

District I
1625 N French Dr. Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

2RP-154

OPERATOR

Initial Report Final Report

Name of Company ConocoPhillips Pipe Line Company	Contact Kirby Shipp	
Address 4001 East 42 nd Street - Odessa, TX 79762	Telephone No. 575-391-8262	
Facility Name Loco Hills Truck Unloading Facility	Facility Type Sour Crude Oil Injection Site	
Surface Owner U.S. Department of interior, Bureau of Land Management	Mineral Owner	Lease No. NM 101867

LOCATION OF RELEASE

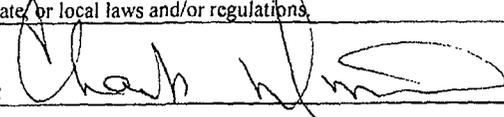
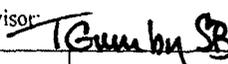
Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	29	17S	30E	130 feet	Northwest	160 feet	West	Eddy

Latitude_N 32 48.491 Longitude_W 103 59.598

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 97 barrels	Volume Recovered 0
Source of Release Pump site, suction pulsation dampner	Date and Hour of Occurrence 2/17/08 4:50 to 05:17 pm	Date and Hour of Discovery 02/27/08 05:17pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Ponca City Control Center; NMOCD Santa Fe Office, NMOCD District 2	
By Whom? Kirby Shipp contacted the control center, and Thomas Lacki contacted the NMOCD	Date and Hour NMOCD Was contacted on 2/27/08 at approximately 8:35 pm and 8.40 pm, respectively.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. NA	
If a Watercourse was Impacted, Describe Fully.* NA		
Describe Cause of Problem and Remedial Action Taken.* A bolt sheared off of a clamp holding an end cap on a suction pulsation dampner for a PD pump resulting in a fantail spray of crude oil. The pump is used to pull crude from the storage tank and LACT unit out to the line which feeds Buckeye Station The release lasted approximately 1.25 hours		
Describe Area Affected and Cleanup Action Taken * See attached request for closure report.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state or local laws and/or regulations.		

OIL CONSERVATION DIVISION

Signature: 	Approved by District Supervisor: 	
Printed Name: Charles Durrett	Approval Date: 9-5-08	Expiration Date: N/A
Title: Sr. Project Manager	Conditions of Approval: N/A	
E-mail Address: charles.durrett@ctratech.com	Attached <input type="checkbox"/> N/A	
Date: 9/05/2008	Phone: 432-686-8081	

* Attach Additional Sheets If Necessary

2RP-154



TETRA TECH, INC.

1910 N. Big Spring St.
Midland, Texas 79705
(432) 686-8081

August 27, 2008

Ms. Sherry Bonham
NM Oil Conservation Division
1301 W. Grand Ave.
Artesia, NM 882310

Mr. Paul Evans
US Bureau of Land Management
620 E. Greene St.
Carlsbad, NM 88220

RE: Loco Hills Truck Loading Station Request for Closure
Eddy County, New Mexico
Sec. 29, T17S, R30E
2RP-154

Dear Ms. Bonham and Mr. Evans:

On behalf of ConocoPhillips Pipe Line Company (CPPL), Tetra Tech, Inc. (Tetra Tech) requests closure of remediation activities at CPPL's Loco Hills Truck Loading Station (Site; Figure 1, Photo Log). Work performed at the Site was in support of CPPL's efforts to delineate and remediate a recent 97 barrel crude oil release (C141 attached). The Site is located approximately 1 mile southwest of Loco Hills in Eddy County, New Mexico (32° 48.49098N, 103° 59.598W). The Bureau of Land Management is the land administrator.

The Site is located immediately north of the western portion of the Delaware Basin. The area is underlain by Guadalupian age formations, which contains a thick sequence of sandstones, shales, siltstone, and evaporites¹. In the immediate vicinity of the Site, topography is nearly level to moderately undulating. The Kermit-Berino soil complex at the Site is loamy fine sand overlying fractured indurated caliche.²

Exposure Pathway Analysis

Depth to water in the vicinity of the Site is estimated at over 100 feet below ground surface (fbgs). This interpretation is based potentiometric surface contours (330 fbgs) described by Hiss¹ for aquifer systems in northern Eddy County. The New Mexico Office of State Engineer's database and the United States Geological Survey's database^{3,4} did not yield any depth to groundwater information in this area. The U.S. Geological Survey, 1955 topographic map, 1:24,000 scale, entitled "Red Lake SE New Mexico" identifies a windmill approximately 4.6 miles

¹ Hiss, W.L. 1980. Movement of Ground Water in Permian Guadalupian Aquifer Systems, Southeastern New Mexico and Western Texas. In New Mexico Geological Society 31st Field Conference publication entitled "Trans-Pecos Region Southeastern New Mexico and West Texas." Pp 289 – 294.

² U.S. Department of Agriculture, Natural Resources Conservation Services. Webb Soil Survey Database.

³ New Mexico Office of State Engineer. W.A.T.E.R.S. Database.

⁴ United States Geological Survey. Groundwater Levels for the Nation Database.

northwest of the Site. No information is available on the depth of water at this location. The nearest surface water body is a playa, located approximately 800 feet west of the Site.

Following the ranking criteria presented in "Guidelines for Remediation of Leaks, Spills, and Releases" promulgated on August 13, 1993 by the New Mexico Oil Conservation Division (OCD), this Site has the following score:

<u>Criteria</u>		<u>Ranking Score</u>
Depth to groundwater	>100 feet	0
Distance from water source	>1000 feet	0
Distance from domestic water source	>200 feet	0
Distance from surface water body	<1,000 feet	<u>10</u>
Total Ranking Score		10

The remediation action level for a ranking score of <19 is 10 parts per million (ppm) for benzene, 50 ppm for total benzene, toluene, ethylbenzene, and total xylenes (BTEX), and 1,000 ppm for total petroleum hydrocarbons (TPH).

Scope of Work

Approximately 2,400 cubic yards of oily soil was excavated in the affected area (Figure 2) and placed on 20-mil plastic. Soil samples were collected from the base of the excavation and three side walls (north, west and south). The east side extended into the pump area and this area was excavated by hand. The samples were placed into glass sample jars, sealed with Teflon-lined lids, and placed on ice for transportation to an analytical laboratory where they were analyzed for diesel and gasoline range TPH (TPH_{DRO} and TPH_{GRO}, Method 8015B), and BTEX (Method 8021).

For disposal purposes, aliquot samples were collected from two oily soil piles and composited into 6 samples. These samples were placed into glass sample jars, sealed with Teflon-lined lids, and placed on ice for transportation to an analytical laboratory where they were analyzed for TPH_{DRO} and TPH_{GRO} (Method 8015B), and BTEX TCLP analysis (Method 1311/ 8260B). Since concentrations of TPH and BTEX were higher in the smaller oily soil pile the sample from this pile was also analyzed for hazardous characteristics corrosivity (Method SW9045D), reactivity (Methods SW 7.3.3.2 and 7.3.4.2), and metals (mercury, and arsenic barium, cadmium, chromium, lead, selenium and silver; Methods SW 7471A and 6020A, respectively), TCLP analysis for the metals was also performed (Method 1311/ SW 7470A and /SW 6010B). All samples from both oily piles were combined and analyzed for ignitability (Method ASTM D92-01).

Findings

Excavations advanced during the investigation at the Site encountered reddish sandy dune soil. Summaries of subsurface soil conditions are presented in Table 1. A complete analytical report is presented in the Appendix.

Confirmation sample laboratory analyses indicate the soils remaining in the excavation are below OCD remediation standards (Table 1).

Table 1
ConocoPhillips Pipe Line Company
 Loco Hills Truck Loading Station
 Excavation Confirmation Analyses
 5/29/2008

Location	Moisture (%)	Chloride (mg/Kg)	Total Petroleum Hydrocarbons			Volatile Organic Compounds				
			GRO (mg/Kg)	DRO (mg/Kg)	Total (mg/Kg)	Benzene (mg/Kg)	Ethyl-benzene (mg/Kg)	Toluene (mg/Kg)	Xylenes Total (mg/Kg)	Total BTEX (mg/Kg)
SW-N	2.43	ND	ND	ND	ND	ND	ND	ND	ND	ND
SW-S	3.75	ND	ND	ND	ND	ND	0.042	0.029	0.090	0.161
SW-W	4.63	11.2	ND	6.10	6.10	ND	ND	ND	ND	ND
Bottom (D-15)	10.2	30.9	ND	ND	ND	ND	ND	ND	ND	ND

ft = Feet

mg/Kg = Milligrams per kilogram

ND = Not detected at or above laboratory detection level

GRO = Gasoline range petroleum hydrocarbons

DRO = Diesel range petroleum hydrocarbons

The environmental conditions of two oily soil stockpiles are presented in Tables 2 and 3. TPH concentrations ranged from 1,301.9 to 4,297 milligrams per kilogram (mg/Kg). Benzene concentrations were not detected in any of the samples collected. Total BTEX ranged from non-detect to 0.16 milligrams per liter (mg/L).

Table 2
ConocoPhillips Pipe Line Company
 Loco Hills Truck Loading Station
 Excavated Soils Analyses
 7/01/2008

Location	Total Petroleum Hydrocarbons			Toxic Characteristic Leaching Procedure				
	GRO (mg/Kg)	DRO (mg/Kg)	Total (mg/Kg)	Benzene (mg/L)	Ethyl-benzene (mg/L)	Toluene (mg/L)	Xylenes Total (mg/L)	Total BTEX (mg/L)
E-SIDE	2.2	1,500	1,502.2	ND	ND	ND	ND	ND
TOP	190.0	3,000	3,190.0	ND	0.04	0.03	0.09	0.16
N-SIDE	8.4	3,600	3,608.4	ND	ND	ND	0.01	0.01
S-SIDE	1.9	1,300	1,301.9	ND	ND	ND	ND	ND
W-SIDE	26.0	4,100	4,126.0	ND	0.01	0.04	0.03	0.08
SMALL PILE	97.0	4,200	4,297.0	ND	0.04	0.04	0.07	0.14

ft = Feet

mg/Kg = Milligrams per kilogram

ND = Not detected at or above laboratory detection level

Toxic Characteristic Leaching Procedure, 40 CFR §261.24.

GRO = Gasoline range petroleum hydrocarbons

DRO = Diesel range petroleum hydrocarbons

mg/L = Milligrams per liter

Actions

Exposure pathway analysis indicated a ranking score of "10." Therefore, the site-specific remediation levels are 1,000 mg/Kg for TPH, 50 mg/Kg for BTEX and 10 mg/Kg for benzene. Based on laboratory analyses presented in Table 1, the soil remaining in the excavation was below the OCD action level for TPH and benzene. Hazardous characteristic analyses performed on the excavated soil piles (Table 3) indicated all examined constituents were below action levels.

Table 3
ConocoPhillips Pipe Line Company
 Loco Hills Truck Loading Station
 Excavated Soils Total Petroleum Hydrocarbon and Hazardous Characterization Analyses
 7/01/2008

Constituent	Units	Result	Limits
Total Petroleum Hydrocarbons			
GRO	mg/Kg	97	1,000
DRO	mg/Kg	4,200	
Total	mg/Kg	4,297	
Toxic Characteristic Leaching Procedure (TCLP)			
Benzene	mg/L	ND	0.5
Ethylbenzene	mg/L	0.04	
Toluene	mg/L	0.039	
Xylenes Total	mg/L	0.065	
Total BTEX	mg/L	0.144	
TCLP RCRA 8 Metals			
Arsenic	mg/L	ND	5.0
Barium	mg/L	1.2	100.0
Cadmium	mg/L	ND	1.0
Chromium	mg/L	ND	5.0
Lead	mg/L	ND	5.0
Mercury	mg/L	ND	0.2
Selenium	mg/L	ND	1.0
Silver	mg/L	ND	5.0
Reactivity			
Cyanate	mg/Kg	ND	Reacts with Water
Sulfate	mg/Kg	ND	Reacts with Water
Ignitability	° F	>212	<140
Corrosivity	pH units	7.5	< 2 or > 12.5

TCLP = Toxic Characteristic Leaching Procedure, 40 CFR §261.24.

RCRA = Resource Conservation and Recovery Act

mg/Kg = Milligrams per kilogram

mg/L = Milligrams per liter

° F = Degrees Fahrenheit

ND = Not detected at or above laboratory detection level

Ms. Bonham and Mr. Evans
August 27, 2008
Page 5

Loco Hills Truck Loading Station
Request for Closure

The excavated soil was combined and hauled to a State approved disposal location for disposal. Backfill was returned to the excavation and adjacent soil was used to cover the backfill. BLM seed mix # 2 was hand spread and soil was back dragged over the seed.

Recommendations

Tetra Tech recommends no further action be taken at the Loco Hills Site, and requests closure of this Site.

If you concur with this recommendation or if you have any questions or require additional information, please contact me (432-686-8081) or Mr. Thomas Lacki (ConocoPhillips, 432-368-1315),

Sincerely,

Tetra Tech, Inc.

Charles Durrett

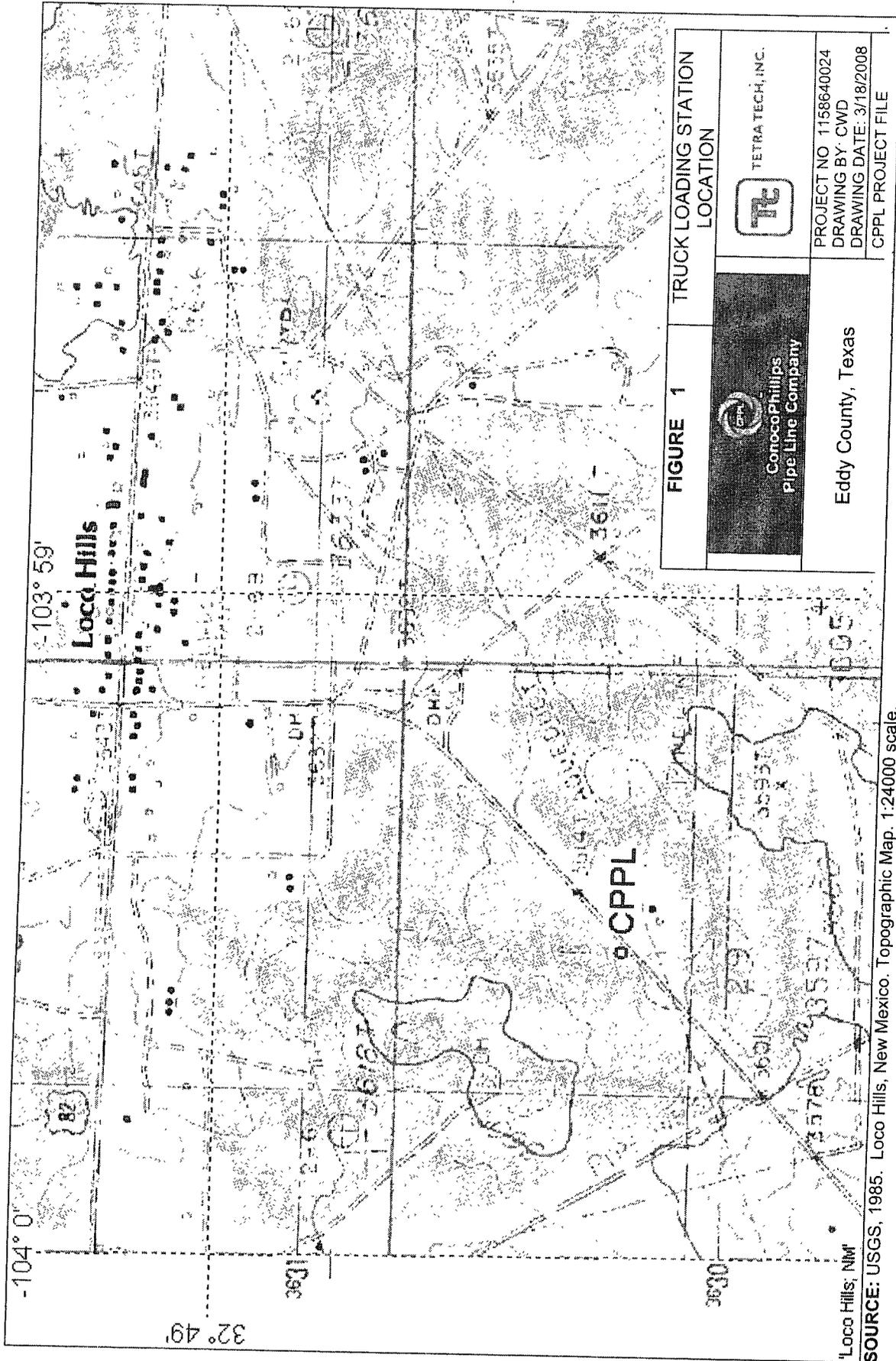
Digitally signed by Charles Durrett
DN: cn=Charles Durrett, ou=TETRA TECH, ou=Midland TX,
email=Charles.Durrett@TetraTech.com, c=US
Date: 2008.08.27 14:44:45 -0500

Charles Durrett
Project Manager

Attachments:

Figure
Form C-141 Release Notification and Corrective Action
Photo Log
Appendix: Laboratory Analytical Reports

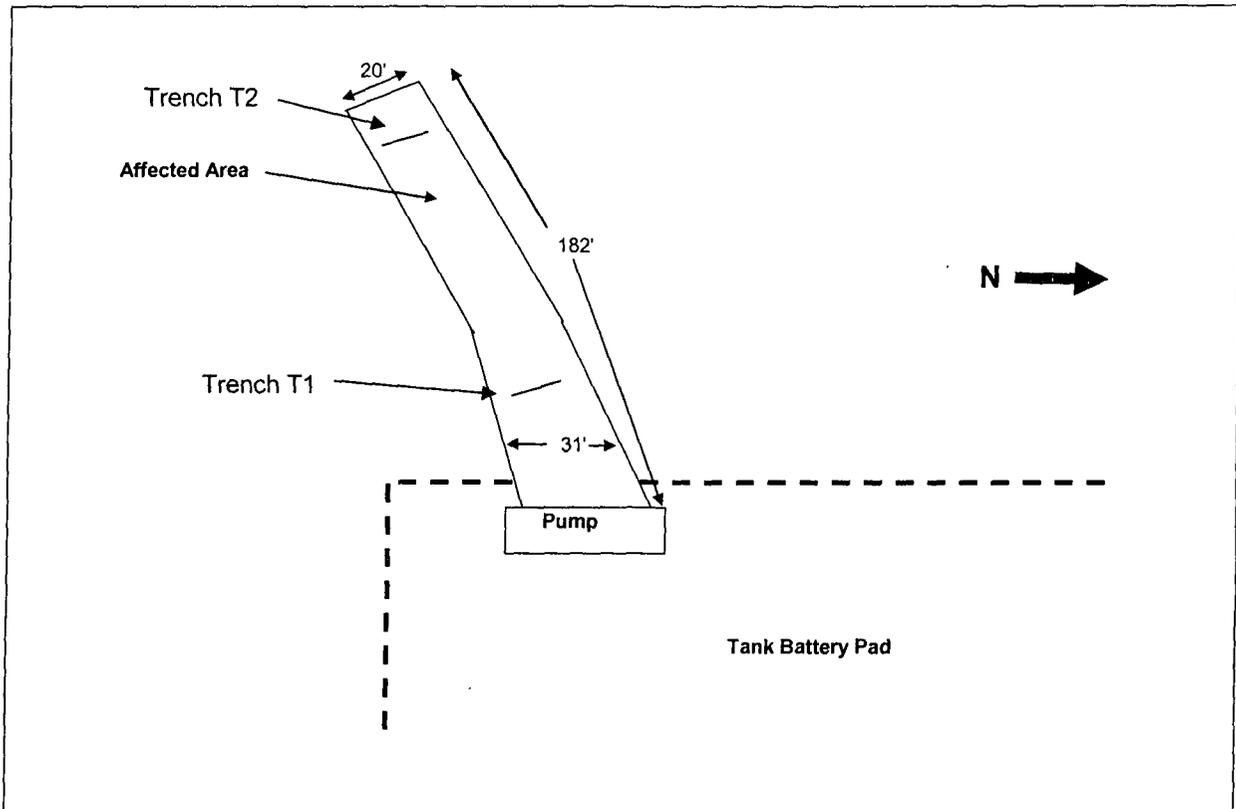




PROJECT NO 1158640024
 DRAWING BY CWD
 DRAWING DATE: 3/18/2008
 CPPL PROJECT FILE

'Loco Hills; NM'

SOURCE: USGS, 1985. Loco Hills, New Mexico. Topographic Map. 1:24000 scale.



Not to Scale

FIGURE 2		CRUDE OIL RELEASE LOCATION	
 ConocoPhillips Pipe Line Company		 TETRA TECH, INC.	
Loco Hills Truck Loading Battery Eddy County, New Mexico		PROJECT NO. 1158640024	
		DRAWING BY: CWD	
		DRAWING DATE: 5/01/2008	
		CPPL PROJECT FILE	

District I
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State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

MAR 17 2008
OCD-ARTESIA

SEB 0804433180
L SEB 0809433030
NSEB 0809354487

Release Notification and Corrective Action

258995 OPERATOR Initial Report Final Report

Name of Company - ConocoPhillips pipe Line Company	Contact - Kirby Shipp
Address - 4001 East 42 nd Street - Odessa, Tx. 79762	Telephone No. - 575/391-8262
Facility Name - Loco Hills Truck Unload Facility	Facility Type - Sour Crude Oil injection site
Surface Owner - U.S. Department of the Interior, Bureau of Land Management	Mineral Owner
Lease No. NM 101867	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	29	17S	30E	130 feet	Northwest	160 feet	West	Eddy

Latitude _N32 48.491_ Longitude _W103 59.598_

NATURE OF RELEASE

Type of Release - Crude oil	Volume of Release - 97 bbls.	Volume Recovered - 0
Source of Release - Pump site - suction pulsation dampner	Date and Hour of Occurrence - 02/27/08 - 04:50 to 05:17 PM	Date and Hour of Discovery - 02/27/08 - 05:17 PM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Ponca City control center, NMOCD Santa Fe Office; NMOCD District 2,	
By Whom? Kirby Shipp contacted the control center and Thomas Lacki contacted the NMOCD.	Date and Hour: NMOCD was contacted on 2/27/08 at approximately 8:35 p m and 8:40 p.m. respectively. (I was out of cell phone reach until 8.10 p.m.)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
A bolt sheared off of a clamp holding an end cap on a suction pulsation dampner for a PD pump resulting in a fantail spray of crude oil. The pump is used to pull crude from the storage tank and LACT unit out to the line which feeds Buckeye Station. The release lasted approximately 1.25 hours.

Describe Area Affected and Cleanup Action Taken * The impact area is approximately 20 feet wide by 125 feet long and extends from the pipe line right of way out on to land owned by the Bureau of Land Management. Vacuum trucks were dispatched to the location; however, due to the dry sandy soil little to no oil was reclaimed. ConocoPhillips is currently working with TetraTech to develop a sampling plan to delineate the extent of the release. Once the extent of the contamination is known, a remediation plan will be developed to address the issues. Both the sampling and remediation plans will be submitted to your office for approval prior to implementation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

OIL CONSERVATION DIVISION

Signature:	Approved by District Supervisor:	
Printed Name: Thomas Lacki	Approval Date: 4-2-08	Expiration Date:
Title: Environmental Coordinator	Conditions of Approval: REMEDIATION WORK PLAN DUE 5-2-08	
E-mail Address: thomas.lacki@conocophillips.com	Attached <input checked="" type="checkbox"/>	
Date: 3/12/08	Phone: (432) 368-1315	

* Attach Additional Sheets If Necessary

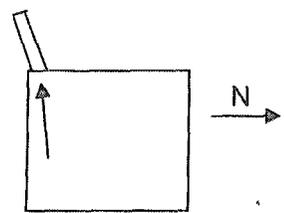
PSEB 0809433924

2RP-154

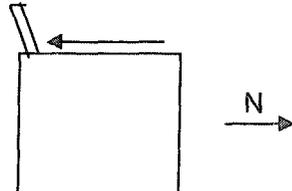
PHOTO LOG



Excavation
View: West

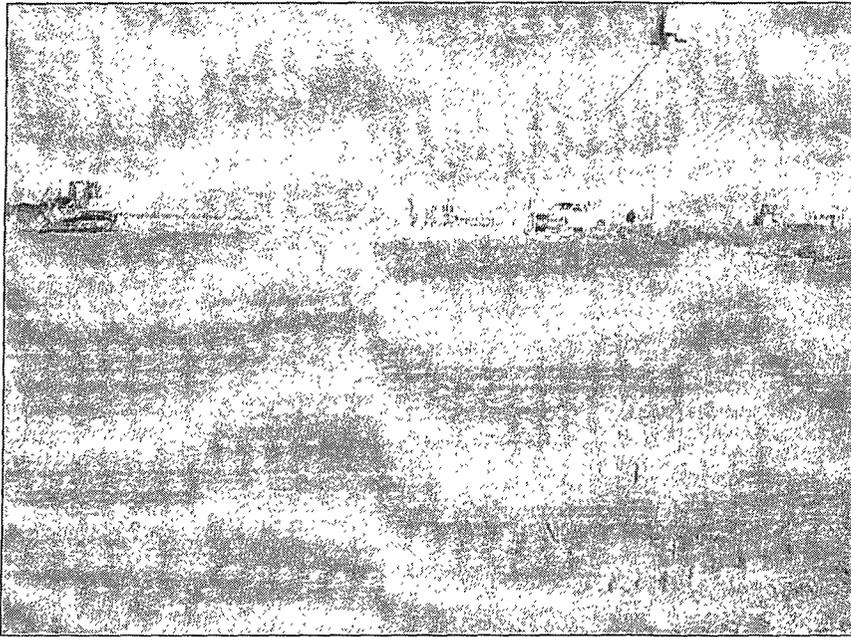
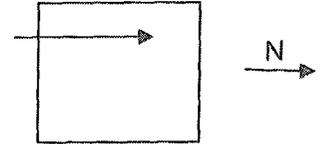


Excavation
View: South

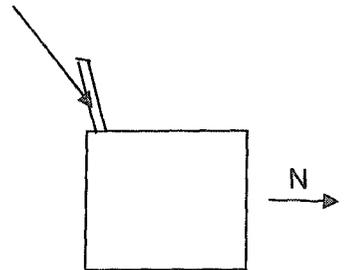




Oily Soil Piles 1 & 2
View: North



Remediated Area
View: Northeast



APPENDIX
Laboratory Analyses

Report 08060038
TPH _{DRO - GRO}
BTEX

Report 08060038
TPH _{DRO - GRO}
TCLP Volatile Organics
Corrosivity
Total Metals
Reactivity

Report 0871643
TCLP Metals

Report 8080253
Ignitability



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips

Certificate of Analysis Number:

08060038

<u>Report To:</u> Tetra Tech Charlie Durrett 1703 W Industrial Avenue Midland TX 79701- ph: (432) 686-8081 fax:	<u>Project Name:</u> CPPL Loco Hills <u>Site:</u> Loco Hills, NM <u>Site Address:</u> <u>PO Number:</u> WO#4509610900 <u>State:</u> New Mexico <u>State Cert. No.:</u> <u>Date Reported:</u> 6/6/2008
--	--

This Report Contains A Total Of 21 Pages

Excluding This Page, Chain Of Custody

And

Any Attachments

6/6/2008

Date

Test results meet all requirements of NELAC, unless specified in the narrative.



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

**Case Narrative for:
 Conoco Phillips**

**Certificate of Analysis Number:
08060038**

<p>Report To: Tetra Tech Charlie Durrett 1703 W Industrial Avenue Midland TX 79701- ph: (432) 686-8081 fax:</p>	<p>Project Name: CPPL Loco Hills Site: Loco Hills, NM Site Address: PO Number: WO#4509610900 State: New Mexico State Cert. No.: Date Reported: 6/6/2008</p>
--	---

Per your email request on May 29, 2008, the samples were analyzed for TCLP Volatile Organics by SW846 Method 8260B in addition to the analyses selected on the chain of custody.

A trip blank was received with the sample but was not listed on the chain of custody. Per our [conversation or email] on [date] SPL, Inc. analyzed the trip blank for [enter analysis and method].

Per the Conoco Phillips TSM Revision 0, a copy of the internal chain of custody is to be included in final data package. However, due to LIMS limitations, this cannot be provided at this time.

Results for soils are reported on a dry-weight basis.

The samples submitted for Purgeable Aromatics by SW846 Method 8021B analyses were received in a vessel that is not stipulated in Method 5035A; the samples were not preserved and/or analyzed within 48 hours of sample collection.

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Some of the percent recoveries and RPD's on the QC report for the MS/MSD may be different than the calculated recoveries and RPD's using the sample result and the MS/MSD results that appear on the report because, the actual raw result is used to perform the calculations for percent recovery and RPD.

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

08060038 Page 1
 6/6/2008

Bethany A. Agarwal
 Senior Project Manager

Test results meet all requirements of NELAC, unless specified in the narrative

Date



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Conoco Phillips

Certificate of Analysis Number:

08060038

Report To: Tetra Tech
 Charlie Durrett
 1703 W Industrial Avenue

Midland
 TX
 79701-
 ph: (432) 686-8081

fax: (432) 686-8085

Project Name: CPPL Loco Hills

Site: Loco Hills, NM

Site Address:

PQ Number: WO#4509610900

State: New Mexico

State Cert. No.:

Date Reported: 6/6/2008

Fax To:

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
SW-N	08060038-01	Soil	5/29/2008 2:12:00 PM	6/2/2008 10:00:00 AM	270410	<input type="checkbox"/>
SW-S	08060038-02	Soil	5/29/2008 2:04:00 PM	6/2/2008 10:00:00 AM	270410	<input type="checkbox"/>
SW-W	08060038-03	Soil	5/28/2008 12:35:00 PM	6/2/2008 10:00:00 AM	270410	<input type="checkbox"/>
D-15	08060038-04	Soil	5/29/2008 11:27:00 AM	6/2/2008 10:00:00 AM	270410	<input type="checkbox"/>
Trip Blank #1	08060038-05	Water	5/29/2008	6/2/2008 10:00:00 AM	270410	<input checked="" type="checkbox"/>

6/6/2008

Bethany A. Agarwal
 Senior Project Manager

Date

Richard R. Reed
 Laboratory Director

Ted Yen
 Quality Assurance Officer



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Client Sample ID: SW-N Collected: 05/29/2008 14:12 SPL Sample ID: 08060038-01

Site: Loco Hills, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS				MCL	SW8015B	Units: mg/kg-dry	
Diesel Range Organics (C10-C28)	ND		5.1	1	06/04/08 15:11	NW	4484120
Surr: n-Pentacosane	79.3		% 20-154	1	06/04/08 15:11	NW	4484120

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	06/03/2008 11:03	QMT	1.00

GASOLINE RANGE ORGANICS				MCL	SW8015B	Units: mg/kg-dry	
Gasoline Range Organics	ND		0.1	1	06/03/08 12:38	SFE	4481156
Surr: 1,4-Difluorobenzene	100		% 63-142	1	06/03/08 12:38	SFE	4481156
Surr: 4-Bromofluorobenzene	104		% 50-159	1	06/03/08 12:38	SFE	4481156

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	06/03/2008 12:32	SFE	1.00

ION CHROMATOGRAPHY				MCL	E300.0 MOD	Units: mg/kg-dry	
Chloride	ND		5.12	1	06/04/08 18:38	A_E	4483194

PERCENT MOISTURE				MCL	D2216	Units: wt%	
Percent Moisture	2.43		0	1	06/03/08 12:04	GF	4478426

PURGEABLE AROMATICS				MCL	SW8021B	Units: ug/kg-dry	
Benzene	ND		1	1	06/04/08 14:20	NMa	4483551
Toluene	ND		1	1	06/04/08 14:20	NMa	4483551
Ethylbenzene	ND		1	1	06/04/08 14:20	NMa	4483551
m,p-Xylene	ND		1	1	06/04/08 14:20	NMa	4483551
o-Xylene	ND		1	1	06/04/08 14:20	NMa	4483551
Xylenes, Total	ND		1	1	06/04/08 14:20	NMa	4483551
Surr: 1,4-Difluorobenzene	99.7		% 77-126	1	06/04/08 14:20	NMa	4483551
Surr: 4-Bromofluorobenzene	99.2		% 60-160	1	06/04/08 14:20	NMa	4483551

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	06/04/2008 13:11	NMa	1.00

Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)
 B/V - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution
 * - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference
 J - Estimated Value between MDL and PQL
 E - Estimated Value exceeds calibration curve
 TNTC - Too numerous to count



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Client Sample ID: SW-N Collected: 05/29/2008 14:12 SPL Sample ID: 08060038-01

Site: Loco Hills, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
TCLP VOLATILE ORGANICS				MCL	SW8260B	Units: ug/L	
Benzene	ND		5	500	1	06/05/08 4:40	LT 4483225
Ethylbenzene	ND		5		1	06/05/08 4:40	LT 4483225
Toluene	ND		5		1	06/05/08 4:40	LT 4483225
m,p-Xylene	ND		5		1	06/05/08 4:40	LT 4483225
o-Xylene	ND		5		1	06/05/08 4:40	LT 4483225
Xylenes, Total	ND		5		1	06/05/08 4:40	LT 4483225
Surr: 1,2-Dichloroethane-d4	106		% 62-130		1	06/05/08 4:40	LT 4483225
Surr: 4-Bromofluorobenzene	88.0		% 70-130		1	06/05/08 4:40	LT 4483225
Surr: Toluene-d8	96.0		% 74-122		1	06/05/08 4:40	LT 4483225

Leach Method	Leachate Date	Leach Initials
SW1311	06/03/2008	GF

Qualifiers:

ND/U - Not Detected at the Reporting Limit
 B/V - Analyte detected in the associated Method Blank
 * - Surrogate Recovery Outside Advisable QC Limits
 J - Estimated Value between MDL and PQL
 E - Estimated Value exceeds calibration curve
 TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)
 D - Surrogate Recovery Unreportable due to Dilution
 MI - Matrix Interference



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Client Sample ID: SW-S Collected: 05/29/2008 14:04 SPL Sample ID: 08060038-02

Site: Loco Hills, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS				MCL	SW8015B	Units: mg/kg-dry	
Diesel Range Organics (C10-C28)	ND		5.2	1	06/04/08 15:37	NW	4484121
Surr: n-Pentacosane	94.9		% 20-154	1	06/04/08 15:37	NW	4484121

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	06/03/2008 11:03	QMT	1.00

GASOLINE RANGE ORGANICS				MCL	SW8015B	Units: mg/kg-dry	
Gasoline Range Organics	ND		0.1	1	06/03/08 13:06	SFE	4481157
Surr: 1,4-Difluorobenzene	101		% 63-142	1	06/03/08 13:06	SFE	4481157
Surr: 4-Bromofluorobenzene	104		% 50-159	1	06/03/08 13:06	SFE	4481157

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	06/03/2008 12:33	SFE	1.00

ION CHROMATOGRAPHY				MCL	E300.0 MOD	Units: mg/kg-dry	
Chloride	ND		5.19	1	06/04/08 19:28	A_E	4483197

PERCENT MOISTURE				MCL	D2216	Units: wt%	
Percent Moisture	3.75		0	1	06/03/08 12:04	GF	4478425

PURGEABLE AROMATICS				MCL	SW8021B	Units: ug/kg-dry	
Benzene	ND		1	1	06/04/08 14:49	NMa	4483552
Toluene	ND		1	1	06/04/08 14:49	NMa	4483552
Ethylbenzene	ND		1	1	06/04/08 14:49	NMa	4483552
m,p-Xylene	ND		1	1	06/04/08 14:49	NMa	4483552
o-Xylene	ND		1	1	06/04/08 14:49	NMa	4483552
Xylenes, Total	ND		1	1	06/04/08 14:49	NMa	4483552
Surr: 1,4-Difluorobenzene	100		% 77-126	1	06/04/08 14:49	NMa	4483552
Surr: 4-Bromofluorobenzene	100		% 60-160	1	06/04/08 14:49	NMa	4483552

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	06/04/2008 13:12	NMa	1.00

Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)
 B/V - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution
 * - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference
 J - Estimated Value between MDL and PQL
 E - Estimated Value exceeds calibration curve
 TNTC - Too numerous to count



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Client Sample ID: SW-S Collected: 05/29/2008 14:04 SPL Sample ID: 08060038-02

Site: Loco Hills, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
TCLP VOLATILE ORGANICS				MCL	SW8260B	Units: ug/L	
Benzene	ND		5	500	1	06/05/08 5:06 LT	4483227
Ethylbenzene	42		5		1	06/05/08 5:06 LT	4483227
Toluene	29		5		1	06/05/08 5:06 LT	4483227
m,p-Xylene	58		5		1	06/05/08 5:06 LT	4483227
o-Xylene	32		5		1	06/05/08 5:06 LT	4483227
Xylenes, Total	90		5		1	06/05/08 5:06 LT	4483227
Surr: 1,2-Dichloroethane-d4	108		% 62-130		1	06/05/08 5:06 LT	4483227
Surr: 4-Bromofluorobenzene	104		% 70-130		1	06/05/08 5:06 LT	4483227
Surr: Toluene-d8	98.0		% 74-122		1	06/05/08 5:06 LT	4483227

Leach Method	Leachate Date	Leach Initials
SW1311	06/03/2008	GF

Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)
 B/V - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution
 * - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference
 J - Estimated Value between MDL and PQL
 E - Estimated Value exceeds calibration curve
 TNTC - Too numerous to count



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
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Client Sample ID: SW-W Collected: 05/28/2008 12:35 SPL Sample ID: 08060038-03

Site: Loco Hills, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS				MCL	SW8015B	Units: mg/kg-dry	
Diesel Range Organics (C10-C28)	6.1		5.2	1	06/04/08 16:03	NW	4484122
Surr: n-Pentacosane	101		% 20-154	1	06/04/08 16:03	NW	4484122

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	06/03/2008 11:03	QMT	1.00

GASOLINE RANGE ORGANICS				MCL	SW8015B	Units: mg/kg-dry	
Gasoline Range Organics	ND		0.1	1	06/03/08 13:35	SFE	4481158
Surr: 1,4-Difluorobenzene	101		% 63-142	1	06/03/08 13:35	SFE	4481158
Surr: 4-Bromofluorobenzene	104		% 50-159	1	06/03/08 13:35	SFE	4481158

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	06/03/2008 12:34	SFE	1.00

ION CHROMATOGRAPHY				MCL	E300.0 MOD	Units: mg/kg-dry	
Chloride	11.2		5.24	1	06/04/08 19:44	A_E	4483198

PERCENT MOISTURE				MCL	D2216	Units: wt%	
Percent Moisture	4.63		0	1	06/03/08 12:04	GF	4478424

PURGEABLE AROMATICS				MCL	SW8021B	Units: ug/kg-dry	
Benzene	ND		1	1	06/04/08 18:13	NMa	4483556
Toluene	ND		1	1	06/04/08 18:13	NMa	4483556
Ethylbenzene	ND		1	1	06/04/08 18:13	NMa	4483556
m,p-Xylene	ND		1	1	06/04/08 18:13	NMa	4483556
o-Xylene	ND		1	1	06/04/08 18:13	NMa	4483556
Xylenes, Total	ND		1	1	06/04/08 18:13	NMa	4483556
Surr: 1,4-Difluorobenzene	100		% 77-126	1	06/04/08 18:13	NMa	4483556
Surr: 4-Bromofluorobenzene	99.9		% 60-160	1	06/04/08 18:13	NMa	4483556

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	06/04/2008 13:14	NMa	1.00

Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)
 B/V - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution
 * - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference
 J - Estimated Value between MDL and PQL
 E - Estimated Value exceeds calibration curve
 TNTC - Too numerous to count



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Client Sample ID: SW-W

Collected: 05/28/2008 12:35

SPL Sample ID: 08060038-03

Site: Loco Hills, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
TCLP VOLATILE ORGANICS				MCL	SW8260B	Units: ug/L	
Benzene	ND		5	500	1	06/05/08 5:32	LT 4483228
Ethylbenzene	ND		5		1	06/05/08 5:32	LT 4483228
Toluene	ND		5		1	06/05/08 5:32	LT 4483228
m,p-Xylene	ND		5		1	06/05/08 5:32	LT 4483228
o-Xylene	ND		5		1	06/05/08 5:32	LT 4483228
Xylenes, Total	ND		5		1	06/05/08 5:32	LT 4483228
Surr. 1,2-Dichloroethane-d4	108		% 62-130		1	06/05/08 5:32	LT 4483228
Surr: 4-Bromofluorobenzene	88.0		% 70-130		1	06/05/08 5:32	LT 4483228
Surr: Toluene-d8	98.0		% 74-122		1	06/05/08 5:32	LT 4483228

Leach Method	Leachate Date	Leach Initials
SW1311	06/03/2008	GF

Qualifiers:

ND/U - Not Detected at the Reporting Limit
 B/V - Analyte detected in the associated Method Blank
 * - Surrogate Recovery Outside Advisable QC Limits
 J - Estimated Value between MDL and PQL
 E - Estimated Value exceeds calibration curve
 TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)
 D - Surrogate Recovery Unreportable due to Dilution
 MI - Matrix Interference



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
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Client Sample ID: D-15 Collected: 05/29/2008 11:27 SPL Sample ID: 08060038-04

Site: Loco Hills, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS				MCL	SW8015B	Units: mg/kg-dry	
Diesel Range Organics (C10-C28)	ND		5.6	1	06/04/08 16:28	NW	4484123
Surr: n-Pentacosane	90.2		% 20-154	1	06/04/08 16:28	NW	4484123

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	06/03/2008 11:03	QMT	1.00

GASOLINE RANGE ORGANICS				MCL	SW8015B	Units: mg/kg-dry	
Gasoline Range Organics	ND		0.11	1	06/03/08 14:04	SFE	4481159
Surr: 1,4-Difluorobenzene	101		% 63-142	1	06/03/08 14:04	SFE	4481159
Surr: 4-Bromofluorobenzene	101		% 50-159	1	06/03/08 14:04	SFE	4481159

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	06/03/2008 12:35	SFE	1.00

ION CHROMATOGRAPHY				MCL	E300.0 MOD	Units: mg/kg-dry	
Chloride	30.9		5.57	1	06/04/08 20:01	A_E	4483199

PERCENT MOISTURE				MCL	D2216	Units: wt%	
Percent Moisture	10.2		0	1	06/03/08 12:04	GF	4478423

PURGEABLE AROMATICS				MCL	SW8021B	Units: ug/kg-dry	
Benzene	ND		1.1	1	06/04/08 15:18	NMa	4483553
Toluene	ND		1.1	1	06/04/08 15:18	NMa	4483553
Ethylbenzene	ND		1.1	1	06/04/08 15:18	NMa	4483553
m,p-Xylene	ND		1.1	1	06/04/08 15:18	NMa	4483553
o-Xylene	ND		1.1	1	06/04/08 15:18	NMa	4483553
Xylenes, Total	ND		1.1	1	06/04/08 15:18	NMa	4483553
Surr: 1,4-Difluorobenzene	100		% 77-126	1	06/04/08 15:18	NMa	4483553
Surr: 4-Bromofluorobenzene	99.9		% 60-160	1	06/04/08 15:18	NMa	4483553

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	06/04/2008 13:18	NMa	1.00

Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)
 B/V - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution
 * - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference
 J - Estimated Value between MDL and PQL
 E - Estimated Value exceeds calibration curve
 TNTC - Too numerous to count



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Client Sample ID:D-15

Collected: 05/29/2008 11:27, SPL Sample ID: 08060038-04

Site: Loco Hills, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
TCLP VOLATILE ORGANICS				MCL	SW8260B	Units: ug/L	
Benzene	ND		5	500	1	06/05/08 5:58	LT 4483230
Ethylbenzene	ND		5		1	06/05/08 5:58	LT 4483230
Toluene	ND		5		1	06/05/08 5:58	LT 4483230
m,p-Xylene	ND		5		1	06/05/08 5:58	LT 4483230
o-Xylene	ND		5		1	06/05/08 5:58	LT 4483230
Xylenes, Total	ND		5		1	06/05/08 5:58	LT 4483230
Surr: 1,2-Dichloroethane-d4	106		% 62-130		1	06/05/08 5:58	LT 4483230
Surr: 4-Bromofluorobenzene	86.0		% 70-130		1	06/05/08 5:58	LT 4483230
Surr: Toluene-d8	96.0		% 74-122		1	06/05/08 5:58	LT 4483230

Leach Method	Leachate Date	Leach Initials
SW1311	06/03/2008	GF

Qualifiers:

ND/U - Not Detected at the Reporting Limit
 B/V - Analyte detected in the associated Method Blank
 * - Surrogate Recovery Outside Advisable QC Limits
 J - Estimated Value between MDL and PQL
 E - Estimated Value exceeds calibration curve
 TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)
 D - Surrogate Recovery Unreportable due to Dilution
 MI - Matrix Interference

Quality Control Documentation



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: Diesel Range Organics
Method: SW8015B

WorkOrder: 08060038
Lab Batch ID: 79808

Method Blank

Samples in Analytical Batch:

RunID: HP_V_080604D-4484118 Units mg/kg
Analysis Date: 06/04/2008 14:20 Analyst: NW
Preparation Date: 06/03/2008 11:03 Prep By: QMT Method SW3550B

Lab Sample ID Client Sample ID
08060038-01B SW-N
08060038-02B SW-S
08060038-03B SW-W
08060038-04B D-15

Table with 3 columns: Analyte, Result, Rep Limit. Rows include Diesel Range Organics (C10-C28) and Surr n-Pentacosane.

Laboratory Control Sample (LCS)

RunID: HP_V_080604D-4484119 Units: mg/kg
Analysis Date: 06/04/2008 14:46 Analyst: NW
Preparation Date: 06/03/2008 11:03 Prep By: QMT Method SW3550B

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Rows include Diesel Range Organics (C10-C28) and Surr: n-Pentacosane.

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 08051995-02
RunID: HP_V_080604D-4484127 Units: mg/kg-dry
Analysis Date: 06/05/2008 11:03 Analyst: NW
Preparation Date: 06/03/2008 11:03 Prep By: QMT Method SW3550B

Table with 12 columns: Analyte, Sample Result, MS Spike Added, MS Result, MS % Recovery, MSD Spike Added, MSD Result, MSD % Recovery, RPD, RPD Limit, Low Limit, High Limit. Rows include Diesel Range Organics (C10-C28) and Surr: n-Pentacosane.

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: Gasoline Range Organics
Method: SW8015B

WorkOrder: 08060038
Lab Batch ID: R239997

Method Blank

Samples in Analytical Batch:

RunID: HP_R_080603A-4479956 Units: mg/kg
Analysis Date: 06/03/2008 4:33 Analyst: SFE
Preparation Date: 06/03/2008 4:33 Prep By: Method

Lab Sample ID Client Sample ID
08060038-01A SW-N
08060038-02A SW-S
08060038-03A SW-W
08060038-04A D-15

Table with 3 columns: Analyte, Result, Rep Limit. Rows include Gasoline Range Organics, Surr: 1,4-Difluorobenzene, Surr: 4-Bromofluorobenzene.

Laboratory Control Sample (LCS)

RunID: HP_R_080603A-4479955 Units: mg/kg
Analysis Date: 06/03/2008 4:05 Analyst: SFE
Preparation Date: 06/03/2008 4:05 Prep By: Method SW5030B

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Rows include Gasoline Range Organics, Surr: 1,4-Difluorobenzene, Surr: 4-Bromofluorobenzene.

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 08052131-03
RunID: HP_R_080603A-4479959 Units: mg/kg-dry
Analysis Date: 06/03/2008 5:58 Analyst: SFE

Table with 12 columns: Analyte, Sample Result, MS Spike Added, MS Result, MS % Recovery, MSD Spike Added, MSD Result, MSD % Recovery, RPD, RPD Limit, Low Limit, High Limit. Rows include Gasoline Range Organics, Surr: 1,4-Difluorobenzene, Surr: 4-Bromofluorobenzene.

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
BV - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: Purgeable Aromatics
Method: SW8021B

WorkOrder: 08060038
Lab Batch ID: R240243

Method Blank

Samples in Analytical Batch:

RunID: HP_O_080604A-4483549 Units: ug/kg
Analysis Date: 06/04/2008 12:37 Analyst: NMa
Preparation Date: 06/04/2008 12.37 Prep By: Method

Lab Sample ID Client Sample ID
08060038-01A SW-N
08060038-02A SW-S
08060038-03A SW-W
08060038-04A D-15

Table with 3 columns: Analyte, Result, Rep Limit. Rows include Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene, Xylenes, Total, and two surrogate compounds.

Laboratory Control Sample (LCS)

RunID: HP_O_080604A-4483548 Units: ug/kg
Analysis Date: 06/04/2008 12:08 Analyst: NMa
Preparation Date: 06/04/2008 12:08 Prep By: Method SW5030B

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Rows include Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene, Xylenes, Total, and two surrogate compounds.

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked. 08060038-03
RunID: HP_O_080604A-4483557 Units: ug/kg-dry
Analysis Date: 06/04/2008 18:42 Analyst: NMa
Preparation Date: 06/04/2008 13.16 Prep By: NMa Method SW5030B

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: Purgeable Aromatics
Method: SW8021B

WorkOrder: 08060038
Lab Batch ID: R240243

Table with 12 columns: Analyte, Sample Result, MS Spike Added, MS Result, MS % Recovery, MSD Spike Added, MSD Result, MSD % Recovery, RPD, RPD Limit, Low Limit, High Limit. Rows include Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene, Xylenes, Total, and two surrogate compounds.

Qualifiers: ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: TCLP Volatile Organics
Method: SW8260B

WorkOrder: 08060038
Lab Batch ID: R240222

Method Blank

Samples in Analytical Batch:

RunID: N_080604A-4483223 Units: ug/L
Analysis Date: 06/05/2008 4:15 Analyst: LT

Lab Sample ID Client Sample ID
08060038-01B SW-N
08060038-02B SW-S
08060038-03B SW-W
08060038-04B D-15

Table with 3 columns: Analyte, Result, Rep Limit. Rows include Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene, Xylenes, Total, and various Surrogate compounds.

Leachate Blank

RunID: N_080604A-4483221 Units: ug/L
Analysis Date: 06/05/2008 3:23 Analyst: LT
Leach Date: 06/03/2008 0:00 Leach By: GF Method SW1311

Table with 3 columns: Analyte, Result, Rep Limit. Rows include Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene, Xylenes, Total, and various Surrogate compounds.

Laboratory Control Sample (LCS)

RunID: N_080604A-4483219 Units: ug/L
Analysis Date: 06/05/2008 2:57 Analyst: LT

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Rows include Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene.

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: TCLP Volatile Organics
Method: SW8260B

WorkOrder: 08060038
Lab Batch ID: R240222

Laboratory Control Sample (LCS)

RunID N_080604A-4483219 Units ug/L
Analysis Date 06/05/2008 2:57 Analyst LT

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Rows include Xylenes, Total and various surrogates like 1,2-Dichloroethane-d4.

Matrix Spike (MS)

Sample Spiked: 08060038-01
RunID: N_080604A-4483232 Units: ug/L
Analysis Date: 06/05/2008 6:24 Analyst: LT

Leach Date: 06/03/2008 0:00 Leach By: GF Method SW1311

Table with 7 columns: Analyte, Sample Result, Spike Added, MS Result, MS % Recovery, Low Limit, High Limit. Rows include Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene, Xylenes, Total, and various surrogates.

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added Control limits do not apply
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: PERCENT MOISTURE
Method: D2216

WorkOrder: 08060038
Lab Batch ID: R239897A

Samples in Analytical Batch:

Table with 2 columns: Lab Sample ID, Client Sample ID. Rows include 08060038-01B (SW-N), 08060038-02B (SW-S), 08060038-03B (SW-W), and 08060038-04B (D-15).

Sample Duplicate

Original Sample: 08060038-04
RunID: WET_080603C-4478423 Units: wt%
Analysis Date: 06/03/2008 12:04 Analyst: GF

Table with 5 columns: Analyte, Sample Result, DUP Result, RPD, RPD Limit. Row for Percent Moisture shows values 10.2, 10.19, 0.248, and 20.

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: Ion Chromatography
Method: E300.0 MOD

WorkOrder: 08060038
Lab Batch ID: R240219S

Method Blank

Samples in Analytical Batch:

RunID: IC1_080604C-4483189 Units mg/kg
Analysis Date: 06/04/2008 17:33 Analyst: A_E

Lab Sample ID Client Sample ID
08060038-01B SW-N
08060038-02B SW-S
08060038-03B SW-W
08060038-04B D-15

Table with 3 columns: Analyte, Result, Rep Limit. Row: Chloride, ND, 5.0

Laboratory Control Sample (LCS)

RunID: IC1_080604C-4483190 Units: mg/kg
Analysis Date: 06/04/2008 17:49 Analyst: A_E

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Row: Chloride, 100.0, 94.03, 94.03, 80, 120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 08060038-01
RunID: IC1_080604C-4483195 Units: mg/kg-dry
Analysis Date: 06/04/2008 18.55 Analyst: A_E

Table with 12 columns: Analyte, Sample Result, MS Spike Added, MS Result, MS % Recovery, MSD Spike Added, MSD Result, MSD % Recovery, RPD, RPD Limit, Low Limit, High Limit. Row: Chloride, ND, 102.5, 91.64, 87.96, 102.5, 90.60, 86.95, 1.136, 20, 75, 125

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

*Sample Receipt Checklist
And
Chain of Custody*



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Sample Receipt Checklist

Workorder:	08060038	Received By	L_C
Date and Time Received:	6/2/2008 10:00:00 AM	Carrier name:	Fedex-Priority
Temperature	3.0°C	Chilled by:	Water Ice

- 1. Shipping container/cooler in good condition? Yes No Not Present
- 2. Custody seals intact on shipping container/cooler? Yes No Not Present
- 3. Custody seals intact on sample bottles? Yes No Not Present
- 4. Chain of custody present? Yes No
- 5. Chain of custody signed when relinquished and received? Yes No
- 6. Chain of custody agrees with sample labels? Yes No
 - 1. Received on set of trip blanks not indicated on chain of custody.
- 7. Samples in proper container/bottle? Yes No
- 8. Sample containers intact? Yes No
- 9. Sufficient sample volume for indicated test? Yes No
- 10. All samples received within holding time? Yes No
- 11. Container/Temp Blank temperature in compliance? Yes No
- 12. Water - VOA vials have zero headspace? Yes No VOA Vials Not Present
- 13. Water - Preservation checked upon receipt (except VOA*)? Yes No Not Applicable

*VOA Preservation Checked After Sample Analysis

SPL Representative: Agarwal, Bethany A

Contact Date & Time: 6/3/2008 10:15:00 AM

Client Name Contacted: Charles Durrett

Non Conformance Issues: 1 Logged in trip blanks on hold.

Client Instructions: emailed client nonconformance issue



SPL, Inc.

Analysis Request & Chain of Custody Record

SPL Workorder No.

270410

08060038

page of

Client Name: <u>Tetra Tech</u>				matrix W=water S=soil O=oil SL=sludge X=other	bottle P=plastic A=amber glass G=glass V=vial X=other	size 1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other	pres. 1=HCl 2=HNO3 3=H2SO4 X=other	Number of Containers	Requested Analysis										
Address: <u>1703 West Industrial Dr.</u>									IPH _{GR0}	IPH _{DR0}	BTEX	CL							
Phone/Fax: <u>432 686 8081 / 432 686 8085</u>																			
Client Contact: <u>Charles Durrutt</u> Email: <u>charles.durrutt@tetratech.com</u>																			
Project Name/No.: <u>Loco Hills</u>																			
Site Name: <u>1158640024</u>																			
Site Location: <u>Loco Hills, NM</u>																			
Invoice To: _____ Ph: _____																			
SAMPLE ID	DATE	TIME	comp	grab															
SW-N	5/25/08	14:12	✓		S	G	X	NA	2	X	X	X	X						
SW-S	5/29/08	14:04	✓		S	G	X	NA	2	X	X	X	X						
SW-W	5/29/08	12:35	✓		S	G	X	NA	2	X	X	X	X						
D-15'	5/25/08	11:27	✓		S	G	X	NA	2	X	X	X	X						

Client/Consultant Remarks:

Laboratory remarks:

Intact? Y N
Ice? Y N
Temp: 2 02

Requested TAT

Contract 72hr 24hr Standard 48hr Other

Special Reporting Requirements Results: Fax Email PDF

Standard QC Level 3 QC Level 4 QC TX TRRP LA RECAP

Special Detection Limits (specify): _____ PM review (initial): BR

1. Relinquished by Sampler: Ch Hg date 5/31/08 time 09:15

2. Received by: _____

3. Relinquished by: _____ date _____ time _____

4. Received by: _____

5. Relinquished by: _____ date 6/2/08 time 10:00

6. Received by Laboratory: _____

8880 Interchange Drive
Houston, TX 77054 (713) 660-0901

500 Ambassador Caffery Parkway
Scott, LA 70583 (337) 237-4775

459 Hughes Drive
Traverse City, MI 49686 (231) 947-5777



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips

Certificate of Analysis Number:

08070257

Report To: Tetra Tech Charlie Durrett 1703 W Industrial Avenue Midland TX 79701- ph: (432) 686-8081 fax:	Project Name: CPPL Loco Hills Site: Loco Hills, NM Site Address: PO Number: WO#4509610900 State: New Mexico State Cert. No.: Date Reported: 7/21/2008
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This Report Contains A Total Of 26 Pages

Excluding This Page, Chain Of Custody

And

Any Attachments

7/21/2008

Date

Test results meet all requirements of NELAC, unless specified in the narrative.



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Case Narrative for:
 Conoco Phillips

Certificate of Analysis Number:
08070257

<p>Report To:</p> <p>Tetra Tech Charlie Durrett 1703 W Industrial Avenue</p> <p>Midland TX 79701-</p> <p>ph: (432) 686-8081 fax:</p>	<p>Project Name: CPPL Loco Hills</p> <p>Site: Loco Hills, NM</p> <p>Site Address:</p> <p>PO Number: WO#4509610900</p> <p>State: New Mexico</p> <p>State Cert. No.:</p> <p>Date Reported: 7/21/2008</p>
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Per the Conoco Phillips TSM Revision 0, a copy of the internal chain of custody is to be included in final data package. However, due to LIMS limitations, this cannot be provided at this time.

Results for soils are reported on a dry-weight basis.

The samples submitted for Purgeable Aromatics by SW846 Method 8021B analyses were received in a vessel that is not stipulated in Method 5035A; the samples were not preserved and/or analyzed within 48 hours of sample collection

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Some of the percent recoveries and RPD's on the QC report for the MS/MSD may be different than the calculated recoveries and RPD's using the sample result and the MS/MSD results that appear on the report because, the actual raw result is used to perform the calculations for percent recovery and RPD.

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

Bethany A. Agarwal
 Senior Project Manager

Test results meet all requirements of NELAC, unless specified in the narrative.

08070257 Page 1
 7/21/2008

Date



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Conoco Phillips

Certificate of Analysis Number:

08070257

Report To: Tetra Tech
 Charlie Durrett
 1703 W Industrial Avenue

Midland

TX

79701-

ph: (432) 686-8081

fax: (432) 686-8085

Project Name: CPPL Loco Hills

Site: Loco Hills, NM

Site Address:

PO Number: WO#4509610900

State: New Mexico

State Cert. No.:

Date Reported: 7/21/2008

Fax To:

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
E-SIDE	08070257-01	Soil	7/1/2008 10:30:00 AM	7/3/2008 9:30:00 AM	278382	<input type="checkbox"/>
TOP	08070257-02	Soil	7/1/2008 10:35:00 AM	7/3/2008 9:30:00 AM	278382	<input type="checkbox"/>
N-SIDE	08070257-03	Soil	7/1/2008 10:40:00 AM	7/3/2008 9:30:00 AM	278382	<input type="checkbox"/>
S-SIDE	08070257-04	Soil	7/1/2008 10:45:00 AM	7/3/2008 9:30:00 AM	278382	<input type="checkbox"/>
W-SIDE	08070257-05	Soil	7/1/2008 10:50:00 AM	7/3/2008 9:30:00 AM	278382	<input type="checkbox"/>
SMALL PILE	08070257-06	Soil	7/1/2008 10:55:00 AM	7/3/2008 9:30:00 AM	278382	<input type="checkbox"/>

Bethany Agarwal

Bethany A Agarwal
 Senior Project Manager

7/21/2008

Date

Richard R. Reed
 Laboratory Director

Ted Yen
 Quality Assurance Officer



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Client Sample ID: E-SIDE Collected: 07/01/2008 10:30 SPL Sample ID: 08070257-01

Site: Loco Hills, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS				MCL	SW8015B	Units: mg/kg-dry	
Diesel Range Organics (C10-C28)	1500		100	20	07/08/08 11:26	NW	4553589
Surr: n-Pentacosane	D	*	% 20-154	20	07/08/08 11:26	NW	4553589

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	07/05/2008 15:20	QMT	1.00

GASOLINE RANGE ORGANICS				MCL	SW8015B	Units: mg/kg-dry	
Gasoline Range Organics	2.2		0.52	1	07/05/08 21:16	NMa	4550431
Surr: 1,4-Difluorobenzene	104		% 63-142	1	07/05/08 21:16	NMa	4550431
Surr: 4-Bromofluorobenzene	142		% 50-159	1	07/05/08 21:16	NMa	4550431

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	07/04/2008 16:48	XML	5.00

PERCENT MOISTURE				MCL	D2216	Units: wt%	
Percent Moisture	3.28		0	1	07/03/08 18:27	ESK	4545380

TCLP VOLATILE ORGANICS				MCL	SW8260B	Units: ug/L		
Benzene	ND		5	500	1	07/06/08 10:01	LT	4548860
Ethylbenzene	ND		5		1	07/06/08 10:01	LT	4548860
Toluene	ND		5		1	07/06/08 10:01	LT	4548860
m,p-Xylene	ND		5		1	07/06/08 10:01	LT	4548860
o-Xylene	ND		5		1	07/06/08 10:01	LT	4548860
Xylenes, Total	ND		5		1	07/06/08 10:01	LT	4548860
Surr: 1,2-Dichloroethane-d4	92.0		% 62-130		1	07/06/08 10:01	LT	4548860
Surr: 4-Bromofluorobenzene	104		% 70-130		1	07/06/08 10:01	LT	4548860
Surr: Toluene-d8	100		% 74-122		1	07/06/08 10:01	LT	4548860

Leach Method	Leachate Date	Leach Initials
SW1311	07/04/2008	GF

Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)
 B/V - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution
 * - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference
 J - Estimated Value between MDL and PQL
 E - Estimated Value exceeds calibration curve
 TNTC - Too numerous to count



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Client Sample ID: TOP

Collected: 07/01/2008 10:35 SPL Sample ID: 08070257-02

Site: Loco Hills, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS				MCL	SW8015B	Units: mg/kg-dry	
Diesel Range Organics (C10-C28)	3000		200	40	07/08/08 13:10	NW	4553593
Surr: n-Pentacosane	D	*	% 20-154	40	07/08/08 13:10	NW	4553593

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	07/05/2008 15:20	QMT	1.00

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS				MCL	SW8015B	Units: mg/kg-dry	
Gasoline Range Organics	190		10	100	07/05/08 23:41	NMa	4552004
Surr: 1,4-Difluorobenzene	104		% 63-142	100	07/05/08 23:41	NMa	4552004
Surr: 4-Bromofluorobenzene	145		% 50-159	100	07/05/08 23:41	NMa	4552004

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	07/04/2008 17:06	XML	1.00

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
PERCENT MOISTURE				MCL	D2216	Units: wt%	
Percent Moisture	0.693		0	1	07/03/08 18:27	ESK	4545379

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
TCLP VOLATILE ORGANICS				MCL	SW8260B	Units: ug/L	
Benzene	ND		5	500	07/06/08 9:35	LT	4548859
Ethylbenzene	41		5	1	07/06/08 9:35	LT	4548859
Toluene	30		5	1	07/06/08 9:35	LT	4548859
m,p-Xylene	58		5	1	07/06/08 9:35	LT	4548859
o-Xylene	35		5	1	07/06/08 9:35	LT	4548859
Xylenes, Total	93		5	1	07/06/08 9:35	LT	4548859
Surr: 1,2-Dichloroethane-d4	100		% 62-130	1	07/06/08 9:35	LT	4548859
Surr: 4-Bromofluorobenzene	106		% 70-130	1	07/06/08 9:35	LT	4548859
Surr: Toluene-d8	98.0		% 74-122	1	07/06/08 9:35	LT	4548859

Leach Method	Leachate Date	Leach Initials
SW1311	07/04/2008	GF

Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)
 B/V - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution
 * - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference
 J - Estimated Value between MDL and PQL
 E - Estimated Value exceeds calibration curve
 TNTC - Too numerous to count



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Client Sample ID:N-SIDE

Collected: 07/01/2008 10:40 SPL Sample ID: 08070257-03

Site: Loco Hills, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS				MCL	SW8015B	Units: mg/kg-dry	
Diesel Range Organics (C10-C28)	3600		500	100	07/08/08 13:36	NW	4553594
Surr n-Pentacosane	D	*	% 20-154	100	07/08/08 13:36	NW	4553594

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	07/05/2008 15:20	QMT	1.00

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS				MCL	SW8015B	Units: mg/kg-dry	
Gasoline Range Organics	8.4		0.5	1	07/05/08 20:47	NMa	4552002
Surr 1,4-Difluorobenzene	120		% 63-142	1	07/05/08 20:47	NMa	4552002
Surr 4-Bromofluorobenzene	160MI	*	% 50-159	1	07/05/08 20:47	NMa	4552002

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	07/04/2008 16:46	XML	5.00

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
PERCENT MOISTURE				MCL	D2216	Units: wt%	
Percent Moisture	0.603		0	1	07/03/08 18:27	ESK	4545378

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
TCLP VOLATILE ORGANICS				MCL	SW8260B	Units: ug/L	
Benzene	ND		5	500	07/06/08 9:09	LT	4548858
Ethylbenzene	ND		5	1	07/06/08 9:09	LT	4548858
Toluene	ND		5	1	07/06/08 9:09	LT	4548858
m,p-Xylene	6		5	1	07/06/08 9:09	LT	4548858
o-Xylene	ND		5	1	07/06/08 9:09	LT	4548858
Xylenes, Total	6		5	1	07/06/08 9:09	LT	4548858
Surr: 1,2-Dichloroethane-d4	96.0		% 62-130	1	07/06/08 9:09	LT	4548858
Surr: 4-Bromofluorobenzene	102		% 70-130	1	07/06/08 9:09	LT	4548858
Surr. Toluene-d8	98.0		% 74-122	1	07/06/08 9:09	LT	4548858

Leach Method	Leachate Date	Leach Initials
SW1311	07/04/2008	GF

Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)
 B/V - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution
 * - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference
 J - Estimated Value between MDL and PQL
 E - Estimated Value exceeds calibration curve
 TNTC - Too numerous to count



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Client Sample ID: S-SIDE

Collected: 07/01/2008 10:45 SPL Sample ID: 08070257-04

Site: Loco Hills, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS				MCL	SW8015B	Units: mg/kg-dry	
Diesel Range Organics (C10-C28)	1300		110	20	07/08/08 12:44	NW	4553592
Surr: n-Pentacosane	D	*	% 20-154	20	07/08/08 12:44	NW	4553592

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	07/05/2008 15:20	QMT	1.00

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS				MCL	SW8015B	Units: mg/kg-dry	
Gasoline Range Organics	1.9		0.53	1	07/05/08 21:45	NMa	4550256
Surr: 1,4-Difluorobenzene	101		% 63-142	1	07/05/08 21:45	NMa	4550256
Surr: 4-Bromofluorobenzene	129		% 50-159	1	07/05/08 21:45	NMa	4550256

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	07/04/2008 16:42	XML	5.00

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
PERCENT MOISTURE				MCL	D2216	Units: wt%	
Percent Moisture	5.08		0	1	07/03/08 18:27	ESK	4545377

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
TCLP VOLATILE ORGANICS				MCL	SW8260B	Units: ug/L	
Benzene	ND		5	500	07/06/08 8:43	LT	4548857
Ethylbenzene	ND		5	1	07/06/08 8:43	LT	4548857
Toluene	ND		5	1	07/06/08 8:43	LT	4548857
m,p-Xylene	ND		5	1	07/06/08 8:43	LT	4548857
o-Xylene	ND		5	1	07/06/08 8:43	LT	4548857
Xylenes, Total	ND		5	1	07/06/08 8:43	LT	4548857
Surr: 1,2-Dichloroethane-d4	96.0		% 62-130	1	07/06/08 8:43	LT	4548857
Surr: 4-Bromofluorobenzene	104		% 70-130	1	07/06/08 8:43	LT	4548857
Surr: Toluene-d8	100		% 74-122	1	07/06/08 8:43	LT	4548857

Leach Method	Leachate Date	Leach Initials
SW1311	07/04/2008	GF

Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)
 B/V - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution
 * - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference
 J - Estimated Value between MDL and PQL
 E - Estimated Value exceeds calibration curve
 TNTC - Too numerous to count



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Client Sample ID: W-SIDE Collected: 07/01/2008 10:50 SPL Sample ID: 08070257-05

Site: Loco Hills, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS			MCL	SW8015B	Units: mg/kg-dry		
Diesel Range Organics (C10-C28)	4100		510	100	07/08/08 14:02	NW	4553595
Surr: n-Pentacosane	D	*	% 20-154	100	07/08/08 14:02	NW	4553595

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	07/05/2008 15:20	QMT	1.00

GASOLINE RANGE ORGANICS			MCL	SW8015B	Units: mg/kg-dry		
Gasoline Range Organics	26		0.51	1	07/05/08 22:14	NMa	4550257
Surr: 1,4-Difluorobenzene	106		% 63-142	1	07/05/08 22:14	NMa	4550257
Surr: 4-Bromofluorobenzene	173MI	*	% 50-159	1	07/05/08 22:14	NMa	4550257

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	07/04/2008 16:39	XML	5.00

PERCENT MOISTURE			MCL	D2216	Units: wt%		
Percent Moisture	2.03		0	1	07/03/08 18:27	ESK	4545376

TCLP VOLATILE ORGANICS			MCL	SW8260B	Units: ug/L		
Benzene	ND		5	500	07/06/08 8:17	LT	4548856
Ethylbenzene	11		5	1	07/06/08 8:17	LT	4548856
Toluene	35		5	1	07/06/08 8:17	LT	4548856
m,p-Xylene	19		5	1	07/06/08 8:17	LT	4548856
o-Xylene	14		5	1	07/06/08 8:17	LT	4548856
Xylenes, Total	33		5	1	07/06/08 8:17	LT	4548856
Surr: 1,2-Dichloroethane-d4	94.0		% 62-130	1	07/06/08 8:17	LT	4548856
Surr: 4-Bromofluorobenzene	98.0		% 70-130	1	07/06/08 8:17	LT	4548856
Surr: Toluene-d8	98.0		% 74-122	1	07/06/08 8:17	LT	4548856

Leach Method	Leachate Date	Leach Initials
SW1311	07/04/2008	GF

Qualifiers:
 ND/U - Not Detected at the Reporting Limit
 B/V - Analyte detected in the associated Method Blank
 * - Surrogate Recovery Outside Advisable QC Limits
 J - Estimated Value between MDL and PQL
 E - Estimated Value exceeds calibration curve
 TNTC - Too numerous to count
 >MCL - Result Over Maximum Contamination Limit(MCL)
 D - Surrogate Recovery Unreportable due to Dilution
 MI - Matrix Interference



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Client Sample ID: SMALL PILE Collected: 07/01/2008 10:55 SPL Sample ID: 08070257-06

Site: Loco Hills, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
CORROSIVITY				MCL	SW9045D	Units: pH Units	
Corrosivity	7.5		0.1	1	07/07/08 11:40	PAC	4550603

DIESEL RANGE ORGANICS				MCL	SW8015B	Units: mg/kg-dry	
Diesel Range Organics (C10-C28)	4200		510	100	07/08/08 14:28	NW	4553596
Surr: n-Pentacosane	D	*	% 20-154	100	07/08/08 14:28	NW	4553596

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	07/05/2008 15:20	QMT	1.00

GASOLINE RANGE ORGANICS				MCL	SW8015B	Units: mg/kg-dry	
Gasoline Range Organics	97		10	100	07/05/08 23:12	NMa	4552003
Surr: 1,4-Difluorobenzene	102		% 63-142	100	07/05/08 23:12	NMa	4552003
Surr: 4-Bromofluorobenzene	147		% 50-159	100	07/05/08 23:12	NMa	4552003

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	07/04/2008 17:09	XML	1.00

IGNITABILITY MODIFIED OPEN CUP				MCL	ASTM D92-01	Units: °F	
Ignitability	135		20	1	07/07/08 14:00	GF	4550037

MERCURY, TOTAL				MCL	SW7471A	Units: mg/kg-dry	
Mercury	0.0586		0.0308	1	07/07/08 22:13	CMC	4551632

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7471A	07/07/2008 17:00	CMC	1.00

METALS BY METHOD 6020, TOTAL				MCL	SW6020A	Units: mg/kg-dry	
Arsenic	2.49		0.513	1	07/17/08 1:26	AL_H	4570767
Barium	82.6		0.513	1	07/18/08 15:18	AL_H	4575108
Cadmium	ND		0.513	1	07/17/08 1:26	AL_H	4570767
Chromium	5.47		0.513	1	07/17/08 1:26	AL_H	4570767
Lead	3.52		0.513	1	07/17/08 1:26	AL_H	4570767
Selenium	ND		0.513	1	07/17/08 18:43	AL_H	4573134
Silver	0.939		0.513	1	07/17/08 18:43	AL_H	4573134

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3050B	07/07/2008 9:55	DDW	1.00

PERCENT MOISTURE				MCL	D2216	Units: wt%	
Percent Moisture	2.5		0	1	07/03/08 18:27	ESK	4545375

REACTIVE CYANIDE-SOLID				MCL	SW7.3.3.2	Units: mg/kg-dry	
Reactive Cyanide	ND		1.03	1	07/07/08 13:00	ESK	4549971

Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)
 B/V - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution
 * - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference
 J - Estimated Value between MDL and PQL
 E - Estimated Value exceeds calibration curve
 TNTC - Too numerous to count



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Client Sample ID: SMALL PILE

Collected: 07/01/2008 10:55

SPL Sample ID: 08070257-06

Site: Loco Hills, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
REACTIVE SULFIDE - SOLID				MCL	SW7.3.4.2	Units: mg/kg-dry	
Reactive Sulfide	ND		10.3	1	07/07/08 15 30	ESK	4550464
TCLP VOLATILE ORGANICS				MCL	SW8260B	Units: ug/L	
Benzene	ND		5	500	07/06/08 7:51	LT	4548855
Ethylbenzene	40		5	1	07/06/08 7:51	LT	4548855
Toluene	39		5	1	07/06/08 7:51	LT	4548855
m,p-Xylene	42		5	1	07/06/08 7:51	LT	4548855
o-Xylene	23		5	1	07/06/08 7:51	LT	4548855
Xylenes, Total	65		5	1	07/06/08 7:51	LT	4548855
Surr: 1,2-Dichloroethane-d4	96.0		% 62-130	1	07/06/08 7:51	LT	4548855
Surr: 4-Bromofluorobenzene	104		% 70-130	1	07/06/08 7:51	LT	4548855
Surr: Toluene-d8	98.0		% 74-122	1	07/06/08 7:51	LT	4548855

Leach Method	Leachate Date	Leach Initials
SW1311	07/04/2008	GF

Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)
 B/V - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution
 * - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference
 J - Estimated Value between MDL and PQL
 E - Estimated Value exceeds calibration curve
 TNTC - Too numerous to count

Quality Control Documentation



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: Diesel Range Organics
Method: SW8015B

WorkOrder: 08070257
Lab Batch ID: 81295

Method Blank

Samples in Analytical Batch:

RunID: HP_V_080707A-4553587 Units: mg/kg
Analysis Date: 07/08/2008 10:35 Analyst: NW
Preparation Date: 07/05/2008 15:20 Prep By: QMT Method SW3550B

Lab Sample ID Client Sample ID
08070257-01A E-SIDE
08070257-02A TOP
08070257-03A N-SIDE
08070257-04A S-SIDE
08070257-05A W-SIDE
08070257-06A SMALL PILE

Table with 3 columns: Analyte, Result, Rep Limit. Rows include Diesel Range Organics (C10-C28) and Surr. n-Pentacosane.

Laboratory Control Sample (LCS)

RunID: HP_V_080707A-4553588 Units: mg/kg
Analysis Date: 07/08/2008 11:01 Analyst: NW
Preparation Date: 07/05/2008 15:20 Prep By: QMT Method SW3550B

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Rows include Diesel Range Organics (C10-C28) and Surr. n-Pentacosane.

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 08070257-01
RunID: HP_V_080707A-4553590 Units: mg/kg-dry
Analysis Date: 07/08/2008 11:52 Analyst: NW
Preparation Date: 07/05/2008 15:20 Prep By: QMT Method SW3550B

Table with 12 columns: Analyte, Sample Result, MS Spike Added, MS Result, MS % Recovery, MSD Spike Added, MSD Result, MSD % Recovery, RPD, RPD Limit, Low Limit, High Limit. Rows include Diesel Range Organics (C10-C28) and Surr. n-Pentacosane.

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: Gasoline Range Organics
Method: SW8015B

WorkOrder: 08070257
Lab Batch ID: R244079

Method Blank

Samples in Analytical Batch:

RunID HP_O_080705A-4550233 Units: mg/kg
Analysis Date: 07/05/2008 9:43 Analyst: NMa
Preparation Date: 07/05/2008 9:43 Prep By: Method

Lab Sample ID Client Sample ID
08070257-01A E-SIDE
08070257-02A TOP
08070257-03A N-SIDE
08070257-04A S-SIDE
08070257-05A W-SIDE
08070257-06A SMALL PILE

Table with 3 columns: Analyte, Result, Rep Limit. Rows include Gasoline Range Organics, Surr: 1,4-Difluorobenzene, Surr: 4-Bromofluorobenzene.

Methanolic Preparation Blank

RunID: HP_O_080705A-4550234 Units: mg/kg
Analysis Date: 07/05/2008 10:11 Analyst: NMa
Preparation Date: 07/05/2008 10:11 Prep By: Method SW5030B

Table with 3 columns: Analyte, Result, Rep Limit. Rows include Gasoline Range Organics, Surr: 1,4-Difluorobenzene, Surr: 4-Bromofluorobenzene.

Laboratory Control Sample (LCS)

RunID: HP_O_080705A-4550232 Units: mg/kg
Analysis Date: 07/05/2008 9:14 Analyst: NMa
Preparation Date: 07/05/2008 9:14 Prep By: Method SW5030B

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Rows include Gasoline Range Organics, Surr: 1,4-Difluorobenzene, Surr: 4-Bromofluorobenzene.

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 08070246-08
RunID: HP_O_080705A-4550428 Units: mg/kg-dry
Analysis Date: 07/05/2008 13:05 Analyst: NMa
Preparation Date: 07/02/2008 14:45 Prep By: Field Method SW5035A

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: Gasoline Range Organics
Method: SW8015B

WorkOrder: 08070257
Lab Batch ID: R244079

Table with 12 columns: Analyte, Sample Result, MS Spike Added, MS Result, MS % Recovery, MSD Spike Added, MSD Result, MSD % Recovery, RPD, RPD Limit, Low Limit, High Limit. Rows include Gasoline Range Organics, Surr: 1,4-Difluorobenzene, and Surr: 4-Bromofluorobenzene.

Qualifiers: ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
Control limits do not apply.

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: Metals by Method 6020, Total
Method: SW6020A

WorkOrder: 08070257
Lab Batch ID: 81323A-I

Method Blank

Samples in Analytical Batch:

RunID: ICPMS2_080717A-4573131 Units: mg/kg
Analysis Date: 07/17/2008 18:30 Analyst: AL_H
Preparation Date: 07/07/2008 9:55 Prep By: DD Method SW3050B

Lab Sample ID: 08070257-06A
Client Sample ID: SMALL PILE

Table with 3 columns: Analyte, Result, Rep Limit. Rows for Selenium and Silver, both with ND results and 0.5 rep limits.

Laboratory Control Sample (LCS)

RunID: ICPMS2_080717A-4573132 Units: mg/kg
Analysis Date: 07/17/2008 18:36 Analyst: AL_H
Preparation Date: 07/07/2008 9:55 Prep By: DD Method SW3050B

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Rows for Selenium and Silver with various recovery and limit values.

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 08070257-06
RunID: ICPMS2_080717A-4573135 Units: mg/kg-dry
Analysis Date: 07/17/2008 18:49 Analyst: AL_H
Preparation Date: 07/07/2008 9:55 Prep By: DD Method SW3050B

Table with 12 columns: Analyte, Sample Result, MS Spike Added, MS Result, MS % Recovery, MSD Spike Added, MSD Result, MSD % Recovery, RPD, RPD Limit, Low Limit, High Limit. Rows for Selenium and Silver.

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: Metals by Method 6020, Total
Method: SW6020A

WorkOrder: 08070257
Lab Batch ID: 81323C-I

Method Blank

Samples in Analytical Batch:

RunID: ICPMS2_080718A-4575106 Units: mg/kg
Analysis Date: 07/18/2008 15:05 Analyst: AL_H
Preparation Date: 07/07/2008 9:55 Prep By: DD Method SW3050B

Lab Sample ID: 08070257-06A
Client Sample ID: SMALL PILE

Table with 3 columns: Analyte, Result, Rep Limit. Row: Barium, ND, 0.5

Laboratory Control Sample (LCS)

RunID: ICPMS2_080718A-4575107 Units: mg/kg
Analysis Date: 07/18/2008 15:11 Analyst: AL_H
Preparation Date: 07/07/2008 9:55 Prep By: DD Method SW3050B

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Row: Barium, 156.0, 146.7, 94.04, 82, 119

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 08070257-06
RunID: ICPMS2_080718A-4575426 Units: mg/kg-dry
Analysis Date: 07/18/2008 16:59 Analyst: AL_H
Preparation Date: 07/07/2008 9:55 Prep By: DD Method SW3050B

Table with 12 columns: Analyte, Sample Result, MS Spike Added, MS Result, MS % Recovery, MSD Spike Added, MSD Result, MSD % Recovery, RPD, RPD Limit, Low Limit, High Limit. Row: Barium, 82.56, 10.26, 106.5, N/C, 10.26, 107.8, N/C, N/C, 20, 75, 125

Qualifiers: ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: Metals by Method 6020, Total
Method: SW6020A

WorkOrder: 08070257
Lab Batch ID: 81323-I

Method Blank

Samples in Analytical Batch:

RunID: ICPMS2_080716A-4570765 Units: mg/kg
Analysis Date: 07/17/2008 1:12 Analyst: AL_H
Preparation Date: 07/07/2008 9:55 Prep By: DD Method SW3050B

Lab Sample ID: 08070257-06A
Client Sample ID: SMALL PILE

Table with 3 columns: Analyte, Result, Rep Limit. Rows: Arsenic, Cadmium, Chromium, Lead.

Laboratory Control Sample (LCS)

RunID: ICPMS2_080716A-4570766 Units: mg/kg
Analysis Date: 07/17/2008 1:19 Analyst: AL_H
Preparation Date: 07/07/2008 9:55 Prep By: DD Method SW3050B

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Rows: Arsenic, Cadmium, Chromium, Lead.

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 08070257-06
RunID: ICPMS2_080716A-4570768 Units: mg/kg-dry
Analysis Date: 07/17/2008 1:32 Analyst: AL_H
Preparation Date: 07/07/2008 9:55 Prep By: DD Method SW3050B

Table with 12 columns: Analyte, Sample Result, MS Spike Added, MS Result, MS % Recovery, MSD Spike Added, MSD Result, MSD % Recovery, RPD, RPD Limit, Low Limit, High Limit. Rows: Arsenic, Cadmium, Chromium, Lead.

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: Mercury, Total
Method: SW7471A

WorkOrder: 08070257
Lab Batch ID: 81365

Method Blank

Samples in Analytical Batch:

RunID: HGLC_080707B-4551616 Units: mg/kg
Analysis Date: 07/07/2008 21:35 Analyst: CMC
Preparation Date: 07/07/2008 17:00 Prep By: CMC Method SW7471A

Table with 3 columns: Analyte, Result, Rep Limit. Row: Mercury, ND, 0.03

Laboratory Control Sample (LCS)

RunID: HGLC_080707B-4551617 Units: mg/kg
Analysis Date: 07/07/2008 21:38 Analyst: CMC
Preparation Date: 07/07/2008 17:00 Prep By: CMC Method SW7471A

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Row: Mercury, 3.600, 3.519, 97.74, 68, 132

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 08061895-06
RunID: HGLC_080707B-4551619 Units: mg/kg-dry
Analysis Date: 07/07/2008 21.43 Analyst: CMC
Preparation Date: 07/07/2008 17.00 Prep By: CMC Method SW7471A

Table with 12 columns: Analyte, Sample Result, MS Spike Added, MS Result, MS % Recovery, MSD Spike Added, MSD Result, MSD % Recovery, RPD, RPD Limit, Low Limit, High Limit. Row: Mercury, ND, 0.3589, 0.3986, 107.8, 0.3589, 0.4075, 110.3, 2.205, 20, 75, 125

Qualifiers: ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: TCLP Volatile Organics
Method: SW8260B

WorkOrder: 08070257
Lab Batch ID: R243970

Method Blank

Samples in Analytical Batch:

RunID: N_080706C-4548847 Units ug/L
Analysis Date: 07/06/2008 6:07 Analyst: LT

Lab Sample ID Client Sample ID
08070257-01A E-SIDE
08070257-02A TOP
08070257-03A N-SIDE
08070257-04A S-SIDE
08070257-05A W-SIDE
08070257-06A SMALL PILE

Table with 3 columns: Analyte, Result, Rep Limit. Rows include Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene, Xylenes, Total, and various Surrogate standards.

Leachate Blank

RunID: N_080706C-4548840 Units: ug/L
Analysis Date: 07/06/2008 5:41 Analyst: LT
Leach Date: 07/04/2008 0:00 Leach By: GF Method SW1311

Table with 3 columns: Analyte, Result, Rep Limit. Rows include Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene, Xylenes, Total, and various Surrogate standards.

Laboratory Control Sample (LCS)

RunID: N_080706C-4548837 Units: ug/L
Analysis Date: 07/06/2008 4:23 Analyst: LT

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Rows include Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene.

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: TCLP Volatile Organics
Method: SW8260B

WorkOrder: 08070257
Lab Batch ID: R243970

Laboratory Control Sample (LCS)

RunID: N_080706C-4548837 Units: ug/L
Analysis Date: 07/06/2008 4.23 Analyst: LT

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Rows include Xylenes, Total and various surrogates like 1,2-Dichloroethane-d4.

Matrix Spike (MS)

Sample Spiked: 08070030-01
RunID: N_080706C-4548854 Units: ug/L
Analysis Date: 07/06/2008 7:25 Analyst: LT

Table with 7 columns: Analyte, Sample Result, Spike Added, MS Result, MS % Recovery, Low Limit, High Limit. Rows include Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene, Xylenes, Total, and various surrogates.

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply
TNTC - Too numerous to count

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Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: PERCENT MOISTURE
Method: D2216

WorkOrder: 08070257
Lab Batch ID: R243812A

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
08070257-01A	E-SIDE
08070257-02A	TOP
08070257-03A	N-SIDE
08070257-04A	S-SIDE
08070257-05A	W-SIDE
08070257-06A	SMALL PILE

Sample Duplicate

Original Sample: 08070257-06
RunID: WET_080703W-4545375 Units: wt%
Analysis Date: 07/03/2008 18:27 Analyst: ESK

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Percent Moisture	2.5	2.492	0.156	20

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
 B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
 J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
 E - Estimated Value exceeds calibration curve
 N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added Control limits do not apply.
 TNTC - Too numerous to count



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: Reactive Cyanide-Solid
Method: SW7.3.3.2

WorkOrder: 08070257
Lab Batch ID: R244047

Method Blank

Samples in Analytical Batch:

RunID: WET_080707J-4549960 Units: mg/kg
Analysis Date: 07/07/2008 13:00 Analyst: ESK

Lab Sample ID: 08070257-06A
Client Sample ID: SMALL PILE

Table with 3 columns: Analyte, Result, Rep Limit. Row: Reactive Cyanide, ND, 1.0

Laboratory Control Sample (LCS)

RunID: WET_080707J-4549961 Units: mg/kg
Analysis Date: 07/07/2008 13:00 Analyst: ESK

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Row: Reactive Cyanide, 2 000, 0.4310, 21.55, 5, 50

Sample Duplicate

Original Sample: 08070249-01
RunID: WET_080707J-4549964 Units: mg/kg
Analysis Date: 07/07/2008 13.00 Analyst: ESK

Table with 5 columns: Analyte, Sample Result, DUP Result, RPD, RPD Limit. Row: Reactive Cyanide, ND, ND, 0, 20

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: Ignitability Modified Open Cup
Method: ASTM D92-01

WorkOrder: 08070257
Lab Batch ID: R244066

Samples in Analytical Batch:

Lab Sample ID: 08070257-06A
Client Sample ID: SMALL PILE

Laboratory Control Sample (LCS)

RunID: WET_080707L-4550028 Units: °F
Analysis Date: 07/07/2008 14:00 Analyst: GF

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Row 1: Ignitability, 81.00, 81.00, 100.0, 97.5, 102.5

Sample Duplicate

Original Sample: 08070249-03
RunID: WET_080707L-4550034 Units: °F
Analysis Date: 07/07/2008 14:00 Analyst: GF

Table with 5 columns: Analyte, Sample Result, DUP Result, RPD, RPD Limit. Row 1: Ignitability, 212, 212, 0, 20

Qualifiers: ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: Reactive Sulfide - Solid
Method: SW7.3.4.2

WorkOrder: 08070257
Lab Batch ID: R244087

Method Blank

Samples in Analytical Batch:

RunID WET_080707Q-4550451 Units: mg/kg
Analysis Date: 07/07/2008 15:30 Analyst: ESK

Lab Sample ID 08070257-06A
Client Sample ID SMALL PILE

Table with 3 columns: Analyte, Result, Rep Limit. Row: Reactive Sulfide, ND, 10

Laboratory Control Sample (LCS)

RunID: WET_080707Q-4550453 Units: mg/kg
Analysis Date: 07/07/2008 15:30 Analyst: ESK

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Row: Reactive Sulfide, 100.0, 93.50, 93.50, 85, 115

Sample Duplicate

Original Sample: 08061829-01
RunID: WET_080707Q-4550455 Units: mg/kg
Analysis Date: 07/07/2008 15.30 Analyst: ESK

Table with 5 columns: Analyte, Sample Result, DUP Result, RPD, RPD Limit. Row: Reactive Sulfide, ND, ND, 0, 20

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
BV - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: Corrosivity
Method: SW9045D

WorkOrder: 08070257
Lab Batch ID: R244098

Samples in Analytical Batch:

Lab Sample ID: 08070257-06A
Client Sample ID: SMALL PILE

Laboratory Control Sample (LCS)

RunID: WET_080707ZH-4550598 Units: pH Units
Analysis Date: 07/07/2008 11:40 Analyst: PAC

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Row 1: Corrosivity, 7.000, 7.030, 100.4, 98, 102

Sample Duplicate

Original Sample: 08070284-01
RunID: WET_080707ZH-4550604 Units: pH Units
Analysis Date: 07/07/2008 11:40 Analyst: PAC

Table with 5 columns: Analyte, Sample Result, DUP Result, RPD, RPD Limit. Row 1: Corrosivity, 9.18, 9.18, 0, 20

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

*Sample Receipt Checklist
And
Chain of Custody*



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Sample Receipt Checklist

Workorder:	08070257	Received By:	L_C
Date and Time Received:	7/3/2008 9:30:00 AM	Carrier name:	Fedex-Standard Overnight
Temperature:	3.5°C	Chilled by:	Water Ice

1. Shipping container/cooler in good condition? Yes No Not Present
2. Custody seals intact on shipping container/cooler? Yes No Not Present
3. Custody seals intact on sample bottles? Yes No Not Present
4. Chain of custody present? Yes No
5. Chain of custody signed when relinquished and received? Yes No
6. Chain of custody agrees with sample labels? Yes No
7. Samples in proper container/bottle? Yes No
8. Sample containers intact? Yes No
9. Sufficient sample volume for indicated test? Yes No
10. All samples received within holding time? Yes No
11. Container/Temp Blank temperature in compliance? Yes No
12. Water - VOA vials have zero headspace? Yes No VOA Vials Not Present
13. Water - Preservation checked upon receipt (except VOA*)? Yes No Not Applicable

*VOA Preservation Checked After Sample Analysis

SPL Representative: Contact Date & Time:

Client Name Contacted:

Non Conformance Issues:

Client Instructions:



SPL, Inc.

Analysis Request & Chain of Custody Record

SPL Workorder No.

278222

08070257

page of

Client Name: Tetra Tech / ConocoPhillips Pipeline
 Address: 1703 West Industrial
 Phone/Fax: 432-686-8081
 Client Contact: Charles Durrett Email: charles.durrett@tetra.tech
 Project Name/No.: 1158646024
 Site Name: Loco Hills
 Site Location: Loco Hills, New Mexico
 Invoice To: _____ Ph: _____

SAMPLE ID	DATE	TIME	comp	grab	matrix		bottle		size		pres.		Number of Containers	Requested Analysis																						
					W=water	S=solids	SL=sludge	X=other	P=plastic	A=amber glass	G=glass	V=vial		X=other	1=1 liter	4=4oz	40=vial	8=8oz	16=16oz	X=other	1=HCl	2=HNO3	3=H2SO4	X=other	TGA	GRO	DRO	TCLP	BTEX	RCRA	metals	ICR	1			
E-side	7-1-08	10:30											2	X	X																					
Top		10:35											2	X	X																					
N-side		10:40	X										2	X	X																					
S-side		10:45	X										2	X	X																					
W-side		10:50		X									2	X	X																					
small the Pile		10:55	X										2	X	X	X	X																			

Client/Consultant Remarks: ConocoPhillips Pipeline
P.O. # 4509610900

Laboratory remarks:

Intact?
 Ice?
 Temp: 35.5

Requested TAT

Contract 72hr Standard 24hr Standard 48hr Other ASAP

Special Reporting Requirements Results: Fax Email PDF Standard QC Level 3 QC Level 4 QC TX TRRP LA RECAP

Special Detection Limits (specify): _____ PM review (initial): AR VA

1. Relinquished by Sampler: <u>[Signature]</u>	date: <u>7-02-09</u>	time: <u>9:00 am</u>	2. Received by:
3. Relinquished by: <u>[Signature]</u>	date: <u>7/02/08</u>	time: <u>3:00 pm</u>	4. Received by:
5. Relinquished by:	date: <u>7/31/08</u>	time: <u>9:30</u>	6. Received by Laboratory: <u>[Signature]</u>

8880 Interchange Drive
Houston, TX 77054 (713) 660-0901

500 Ambassador Caffery Parkway
Scott, LA 70583 (337) 237-4775

459 Hughes Drive
Traverse City, MI 49686 (231) 947-5777



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips

Certificate of Analysis Number:

08071643

<u>Report To:</u> Tetra Tech Charlie Durrett 1703 W Industrial Avenue Midland TX 79701- ph: (432) 686-8081 fax:	<u>Project Name:</u> CPPL Loco Hills <u>Site:</u> Loco Hills, NM <u>Site Address:</u> <u>PO Number:</u> WO#4509610900 <u>State:</u> New Mexico <u>State Cert. No.:</u> <u>Date Reported:</u> 8/4/2008
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This Report Contains A Total Of 9 Pages

Excluding This Page, Chain Of Custody

And

Any Attachments

8/4/2008

Date



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Case Narrative for:
Conoco Phillips

Certificate of Analysis Number:
08071643

<p>Report To: Tetra Tech Charlie Durrett 1703 W Industrial Avenue Midland TX 79701- ph: (432) 686-8081 fax:</p>	<p>Project Name: CPPL Loco Hills Site: Loco Hills, NM Site Address: PO Number: WO#4509610900 State: New Mexico State Cert. No.: Date Reported: 8/4/2008</p>
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This report contains additional analysis for the samples originally received on July 3, 2008 and assigned to Certificate of Analysis Number 08070257. Per your request on July 28, 2008 via phone conversation, the sample "Small Pile" (SPL ID: 08071643-01) was analyzed for TCLP Metals.

Per the Conoco Phillips TSM Revision 0, a copy of the internal chain of custody is to be included in final data package. However, due to LIMS limitations, this cannot be provided at this time.

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process

Some of the percent recoveries and RPD's on the QC report for the MS/MSD may be different than the calculated recoveries and RPD's using the sample result and the MS/MSD results that appear on the report because, the actual raw result is used to perform the calculations for percent recovery and RPD.

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

08071643 Page 1

8/4/2008

Bethany A. Agarwal
 Senior Project Manager

Test results meet all requirements of NELAC, unless specified in the narrative.

Date



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Conoco Phillips

Certificate of Analysis Number:

08071643

Report To: Tetra Tech
 Charlie Durrett
 1703 W Industrial Avenue

 Midland
 TX
 79701-
 ph: (432) 686-8081 fax: (432) 686-8085

Project Name: CPPL Loco Hills
Site: Loco Hills, NM
Site Address:

PO Number: WO#4509610900
State: New Mexico
State Cert. No.:
Date Reported: 8/4/2008

Fax To:

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
SMALL PILE	08071643-01	Soil	7/1/2008 10:55:00 AM	7/3/2008 9:30:00 AM	278382	<input type="checkbox"/>

Bethany Agarwal

Bethany A. Agarwal
 Senior Project Manager

8/4/2008

Date

Richard R. Reed
 Laboratory Director

Ted Yen
 Quality Assurance Officer



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Client Sample ID: SMALL PILE Collected: 07/01/2008 10.55 SPL Sample ID: 08071643-01

Site: Loco Hills, NM

Analyses/Method	Result	QUAL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
TCLP MERCURY				MCL		SW7470A	Units: mg/L	
Mercury	ND		0.0002	0.2	1	08/01/08 16 11	CMC	4606657

Prep Method	Prep Date	Prep Initials	Prep Factor	Leach Method	Leachate Date	Leach Initials
SW7470A	07/29/2008 12:50	CMC	1.00	SW1311	07/28/2008	GF

TCLP METALS BY METHOD 6010B				MCL		SW6010B	Units: mg/L	
Arsenic	ND		0.2	5	2	08/02/08 13.31	EG	4606663
Barium	1.24		1	100	2	08/02/08 13.31	EG	4606663
Cadmium	ND		0.01	1	2	08/02/08 13.31	EG	4606663
Chromium	ND		0.02	5	2	08/02/08 13.31	EG	4606663
Lead	ND		0.1	5	2	08/02/08 13.31	EG	4606663
Selenium	ND		0.2	1	2	08/02/08 13.31	EG	4606663
Silver	ND		0.02	5	2	08/02/08 13.31	EG	4606663

Prep Method	Prep Date	Prep Initials	Prep Factor	Leach Method	Leachate Date	Leach Initials
SW3010A	07/29/2008 13:20	DDW	1.00	SW1311	07/28/2008	GF

Qualifiers:

ND/U - Not Detected at the Reporting Limit	>MCL - Result Over Maximum Contamination Limit(MCL)
B/V - Analyte detected in the associated Method Blank	D - Surrogate Recovery Unreportable due to Dilution
* - Surrogate Recovery Outside Advisable QC Limits	MI - Matrix Interference
J - Estimated Value between MDL and PQL	
E - Estimated Value exceeds calibration curve	
TNTC - Too numerous to count	

Quality Control Documentation



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: TCLP Mercury
Method: SW7470A

WorkOrder: 08071643
Lab Batch ID: 82194a

Method Blank

Samples in Analytical Batch:

RunID: HGLC_080801B-4605649 Units: mg/L
Analysis Date: 08/01/2008 15:53 Analyst: CMC
Preparation Date: 07/29/2008 12.50 Prep By: CMC Method SW7470A

Table with 3 columns: Analyte, Result, Rep Limit. Row: Mercury, ND, 0.0002

Leachate Blank

RunID: HGLC_080801B-4605650 Units: mg/L
Analysis Date: 08/01/2008 15:55 Analyst: CMC
Preparation Date: 07/29/2008 12:50 Prep By: CMC Method SW7470A
Leach Date: 07/28/2008 0:00 Leach By: GF Method SW1311

Table with 3 columns: Analyte, Result, Rep Limit. Row: Mercury, ND, 0.0002

Laboratory Control Sample (LCS)

RunID: HGLC_080801B-4605651 Units: mg/L
Analysis Date: 08/01/2008 15:57 Analyst: CMC
Preparation Date: 07/29/2008 12 50 Prep By: CMC Method SW7470A
Leach Date: 07/28/2008 0:00 Leach By: GF Method SW1311

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Row: Mercury, 0.002000, 0.001896, 94.79, 80, 120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 08071579-03
RunID: HGLC_080801B-4605655 Units: mg/L
Analysis Date: 08/01/2008 16:07 Analyst: CMC
Preparation Date: 07/29/2008 12:50 Prep By: CMC Method SW7470A
Leach Date: 07/28/2008 0:00 Leach By: GF Method SW1311

Table with 12 columns: Analyte, Sample Result, MS Spike Added, MS Result, MS % Recovery, MSD Spike Added, MSD Result, MSD % Recovery, RPD, RPD Limit, Low Limit, High Limit. Row: Mercury, ND, 0.002, 0.002705, 135.3*, 0.002, 0.002706, 135.3*, 0.03700, 20, 75, 125

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

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Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: TCLP Metals by Method 6010B
Method: SW6010B

WorkOrder: 08071643
Lab Batch ID: 82197A

Method Blank

Samples in Analytical Batch:

RunID TJA_080802A-4606652 Units: mg/L
Analysis Date: 08/02/2008 12:41 Analyst: EG
Preparation Date: 07/29/2008 13:20 Prep By: DD Method SW3010A

Lab Sample ID 08071643-01A
Client Sample ID SMALL PILE

Table with 3 columns: Analyte, Result, Rep Limit. Rows include Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver.

Leachate Blank

RunID: TJA_080802A-4606653 Units: mg/L
Analysis Date: 08/02/2008 12.46 Analyst: EG
Preparation Date: 07/29/2008 13:20 Prep By: DD Method SW3010A
Leach Date: 07/28/2008 0:00 Leach By: GF Method SW1311

Table with 3 columns: Analyte, Result, Rep Limit. Rows include Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver.

Laboratory Control Sample (LCS)

RunID: TJA_080802A-4606654 Units: mg/L
Analysis Date: 08/02/2008 12.50 Analyst: EG
Preparation Date: 07/29/2008 13:20 Prep By: DD Method SW3010A
Leach Date: 07/28/2008 0:00 Leach By: GF Method SW1311

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Rows include Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver.

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

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Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips
CPPL Loco Hills

Analysis: TCLP Metals by Method 6010B
Method: SW6010B

WorkOrder: 08071643
Lab Batch ID: 82197A

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked 08071579-03
RunID. TJA_080802A-4606656 Units: mg/L
Analysis Date 08/02/2008 12:59 Analyst: EG
Preparation Date: 07/29/2008 13:20 Prep By: DD Method SW3010A
Leach Date: 07/28/2008 0:00 Leach By: GF Method SW1311

Table with 12 columns: Analyte, Sample Result, MS Spike Added, MS Result, MS % Recovery, MSD Spike Added, MSD Result, MSD % Recovery, RPD, RPD Limit, Low Limit, High Limit. Rows include Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, and Silver.

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

*Sample Receipt Checklist
And
Chain of Custody*



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Sample Receipt Checklist

Workorder.	08071643	Received By:	L_C
Date and Time Received.	7/3/2008 9:30:00 AM	Carrier name.	Fedex-Standard Overnight
Temperature:	3.5°C	Chilled by:	Water Ice

1. Shipping container/cooler in good condition? Yes No Not Present
2. Custody seals intact on shipping container/cooler? Yes No Not Present
3. Custody seals intact on sample bottles? Yes No Not Present
4. Chain of custody present? Yes No
5. Chain of custody signed when relinquished and received? Yes No
6. Chain of custody agrees with sample labels? Yes No
7. Samples in proper container/bottle? Yes No
8. Sample containers intact? Yes No
9. Sufficient sample volume for indicated test? Yes No
10. All samples received within holding time? Yes No
11. Container/Temp Blank temperature in compliance? Yes No
12. Water - VOA vials have zero headspace? Yes No VOA Vials Not Present
13. Water - Preservation checked upon receipt (except VOA*)? Yes No Not Applicable

*VOA Preservation Checked After Sample Analysis

SPL Representative:

Contact Date & Time:

Client Name Contacted:

Non Conformance Issues:

Client Instructions:



SPL, Inc.

Analysis Request & Chain of Custody Record

08071643

SPL Workorder No.

278382

08070257 page of

Client Name: Tetra Tech / ConocoPhillips Pipeline
 Address: 1703 West Industrial
 Phone/Fax: 432-686-8081
 Client Contact: Charles Durrett Email: charles.durrett@tetra-tech.com
 Project Name/No.: 1158640074
 Site Name: Loco Hills
 Site Location: Loco Hills, New Mexico

matrix bottle size pres.
 W=water S=soils O=oil
 SL=sludge X=other
 P=plastic A=amber glass
 G=glass V=vial X=other
 1=1 liter 4=4oz 40=vial
 8=8oz 16=16oz X=other
 1=HCl 2=HNO3
 3=H2SO4 X=other

Requested Analysis

SAMPLE ID	DATE	TIME	comp	grab	W=water SL=sludge X=other	S=soils O=oil X=other	P=plastic A=amber glass G=glass V=vial X=other	1=1 liter 4=4oz 8=8oz 16=16oz 40=vial X=other	2=HNO3 X=other	Number of Containers	Requested Analysis								
											TPH GRO-DRO	TCLP BTEX	RCRA 8 metals	ICR, I					
E-side	7-1-08	10:30		X						2	X	X							
Top		10:35		X						2	X	X							
N-side		10:40	X							2	X	X							
S-side		10:45	X							2	X	X							
W-side		10:50		X						2	X	X							
small # Pile		10:55	X							2	X	X	X	X					

Client/Consultant Remarks: ConocoPhillips Pipeline
P.O.# 4509610900

Laboratory remarks:

Intact? Y N
 Ice? Y N
 Temp: 35.5

Requested TAT
 Contract 72hr
 24hr Standard
 48hr
 Other ASAP

Special Reporting Requirements Results: Fax Email PDF
 Standard QC Level 3 QC Level 4 QC TX TRRP LA RECAP
 1. Relinquished by Sampler: [Signature] date 7-02-08 time 9:00 am
 3. Relinquished by: [Signature] date 7/02/08 time 3:00 pm
 5. Relinquished by: [Signature] date 7/31/08 time 9:30

Special Detection Limits (specify):
 PM review (initial): PR PA
 2. Received by:
 4. Received by:
 6. Received by Laboratory:

8880 Interchange Drive
 Houston, TX 77054 (713) 660-0901

500 Ambassador Caffery Parkway
 Scott, LA 70583 (337) 237-4775

459 Hughes Drive
 Traverse City MI 49686 (231) 947-5777