPA's established holding time limit.

CLP and CLP-like Projects: Refer to referenced CLP Statement of Work (SOW) for explanation of data qualifiers

Severn Trent Laboratories of Florida
PROJECT SAMPLE INSPECTION FORM

Lab Accession #: 905635 Date Received: 29-May-99

1.	Was there a Chain of Custody?	(Yes)	No*		8.	Were samples checked for preservative? *(Check pH of all H_2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)**	(Yes)	No*	N/A
2.	Was Chain of Custody properly filled out and relinquished?	(Yes)	No*		9.	Is there sufficient volume for analysis requested?	(Yes)	No*	N/A (Can)
3.	Were samples received cold? (Criteria: 2° - 6°C: STL-SOP 1055)	(Yes)	No*	N/A	10.	Were samples received within Holding Time? (REFER TO STL-SOP 1040)	Yes	(No*)	
4.	Were all samples properly labeled and identified?	(Yes)	No*		11.	Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section.	Yes*	No	(N/A)
5.	Did samples require splitting? Req By: PM Client Other*	Yes*	(No)		12.	If sent, were matrix spike bottles returned?	Yes	No*	(N/A)
6.	Were samples received in proper containers for analysis requested?	(Yes)	No*		13.	Was Project Manager notified of problems? (initials: PM)	(Yes)	No*	(N/A) PE 5/29/99
7.	Were all sample containers received intact?	(Yes)	No*						

Airbill Number(s): 4412 6310 3632 **Shipped By:** FEDEX

Cooler Number(s): Client Cooler **Shipping Charges:** N/A

Cooler Weight(s): N/A **Cooler Temp(s) (°C):** 2.0°C - CCK5

(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

10. The NO2 sample for sample 905106-01 was received out of hold time. PE 5/29/99.

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: PE **Date:** 5/29/99 **Logged By:** PE **Date:** 5/29/99

- ♣ *Note all Out-of-Control and/or questionable events on Comment Section of this form.*
- ♦ *Note who requested the splitting of samples on the Comment Section of this form.*
- \+ *All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938).*
- ★ *According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of-control (STL-SOP 938).*

Pinnacle Laboratories, Inc. **Interlab Chain of Custody** Date: 5/28 Page: 1 of 1

Network Project Manager: Kimberly D. McNeill

Pinnacle Laboratories, Inc.
2709-D Pan American Freeway, NE
Albuquerque, New Mexico 87107
(505) 344-3777 Fax (505) 344-4413

1145 905635

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Metals (8) RCRA	RCRA TCLP METALS	Metals-13 PP List	Metals-TAL		TOX	TOC	Gen Chemistry: Cl, SO4, NO2/NO3	TDS	Oil and Grease	Volatile Organics GC/MS (8260)	BOD	COD	PESTICIDES/PCB (608/8080)	8270 BY GC/MS	PNA (8310)	8240 (TCLP 1311) ZHE	Herbicides (615/8150)	Base/Neutral Acid Compounds GC/MS (625/8270)	URANIUM	RADIUM 226+228	Gross Alpha/Beta	TO-14	NUMBER OF CONTAINERS
905106-01	5/27	1015	AQ	1	X							X	X															
-02	"	1215	"	2	X							X	X															

PROJECT INFORMATION	SAMPLE RECEIPT	SAMPLES SENT TO:	RELINQUISHED BY: 1.	RELINQUISHED BY: 2.
PROJECT #: 905106	Total Number of Containers	PENSACOLA - STL-FL X	Signature: Time: Francine Trino 1700	Signature: Time:
PROJ. NAME: PHIL	Chain of Custody Seals	PORTLAND - ESL-OR	Printed Name: Date: Francine Trino 5/28/99	Printed Name: Date:
QC LEVEL: STD. IV	Received Intact?	STL - CT		
QC REQUIRED: MS MSD BLANK	Received Good Cond./Cold	STL- NEW JERSEY		
TAT: STANDARD RUSH!!	LAB NUMBER:	N. CREEK	Pinnacle Laboratories, Inc.	Company
		BARRINGER	RECEIVED BY: 1.	RECEIVED BY: 2
DUE DATE: 6/11	COMMENTS:	SEQUOIA	Signature: Time: 1000	Signature: Time:
RUSH SURCHARGE: —			Printed Name: Date: 5/29/99 R. ELSPERMAN	Printed Name: Date:
CLIENT DISCOUNT: —			Company STL-FL	Company
SPECIAL CERTIFICATION REQUIRED: YES NO				

Pinnacle Laboratories Inc.

CHAIN OF CUSTODY

DATE: _____ PAGE: ___ OF ___

PLI Accession #: 905106

PLEASE FILL THIS FORM IN COMPLETELY. SHADED AREAS ARE FOR LAB USE ONLY.

PROJECT MANAGER:

COMPANY: Philip Services
ADDRESS: 4000 Monroe Rd
Farmington, NM 87401
PHONE: (505) 326-2262
FAX:

BILL TO: Cecil Irby
COMPANY: Philip Services
ADDRESS: 4000 Monroe Rd
Farmington, NM 87401

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.	Petroleum Hydrocarbons (418.1) TRPH	(MOD.8015) Diesel/Direct Inject		(M8015) Gas/Purge & Trap	8021 (BTEX)/8015 (Gasoline) MTBE	8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE	8021 (TCL)	8021 (EDX)	8021 (HALO)	8021 (CUST)	504.1 EDB ☐ / DBCP ☐	8260 (TCL) Volatile Organics	8260 (Full) Volatile Organics	8260 (CUST) Volatile Organics	8260 (Landfill) Volatile Organics	Pesticides /PCB (608/8081/8082)	Herbicides (615/8151)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Polynuclear Aromatics (610/8310/8270-SIMS)	General Chemistry: Cl, SO_4, NO_3 TDS,	Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by TCLP (Method 1311)	Metals:		NUMBER OF CONTAINERS
BR-TaylorMW1	5/27	1015	water	01						X														X				X			5
BR-Fogelson MW1	5/27	1215	water	02						X														X				X			5

PROJECT INFORMATION

PROJ. NO.: 21057
PROJ. NAME: Burlington Drilling
P.O. NO.:
SHIPPED VIA:

SAMPLE RECEIPT

NO. CONTAINERS	10
CUSTODY SEALS	Y / N / NA
RECEIVED INTACT	YES
BLUE ICE/ICE	4°C

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☒ 1 WEEK (NORMAL) ☐

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

RELINQUISHED BY: 1.

Signature: P. Cheney Time: 1521

Printed Name: P. Cheney Date: 5/27/99

Company: See reverse side (Force Magure)

RECEIVED BY: 1.

Signature: Time:

Printed Name: Date:

Company:

RELINQUISHED BY: 2.

Signature: Time:

Printed Name: Date:

Company:

RECEIVED BY: (LAB) 2.

Signature: Francine Tonvio Time: 1010

Printed Name: Francine Tonvio Date: 5/28/99

Pinnacle Laboratories Inc.