HIP - ____108_____

MONITORING REPORTS

YEAR(S):

_____2008_____

Jones, Brad A., EMNRD

From: Bruce Gillick [BGillick@markwest.com]
Sent: Friday, March 28, 2008 8:52 AM
To: Jones, Brad A., EMNRD
Subject: RE: HI-108 Analytical Results for Discharge on ROW

Brad,

I talked with the employees working in Hobbs about the source of the hydrostatic test water. The water was taken from a city water main in the town of Eunice. Water was trucked to the pipeline site.

Bruce

From: Jones, Brad A., EMNRD [mailto:brad.a.jones@state.nm.us]
Sent: Thursday, March 27, 2008 4:13 PM
To: Bruce Gillick
Cc: Johnson, Larry, EMNRD
Subject: HI-108 Analytical Results for Discharge on ROW

Bruce,

I have reviewed the test results of the hydrostatic test water and they satisfy the conditions set forth in the approved permit and application. Please implement best management practices and erosion control measures when releasing the water. Also, please comply with the application and the conditions of your permit (HI-108) for on-site discharge.

This approval does not relieve MarkWest of responsibility should its operation result in pollution of surface water, ground water, or the environment. In addition, NMOCD approval does not relieve MarkWest of responsibility for compliance with other federal, state or local regulations.

Brad A. Jones
Environmental Engineer
Environmental Bureau
NM Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505
E-mail: brad.a.jones@state.nm.us
Office: (505) 476-3487
Fax: (505) 476-3462

Jones, Brad A., EMNRD

From: Jones, Brad A., EMNRD
Sent: Thursday, March 27, 2008 4:13 PM
To: Bruce Gillick
Cc: Johnson, Larry, EMNRD
Subject: HI-108 Analytical Results for Discharge on ROW

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Brad A. Jones
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Environmental Bureau
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1220 S. St. Francis Drive
Santa Fe, New Mexico 87505
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Office: (505) 476-3487
Fax: (505) 476-3462

Jones, Brad A., EMNRD

From: Bruce Gillick [BGillick@markwest.com]
Sent: Thursday, March 27, 2008 4:00 PM
To: Jones, Brad A., EMNRD
Subject: FW: final results including sulfate
Attachments: 803052_final report.pdf

Brad,
Here are the final results including sulfate.

From: Mitch Rubenstein [mailto:mitch4516@gmail.com]
Sent: Thursday, March 27, 2008 3:48 PM
To: Bruce Gillick
Subject: final results including sulfate

here is the fianl report

mitch

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 400-29340-1

Job Description: 803052

For:
Pinnacle Laboratories
2709-D Pan American Freeway Northeast
Albuquerque, NM 87107

Attention: Francine Torivio

Marty Edwards
Project Manager I
marty.edwards@testamericainc.com
03/27/2008

The test results in this report meet all NELAP requirements for accredited parameters and relate only to the referenced samples. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory.

TestAmerica Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), California (2510), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250507), New Jersey (FL006), New York (11503), North Carolina (314), North Dakota (R-108), Oklahoma (9810), Pennsylvania (68-00467), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-08-TX), Virginia (00008), Washington (C2043), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

HPLC
No analytical or quality issues were noted.

GC Semi VOA
No analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
Method(s) 3520C: Batch 66157 / Method 8310 Insufficient sample volume was provided to meet method-mandated requirements for matrix spike/matrix spike duplicate (MS/MSD) analyses.

No other analytical or quality issues were noted.

METHOD SUMMARY

Client: Pinnacle Laboratories | Job Number: 400-29340-1

Description	Lab Location	Method	Preparation Method
Matrix Water			
Polynuclear Aromatic Hydrocarbons	TAL PEN	SW846 8310	
Continuous Liquid-Liquid Extraction	TAL PEN		SW846 3520C
PCBs	TAL PEN	SW846 8082	
Continuous Liquid-Liquid Extraction	TAL PEN		SW846 3520C
Inductively Coupled Plasma - Atomic Emission Spectrometry	TAL PEN	SW846 6010B	
Acid Digestion of Aqueous Samples and Extracts for	TAL PEN		SW846 3010A
Mercury	TAL PEN	SW846 7470A	
Mercury in Liquid Waste (Manual Cold Vapor	TAL PEN		SW846 7470A
pH, Electrometric	TAL PEN	MCAWW 150.1	
Total Dissolved Solids	TAL PEN	SM18 160.1	
Chloride	TAL PEN	MCAWW 325.2	
Cyanide	TAL PEN	EPA 335.2	
Distillation/Cyanide	TAL PEN		Distill/CN
Fluoride (Potentiometric, Ion Selective Electrode)	TAL PEN	MCAWW 340.2	
Nitrate-Nitrite	TAL PEN	EPA 353.2	
Nitrite (Spectrophotometric)	TAL PEN	MCAWW 354.1	
Sulfate	TAL PEN	MCAWW 375.4	
Phenolics (Spectrophotometric, Manual 4-AAP with Distillation)	TAL PEN	MCAWW 420.1	
Distillation/Phenolics	TAL PEN		Distill/Phenol

Lab References:

TAL PEN = TestAmerica Pensacola

Method References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM18 = "Standard Methods For The Examination Of Water And Wastewater", 18th Edition, 1992.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Pinnacle Laboratories

Job Number: 400-29340-1

Method	Analyst	Analyst ID
SW846 8310	Chea, Vando	VC
SW846 8082	Ayers, Kim	KA
SW846 6010B	St. Pere, Gary	GS
SW846 7470A	Cortez, Maria	MC
MCAWW 150.1	Taber, Sharon	ST
SM18 160.1	Taber, Sharon	ST
MCAWW 325.2	Hooe, Jennifer	JH
EPA 335.2	Gimlin, Wendy	WG
MCAWW 340.2	Taber, Sharon	ST
EPA 353.2	Gill, Jennifer	JG
MCAWW 354.1	Taber, Sharon	ST
MCAWW 375.4	Gimlin, Wendy	WG
MCAWW 420.1	Hooe, Jennifer	JH

SAMPLE SUMMARY

Client: Pinnacle Laboratories

Job Number: 400-29340-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
400-29340-1	HOBBS PIPELINE 08-017	Water	03/18/2008 1105	03/19/2008 0945

SAMPLE RESULTS

Client: *Pinnacle Laboratories* Job Number: 400-29340-1

Client Sample ID: **HOBBS PIPELINE 08-017**

Lab Sample ID: 400-29340-1 Date Sampled: 03/18/2008 1105
Client Matrix: Water Date Received: 03/19/2008 0945

8310 Polynuclear Aromatic Hydrocarbons

Method: 8310 Analysis Batch: 400-66394 Instrument ID: HPLC/UV/FLUOR
Preparation: 3520C Prep Batch: 400-66157 Lab File ID: 006-0601.D
Dilution: 1.0 Initial Weight/Volume: 960 mL
Date Analyzed: 03/21/2008 1847 Final Weight/Volume: 1.0 mL
Date Prepared: 03/20/2008 0747 Injection Volume:

Analyte	Result (ug/L)	Qualifier	RL
Naphthalene	<1.0		1.0
Acenaphthylene	<1.0		1.0
1-Methylnaphthalene	<1.0		1.0
2-Methylnaphthalene	<1.0		1.0
Acenaphthene	<1.0		1.0
Fluorene	<1.0		1.0
Phenanthrene	<1.0		1.0
Anthracene	<1.0		1.0
Fluoranthene	<1.0		1.0
Pyrene	<1.0		1.0
Benzo[a]anthracene	<0.21		0.21
Chrysene	<1.0		1.0
Benzo[b]fluoranthene	<0.21		0.21
Benzo[k]fluoranthene	<0.52		0.52
Benzo[a]pyrene	<0.21		0.21
Dibenz(a,h)anthracene	<0.21		0.21
Benzo[g,h,i]perylene	<1.0		1.0
Indeno[1,2,3-cd]pyrene	<0.21		0.21

Surrogate	%Rec	Acceptance Limits
2-Chloroanthracene	95	41 - 177

Client: Pinnacle Laboratories

Job Number: 400-29340-1

Client Sample ID: **HOBBS PIPELINE 08-017**

Lab Sample ID: 400-29340-1
Client Matrix: Water

Date Sampled: 03/18/2008 1105
Date Received: 03/19/2008 0945

8082 PCBs

Method: 8082
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 03/25/2008 2003
Date Prepared: 03/20/2008 0743

Analysis Batch: 400-66538
Prep Batch: 400-66153

Instrument ID: GC/ECD/ECD
Lab File ID: 1001010.D
Initial Weight/Volume: 960 mL
Final Weight/Volume: 10 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
PCB-1016	<0.52		0.52
PCB-1221	<0.52		0.52
PCB-1232	<0.52		0.52
PCB-1242	<0.52		0.52
PCB-1248	<0.52		0.52
PCB-1254	<0.52		0.52
PCB-1260	<0.52		0.52

Surrogate	%Rec	Acceptance Limits
DCB Decachlorobiphenyl	73	28 - 79
Tetrachloro-m-xylene	101	34 - 124

Client: Pinnacle Laboratories

Job Number: 400-29340-1

Client Sample ID: HOBBS PIPELINE 08-017

Lab Sample ID: 400-29340-1
Client Matrix: Water

Date Sampled: 03/18/2008 1105
Date Received: 03/19/2008 0945

6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B
Preparation: 3010A
Dilution: 1.0
Date Analyzed: 03/21/2008 1637
Date Prepared: 03/20/2008 1620

Analysis Batch: 400-66336
Prep Batch: 400-66237

Instrument ID: ICP-AES
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result (mg/L)	Qualifier	RL
Aluminum	<0.10		0.10
Arsenic	0.0080		0.0050
Barium	0.063		0.010
Boron	0.12		0.10
Cadmium	<0.0050		0.0050
Chromium	<0.0050		0.0050
Cobalt	<0.010		0.010
Copper	<0.010		0.010
Iron	<0.10		0.10
Lead	<0.0050		0.0050
Manganese	<0.010		0.010
Molybdenum	<0.010		0.010
Nickel	<0.0050		0.0050
Selenium	<0.010		0.010
Silver	<0.0050		0.0050
Zinc	<0.020		0.020

7470A Mercury

Method: 7470A
Preparation: 7470A
Dilution: 1.0
Date Analyzed: 03/25/2008 0944
Date Prepared: 03/24/2008 1055

Analysis Batch: 400-66457
Prep Batch: 400-66404

Instrument ID: PE FLOW
Lab File ID: N/A
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result (mg/L)	Qualifier	RL
Mercury	<0.00020		0.00020

General Chemistry

Client Sample ID: **HOBBS PIPELINE 08-017**

Lab Sample ID: 400-29340-1
Client Matrix: Water

Date Sampled: 03/18/2008 1105
Date Received: 03/19/2008 0945

Analyte	Result	Qual	Units		RL	Dil	Method
Chloride	54		mg/L		2.0	1.0	325.2
	Anly Batch: 400-66569		Date Analyzed	03/26/2008 1236			
Cyanide, Total	<0.0050		mg/L		0.0050	1.0	335.2
	Anly Batch: 400-66312		Date Analyzed	03/20/2008 1603			
	Prep Batch: 400-66185		Date Prepared:	03/20/2008 0940			
Fluoride	1.0		mg/L		0.10	1.0	340.2
	Anly Batch: 400-66397		Date Analyzed	03/24/2008 1143			
Nitrate as N	1.9		mg/L		0.20	2.0	353.2
	Anly Batch: 400-66431		Date Analyzed	03/24/2008 1643			
Nitrate Nitrite as N	1.9		mg/L		0.20	2.0	353.2
	Anly Batch: 400-66431		Date Analyzed	03/24/2008 1643			
Nitrite as N	<0.10		mg/L		0.10	1.0	354.1
	Anly Batch: 400-66245		Date Analyzed	03/19/2008 1248			
Sulfate	60		mg/L		25	5.0	375.4
	Anly Batch: 400-66657		Date Analyzed	03/27/2008 1554			

Analyte	Result	Qual	Units		Dil	Method
pH	7.6	HF	SU		1.0	150.1
	Anly Batch: 400-66362		Date Analyzed	03/19/2008 1250		

Analyte	Result	Qual	Units		RL	Dil	Method
Total Dissolved Solids	390		mg/L		5.0	1.0	160.1
	Anly Batch: 400-66219		Date Analyzed	03/20/2008 1316			
Phenols, Total	<0.0050		mg/L		0.0050	1.0	420.1
	Anly Batch: 400-66259		Date Analyzed	03/20/2008 1540			
	Prep Batch: 400-66258		Date Prepared:	03/20/2008 1138			

QUALITY CONTROL RESULTS

Client: Pinnacle Laboratories

Job Number: 400-29340-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
HPLC					
Prep Batch: 400-66157					
LCS 400-66157/3-A	Lab Control Spike	T	Water	3520C	
MB 400-66157/4-A	Method Blank	T	Water	3520C	
400-29340-1	HOBBS PIPELINE 08-017	T	Water	3520C	
Analysis Batch:400-66394					
LCS 400-66157/3-A	Lab Control Spike	T	Water	8310	400-66157
MB 400-66157/4-A	Method Blank	T	Water	8310	400-66157
400-29340-1	HOBBS PIPELINE 08-017	T	Water	8310	400-66157

Report Basis
T = Total

GC Semi VOA					
Prep Batch: 400-66153					
LCS 400-66153/4-A	Lab Control Spike	T	Water	3520C	
MB 400-66153/5-A	Method Blank	T	Water	3520C	
400-29340-1	HOBBS PIPELINE 08-017	T	Water	3520C	
400-29340-1MS	Matrix Spike	T	Water	3520C	
400-29340-1MSD	Matrix Spike Duplicate	T	Water	3520C	
Analysis Batch:400-66538					
LCS 400-66153/4-A	Lab Control Spike	T	Water	8082	400-66153
MB 400-66153/5-A	Method Blank	T	Water	8082	400-66153
400-29340-1	HOBBS PIPELINE 08-017	T	Water	8082	400-66153
400-29340-1MS	Matrix Spike	T	Water	8082	400-66153
400-29340-1MSD	Matrix Spike Duplicate	T	Water	8082	400-66153

Report Basis
T = Total

Client: Pinnacle Laboratories

Job Number: 400-29340-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 400-66237					
LCS 400-66237/24-A	Lab Control Spike	T	Water	3010A	
MB 400-66237/23-A	Method Blank	T	Water	3010A	
400-29338-A-1-B MS	Matrix Spike	T	Water	3010A	
400-29338-A-1-C MSD	Matrix Spike Duplicate	T	Water	3010A	
400-29340-1	HOBBS PIPELINE 08-017	T	Water	3010A	
Analysis Batch:400-66336					
LCS 400-66237/24-A	Lab Control Spike	T	Water	6010B	400-66237
MB 400-66237/23-A	Method Blank	T	Water	6010B	400-66237
400-29338-A-1-B MS	Matrix Spike	T	Water	6010B	400-66237
400-29338-A-1-C MSD	Matrix Spike Duplicate	T	Water	6010B	400-66237
400-29340-1	HOBBS PIPELINE 08-017	T	Water	6010B	400-66237
Prep Batch: 400-66404					
LCS 400-66404/15-A	Lab Control Spike	T	Water	7470A	
MB 400-66404/14-A	Method Blank	T	Water	7470A	
400-29340-1	HOBBS PIPELINE 08-017	T	Water	7470A	
400-29340-1MS	Matrix Spike	T	Water	7470A	
400-29340-1MSD	Matrix Spike Duplicate	T	Water	7470A	
Analysis Batch:400-66457					
LCS 400-66404/15-A	Lab Control Spike	T	Water	7470A	400-66404
MB 400-66404/14-A	Method Blank	T	Water	7470A	400-66404
400-29340-1	HOBBS PIPELINE 08-017	T	Water	7470A	400-66404
400-29340-1MS	Matrix Spike	T	Water	7470A	400-66404
400-29340-1MSD	Matrix Spike Duplicate	T	Water	7470A	400-66404

Report Basis
T = Total

Client: Pinnacle Laboratories

Job Number: 400-29340-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 400-66185					
LCS 400-66185/2-A	Lab Control Spike	T	Water	Distill/CN	
MB 400-66185/1-A	Method Blank	T	Water	Distill/CN	
400-29340-1	HOBBS PIPELINE 08-017	T	Water	Distill/CN	
400-29340-1MS	Matrix Spike	T	Water	Distill/CN	
400-29340-1MSD	Matrix Spike Duplicate	T	Water	Distill/CN	
Analysis Batch:400-66219					
LCS 400-66219/2	Lab Control Spike	T	Water	160.1	
MB 400-66219/1	Method Blank	T	Water	160.1	
400-29332-B-1 DU	Duplicate	T	Water	160.1	
400-29340-1	HOBBS PIPELINE 08-017	T	Water	160.1	
Analysis Batch:400-66245					
LCS 400-66245/2	Lab Control Spike	T	Water	354.1	
MB 400-66245/1	Method Blank	T	Water	354.1	
400-29340-1	HOBBS PIPELINE 08-017	T	Water	354.1	
400-29340-1MS	Matrix Spike	T	Water	354.1	
400-29340-1MSD	Matrix Spike Duplicate	T	Water	354.1	
Prep Batch: 400-66258					
LCS 400-66258/2-A	Lab Control Spike	T	Water	Distill/Phenol	
MB 400-66258/1-A	Method Blank	T	Water	Distill/Phenol	
400-29170-H-1-B MS	Matrix Spike	T	Water	Distill/Phenol	
400-29170-H-1-C MSD	Matrix Spike Duplicate	T	Water	Distill/Phenol	
400-29235-A-4-C DU	Duplicate	T	Water	Distill/Phenol	
400-29340-1	HOBBS PIPELINE 08-017	T	Water	Distill/Phenol	
Analysis Batch:400-66259					
LCS 400-66258/2-A	Lab Control Spike	T	Water	420.1	400-66258
MB 400-66258/1-A	Method Blank	T	Water	420.1	400-66258
400-29170-H-1-B MS	Matrix Spike	T	Water	420.1	400-66258
400-29170-H-1-C MSD	Matrix Spike Duplicate	T	Water	420.1	400-66258
400-29235-A-4-C DU	Duplicate	T	Water	420.1	400-66258
400-29340-1	HOBBS PIPELINE 08-017	T	Water	420.1	400-66258
Analysis Batch:400-66312					
LCS 400-66185/2-A	Lab Control Spike	T	Water	335.2	400-66185
MB 400-66185/1-A	Method Blank	T	Water	335.2	400-66185
400-29340-1	HOBBS PIPELINE 08-017	T	Water	335.2	400-66185
400-29340-1MS	Matrix Spike	T	Water	335.2	400-66185
400-29340-1MSD	Matrix Spike Duplicate	T	Water	335.2	400-66185
Analysis Batch:400-66362					
400-29340-1	HOBBS PIPELINE 08-017	T	Water	150.1	
400-29340-1DU	Duplicate	T	Water	150.1	

Client: Pinnacle Laboratories

Job Number: 400-29340-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:400-66397					
LCS 400-66397/2	Lab Control Spike	T	Water	340.2	
MB 400-66397/1	Method Blank	T	Water	340.2	
640-15620-A-1 MS	Matrix Spike	T	Water	340.2	
640-15620-A-1 MSD	Matrix Spike Duplicate	T	Water	340.2	
400-29340-1	HOBBS PIPELINE 08-017	T	Water	340.2	
Analysis Batch:400-66431					
LCS 400-66431/2	Lab Control Spike	T	Water	353.2	
MB 400-66431/1	Method Blank	T	Water	353.2	
400-29340-1	HOBBS PIPELINE 08-017	T	Water	353.2	
400-29345-A-13 MS	Matrix Spike	T	Water	353.2	
400-29345-A-13 MSD	Matrix Spike Duplicate	T	Water	353.2	
Analysis Batch:400-66569					
LCS 400-66569/2	Lab Control Spike	T	Water	325.2	
MB 400-66569/1	Method Blank	T	Water	325.2	
400-29340-1	HOBBS PIPELINE 08-017	T	Water	325.2	
400-29340-1MS	Matrix Spike	T	Water	325.2	
400-29340-1MSD	Matrix Spike Duplicate	T	Water	325.2	
Analysis Batch:400-66657					
LCS 400-66657/2	Lab Control Spike	T	Water	375.4	
MB 400-66657/1	Method Blank	T	Water	375.4	
400-29340-1	HOBBS PIPELINE 08-017	T	Water	375.4	
400-29340-1MS	Matrix Spike	T	Water	375.4	
400-29340-1MSD	Matrix Spike Duplicate	T	Water	375.4	

Report Basis
T = Total

Client: Pinnacle Laboratories

Job Number: 400-29340-1

Method Blank - Batch: 400-66157

Method: 8310
Preparation: 3520C

Lab Sample ID: MB 400-66157/4-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/21/2008 1740
Date Prepared: 03/20/2008 0747

Analysis Batch: 400-66394
Prep Batch: 400-66157
Units: ug/L

Instrument ID: HPLC/UV/FLUOR
Lab File ID: 004-0401.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result	Qual	RL
Naphthalene	<1.0		1.0
Acenaphthylene	<1.0		1.0
1-Methylnaphthalene	<1.0		1.0
2-Methylnaphthalene	<1.0		1.0
Acenaphthene	<1.0		1.0
Fluorene	<1.0		1.0
Phenanthrene	<1.0		1.0
Anthracene	<1.0		1.0
Fluoranthene	<1.0		1.0
Pyrene	<1.0		1.0
Benzo[a]anthracene	<0.20		0.20
Chrysene	<1.0		1.0
Benzo[b]fluoranthene	<0.20		0.20
Benzo[k]fluoranthene	<0.50		0.50
Benzo[a]pyrene	<0.20		0.20
Dibenz(a,h)anthracene	<0.20		0.20
Benzo[g,h,i]perylene	<1.0		1.0
Indeno[1,2,3-cd]pyrene	<0.20		0.20

Surrogate	% Rec	Acceptance Limits
2-Chloroanthracene	75	41 - 177

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Pinnacle Laboratories

Job Number: 400-29340-1

Lab Control Spike - Batch: 400-66157

Method: 8310
Preparation: 3520C

Lab Sample ID: LCS 400-66157/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/21/2008 1813
Date Prepared: 03/20/2008 0747

Analysis Batch: 400-66394
Prep Batch: 400-66157
Units: ug/L

Instrument ID: HPLC/UV/FLUOR
Lab File ID: 005-0501.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Naphthalene	10.0	5.95	60	19 - 135	
Acenaphthylene	10.0	5.84	58	39 - 105	
1-Methylnaphthalene	10.0	6.41	64	32 - 96	
2-Methylnaphthalene	10.0	5.77	58	34 - 97	
Acenaphthene	10.0	6.69	67	31 - 109	
Fluorene	10.0	6.94	69	41 - 112	
Phenanthrene	10.0	7.70	77	45 - 117	
Anthracene	10.0	8.17	82	43 - 121	
Fluoranthene	10.0	8.49	85	55 - 138	
Pyrene	10.0	8.69	87	61 - 127	
Benzo[a]anthracene	10.0	8.90	89	60 - 124	
Chrysene	10.0	9.60	96	54 - 120	
Benzo[b]fluoranthene	10.0	9.07	91	48 - 116	
Benzo[k]fluoranthene	10.0	9.22	92	35 - 120	
Benzo[a]pyrene	10.0	8.83	88	41 - 128	
Dibenz(a,h)anthracene	10.0	10.5	105	13 - 134	
Benzo[g,h,i]perylene	10.0	9.54	95	17 - 138	
Indeno[1,2,3-cd]pyrene	10.0	9.64	96	31 - 130	

Surrogate	% Rec	Acceptance Limits
2-Chloroanthracene	85	41 - 177

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Pinnacle Laboratories

Job Number: 400-29340-1

Method Blank - Batch: 400-66153

Method: 8082
Preparation: 3520C

Lab Sample ID: MB 400-66153/5-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/25/2008 1852
Date Prepared: 03/20/2008 0743

Analysis Batch: 400-66538
Prep Batch: 400-66153
Units: ug/L

Instrument ID: GC/ECD/ECD
Lab File ID: 0601006.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result	Qual	RL
PCB-1016	<0.50		0.50
PCB-1221	<0.50		0.50
PCB-1232	<0.50		0.50
PCB-1242	<0.50		0.50
PCB-1248	<0.50		0.50
PCB-1254	<0.50		0.50
PCB-1260	<0.50		0.50

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	62	28 - 79
Tetrachloro-m-xylene	77	34 - 124

Lab Control Spike - Batch: 400-66153

Method: 8082
Preparation: 3520C

Lab Sample ID: LCS 400-66153/4-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/25/2008 1910
Date Prepared: 03/20/2008 0743

Analysis Batch: 400-66538
Prep Batch: 400-66153
Units: ug/L

Instrument ID: GC/ECD/ECD
Lab File ID: 0701007.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 10 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
PCB-1016	10.0	9.54	95	38 - 147	
PCB-1260	10.0	11.5	115	39 - 123	

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	69	28 - 79
Tetrachloro-m-xylene	73	34 - 124

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Pinnacle Laboratories

Job Number: 400-29340-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 400-66153

Method: 8082
Preparation: 3520C

MS Lab Sample ID:	400-29340-1	Analysis Batch: 400-66538	Instrument ID: GC/ECD/ECD
Client Matrix:	Water	Prep Batch: 400-66153	Lab File ID: 0801008.D
Dilution:	1.0		Initial Weight/Volume: 960 mL
Date Analyzed:	03/25/2008 1928		Final Weight/Volume: 10 mL
Date Prepared:	03/20/2008 0743		Injection Volume:
			Column ID: PRIMARY
MSD Lab Sample ID:	400-29340-1	Analysis Batch: 400-66538	Instrument ID: GC/ECD/ECD
Client Matrix:	Water	Prep Batch: 400-66153	Lab File ID: 0901009.D
Dilution:	1.0		Initial Weight/Volume: 960 mL
Date Analyzed:	03/25/2008 1945		Final Weight/Volume: 10 mL
Date Prepared:	03/20/2008 0743		Injection Volume:
			Column ID: PRIMARY

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
PCB-1016	118	101	40 - 140	16	50		
PCB-1260	109	110	40 - 140	1	50		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
DCB Decachlorobiphenyl	74	76	28 - 79
Tetrachloro-m-xylene	123	121	34 - 124

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Pinnacle Laboratories

Job Number: 400-29340-1

Method Blank - Batch: 400-66237

Method: 6010B
Preparation: 3010A

Lab Sample ID: MB 400-66237/23-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/21/2008 1456
Date Prepared: 03/20/2008 1620

Analysis Batch: 400-66336
Prep Batch: 400-66237
Units: mg/L

Instrument ID: ICP-AES
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Aluminum	<0.10		0.10
Arsenic	<0.0050		0.0050
Barium	<0.010		0.010
Boron	<0.10		0.10
Cadmium	<0.0050		0.0050
Chromium	<0.0050		0.0050
Cobalt	<0.010		0.010
Copper	<0.010		0.010
Iron	<0.10		0.10
Lead	<0.0050		0.0050
Manganese	<0.010		0.010
Molybdenum	<0.010		0.010
Nickel	<0.0050		0.0050
Selenium	<0.010		0.010
Silver	<0.0050		0.0050
Zinc	<0.020		0.020

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Pinnacle Laboratories

Job Number: 400-29340-1

Lab Control Spike - Batch: 400-66237

Method: 6010B
Preparation: 3010A

Lab Sample ID: LCS 400-66237/24-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/21/2008 1501
Date Prepared: 03/20/2008 1620

Analysis Batch: 400-66336
Prep Batch: 400-66237
Units: mg/L

Instrument ID: ICP-AES
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	10.0	10.1	101	80 - 120	
Arsenic	1.00	1.02	102	80 - 120	
Barium	1.00	1.01	101	80 - 120	
Boron	1.00	0.982	98	80 - 120	
Cadmium	0.500	0.518	104	80 - 120	
Chromium	1.00	1.02	102	80 - 120	
Cobalt	1.00	1.02	102	80 - 120	
Copper	1.00	1.03	103	80 - 120	
Iron	10.0	10.2	102	80 - 120	
Lead	1.00	1.04	104	80 - 120	
Manganese	1.00	1.03	103	80 - 120	
Molybdenum	1.00	1.01	101	80 - 120	
Nickel	1.00	1.03	103	80 - 120	
Selenium	1.00	0.965	96	80 - 120	
Silver	0.500	0.511	102	80 - 120	
Zinc	1.00	1.04	104	80 - 120	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Pinnacle Laboratories

Job Number: 400-29340-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 400-66237

Method: 6010B
Preparation: 3010A

MS Lab Sample ID:	400-29338-A-1-B MS	Analysis Batch: 400-66336	Instrument ID: ICP-AES
Client Matrix:	Water	Prep Batch: 400-66237	Lab File ID: N/A
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	03/21/2008 1527		Final Weight/Volume: 50 mL
Date Prepared:	03/20/2008 1620		

MSD Lab Sample ID:	400-29338-A-1-C MSD	Analysis Batch: 400-66336	Instrument ID: ICP-AES
Client Matrix:	Water	Prep Batch: 400-66237	Lab File ID: N/A
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	03/21/2008 1532		Final Weight/Volume: 50 mL
Date Prepared:	03/20/2008 1620		

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aluminum	104	106	75 - 125	2	20		
Arsenic	102	103	75 - 125	0	20		
Barium	101	103	75 - 125	1	20		
Boron	100	101	75 - 125	1	20		
Cadmium	103	104	75 - 125	1	20		
Chromium	102	103	75 - 125	1	20		
Cobalt	102	103	75 - 125	1	20		
Copper	103	105	75 - 125	2	20		
Iron	102	104	75 - 125	2	20		
Lead	104	105	75 - 125	1	20		
Manganese	103	104	75 - 125	1	20		
Molybdenum	101	102	75 - 125	2	20		
Nickel	102	103	75 - 125	1	20		
Selenium	97	97	75 - 125	0	20		
Silver	102	103	75 - 125	1	20		
Zinc	104	104	75 - 125	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Pinnacle Laboratories

Job Number: 400-29340-1

Method Blank - Batch: 400-66404

Method: 7470A
Preparation: 7470A

Lab Sample ID: MB 400-66404/14-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/25/2008 0941
Date Prepared: 03/24/2008 1055

Analysis Batch: 400-66457
Prep Batch: 400-66404
Units: mg/L

Instrument ID: PE FLOW INJECTION
Lab File ID: N/A
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
Mercury	<0.00020		0.00020

Lab Control Spike - Batch: 400-66404

Method: 7470A
Preparation: 7470A

Lab Sample ID: LCS 400-66404/15-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/25/2008 0943
Date Prepared: 03/24/2008 1055

Analysis Batch: 400-66457
Prep Batch: 400-66404
Units: mg/L

Instrument ID: PE FLOW INJECTION
Lab File ID: N/A
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00100	0.000999	100	80 - 120	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 400-66404

Method: 7470A
Preparation: 7470A

MS Lab Sample ID: 400-29340-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/25/2008 0951
Date Prepared: 03/24/2008 1055

Analysis Batch: 400-66457
Prep Batch: 400-66404

Instrument ID: PE FLOW INJECTION
Lab File ID: N/A
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

MSD Lab Sample ID: 400-29340-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/25/2008 0953
Date Prepared: 03/24/2008 1055

Analysis Batch: 400-66457
Prep Batch: 400-66404

Instrument ID: PE FLOW INJECTION
Lab File ID: N/A
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	95	93	75 - 125	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Pinnacle Laboratories

Job Number: 400-29340-1

Duplicate - Batch: 400-66362

Method: 150.1
Preparation: N/A

Lab Sample ID: 400-29340-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/19/2008 1251
Date Prepared: N/A

Analysis Batch: 400-66362
Prep Batch: N/A
Units: SU

Instrument ID: Accumet AB 15+
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH	7.6	7.60	0		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Pinnacle Laboratories

Job Number: 400-29340-1

Method Blank - Batch: 400-66219

Method: 160.1
Preparation: N/A

Lab Sample ID: MB 400-66219/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/20/2008 1316
Date Prepared: N/A

Analysis Batch: 400-66219
Prep Batch: N/A
Units: mg/L

Instrument ID: Denver Balance
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume:

Analyte	Result	Qual	RL
Total Dissolved Solids	<5.0		5.0

Lab Control Spike - Batch: 400-66219

Method: 160.1
Preparation: N/A

Lab Sample ID: LCS 400-66219/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/20/2008 1316
Date Prepared: N/A

Analysis Batch: 400-66219
Prep Batch: N/A
Units: mg/L

Instrument ID: Denver Balance
Lab File ID: N/A
Initial Weight/Volume: mL
Final Weight/Volume: mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Dissolved Solids	293	276	94	83 - 110	

Duplicate - Batch: 400-66219

Method: 160.1
Preparation: N/A

Lab Sample ID: 400-29332-B-1 DU
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/20/2008 1316
Date Prepared: N/A

Analysis Batch: 400-66219
Prep Batch: N/A
Units: mg/L

Instrument ID: Denver Balance
Lab File ID: N/A
Initial Weight/Volume: mL
Final Weight/Volume: mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Dissolved Solids	160	156	3	19	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Pinnacle Laboratories

Job Number: 400-29340-1

Method Blank - Batch: 400-66569

Method: 325.2
Preparation: N/A

Lab Sample ID: MB 400-66569/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/26/2008 1236
Date Prepared: N/A

Analysis Batch: 400-66569
Prep Batch: N/A
Units: mg/L

Instrument ID: Konelab 1
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Chloride	<2.0		2.0

Lab Control Spike - Batch: 400-66569

Method: 325.2
Preparation: N/A

Lab Sample ID: LCS 400-66569/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/26/2008 1236
Date Prepared: N/A

Analysis Batch: 400-66569
Prep Batch: N/A
Units: mg/L

Instrument ID: Konelab 1
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 10 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride	50.0	48.5	97	90 - 110	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 400-66569

Method: 325.2
Preparation: N/A

MS Lab Sample ID: 400-29340-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/26/2008 1236
Date Prepared: N/A

Analysis Batch: 400-66569
Prep Batch: N/A

Instrument ID: Konelab 1
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 10 mL

MSD Lab Sample ID: 400-29340-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/26/2008 1236
Date Prepared: N/A

Analysis Batch: 400-66569
Prep Batch: N/A

Instrument ID: Konelab 1
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 10 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Chloride	98	101	73 - 120	1	8		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Pinnacle Laboratories

Job Number: 400-29340-1

Method Blank - Batch: 400-66185

Method: 335.2
Preparation: Distill/CN

Lab Sample ID: MB 400-66185/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/20/2008 1659
Date Prepared: 03/20/2008 0940

Analysis Batch: 400-66312
Prep Batch: 400-66185
Units: mg/L

Instrument ID: Konelab 1
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Cyanide, Total	<0.0050		0.0050

Lab Control Spike - Batch: 400-66185

Method: 335.2
Preparation: Distill/CN

Lab Sample ID: LCS 400-66185/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/20/2008 1603
Date Prepared: 03/20/2008 0940

Analysis Batch: 400-66312
Prep Batch: 400-66185
Units: mg/L

Instrument ID: Konelab 1
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	0.570	0.535	94	85 - 115	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 400-66185

Method: 335.2
Preparation: Distill/CN

MS Lab Sample ID: 400-29340-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/20/2008 1603
Date Prepared: 03/20/2008 0940

Analysis Batch: 400-66312
Prep Batch: 400-66185

Instrument ID: Konelab 1
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 400-29340-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/20/2008 1639
Date Prepared: 03/20/2008 1440

Analysis Batch: 400-66312
Prep Batch: 400-66185

Instrument ID: Konelab 1
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Cyanide, Total	83	89	68 - 133	7	36		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Pinnacle Laboratories

Job Number: 400-29340-1

Method Blank - Batch: 400-66397

Method: 340.2
Preparation: N/A

Lab Sample ID: MB 400-66397/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/24/2008 1143
Date Prepared: N/A

Analysis Batch: 400-66397
Prep Batch: N/A
Units: mg/L

Instrument ID: Fluoride Meter 1 (Orion 52(
Lab File ID: N/A
Initial Weight/Volume: mL
Final Weight/Volume: mL

Analyte	Result	Qual	RL
Fluoride	<0.10		0.10

Lab Control Spike - Batch: 400-66397

Method: 340.2
Preparation: N/A

Lab Sample ID: LCS 400-66397/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/24/2008 1143
Date Prepared: N/A

Analysis Batch: 400-66397
Prep Batch: N/A
Units: mg/L

Instrument ID: Fluoride Meter 1 (Orion 52(
Lab File ID: N/A
Initial Weight/Volume: mL
Final Weight/Volume: 25 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Fluoride	1.00	0.925	93	90 - 110	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 400-66397

Method: 340.2
Preparation: N/A

MS Lab Sample ID: 640-15620-A-1 MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/24/2008 1143
Date Prepared: N/A

Analysis Batch: 400-66397
Prep Batch: N/A

Instrument ID: Fluoride Meter 1 (Orion
Lab File ID: N/A
Initial Weight/Volume: mL
Final Weight/Volume: 25 mL

MSD Lab Sample ID: 640-15620-A-1 MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/24/2008 1143
Date Prepared: N/A

Analysis Batch: 400-66397
Prep Batch: N/A

Instrument ID: Fluoride Meter 1 (Orion 52(
Lab File ID: N/A
Initial Weight/Volume: mL
Final Weight/Volume: 25 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Fluoride	106	107	74 - 125	0	4		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Pinnacle Laboratories

Job Number: 400-29340-1

Method Blank - Batch: 400-66431

Method: 353.2
Preparation: N/A

Lab Sample ID: MB 400-66431/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/24/2008 1643
Date Prepared: N/A

Analysis Batch: 400-66431
Prep Batch: N/A
Units: mg/L

Instrument ID: Lachat 1
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume:

Analyte	Result	Qual	RL
Nitrate Nitrite as N	<0.10		0.10

Lab Control Spike - Batch: 400-66431

Method: 353.2
Preparation: N/A

Lab Sample ID: LCS 400-66431/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/24/2008 1643
Date Prepared: N/A

Analysis Batch: 400-66431
Prep Batch: N/A
Units: mg/L

Instrument ID: Lachat 1
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 10.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N	0.500	0.520	104	90 - 110	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 400-66431

Method: 353.2
Preparation: N/A

MS Lab Sample ID: 400-29345-A-13 MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/24/2008 1643
Date Prepared: N/A

Analysis Batch: 400-66431
Prep Batch: N/A

Instrument ID: Lachat 1
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 10.0 mL

MSD Lab Sample ID: 400-29345-A-13 MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/24/2008 1643
Date Prepared: N/A

Analysis Batch: 400-66431
Prep Batch: N/A

Instrument ID: Lachat 1
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 10.0 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Nitrate Nitrite as N	101	101	90 - 110	0	4		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Pinnacle Laboratories

Job Number: 400-29340-1

Method Blank - Batch: 400-66245

Method: 354.1
Preparation: N/A

Lab Sample ID: MB 400-66245/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/19/2008 1248
Date Prepared: N/A

Analysis Batch: 400-66245
Prep Batch: N/A
Units: mg/L

Instrument ID: Konelab 1
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume:

Analyte	Result	Qual	RL
Nitrite as N	<0.10		0.10

Lab Control Spike - Batch: 400-66245

Method: 354.1
Preparation: N/A

Lab Sample ID: LCS 400-66245/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/19/2008 1248
Date Prepared: N/A

Analysis Batch: 400-66245
Prep Batch: N/A
Units: mg/L

Instrument ID: Konelab 1
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 25 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrite as N	0.200	0.188	94	90 - 110	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 400-66245

Method: 354.1
Preparation: N/A

MS Lab Sample ID: 400-29340-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/19/2008 1248
Date Prepared: N/A

Analysis Batch: 400-66245
Prep Batch: N/A

Instrument ID: Konelab 1
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 25 mL

MSD Lab Sample ID: 400-29340-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/19/2008 1248
Date Prepared: N/A

Analysis Batch: 400-66245
Prep Batch: N/A

Instrument ID: Konelab 1
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 25 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Nitrite as N	93	92	80 - 118	1	9		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Pinnacle Laboratories

Job Number: 400-29340-1

Method Blank - Batch: 400-66657

Method: 375.4
Preparation: N/A

Lab Sample ID: MB 400-66657/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/27/2008 1542
Date Prepared: N/A

Analysis Batch: 400-66657
Prep Batch: N/A
Units: mg/L

Instrument ID: Konelab 1
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Sulfate	<5.0		5.0

Lab Control Spike - Batch: 400-66657

Method: 375.4
Preparation: N/A

Lab Sample ID: LCS 400-66657/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/27/2008 1543
Date Prepared: N/A

Analysis Batch: 400-66657
Prep Batch: N/A
Units: mg/L

Instrument ID: Konelab 1
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 10 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Sulfate	20.0	19.7	99	90 - 110	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 400-66657

Method: 375.4
Preparation: N/A

MS Lab Sample ID: 400-29340-1
Client Matrix: Water
Dilution: 5.0
Date Analyzed: 03/27/2008 1600
Date Prepared: N/A

Analysis Batch: 400-66657
Prep Batch: N/A

Instrument ID: Konelab 1
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 10 mL

MSD Lab Sample ID: 400-29340-1
Client Matrix: Water
Dilution: 5.0
Date Analyzed: 03/27/2008 1600
Date Prepared: N/A

Analysis Batch: 400-66657
Prep Batch: N/A

Instrument ID: Konelab 1
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 10 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Sulfate	88	90	77 - 128	1	5		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Method Blank - Batch: 400-66258

Method: 420.1
Preparation: Distill/Phenol

Lab Sample ID: MB 400-66258/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/19/2008 1542
Date Prepared: 03/19/2008 1143

Analysis Batch: 400-66259
Prep Batch: 400-66258
Units: mg/L

Instrument ID: Hach DR2000
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 500.0 mL

Analyte	Result	Qual	RL
Phenols, Total	<0.0050		0.0050

Lab Control Spike - Batch: 400-66258

Method: 420.1
Preparation: Distill/Phenol

Lab Sample ID: LCS 400-66258/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/19/2008 1542
Date Prepared: 03/19/2008 1143

Analysis Batch: 400-66259
Prep Batch: 400-66258
Units: mg/L

Instrument ID: Hach DR2000
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 500.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Phenols, Total	0.0400	0.0414	104	81 - 112	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 400-66258

Method: 420.1
Preparation: Distill/Phenol

MS Lab Sample ID: 400-29170-H-1-B MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/19/2008 1542
Date Prepared: 03/19/2008 1143

Analysis Batch: 400-66259
Prep Batch: 400-66258

Instrument ID: Hach DR2000
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 500.0 mL

MSD Lab Sample ID: 400-29170-H-1-C MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/19/2008 1542
Date Prepared: 03/19/2008 1143

Analysis Batch: 400-66259
Prep Batch: 400-66258

Instrument ID: Hach DR2000
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 500.0 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Phenols, Total	134	139	57 - 136	3	20		F

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Pinnacle Laboratories

Job Number: 400-29340-1

Duplicate - Batch: 400-66258

Method: 420.1
Preparation: Distill/Phenol

Lab Sample ID: 400-29235-A-4-C DU
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 03/20/2008 1540
Date Prepared: 03/20/2008 1138

Analysis Batch: 400-66259
Prep Batch: 400-66258
Units: mg/L

Instrument ID: Hach DR2000
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 500.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Phenols, Total	<0.0050	<0.0050	NC	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

DATA REPORTING QUALIFIERS

Client: Pinnacle Laboratories Job Number: 400-29340-1

Lab Section	Qualifier	Description
General Chemistry		
	HF	Field parameter with a holding time of 15 minutes
	F	MS or MSD exceeds the control limits

400-29340

Pinnacle Laboratories Inc.

CHAIN OF CUSTODY

DATE: 3/18/08 PAGE: 1 OF 1

PLI Accession #:

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER:

COMPANY: MARKWEST
ADDRESS: 3417 73RD ST. SUITE I
LUBBOCK, TX 79423
PHONE: 806-799-0569
FAX: 806 799 3387
BILL TO:
COMPANY: SAME
ADDRESS:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.	~~EPA 8260 (Landfill list)~~	~~EPA Method 5035~~	EPA Method 8082 PCB's	EPA Method 8310	F, Cl, SO4, TDS, PH NO2 NO3	Total Phenols	Total Cyanide	Al, As, Ba, B, Cd, Cr, Co, Cu Fe, Pb, Mn, Mo, Ni, Se, Ag ~~Tl~~, Zn, Hg	~~Radioactivity~~
08	3/18/08	10:40A											
09	3/18/08	10:40A											
010	3/18/08	10:40A											
011	3/18/08	10:40A											
012	3/18/08	10:45A											
013	3/18/08	10:55A											
014	3/18/08	10:55A											
015	3/18/08	11:00A											
016	3/18/08	11:00A											
017	3/18/08	11:05A											

PROJECT INFORMATION

PROJ. NO.:
PROJ. NAME: HOBBS PIPELINE
P.O. NO.:
SHIPPED VIA:

SAMPLE RECEIPT

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

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24HR ☐ 72HR ☒ 1 WEEK ✓ (NORMAL) ☐
CERTIFICATION REQUIRED ☐ NM ☐ SDWA ☐ OTHER
METHANOL PRESERVATION ☐
COMMENTS: FIXED FEE ☐
*ASAP Need results with 1wk TAT

2.9°C

RELINQUISHED BY: 1

Signature: Time: 11:05A
Printed Name: HAROLD PAULK Date: 3/18/08
Company: MARK WEST
See reverse side (Force Majeure)

RECEIVED BY: 1

Signature: Time: 9:45
Printed Name: Vanda L. Chua Date: 03/19/08
Company: TAL

RELINQUISHED BY: 2

Signature: Time:
Printed Name: Date:
Company:

RECEIVED BY: 2

Signature: Time:
Printed Name: Date:
Pinnacle Laboratories Inc.

07/01/01 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@ATT.NET DISTRIBUTION: White - PLI, Canary - Originator

Login Sample Receipt Check List

Client: Pinnacle Laboratories

Job Number: 400-29340-1

Login Number: 29340
Creator: Chea, Vanda
List Number: 1

List Source: TestAmerica Pensacola

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	2.9°C
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

Jones, Brad A., EMNRD

From: Bruce Gillick [BGillick@markwest.com]
Sent: Tuesday, March 25, 2008 8:57 AM
To: Jones, Brad A., EMNRD
Subject: FW: 803052 preliminary results
Attachments: 803052 MARKWEST HOBBS_20080321152004.pdf

Brad,
Attached is a partial report on the water analysis for the **Hydrostatic Test Discharge Permit HI-108** for your review. I will forward the remaining analysis to you when I receive it.

Thanks,
Bruce Gillick
Director, EH&S
MarkWest Hydrocarbon, Inc.
1515 Arapahoe Street
Tower 2, Suite 700
Denver, Co 80202
(303) 925-9228
Cell (720) 308-7667
Fax (303) 825-0920

From: Mitch Rubenstein [mailto:mitch4516@gmail.com]
Sent: Friday, March 21, 2008 4:01 PM
To: Bruce Gillick
Subject: 803052 preliminary results

03.21.08

hi bruce,

here are the EPA8260 results and the EPA 504.1 results. the remaining data should be done by the 26th.

if you have any questions, please do not hesitate to contact me.

thanks,

mitch

PINNACLE LABS
Environmental Testing

Pinnacle Lab ID number **803052**
March 21, 2008

MARKWEST
3417 73RD ST. SUITE i
LUBBOCK TX 79423

Project Name HOBBS PIPELINE
Project Number (NONE)

Attention: HAROLD PAULK

On 3/19/2008 Pinnacle Laboratories Inc., (ADHS License No. AZ0643), 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.

This is a partial report for the work submitted to Pinnacle Laboratories. The remaining work sent directly to TestAmerica will be released shortly.

EPA Methods 504.1 and 8260 analyses were performed by Pinnacle Laboratories, Inc. (PLI).

All remaining analyses were performed by TestAmerica Laboratories, Inc. (TA), Pensacola, FL.

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

H. Mitchell Rubenstein, Ph.D.
General Manager, Pinnacle Laboratories, Inc.

MR: jt

Enclosure

PINNACLE LABS
Environmental Testing

CLIENT	: MARKWEST	PINNACLE ID	: 803052
PROJECT #	: (NONE)	DATE RECEIVED	: 3/19/2008
PROJECT NAME	: HOBBS PIPELINE	REPORT DATE	: 3/21/2008

PINNACLE ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
803052 - 01	001 - 003	AQUEOUS	3/18/2008
803052 - 02	004 - 007	AQUEOUS	3/18/2008
803052 - 03	TRIP BLANK	AQUEOUS	2/5/2008
803052 - 01	08 - 017	AQUEOUS	3/18/2008

PINNACLE LABS
Environmental Testing

GAS CHROMATOGRAPHY RESULTS

TEST	: EPA 504.1		
CLIENT	: MARKWEST	PINNACLE I.D.	: 803052
PROJECT #	: (NONE)	ANALYST	: ARM
PROJECT NAME	: HOBBS PIPELINE		

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
02	004 - 007	AQUEOUS	03/18/08	03/19/08	03/19/08	1

PARAMETER	DET. LIMIT	UNITS	004 - 007
ETHYLENE DIBROMIDE	0.01	UG/L	< 0.01
1,2-DIBROMO-3-CHLOROPROPANE	0.01	UG/L	< 0.01

CHEMIST NOTES:
N/A

PINNACLE LABS
Environmental Testing

GAS CHROMATOGRAPHY RESULTS
METHOD BLANK

TEST	: EPA 504.1	PINNACLE I.D.	: 803052
BLANK I.D.	: 031908G	MATRIX	: AQUEOUS
CLIENT	: MARKWEST	DATE EXTRACTED	: 03/19/08
PROJECT #	: (NONE)	DATE ANALYZED	: 03/19/08
PROJECT NAME	: HOBBS PIPELINE	ANALYST	: ARM

PARAMETER	DET. LIMIT	UNITS	
ETHYLENE DIBROMIDE	0.01	UG/L	<0.01
1,2-DIBROMO-3-CHLOROPROPANE	0.01	UG/L	<0.01

CHEMIST NOTES:
N/A

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PINNACLE LABS
Environmental Testing

GAS CHROMATOGRAPHY RESULTS
QUALITY CONTROL
LFB/LFBD

TEST	: EPA 504.1	PINNACLE I.D.	: 803052
BATCH ID	: 031908G	DATE EXTRACTED	: 03/19/08
CLIENT	: MARKWEST	DATE ANALYZED	: 03/19/08
PROJECT #	: (NONE)	MATRIX	: AQUEOUS
PROJECT NAME	: HOBBS PIPELINE	UNITS	: UG/L

PARAMETER	BLANK RESULT	CONC. SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	REC LIMITS	% RPD
ETHYLENE DIBROMIDE	<0.01	0.25	0.233	93	0.234	94	(70-130)	0%
1,2-DIBROMO-3-CHLOROPROPANE	<0.01	0.25	0.199	80	0.199	80	(70-130)	0%

CHEMIST NOTES:
N/A

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

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

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PINNACLE LABS
Environmental Testing

GAS CHROMATOGRAPHY RESULTS
QUALITY CONTROL
LFM/LFMD

TEST	: EPA 504.1	PINNACLE I.D.	: 803052
SAMPLE ID	: 803052-02	DATE EXTRACTED	: 03/19/08
CLIENT	: MARKWEST	DATE ANALYZED	: 03/19/08
PROJECT #	: (NONE)	MATRIX	: AQUEOUS
PROJECT NAME	: HOBBS PIPELINE	UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC. SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	REC LIMITS	% RPD
ETHYLENE DIBROMIDE	<0.01	0.25	0.229	92	0.220	88	(70-130)	4%
1,2-DIBROMO-3-CHLOROPROPANE	<0.01	0.25	0.231	92	0.225	90	(70-130)	3%

CHEMIST NOTES:
N/A

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

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

PINNACLE LABS
Environmental Testing

GC/MS RESULTS

TEST	: VOLATILE ORGANICS EPA METHOD 8260B (LANDFILL LIST II)		
CLIENT	: MARKWEST	PINNACLE I.D. :	803052
PROJECT #	: (NONE)	DATE RECEIVED :	3/19/2008
PROJECT NAME	: HOBBS PIPELINE	INSTRUMENT ID :	GC/MS#2
		ANALYST :	STH

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
803052-01	001 - 003	AQUEOUS	3/18/2008	N/A	3/19/2008	1

PARAMETER (CAS#)	DET. LIMIT	RESULT	UNITS
Dichlorodifluoromethane (75-71-8)	1.0	< 1.0	ug/L
Chloromethane (74-87-3)	1.0	< 1.0	ug/L
Vinyl Chloride (75-01-4)	0.5	< 0.5	ug/L
Bromomethane (74-83-9)	1.0	< 1.0	ug/L
Chloroethane (75-00-3)	1.0	< 1.0	ug/L
Trichlorofluoromethane (75-69-4)	0.5	< 0.5	ug/L
Acetone (67-64-1)	10	< 10	ug/L
Acrolein (107-02-8)	10	< 10	ug/L
1,1-Dichloroethene (75-35-4)	1.0	< 1.0	ug/L
Iodomethane (74-88-4)	5.0	< 5.0	ug/L
Methylene Chloride (75-09-2)	1.0	< 1.0	ug/L
Acrylonitrile (107-13-1)	5.0	< 5.0	ug/L
cis-1,2-Dichloroethene (156-59-2)	1.0	< 1.0	ug/L
1,1-Dichloroethane (75-34-3)	1.0	< 1.0	ug/L
trans-1,2-Dichloroethene (156-60-5)	1.0	< 1.0	ug/L
2-Butanone (78-93-3)	10	< 10	ug/L
Carbon Disulfide (75-15-0)	1.0	< 1.0	ug/L
Bromochloromethane (74-97-5)	1.0	< 1.0	ug/L
Chloroform (67-66-3)	1.0	< 1.0	ug/L
2,2-Dichloropropane (594-20-7)	1.0	< 1.0	ug/L
1,2-Dichloroethane (107-06-2)	1.0	< 1.0	ug/L
Vinyl Acetate (108-05-4)	1.0	< 1.0	ug/L
1,1,1-Trichloroethane (71-55-6)	1.0	< 1.0	ug/L
1,1-Dichloropropene (563-58-6)	1.0	< 1.0	ug/L
Carbon Tetrachloride (56-23-5)	1.0	< 1.0	ug/L
Benzene (71-43-2)	1.0	< 1.0	ug/L
1,2-Dichloropropane (78-87-5)	0.5	< 0.5	ug/L
Trichloroethene (79-01-6)	1.0	< 1.0	ug/L
Bromodichloromethane (75-27-4)	1.0	< 1.0	ug/L
cis-1,3-Dichloropropene (10061-01-5)	1.0	< 1.0	ug/L
trans-1,3-Dichloropropene (10061-02-6)	1.0	< 1.0	ug/L
1,1,2-Trichloroethane (79-00-5)	1.0	< 1.0	ug/L
1,3-Dichloropropane (142-28-9)	1.0	< 1.0	ug/L
Dibromomethane (74-95-3)	1.0	< 1.0	ug/L
Toluene (108-88-3)	**1.0**	**5.2**	**ug/L**
4-Methyl-2-Pentanone (108-10-1)	10	< 10	ug/L
2-Hexanone (591-78-6)	10	< 10	ug/L
Dibromochloromethane (124-48-1)	1.0	< 1.0	ug/L
Tetrachloroethene (127-18-4)	0.5	< 0.5	ug/L
Chlorobenzene (108-90-7)	1.0	< 1.0	ug/L
Ethylbenzene (100-41-4)	**1.0**	**4.3**	**ug/L**
1,1,1,2-Tetrachloroethane (630-20-6)	1.0	< 1.0	ug/L
m&p Xylenes (108-38-3, 106-42-3)	**2.0**	**4.6**	**ug/L**
o-Xylene (95-47-6)	**1.0**	**6.0**	**ug/L**

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PINNACLE LABS
Environmental Testing

GC/MS RESULTS

TEST	: VOLATILE ORGANICS EPA METHOD 8260B (LANDFILL LIST II)		
CLIENT	: MARKWEST	PINNACLE I.D. :	803052
PROJECT #	: (NONE)	DATE RECEIVED :	3/19/2008
PROJECT NAME	: HOBBS PIPELINE	INSTRUMENT ID :	GC/MS#2
		ANALYST :	STH

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
803052-01	001 - 003	AQUEOUS	3/18/2008	N/A	3/19/2008	1

PARAMETER (CAS#)	DET. LIMIT	RESULT	UNITS
Styrene (100-42-5)	1.0	< 1.0	ug/L
Bromoform (75-25-2)	**1.0**	**1.9**	**ug/L**
1,1,2,2-Tetrachloroethane (79-34-5)	2.0	< 2.0	ug/L
1,2,3-Trichloropropane (96-18-4)	2.0	< 2.0	ug/L
trans-1,4-Dichloro-2-Butene (110-57-6)	2.0	< 2.0	ug/L
1,3-Dichlorobenzene (541-73-1)	1.0	< 1.0	ug/L
1,4-Dichlorobenzene (106-46-7)	1.0	< 1.0	ug/L
1,2-Dichlorobenzene (95-50-1)	1.0	< 1.0	ug/L
Hexachlorobutadiene (87-68-3)	2.0	< 2.0	ug/L

SURROGATE % RECOVERY	
1,2-Dichloroethane-d4	107 (87 - 123)
Toluene-d8	96 (79 - 117)
Bromofluorobenzene	107 (76 - 110)

PINNACLE LABS
Environmental Testing

GC/MS RESULTS

TEST	: VOLATILE ORGANICS EPA METHOD 8260B (LANDFILL LIST II)		
CLIENT	: MARKWEST	PINNACLE I.D. :	803052
PROJECT #	: (NONE)	DATE RECEIVED :	3/19/2008
PROJECT NAME	: HOBBS PIPELINE	INSTRUMENT ID :	GC/MS#2
		ANALYST :	STH

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
803052-03	TRIP BLANK	AQUEOUS	2/5/2008	N/A	03/19/08 -T1	1

PARAMETER (CAS#)	DET. LIMIT	RESULT	UNITS
Dichlorodifluoromethane (75-71-8)	1.0	< 1.0	ug/L
Chloromethane (74-87-3)	1.0	< 1.0	ug/L
Vinyl Chloride (75-01-4)	0.5	< 0.5	ug/L
Bromomethane (74-83-9)	1.0	< 1.0	ug/L
Chloroethane (75-00-3)	1.0	< 1.0	ug/L
Trichlorofluoromethane (75-69-4)	0.5	< 0.5	ug/L
Acetone (67-64-1)	10	< 10	ug/L
Acrolein (107-02-8)	10	< 10	ug/L
1,1-Dichloroethene (75-35-4)	1.0	< 1.0	ug/L
Iodomethane (74-88-4)	5.0	< 5.0	ug/L
Methylene Chloride (75-09-2)	1.0	< 1.0	ug/L
Acrylonitrile (107-13-1)	5.0	< 5.0	ug/L
cis-1,2-Dichloroethene (156-59-2)	1.0	< 1.0	ug/L
1,1-Dichloroethane (75-34-3)	1.0	< 1.0	ug/L
trans-1,2-Dichloroethene (156-60-5)	1.0	< 1.0	ug/L
2-Butanone (78-93-3)	10	< 10	ug/L
Carbon Disulfide (75-15-0)	1.0	< 1.0	ug/L
Bromochloromethane (74-97-5)	1.0	< 1.0	ug/L
Chloroform (67-66-3)	1.0	< 1.0	ug/L
2,2-Dichloropropane (594-20-7)	1.0	< 1.0	ug/L
1,2-Dichloroethane (107-06-2)	1.0	< 1.0	ug/L
Vinyl Acetate (108-05-4)	1.0	< 1.0	ug/L
1,1,1-Trichloroethane (71-55-6)	1.0	< 1.0	ug/L
1,1-Dichloropropene (563-58-6)	1.0	< 1.0	ug/L
Carbon Tetrachloride (56-23-5)	1.0	< 1.0	ug/L
Benzene (71-43-2)	1.0	< 1.0	ug/L
1,2-Dichloropropane (78-87-5)	0.5	< 0.5	ug/L
Trichloroethene (79-01-6)	1.0	< 1.0	ug/L
Bromodichloromethane (75-27-4)	1.0	< 1.0	ug/L
cis-1,3-Dichloropropene (10061-01-5)	1.0	< 1.0	ug/L
trans-1,3-Dichloropropene (10061-02-6)	1.0	< 1.0	ug/L
1,1,2-Trichloroethane (79-00-5)	1.0	< 1.0	ug/L
1,3-Dichloropropane (142-28-9)	1.0	< 1.0	ug/L
Dibromomethane (74-95-3)	1.0	< 1.0	ug/L
Toluene (108-88-3)	1.0	< 1.0	ug/L
4-Methyl-2-Pentanone (108-10-1)	10	< 10	ug/L
2-Hexanone (591-78-6)	10	< 10	ug/L
Dibromochloromethane (124-48-1)	1.0	< 1.0	ug/L
Tetrachloroethene (127-18-4)	0.5	< 0.5	ug/L
Chlorobenzene (108-90-7)	1.0	< 1.0	ug/L
Ethylbenzene (100-41-4)	1.0	< 1.0	ug/L
1,1,1,2-Tetrachloroethane (630-20-6)	1.0	< 1.0	ug/L
m&p Xylenes (108-38-3, 106-42-3)	2.0	< 2.0	ug/L
o-Xylene (95-47-6)	1.0	< 1.0	ug/L

PINNACLE LABS
Environmental Testing

GC/MS RESULTS

TEST	: VOLATILE ORGANICS EPA METHOD 8260B (LANDFILL LIST II)		
CLIENT	: MARKWEST	PINNACLE I.D. :	803052
PROJECT #	: (NONE)	DATE RECEIVED :	3/19/2008
PROJECT NAME	: HOBBS PIPELINE	INSTRUMENT ID :	GC/MS#2
		ANALYST :	STH

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
803052-03	TRIP BLANK	AQUEOUS	2/5/2008	N/A	03/19/08 -T1	1

PARAMETER (CAS#)	DET. LIMIT	RESULT	UNITS
Styrene (100-42-5)	1.0	< 1.0	ug/L
Bromoform (75-25-2)	1.0	< 1.0	ug/L
1,1,2,2-Tetrachloroethane (79-34-5)	2.0	< 2.0	ug/L
1,2,3-Trichloropropane (96-18-4)	2.0	< 2.0	ug/L
trans-1,4-Dichloro-2-Butene (110-57-6)	2.0	< 2.0	ug/L
1,3-Dichlorobenzene (541-73-1)	1.0	< 1.0	ug/L
1,4-Dichlorobenzene (106-46-7)	1.0	< 1.0	ug/L
1,2-Dichlorobenzene (95-50-1)	1.0	< 1.0	ug/L
Hexachlorobutadiene (87-68-3)	2.0	< 2.0	ug/L

SURROGATE % RECOVERY	
1,2-Dichloroethane-d4	110 (87 - 123)
Toluene-d8	97 (79 - 117)
Bromofluorobenzene	107 (76 - 110)

T1 = Trip Blank was received past the 14 day hold time.

PINNACLE LABS
Environmental Testing

GC/MS RESULTS

TEST	: VOLATILE ORGANICS EPA METHOD 8260B (LANDFILL LIST II)		
CLIENT	: MARKWEST	PINNACLE I.D. :	803052
PROJECT #	: (NONE)		
PROJECT NAME	: HOBBS PIPELINE	INSTRUMENT ID :	GC/MS#2
		ANALYST :	STH

SAMPLE ID #	BATCH	MATRIX	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
METHOD BLANK	031908A	AQUEOUS	N/A	3/19/2008	1

PARAMETER (CAS#)	DET. LIMIT	RESULT	UNITS
Dichlorodifluoromethane (75-71-8)	1.0	< 1.0	ug/L
Chloromethane (74-87-3)	1.0	< 1.0	ug/L
Vinyl Chloride (75-01-4)	0.5	< 0.5	ug/L
Bromomethane (74-83-9)	1.0	< 1.0	ug/L
Chloroethane (75-00-3)	1.0	< 1.0	ug/L
Trichlorofluoromethane (75-69-4)	0.5	< 0.5	ug/L
Acetone (67-64-1)	10	< 10	ug/L
Acrolein (107-02-8)	10	< 10	ug/L
1,1-Dichloroethene (75-35-4)	1.0	< 1.0	ug/L
Iodomethane (74-88-4)	5.0	< 5.0	ug/L
Methylene Chloride (75-09-2)	1.0	< 1.0	ug/L
Acrylonitrile (107-13-1)	5.0	< 5.0	ug/L
cis-1,2-Dichloroethene (156-59-2)	1.0	< 1.0	ug/L
1,1-Dichloroethane (75-34-3)	1.0	< 1.0	ug/L
trans-1,2-Dichloroethene (156-60-5)	1.0	< 1.0	ug/L
2-Butanone (78-93-3)	10	< 10	ug/L
Carbon Disulfide (75-15-0)	1.0	< 1.0	ug/L
Bromochloromethane (74-97-5)	1.0	< 1.0	ug/L
Chloroform (67-66-3)	1.0	< 1.0	ug/L
2,2-Dichloropropane (594-20-7)	1.0	< 1.0	ug/L
1,2-Dichloroethane (107-06-2)	1.0	< 1.0	ug/L
Vinyl Acetate (108-05-4)	1.0	< 1.0	ug/L
1,1,1-Trichloroethane (71-55-6)	1.0	< 1.0	ug/L
1,1-Dichloropropene (563-58-6)	1.0	< 1.0	ug/L
Carbon Tetrachloride (56-23-5)	1.0	< 1.0	ug/L
Benzene (71-43-2)	1.0	< 1.0	ug/L
1,2-Dichloropropane (78-87-5)	0.5	< 0.5	ug/L
Trichloroethene (79-01-6)	1.0	< 1.0	ug/L
Bromodichloromethane (75-27-4)	1.0	< 1.0	ug/L
cis-1,3-Dichloropropene (10061-01-5)	1.0	< 1.0	ug/L
trans-1,3-Dichloropropene (10061-02-6)	1.0	< 1.0	ug/L
1,1,2-Trichloroethane (79-00-5)	1.0	< 1.0	ug/L
1,3-Dichloropropane (142-28-9)	1.0	< 1.0	ug/L
Dibromomethane (74-95-3)	1.0	< 1.0	ug/L
Toluene (108-88-3)	1.0	< 1.0	ug/L
4-Methyl-2-Pentanone (108-10-1)	10	< 10	ug/L
2-Hexanone (591-78-6)	10	< 10	ug/L
Dibromochloromethane (124-48-1)	1.0	< 1.0	ug/L
Tetrachloroethene (127-18-4)	0.5	< 0.5	ug/L
Chlorobenzene (108-90-7)	1.0	< 1.0	ug/L
Ethylbenzene (100-41-4)	1.0	< 1.0	ug/L
1,1,1,2-Tetrachloroethane (630-20-6)	1.0	< 1.0	ug/L
m&p Xylenes (108-38-3, 106-42-3)	2.0	< 2.0	ug/L
o-Xylene (95-47-6)	1.0	< 1.0	ug/L

PINNACLE LABS
Environmental Testing

GC/MS RESULTS

TEST	: VOLATILE ORGANICS EPA METHOD 8260B (LANDFILL LIST II)		
CLIENT	: MARKWEST	PINNACLE I.D. :	803052
PROJECT #	: (NONE)		
PROJECT NAME	: HOBBS PIPELINE	INSTRUMENT ID :	GC/MS#2
		ANALYST :	STH

SAMPLE ID #	BATCH	MATRIX	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
METHOD BLANK	031908A	AQUEOUS	N/A	3/19/2008	1

PARAMETER (CAS#)	DET. LIMIT	RESULT	UNITS
Styrene (100-42-5)	1.0	< 1.0	ug/L
Bromoform (75-25-2)	1.0	< 1.0	ug/L
1,1,2,2-Tetrachloroethane (79-34-5)	2.0	< 2.0	ug/L
1,2,3-Trichloropropane (96-18-4)	2.0	< 2.0	ug/L
trans-1,4-Dichloro-2-Butene (110-57-6)	2.0	< 2.0	ug/L
1,3-Dichlorobenzene (541-73-1)	1.0	< 1.0	ug/L
1,4-Dichlorobenzene (106-46-7)	1.0	< 1.0	ug/L
1,2-Dichlorobenzene (95-50-1)	1.0	< 1.0	ug/L
Hexachlorobutadiene (87-68-3)	2.0	< 2.0	ug/L

SURROGATE % RECOVERY		
1,2-Dichloroethane-d4	111	(87 - 123)
Toluene-d8	98	(79 - 117)
Bromofluorobenzene	108	(76 - 110)

PINNACLE LABS
Environmental Testing

LABORATORY CONTROL SPIKE RESULTS

TEST	: VOLATILE ORGANICS EPA METHOD 8260B	PINNACLE I.D.	: 803052
BATCH	: 031908A	DATE ANALYZED	: 3/19/2008
CLIENT	: MARKWEST	UNITS	: ug/L (PPB)
PROJECT #	: (NONE)	INSTRUMENT ID	: GC/MS#2
PROJECT NAME	: HOBBS PIPELINE	ANALYST	: STH

COMPOUND	SPIKE ADDED	LCS RESULT	LCS % RECOVERY	QC LIMITS %RECOVERY
1,1-DICHLOROETHENE	20.0	19.6	98	61-145
BENZENE	20.0	19.8	99	76-127
TRICHLOROETHENE	20.0	19.2	96	71-120
TOLUENE	20.0	18.1	90	76-125
CHLOROBENZENE	20.0	19.9	100	75-130

PINNACLE LABS
Environmental Testing

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

TEST	: VOLATILE ORGANICS EPA METHOD 8260B	PINNACLE I.D.	: 803052
SPIKED SAMPLE	: 803052-01	DATE ANALYZED	: 3/19/2008
CLIENT	: MARKWEST	UNITS	: ug/L (PPB)
PROJECT #	: (NONE)	INSTRUMENT ID	: GC/MS#2
PROJECT NAME	: HOBBS PIPELINE	ANALYST	: STH

COMPOUND	SAMPLE CONC.	SPIKE ADDED	MS RESULT	MSD RESULT	MS %REC	MSD %REC	RPD	QC LIMITS RPD	QC LIMITS %RECOVERY
1,1-DICHLOROETHENE	<1.0	20.0	18.0	20.1	90	100	11	14	61-145
BENZENE	<1.0	20.0	19.1	21.8	95	109	13	11	76-127
TRICHLOROETHENE	<1.0	20.0	16.7	19.0	83	95	13	14	71-120
TOLUENE	**5.2**	20.0	20.9	23.3	79	91	10	13	76-125
CHLOROBENZENE	<1.0	20.0	18.7	20.0	93	100	7	13	75-130

2709-D Pan American Fwy, NE Albuquerque, NM 87107 505.344.3777 505.344.4413 FAX 877.PIN.1998 TOLL FREE
www.pinnaclelabs.org www.pinnaclelabsonline.com

Pinnacle Laboratories Inc.

CHAIN OF CUSTODY

DATE: 3/18/08 PAGE: 1 OF 1

PLI Accession #: 803059

SHADED AREAS ARE FOR LAB USE ONLY

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER:

COMPANY: MARKWEST
ADDRESS: 3417 73RD ST. SUITE i
LUBBOCK, TX 79423
PHONE: 806-799-0569
FAX: 806-799-3387
BILL TO: SAME
COMPANY:
ADDRESS:

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 ☐PBMS	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 (Method1311)	Metals:	NUMBER OF CONTAINERS
001	3/18/08	9:30A		01										X				X											1
002	3/18/08	9:35A												~~X~~ 3-19-08				X											1
003	3/18/08	9:35A		↓														X											1
004	3/18/08	9:40A		02										X															1
005	3/18/08	9:40AM												X															1
006	3/18/08	9:40A												X															1
007	3/18/08	9:40A		↓										X															1
Trip Blank	2-5-08	1311		03														X											1

WEEKEND ANALYSES MAY RESULT IN AN ADDITIONAL SURCHARGE - PLEASE INQUIRE.

PROJECT INFORMATION

PROJ. NO.:
PROJ. NAME: Hobbs Pipeline
P.O. NO.:
SHIPPED VIA:

SAMPLE RECEIPT

NO. CONTAINERS	8
CUSTODY SEALS	(Y) N/ NA
RECEIVED INTACT	No
BLUE ICE/ICE	5.8°C

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐24hr* ☐48hr* ☒72hr* ☐ 1 WEEK (NORMAL) ☐
*NOT AVAILABLE ON ALL ANALYSES per client request 3-19-08

CERTIFICATION REQUIRED ☐ NM ☐ SDWA ☐ AZ ☐ OTHER

METHANOL PRESERVATION ☐ | METALS ☐ TOTAL ☐ DISSOLVED

COMMENTS:
- 1 Trip Blank Vial Broken
- Trip Blank out of 14 Day Hold-Time

please use permanent marker on labels.
3-19-08

RELINQUISHED BY: 1

Signature: Harold Pauk Time: 9:40AM
Printed Name: HAROLD PAULK Date: 3/18/08
Company: MARKWEST
See Reverse side (Force Majeure)

RECEIVED BY: 1

Signature: Time:
Printed Name: Date:
Company:

RELINQUISHED BY: 2

Signature: Time:
Printed Name: Date:
Company:

RECEIVED BY: (LAB) 2

Signature: Time: 1022
Printed Name: David Gallegos Date: 3-19-08
Pinnacle Laboratories Inc.

400- 803052

Pinnacle Laboratories Inc.

CHAIN OF CUSTODY

DATE: 3/18/08 PAGE: 1 OF 1

PLI Accession #:

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER:

COMPANY: MARKWEST
ADDRESS: 3417 73RD ST. SUITE I
LUBBOCK, TX 79423
PHONE: 866-799-0569
FAX: 806 799 3387
BILL TO:
COMPANY: SAME
ADDRESS:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.	~~EPA 8260 (Landfill list)~~	~~EPA Method 5021~~	EPA Method 8082 PCB's	EPA Method 8310	F, Cl, SO4, TDS, PH NO2 | NO3	Total Phenols	Total Cyanide	Al, As, Ba, B, Cd, Cr, Co, Cu Fe, Pb, Mn, Mo, Ni, Se, Ag ~~Si~~, Zn, Hg	~~Volatiles~~	
08	3/18/08	10:40A		01										
09	3/18/08	10:45A												
010	3/18/08	10:46A												
011	3/18/08	10:40A												
012	3/18/08	10:45A												
013	3/18/08	10:55A												
014	3/18/08	10:55A												
015	3/18/08	11:00A												
016	3/18/08	11:00A												
017	3/18/08	11:05A												

PROJECT INFORMATION

PROJ. NO.:
PROJ. NAME: Hobbs Pipeline
P.O. NO.:
SHIPPED VIA:

SAMPLE RECEIPT

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

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24HR ☐ 72HR ☒ 1 WEEK ✓ (NORMAL) ☐

CERTIFICATION REQUIRED ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

*ASAP Need results with 1wk TAT

2.9°C

RELINQUISHED BY: 1.

Signature: Time: 11:05A
Printed Name: Harold Pauk Date: 3/18/08
Company: MARK WEST

RECEIVED BY: 1.

Signature: Time: 9:45
Printed Name: Vanda L. Cline Date: 03/19/08
Company: TAL

RELINQUISHED BY: 2.

Signature: Time:
Printed Name: Date
Company:

RECEIVED BY: 2.

Printed Name: Date
Pinnacle Laboratories, Inc.

Jones, Brad A., EMNRD

From: Bruce Gillick [BGillick@markwest.com]
Sent: Thursday, March 27, 2008 7:04 AM
To: Jones, Brad A., EMNRD
Subject: FW: [400-29340-1 PRELIM] 803052
Attachments: J29340-1 Std_Tal_L2 Prelim Report.pdf

Brad,
Attached is the report that should have been sent to you yesterday. I talked to the lab about the chain of custody. Their response was as follows:

"The sampler indicated the parameters required, however. Inadvertently did not mark an 'X". Since the bottles supplied were filled and met the project specifications the laboratory preceded with the analyses. The receiving lab also indicated on their receiving "form page no. 35/35" of the Test America report that all samples arrived with proper preservation."

I'll give you a call later this morning after you have a chance to review report.

Thanks,
Bruce Gillick

From: Mitch Rubenstein [mailto:mitch4516@gmail.com]
Sent: Wednesday, March 26, 2008 6:29 PM
To: Bruce Gillick
Subject: Fwd: [400-29340-1 PRELIM] 803052

---------- Forwarded message ----------
From: **Edwards, Marty** <marty.edwards@testamericainc.com>
Date: Wed, Mar 26, 2008 at 2:21 PM
Subject: [400-29340-1 PRELIM] 803052
To: Mitch Rubenstein <mitch4516@gmail.com>, Francine Torivio <pinfrank@gmail.com>

Marty Edwards
TestAmerica Pensacola
THE LEADER IN ENVIRONMENTAL TESTING
Tel: (850) 474-1001
www.testamericainc.com

Reference: [025633]

Attachments: 1

Jones, Brad A., EMNRD

From: Bruce Gillick [BGillick@markwest.com]
Sent: Thursday, February 21, 2008 7:00 AM
To: Jones, Brad A., EMNRD
Cc: Jeff.Keiser@CH2M.com
Subject: FW: radium results
Attachments: 802020.pdf

Brad,
Attached are the radium test results for the water that will be used for the Hydrotest of the MarkWest Hobbs pipeline.

Bruce Gillick
Director, EH&S
MarkWest Hydrocarbon, Inc.
1515 Arapahoe Street
Tower 2, Suite 700
Denver, Co 80202
(303) 925-9228
Cell (720) 308-7667
Fax (303) 825-0920

From: Mitch Rubenstein [mailto:mitch4516@gmail.com]
Sent: Wednesday, February 20, 2008 3:20 PM
To: Bruce Gillick
Subject: radium results

02.20.08

here are the radium results. uranium was also requested.

it appears to me that the samples met DW standards for U and Ra 226/228

call if you have any questions.

mitch

GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

February 20, 2008

Mr. Mitch Rubenstein
Pinnacle Labs, Inc
2709D Pan American Freeway NE
Albuquerque, New Mexico 87107

Re: Non-Drinking Water Aqueous Analysis
Work Order: 202566
SDG: 802020

Dear Mr. Rubenstein:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on February 11, 2008. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4266.

Sincerely,

J M Harley

Joanne Harley
Project Manager

Enclosures

problem solved

2025664

Pinnacle Laboratories Inc.

CHAIN OF CUSTODY

DATE:_____ PAGE:____ OF _____

PLI Accession #:

PLEASE FILL THIS FORM IN COMPLETELY.

SAMPLE CONDITIONS AS RECEIVED (LAB USE ONLY)

PROJECT MANAGER:

COMPANY: Markwest
ADDRESS: 3417-73, Suite I
Lubbock, Texas 79423
PHONE: 806-799-0569
FAX: 806-799-3387
BILL TO: Same
COMPANY:
ADDRESS:

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.
00-1	2/7/08	1:50pm		
00-2	2/7/08	1:55		

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 ☐PBMS	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:	X Ra 226/228, Ubg ICP-MS	Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by TCLP (Method1311)	Metals:		NUMBER OF CONTAINERS

WEEKEND ANALYSES MAY RESULT IN AN ADDITIONAL SURCHARGE - PLEASE INQUIRE.

PROJECT INFORMATION	
PROJ. NO.:	
PROJ. NAME:	
P.O. NO.:	
SHIPPED VIA:	

SAMPLE RECEIPT	
NO CONTAINERS	
CUSTODY SEALS	Y / N / NA
RECEIVED INTACT	
BLUE ICE/ICE	

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐24hr* ☐48hr* ☐72hr* ☑1 WEEK ✗ (NORMAL) ☐
*NOT AVAILABLE ON ALL ANALYSES

CERTIFICATION REQUIRED ☐ NM ☐ SDWA ☐ AZ ☐ OTHER

METHANOL PRESERVATION ☐ | METALS ☐ TOTAL ☐ DISSOLVED

COMMENTS:
* ASAP Need results in 1wk TAT.

RELINQUISHED BY: 1.

Signature: Harold Faulk Time: 1:50
Printed Name: Harold Faulk Date: 2-7-08
Company: Markwest
See Reverse side (Force Majeure)

RECEIVED BY 1.

Signature: S. White Time: 9:15
Printed Name: Date:
Company:

RELINQUISHED BY: 2.

Signature: Time:
Printed Name: Date:
Company:

RECEIVED BY: (LAB) 2.

Signature: Time:
Printed Name: W. Taylor Date: 11 Feb 08
Pinnacle Laboratories Inc

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: PNL	**SDG/ARCOC/Work Order:**
Received By: H. Taylor	**Date Received:** 11 Feb 08

Suspected Hazard Information	Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: 30 c.p.m.
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)?			X	Preservation Method: ice bags blue ice dry ice (none) other (describe) 16
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?				Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?			X	Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?	X			Sample ID's affected:
11	Number of containers received match number indicated on COC?	X		X	Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:

12 878 168 22 1004 6998

PM (or PMA) review: Initials JMH Date 2/12/08

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

PINL001 Pinnacle Labs, INC

Client SDG: 802020 GEL Work Order: 202566

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Joanne Harley.

J M Harley

Reviewed by

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Pinnacle Labs, Inc
Address : 2709D Pan American Freeway NE
Albuquerque, New Mexico 87107

Report Date: February 20, 2008

Contact: Mr. Mitch Rubenstein
Project: **Non-Drinking Water Aqueous Analysis**

Client Sample ID:	00-2	Project:	PINL00205
Sample ID:	202566002	Client ID:	PINL001
Matrix:	Waste Water		
Collect Date:	07-FEB-08 13:55		
Receive Date:	11-FEB-08		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Uranium Federal											
Uranium		2.90	0.050	0.200	ug/L	1	BAJ	02/18/08	2030	727691	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	BCD1	02/18/08	1152	727690

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Pinnacle Labs, Inc
2709D Pan American Freeway NE
Albuquerque, New Mexico

Contact: Mr. Mitch Rubenstein

Workorder: 202566

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 727691										
QC1201517702 202566002 DUP										
Uranium		2.90		2.62	ug/L	10		(0%-20%)	BAJ	02/18/08 20:35
QC1201517701 LCS										
Uranium	50.0			49.6	ug/L		99	(80%-120%)		02/18/08 20:24
QC1201517700 MB										
Uranium			U	ND	ug/L					02/18/08 20:19
QC1201517703 202566002 MS										
Uranium	50.0	2.90		54.5	ug/L		103	(75%-125%)		02/18/08 20:40
QC1201517704 202566002 SDILT										
Uranium		2.90		0.556	ug/L	4.2				02/18/08 20:45

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h	Preparation or preservation holding time was exceeded

GEL LABORATORIES LLC
2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 202566

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

PINL001 Pinnacle Labs, INC

Client SDG: 802020 GEL Work Order: 202566

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Joanne Harley.

Reviewed by J M Harley

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Pinnacle Labs, Inc
Address : 2709D Pan American Freeway NE
Albuquerque, New Mexico 87107
Report Date: February 20, 2008
Contact: Mr. Mitch Rubenstein
Project: Non-Drinking Water Aqueous Analysis

Client Sample ID:	00-1	Project:	PINL00205
Sample ID:	202566001	Client ID:	PINL001
Matrix:	Waste Water		
Collect Date:	07-FEB-08		
Receive Date:	11-FEB-08		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gas Flow Proportional Counting													
GFPC, Ra228, Liquid													
Radium-228	U	0.875	+/-0.617	0.926	+/-0.656	3.00	pCi/L		KSD1	02/15/08	1156	725953	1
Rad Radium-226													
Lucas Cell, Ra226, liquid													
Radium-226		0.926	+/-0.545	0.748	+/-0.571	1.00	pCi/L		DXM 2	02/15/08	1325	726001	2

The following Analytical Methods were performed

Method	Description
1	EPA 904.0 Modified
2	EPA 903.1 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC, Ra228, Liquid	77	(15%-125%)

Notes:

The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Pinnacle Labs, Inc
Address : 2709D Pan American Freeway NE
Albuquerque, New Mexico 87107
Report Date: February 20, 2008
Contact: Mr. Mitch Rubenstein
Project: Non-Drinking Water Aqueous Analysis

Client Sample ID: 00-1
Sample ID: 202566001
Project: PINL00205
Client ID: PINL001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst Date	Time	Batch	Mtd

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Client : Pinnacle Labs, Inc
2709D Pan American Freeway NE

Albuquerque, New Mexico
Contact: Mr. Mitch Rubenstein

Workorder: 202566

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 725953										
QC1201513536 202566001 DUP										
Radium-228	U	0.875		1.60	pCi/L	59		(0% - 100%)	KSD1	02/15/0811:56
	Uncert:	+/-0.617		+/-0.762						
	TPU:	+/-0.656		+/-0.864						
QC1201513538 LCS										
Radium-228	24.3			26.0	pCi/L		107	(75%-125%)		02/15/0811:55
	Uncert:			+/-3.35						
	TPU:			+/-7.41						
QC1201513535 MB										
Radium-228				2.81	pCi/L					02/15/0814:22
	Uncert:			+/-1.06						
	TPU:			+/-1.28						
QC1201513537 202566001 MS										
Radium-228	48.6 U	0.875		55.0	pCi/L		113	(75%-125%)		02/15/0811:55
	Uncert:	+/-0.617		+/-6.10						
	TPU:	+/-0.656		+/-15.2						
Rad Ra-226										
Batch 726001										
QC1201513664 202566001 DUP										
Radium-226		0.926	U	0.474	pCi/L	65		(0% - 100%)	DXM2	02/15/0813:25
	Uncert:	+/-0.545		+/-0.371						
	TPU:	+/-0.571		+/-0.381						
QC1201513666 LCS										
Radium-226	24.1			20.6	pCi/L		86	(75%-125%)		
	Uncert:			+/-1.86						
	TPU:			+/-4.28						
QC1201513663 MB										
Radium-226			U	0.143	pCi/L					
	Uncert:			+/-0.314						
	TPU:			+/-0.315						
QC1201513665 202566001 MS										
Radium-226	120	0.926		113	pCi/L		93	(75%-125%)		
	Uncert:	+/-0.545		+/-9.94						
	TPU:	+/-0.571		+/-23.0						

Notes:
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 202566

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time

B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Metals Analysis

Case Narrative

Metals Fractional Narrative
Pinnacle Labs, INC (PINL)
SDG 802020

Sample Analysis

Sample ID	Client ID
202566002	00-2
1201517700	Method Blank (MB) **ICP-MS**
1201517701	Laboratory Control Sample (LCS)
1201517704	202566002(00-2L) Serial Dilution (SD)
1201517702	202566002(00-2D) Sample Duplicate (DUP)
1201517703	202566002(00-2S) Matrix Spike (MS)

The sample in this SDG was analyzed on an "as received" basis.

Method/Analysis Information

Analytical Batch: 727691
Prep Batch : 727690
Standard Operating Procedures: GL-MA-E-014 REV# 15 and GL-MA-E-006 REV# 9
Analytical Method: SW846 3005/6020
Prep Method : SW846 3005A

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis - ICPMS was performed on a Perkin Elmer ICP-MS ELAN 9000. The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 3607 kPa for the

plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 202566002 (00-2).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL for CVAA, 50X the IDL for ICP, and 100X the IDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The sample in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Nonconformance Documentation
Nonconformance reports (NCRs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Vicki Lee A. Elmore **Date:** 2/19/08

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Pinnacle Labs, INC (PINL)
SDG 802020

Method/Analysis Information

Product:	**GFPC, Ra228, Liquid**
Analytical Method:	EPA 904.0 Modified
Analytical Batch Number:	725953

Sample ID	Client ID
202566001	00-1
1201513535	Method Blank (MB)
1201513536	202566001(00-1) Sample Duplicate (DUP)
1201513537	202566001(00-1) Matrix Spike (MS)
1201513538	Laboratory Control Sample (LCS)

The sample in this SDG was analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-009 REV# 14.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met. The initial Calibration was performed in May 2007.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 202566001 (00-1). The QC was from PINL work order

202566.

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 1201513535 (MB) was recounted due to a suspected blank false positive.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
The blank result for 1201513535 (MB) is greater than the MDA but less than the detection limit.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Lucas Cell, Ra226, liquid**
Analytical Method:	EPA 903.1 Modified
Analytical Batch Number:	726001

Sample ID	Client ID
202566001	00-1
1201513663	Method Blank (MB)
1201513664	202566001(00-1) Sample Duplicate (DUP)
1201513665	202566001(00-1) Matrix Spike (MS)
1201513666	Laboratory Control Sample (LCS)

The sample in this SDG was analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-008 REV# 11.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met. The initial Calibrations were performed in February 2007, June 2007, December 2007, January 2008 and February 2008.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 202566001 (00-1). The QC was from PINL work order 202566.

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments

Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: Tamika Williams 2/15/08

List of current GEL Certifications as of 20 February 2008

State	Certification
Alaska	UST-062
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California	01151CA
Colorado	GenEngLabs
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA	WG-15J
Florida/NELAP	E87156
Georgia	E87156 (FL/NELAP)
Hawaii	N/A
Idaho	N/A
Illinois	200029
Indiana	C-SC-01
Kansas	E-10332
Kentucky	90129
Louisiana	03046
Maryland	270
Massachusetts	M-SC012
Michigan	9903
Nevada	SC12
New Jersey	SC002
New Mexico	FL NELAP E87156
New York	11501
North Carolina	233
North Carolina Drinking W	45709
North Dakota	R-158
Oklahoma	9904
Pennsylvania	68-00485
South Carolina	10120001/10585001/10120002
Tennessee	02934
Texas NELAP	T104704235-07-TX
U.S. Dept. of Agriculture	S-52597
US Army Corps of Engineer	N/A
Utah	8037697376 GEL
Vermont	VT87156
Virginia	00151
Washington	C1641