GW - 001

WASTE

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD

Sent: Tuesday, September 03, 2013 8:20 AM

To: 'Robinson, Kelly'

Subject: RE: Request for Approval - Sandblast Media Waste Disposal

Kelly:

Approved.

Thank you. Have a nice day!

Please be advised that NMOCD approval of this waste disposal request does not relieve Western Refining Southwest, Inc.- Bloomfield Refinery of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Western Refining Southwest, Inc.- Bloomfield Refinery of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

Office: (505) 476-3490

E-mail: CarlJ.Chavez@State.NM.US

Website: http://www.emnrd.state.nm.us/ocd/

"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the

Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Friday, August 30, 2013 11:06 AM

To: Chavez, Carl J, EMNRD

Subject: Request for Approval - Sandblast Media Waste Disposal

Good Morning Sir,

Pursuant to Condition 6.A. of the Bloomfield Terminals Discharge Permit (GW-001) and NMAC 19.15.35.8.C. (n), Western Refining Southwest, Inc. (Western) respectfully requests OCD approval to dispose of sandblast media at the San Juan Regional Landfill. This sandblast waste material was generated as part of preparation for installing a new el Segundo floor in one of the crude tanks at the Bloomfield facility. A copy of the analytical waste characterization results for this waste stream is attached for your review. The analytical results how that the material is non-hazardous and thus meets the criteria stated in NMAC 19.15.35.8.C as sandblast sand.

If you have any questions, please do not hesitate to contact me at your convenience.

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990

1

Chavez, Carl J, EMNRD

	Dalainaan Kallu	
-rom:	Robinson, Kelly	<pre>< < Kelly.Robinson@wnr.com></pre>

Sent: Friday, May 20, 2016 10:27 AM

To: Chavez, Carl J, EMNRD

Cc: Griswold, Jim, EMNRD; Tsinnajinnie, Leona, NMENV; Schmaltz, Randy; Hains, Allen;

Krakow, Matt

Subject: RE: Bloomfield Bulk Terminal (GW-001) 2015 GW Remediation and Monitoring Annual

Report Submitted April 2016 Class I (NY) Waste Disposal Inquiry

Attachments: 20160519165246970.pdf

Good Morning Sir,

Randy is out of town this week at a Conference, and therefore he has asked that I response to your document request below regarding the off-site disposal of the non-hazardous waste water generated at the Western Refining Bloomfield Terminal.

As it was stated in the 2015 Groundwater Remediation and Monitoring Report, subsequent to the plug and abandonment of the Western Refining Class I injection well, non-hazardous treated wastewater was disposed of off-site at a Class I permitted facility. This water was profiled and sent to the Agua Moss Class I well located in Aztec, New Mexico. Prior to initiating off-site disposal, Western requested approval from NMOCD to dispose of the treated wastewater at the Agua Moss Class I injection well via an e-mail submitted on October 21, 2015. The request for approval included a copy of the analytical report for a sample of the water collected in July 2015 for NMOCD's review. Western received NMOCD approval via e-mail on October 21, 2015. A copy of the e-mail correspondence with NMOCD and the Western signed C-138 associated with the profile for the material is attached for reference.

A total of 714 loads of non-hazardous treated water was shipped to Agua Moss for disposal in 2015. Each load was shipped on a non-hazardous manifest. A copy of the manifest template used for each shipment and a summary of the each load shipped off-site (including date, time, and total volume) is attached for reference.

If you have any questions or need any additional information regarding this topic, please let us know at your convenience.

Thank you so much for your time, and have a great weekend!

Kelly R. Robinson | Environmental Manager - Logistics **Western Refining |** 111 County Road 4990 | Bloomfield, NM87413 (o) 505-632-4166 | (c) 505-801-5616 | (e) kelly.robinson@wnr.com

From: "Chavez, Carl J, EMNRD" < Carl J. Chavez@state.nm.us>

Date: May 17, 2016 at 12:00:28 PM CDT

To: "Schmaltz, Randy (Randy.Schmaltz@wnr.com)" < Randy.Schmaltz@wnr.com>

Cc: "Griswold, Jim, EMNRD" < Jim.Griswold@state.nm.us>, "Tsinnajinnie, Leona, NMENV"

<Leona.Tsinnajinnie@state.nm.us>

Subject: Bloomfield Bulk Terminal (GW-001) 2015 GW Remediation and Monitoring Annual Report Submitted April 2016 Class I (NY) Waste Disposal Inquiry

This email was sent by an external sender. Please use caution when opening attachments, clicking web links, or replying until you have verified this email sender.

Randy:

Good morning. From the above subject report, it is not clear where the Class I (NH) Disposal Well fluids were taken? OCD is aware of the plugged and abandoned Class I (NH) Disposal Well (see description below) in 2015.

Please provide OCD with more details on the facility where the Class I (NH) Disposal Well Effluent was and is being disposed after September 22, 2015, any C-138 manifests or documentation of the disposal events, disposal volumes, any testing, etc. to OCD by COB this Friday, May 20, 2016.

Thank you.

2.4 Waste Disposal

Western Refining indefinitely suspended refining operations at the facility on November 23, 2009. The crude unloading and product loading racks, storage tanks and other supporting equipment remain in operation. Recovered water from on-site remediation activities and facility operations is treated through the on-site WWTS. Treated water is then disposed of through the on-site Class I non-hazardous injection well or sent off-site to a Class 1 non-hazardous injection well for disposal.

All operational waste generated is properly characterized and disposed of off-site. Additional information regarding waste disposal activities is provided in Section 3.5.

3.5 Waste Disposal

Western Refining indefinitely suspended refining operations at the Bloomfield Facility on November 23, 2009. The crude unloading and product loading racks, storage tanks and other supporting equipment remain in operation. Recovered water from on-site remediation activities and facility operations is treated through the on-site WWTS. Treated water is then disposed of through a Class I non-hazardous injection well. Due to mechanical issues, the on-site Class I injection well was shut down on September 22, 2015 and was plugged and abandoned in October 2015. It is anticipated that a replacement well will be installed. During the interim period, wastewater that has been processed through the WWTS is being transported for off-site disposal at a permitted commercial Class I non-hazardous injection well. All operational waste generated is properly characterized and disposed of off-site. A summary of such wastes for 2015 is provided in Appendix E (see attachment).

Carl J. Chavez, CHMM
Environmental Engineer
Oil Conservation Division- Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Phone: (505) 476-3490 Main Phone: (505) 476-3440

Fax: (505) 476-3462

E-mail: <u>CarlJ.Chavez@state.nm.us</u>
Website: www.emnrd.state.nm.us/ocd

Why not prevent pollution, minimize waste, reduce operation costs, and move forward with the rest of the Nation? To see how, go to "Publications" and "Pollution Prevention" on the OCD Website.

Krakow, Matt

From:

Chavez, Carl J, EMNRD < Carl J. Chavez@state.nm.us>

Sent:

Wednesday, October 21, 2015 1:17 PM

To:

Krakow, Matt

Cc:

Robinson, Kelly; Schmaltz, Randy; Aguamossghiggins@hotmail.com; pthompson@marrion.bz; ryandavis@marrion.bz; shacie@marrion.bz

Subject:

RE: Treated Waste Water Disposal

Matt:

Looks good. Thanks.

Carl J. Chavez, CHMM
Environmental Engineer
Oil Conservation Division- Environmental Bureau
1220 South St. Francis Drive

Santa Fe, New Mexico 87505 Phone: (505) 476-3490 Main Phone: (505) 476-3440

Fax: (505) 476-3462

E-mail: <u>CarlJ.Chavez@state.nm.us</u>
Website: www.emnrd.state.nm.us/ocd

Why not prevent pollution, minimize waste, reduce operation costs, and move forward with the rest of the Nation? To see

how, go to "Publications" and "Pollution Prevention" on the OCD Website.

From: Krakow, Matt [mailto:Matt.Krakow@wnr.com]

Sent: Wednesday, October 21, 2015 12:35 PM

To: Chavez, Carl J, EMNRD < Carl J. Chavez@state.nm.us>

Cc: Robinson, Kelly <Kelly.Robinson@wnr.com>; Schmaltz, Randy <Randy.Schmaltz@wnr.com>;

Aguamossghiggins@hotmail.com; pthompson@marrion.bz; ryandavis@marrion.bz; shacie@marrion.bz

Subject: Treated Waste Water Disposal

Hi Carl,

Western Refining is making notification to NMOCD of plans to dispose of treated non-hazardous waste water from Bloomfield Terminal at the Agua Moss Class I injection well. Western is in the process of submitting a C-138 and analytical of the waste for acceptance at Agua Moss, LLC in Aztec ,NM. Analytical from the waste water is attached. If you have any questions please let us know.

THANKS,
MATTHEW KRAKOW
Environmental Coordinator

Western Refining Southwest Inc. 111 County Road 4990 Bloomfield, NM 87413

P: 505-632-4169

District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., 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-138 Revised August 1, 2011

*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

162/15MK

DECLIEST FOR APPROVAL TO ACCEPT SOLID WASTE

REQUEST FOR AFFROVAL TO ACCEPT SOLID WASTE
 Generator Name and Address: Western Refining Southwest, Inc. 50 CR 4990, Bloomfield, NM, 87413
2. Originating Site: Western Refining Southwest, Inc. Bloomfield Terminal – NESE27, T29N, R11W, San Juan County, NM
3. Location of Material (Street Address, City, State or ULSTR): Same as originating site
4. Source and Description of Waste: Treated non-hazardous water from the Bloomfield Terminal.
Estimated Volume bbls Known Volume (to be entered by the operator at the end of the haul) yd³/bbls
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS I, Matthew Krakow , representative or authorized agent for do do
PRINT & SIGN NAME certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)
☐ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. Operator Use Only: Waste Acceptance Frequency ☐ Monthly ☐ Weekly ☐ Per Load
☑ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)
GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS
I, A do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.
5. Transporter: TBD
OCD Permitted Surface Waste Management Facility
Name and Facility Permit #: Agua Moss Permit # UICI-005
Address of Facility: 345 Rd 350 Aztec, NM 87410
Method of Treatment and/or Disposal:
☐ Evaporation ☐ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other
Waste Acceptance Status: APPROVED DENIED (Must Be Maintained As Permanent Record)
PRINT NAME: DATE:
SIGNATURE: TELEPHONE NO.:
Surface Waste Management Facility Authorized Agent

102115MK



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

August 06, 2015

Kelly Robinson Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4166 FAX (505) 632-3911

RE: Injection Well 7-1-15

OrderNo.: 1507094

Dear Kelly Robinson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 7/2/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1507094

Date Reported: 8/6/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: Injection Well

Project: Injection Well 7-1-15

Lab ID: 1507094-001

Matrix: AQUEOUS

Collection Date: 7/1/2015 9:00:00 AM

Received Date: 7/2/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	LGT
Chloride	480	50		mg/L	100	7/2/2015 5:18:55 PM	R27295
Sulfate	65	5.0		mg/L	10	7/2/2015 5:06:31 PM	R27295
SM2510B: SPECIFIC CONDUCTANCE	E					Analyst	JRR
Conductivity	2000	0.010		µmhos/cm	1	7/6/2015 11:31:17 AM	R27329
SM2320B: ALKALINITY						Analyst:	JRR
Bicarbonate (As CaCO3)	274.6	20.00		mg/L CaCO3	1	7/6/2015 11:31:17 AM	R27329
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	7/6/2015 11:31:17 AM	R27329
Total Alkalinity (as CaCO3)	274.6	20.00		mg/L CaCO3	1	7/6/2015 11:31:17 AM	R27329
SM2540C MOD: TOTAL DISSOLVED	SOLIDS					Analyst	KS
Total Dissolved Solids	1220	40.0	*	mg/L	1	7/8/2015 5:09:00 PM	20129
SM4500-H+B: PH						Analyst	JRR
рН	7.45	1.68	Н	pH units	1	7/6/2015 11;31:17 AM	R27329
EPA METHOD 7470: MERCURY						Analyst	JLF
Mercury	ND	0.0010		mg/L	5	7/8/2015 4:47:51 PM	20158
EPA 6010B: TOTAL RECOVERABLE	METALS					Analyst	MED
Arsenic	ND	0.020		mg/L	1	7/9/2015 10:51:23 AM	20102
Barium	0.27	0.020		mg/L	1	7/9/2015 10:51:23 AM	20102
Cadmium	ND	0.0020		mg/L	1	7/16/2015 12:13:28 PM	20102
Calcium	120	5.0		mg/L	5	7/9/2015 1:02:36 PM	20102
Chromium	ND	0.0060		mg/L	1	7/14/2015 3:52:06 PM	20102
Lead	ND	0.0050		mg/L	1	7/9/2015 10:51:23 AM	20102
Magnesium	28	1.0		mg/L	1	7/9/2015 10:51:23 AM	20102
Potassium	7.7	1.0		mg/L	1	7/9/2015 10:51:23 AM	20102
Selenium	ND	0.050		mg/L	1	7/16/2015 12:13:28 PM	20102
Silver	ND	0.0050		mg/L	1	7/16/2015 12:13:28 PM	20102
Sodium	280	5.0		mg/L	5	7/9/2015 1:02:36 PM	20102
EPA METHOD 8270C: SEMIVOLATILI	ES					Analyst:	DAM
Acenaphthene	ND	10		μg/L	1	7/10/2015 1:30:30 PM	20095
Acenaphthylene	ND	10		μg/L	1	7/10/2015 1:30:30 PM	20095
Aniline	ND	10		μg/L	1	7/10/2015 1:30:30 PM	20095
Anthracene	ND	10		μg/L	1	7/10/2015 1:30:30 PM	20095
Azobenzene	ND	10		μg/L	1	7/10/2015 1:30:30 PM	20095
Benz(a)anthracene	ND	10		μg/L	1	7/10/2015 1:30:30 PM	20095
Benzo(a)pyrene	ND	10		μg/L	1	7/10/2015 1:30:30 PM	20095
Benzo(b)fluoranthene	ND	10		μg/L	1	7/10/2015 1:30:30 PM	20095
Benzo(g,h,i)perylene	ND	10		μg/L	1	7/10/2015 1:30:30 PM	20095

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 20
- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1507094

Date Reported: 8/6/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Project: Injection Well 7-1-15

Lab ID: 1507094-001

Client Sample ID: Injection Well

Collection Date: 7/1/2015 9:00:00 AM

Received Date: 7/2/2015 7:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLA	TILES				Analyst	: DAM
Benzo(k)fluoranthene	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
Benzoic acid	ND	20	μg/L	1	7/10/2015 1:30:30 PM	20095
Benzyl alcohol	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
Bis(2-chloroethoxy)methane	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
Bis(2-chloroethyl)ether	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
Bis(2-chloroisopropyl)ether	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
Bis(2-ethylhexyl)phthalate	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
4-Bromophenyl phenyl ether	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
Butyl benzyl phthalate	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
Carbazole	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
4-Chloro-3-methylphenol	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
4-Chloroaniline	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
2-Chloronaphthalene	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
2-Chlorophenol	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20098
4-Chlorophenyl phenyl ether	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20098
Chrysene	ND	10	μg/L	1	7/10/2015 1:30:30 PM	2009
Di-n-butyl phthalate	ND	10	μg/L	1	7/10/2015 1:30:30 PM	2009
Di-n-octyl phthalate	ND	10	μg/L	1	7/10/2015 1:30:30 PM	2009
Dibenz(a,h)anthracene	ND	10	μg/L	1	7/10/2015 1:30:30 PM	2009
Dibenzofuran	ND	10	μg/L	1	7/10/2015 1:30:30 PM	2009
1,2-Dichlorobenzene	ND	10	μg/L	1	7/10/2015 1:30:30 PM	2009
1,3-Dichlorobenzene	ND	10	μg/L	1	7/10/2015 1:30:30 PM	2009
1,4-Dichlorobenzene	ND	10	μg/L	1	7/10/2015 1:30:30 PM	2009
3,3'-Dichlorobenzidine	ND	10	μg/L	1	7/10/2015 1:30:30 PM	2009
Diethyl phthalate	ND	10	μg/L	1	7/10/2015 1:30:30 PM	2009
Dimethyl phthalate	ND	10	μg/L	1	7/10/2015 1:30:30 PM	2009
2,4-Dichlorophenol	ND	20	μg/L	1	7/10/2015 1:30:30 PM	2009
2,4-Dimethylphenol	ND	10	μg/L	1	7/10/2015 1:30:30 PM	2009
4,6-Dinitro-2-methylphenol	ND	20	μg/L	1	7/10/2015 1:30:30 PM	2009
2,4-Dinitrophenol	ND	20	μg/L	1	7/10/2015 1:30:30 PM	2009
2,4-Dinitrotoluene	ND	10	μg/L	1	7/10/2015 1:30:30 PM	2009
2,6-Dinitrotoluene	ND	10	μg/L	1	7/10/2015 1:30:30 PM	2009
Fluoranthene	ND	10	μg/L	1	7/10/2015 1:30:30 PM	2009
Fluorene	ND	10	μg/L	1	7/10/2015 1:30:30 PM	2009
Hexachlorobenzene	ND	10	μg/L	1	7/10/2015 1:30:30 PM	2009
Hexachlorobutadiene	ND	10	μg/L	1	7/10/2015 1:30:30 PM	2009
Hexachlorocyclopentadiene	ND	10	μg/L	1	7/10/2015 1:30:30 PM	2009
Hexachloroethane	ND	10	μg/L	1	7/10/2015 1:30:30 PM	2009
Indeno(1,2,3-cd)pyrene	ND	10	μg/L	1	7/10/2015 1:30:30 PM	2009

Matrix: AQUEOUS

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 20
- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1507094

Date Reported: 8/6/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Injection Well

Project: Injection Well 7-1-15

Collection Date: 7/1/2015 9:00:00 AM

Lab ID: 1507094-001

Matrix: AQUEOUS

Received Date: 7/2/2015 7:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILE	s	1 2 3 12 1 1 1 1 1			Analyst	: DAM
Isophorone	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
1-Methylnaphthalene	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
2-Methylnaphthalene	ND	10	µg/L	1	7/10/2015 1:30:30 PM	20095
2-Methylphenol	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
3+4-Methylphenol	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
N-Nitrosodi-n-propylamine	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
N-Nitrosodimethylamine	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
N-Nitrosodiphenylamine	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
Naphthalene	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
2-Nitroaniline	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
3-Nitroaniline	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
4-Nitroaniline	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
Nitrobenzene	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
2-Nitrophenol	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
4-Nitrophenol	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
Pentachlorophenol	ND	20	μg/L	1	7/10/2015 1:30:30 PM	20095
Phenanthrene	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
Phenol	ND	10	μg/L.	1	7/10/2015 1:30:30 PM	20095
Pyrene	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
Pyridine	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
1,2,4-Trichlorobenzene	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
2,4,5-Trichlorophenol	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
2,4,6-Trichlorophenol	ND	10	μg/L	1	7/10/2015 1:30:30 PM	20095
Surr: 2-Fluorophenol	66.2	14.9-111	%REC	1	7/10/2015 1:30:30 PM	20095
Surr: Phenol-d5	64.1	11.3-108	%REC	1	7/10/2015 1:30:30 PM	20095
Surr: 2,4,6-Tribromophenol	75.7	15.7-154	%REC	1	7/10/2015 1:30:30 PM	20095
Surr: Nitrobenzene-d5	84.6	47.8-106	%REC	1	7/10/2015 1:30:30 PM	20095
Surr: 2-Fluorobiphenyl	63.7	21.3-123	%REC	1	7/10/2015 1:30:30 PM	20095
Surr: 4-Terphenyl-d14	51. 4	14.3-135	%REC	1	7/10/2015 1:30:30 PM	20095
EPA METHOD 8260B: VOLATILES					Analyst	BCN
Benzene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R2739
Toluene	1.5	1.0	μg/L	1	7/9/2015 8:19:52 PM	R2739
Ethylbenzene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R2739
Methyl tert-butyl ether (MTBE)	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R2739
1,2,4-Trimethylbenzene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R2739
1,3,5-Trimethylbenzene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R2739
1,2-Dichloroethane (EDC)	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R2739
1,2-Dibromoethane (EDB)	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R2739
Naphthalene	ND	2.0	μg/L	1	7/9/2015 8:19:52 PM	R2739

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 20
- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1507094

Date Reported: 8/6/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Project: Injection Well 7-1-15

Lab ID: 1507094-001

Client Sample ID: Injection Well

Collection Date: 7/1/2015 9:00:00 AM

Received Date: 7/2/2015 7:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analys	t: BCN
1-Methylnaphthalene	ND	4.0	µg/L	1	7/9/2015 8:19:52 PM	R27397
2-Methylnaphthalene	ND	4.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
Acetone	72	10	μg/L	1	7/9/2015 8:19:52 PM	R27397
Bromobenzene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
Bromodichloromethane	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
Bromoform	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
Bromomethane	ND	3.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
2-Butanone	11	10	μg/L	1	7/9/2015 8:19:52 PM	R27397
Carbon disulfide	ND	10	μg/L	1	7/9/2015 8:19:52 PM	R27397
Carbon Tetrachloride	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
Chlorobenzene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
Chloroethane	ND	2.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
Chloroform	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
Chloromethane	ND	3.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
2-Chlorotoluene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
4-Chlorotoluene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
cis-1,2-DCE	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
cis-1,3-Dichloropropene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
1,2-Dibromo-3-chloropropane	ND	2.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
Dibromochloromethane	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
Dibromomethane	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
1,2-Dichlorobenzene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
1,3-Dichlorobenzene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
1,4-Dichlorobenzene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
Dichlorodifluoromethane	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
1,1-Dichloroethane	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
1,1-Dichloroethene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
1,2-Dichloropropane	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
1,3-Dichloropropane	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
2,2-Dichloropropane	ND	2.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
1,1-Dichloropropene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
Hexachlorobutadiene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
2-Hexanone	ND	10	μg/L	1	7/9/2015 8:19:52 PM	R27397
Isopropylbenzene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
4-Isopropyltoluene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
4-Methyl-2-pentanone	ND	10	μg/L	1	7/9/2015 8:19:52 PM	R27397
Methylene Chloride	ND	3.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
n-Butylbenzene	ND	3.0	μg/L.	1	7/9/2015 8:19:52 PM	R27397
n-Propylbenzene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397

Matrix: AQUEOUS

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 4 of 20
- P Sample pH Not In Range
- RL Reporting Detection Limit

Lab Order 1507094

Date Reported: 8/6/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Injection Well

Project: Injection Well 7-1-15

Collection Date: 7/1/2015 9:00:00 AM

Lab ID: 1507094-001

Matrix: AQUEOUS

Received Date: 7/2/2015 7:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
Styrene ND 1.0 µg/L 1 7/9/2015 8:1 tert-Butylbenzene ND 1.0 µg/L 1 7/9/2015 8:1 1,1,1,2-Tetrachloroethane ND 1.0 µg/L 1 7/9/2015 8:1 1,1,2,2-Tetrachloroethane ND 2.0 µg/L 1 7/9/2015 8:1 Tetrachloroethane (PCE) ND 1.0 µg/L 1 7/9/2015 8:1 trans-1,2-DCE ND 1.0 µg/L 1 7/9/2015 8:1 trans-1,3-Dichloropropene ND 1.0 µg/L 1 7/9/2015 8:1 1,2,3-Trichlorobenzene ND 1.0 µg/L 1 7/9/2015 8:1 1,1,1-Trichloroethane ND 1.0 µg/L 1 7/9/2015 8:1 1,1,2-Trichloroethane ND 1.0 µg/L 1 7/9/2015 8:1 1,1,1-Trichloroethane ND 1.0 µg/L 1 7/9/2015 8:1 1,1,2-Trichloroethane ND 1.0 µg/L 1 7/9/2015 8:1			Analys	t: BCN		
sec-Butylbenzene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
Styrene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
tert-Butylbenzene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
1,1,1,2-Tetrachloroethane	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
1,1,2,2-Tetrachloroethane	ND	2.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
Tetrachloroethene (PCE)	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
trans-1,2-DCE	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
trans-1,3-Dichloropropene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
1,2,3-Trichlorobenzene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
1,2,4-Trichlorobenzene	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
1,1,1-Trichloroethane	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
1,1,2-Trichloroethane	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
Trichloroethene (TCE)	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
Trichlorofluoromethane	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
1,2,3-Trichloropropane	ND	2.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
Vinyì chloride	ND	1.0	μg/L	1	7/9/2015 8:19:52 PM	R27397
Xylenes, Total	ND	1.5	μg/L	1	7/9/2015 8:19:52 PM	R27397
Surr: 1,2-Dichloroethane-d4	96.9	70-130	%REC	1	7/9/2015 8:19:52 PM	R27397
Surr: 4-Bromofluorobenzene	90.8	70-130	%REC	1	7/9/2015 8:19:52 PM	R27397
Surr: Dibromofluoromethane	103	70-130	%REC	1	7/9/2015 8:19:52 PM	R27397
Surr: Toluene-d8	95.5	70-130	%REC	1	7/9/2015 8:19:52 PM	R27397

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- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 5 of 20
- P Sample pH Not In Range
- RL Reporting Detection Limit

Anatek Labs, Inc.

1282 Alluras Drive · Moscow, 10 83843 · (208) 883-2839 · Fax (208) 862-9246 · email moscow@anateklabs.com 504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • empil spokane@anateklabs.com

Client:

HALL ENVIRONMENTAL ANALYSIS LAB

Batch #:

150707035

Address:

4901 HAWKINS NE SUITE D

Project Name:

1507094

ALBUQUERQUE, NM 87109

Attn:

ANDY FREEMAN

Analytical Results Report

7/1/2015

Sample Number

150707035-001

Sampling Date

Date/Time Received 7/7/2015

11:00 AM

Client Sample (D) Matrix

1507094-001E / INJECTION WELL

Sample Location

Sampling Time 9:00 AM

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualilier
Cyanide (reactive)	ND	mg/L	1	7/15/2015	ĊRW	SW646 CH7	
Flashpoint	>200	٩F		7/15/2015	KFG	EPA 1010	
pH	7.36	ph Units		7/8/2015	KMC	SM 4500pH-B	
Reactive suifide	ND	mg/L	1	7/15/2015	HSW	SW846 CH7	

Authorized Signature

MCL

EPA's Maximum Contaminant Livel

ΝD

Not Detected

ÞQL

Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory. The results reported relate only to the samples Indicated.

Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com 504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:

HALL ENVIRONMENTAL ANALYSIS LAB

Batch #:

150707035

Address:

4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109 Project Name:

1507094

Attn:

ANDY FREEMAN

Analytical Results Report
Quality Control Data

Lab Control Sample										
Parameter	LCS Result	Units	LCS	Spike	%Rec	AR	%Rec	Prep	Date	Analysis Date
Reactive sulfide	0.816	mg/L	0.9	07	90.0	70	-130	7/15/	2015	7/15/2015
Cyanide (reactive)	0.486	mg/L	0.	5	97.2	80	-120	7/15/	2015	7/15/2015
Matrix Spike		····								Marrie
Sample Number Parameter		Sample Result	MS Result	Uni	fs	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
150707035-001A Reactive sulfide		ND	0.816	mg/		0.907	90.0	70-130	7/15/2015	-
150707035-001 Cyanide (reactive)		ND	0.462	mg/		0.5	92.4	80-120	7/15/2015	7/15/2015
Matrix Spike Duplicate										
Parameter	MSD Result	Units	MSD Spike	º%₽	Rec	%RPD	AR %RPI) Pre	p Date	Analysis Date
Cyanide (reactive)	0.454	mg/L	0,5		0.8	1.7	0-25		5/2015	7/15/2015
Method Blank									# V =	
Parameter		Res	sult	U	nits		PQL	Pr	ep Date	Analysis Date
Cyanide (reactive)		N	ID	īť	ng/L		1	7/1	5/2015	7/15/2015
Reactive sulfide		N	ID	η	ng/L		1	· 7/1	5/2015	7/15/2015

AR

Acceptable Range

ND PQL Not Detected Practical Quantitation Limit

RPD

Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERTD028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0096; FL(NELAP): E871099

Page 1 of 1

Hall Environmental Analysis Laboratory, Inc.

WO#:

1507094

06-Aug-15

Qual

Client:

Western Refining Southwest, Inc.

Project:

Injection Well 7-1-15

TestCode: EPA Method 300.0: Anions Sample ID MB SampType: MBLK Client ID: **PBW** RunNo: 27295 Batch ID: R27295 Prep Date: Analysis Date: 7/2/2015 SeqNo: 817819 Units: mg/L %RPD **RPDLimit** SPK value SPK Ref Val %REC LowLimit HighLimit Analyte Result PQL

 Chloride
 ND
 0.50

 Sulfate
 ND
 0.50

Sample ID LCS SampType: LCS TestCode: EPA Method 300.0: Anions Client ID: LCSW Batch ID: R27295 RunNo: 27295 SeqNo: 817820 Units: mg/L Prep Date: Analysis Date: 7/2/2015 SPK value SPK Ref Val HighLimit %RPD **RPDLimit** Qual %REC LowLimit Analyte Result **PQL** 90 110 0 99.0 Chloride 5.0 0.50 5.000 10.00 0 103 90 110 Sulfate 10 0.50

Qualifiers:

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- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

Page 6 of 20

Hall Environmental Analysis Laboratory, Inc.

WO#:

1507094

06-Aug-15

Client:

Western Refining Southwest, Inc.

Project:

Injection Well 7-1-15

Sample ID 100ng LCS	SampT	ype: LC	s	Tes	TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch	Batch ID: R27397			RunNo: 2	7397					
Prep Date:	Analysis D	Analysis Date: 7/9/2015			SeqNo: 822125						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	18	1.0	20.00	0	90.9	70	130				
Toluene	17	1.0	20.00	0	87.2	70	130				
Chlorobenzene	17	1.0	20.00	0	85.5	70	130				
1,1-Dichloroethene	19	1.0	20.00	0	95.4	70	130				
Trichloroethene (TCE)	17	1.0	20.00	0	84.0	70	130				
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.4	70	130				
Surr: 4-Bromofluorobenzene	9.9		10.00		99.3	70	130				
Surr: Dibromofluoromethane	11		10.00		106	70	130				
Surr: Toluene-d8	10		10.00		100	70	130				

Sample ID rb1	SampT	ype: MI	BLK	TestCode: EPA Method				ATILES		
Client ID: PBW	Batch	1 ID: R2	7397	F	RunNo: 2	7397				
Prep Date:	Analysis D	ate: 7/	9/2015	SeqNo: 822418			Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

Page 7 of 20

Hall Environmental Analysis Laboratory, Inc.

WO#:

1507094

06-Aug-15

Client:

Western Refining Southwest, Inc.

Project:

Injection Well 7-1-15

Sample ID rb1	SampT	ype: MI	BLK	TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch	ı ID: R2	7397	F	RunNo: 2	27397				
Prep Date:	Analysis D	ate: 7	9/2015	5	SeqNo: 1	322418	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0				•				
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

Page 8 of 20

Hall Environmental Analysis Laboratory, Inc.

WO#:

1507094

06-Aug-15

Client:

Western Refining Southwest, Inc.

Project:

Injection Well 7-1-15

Sample ID rb1	SampT	SampType: MBLK			tCode: El	PA Method	8260B; VOL	ATILES		
Client ID: PBW	Batcl	Batch ID: R27397			RunNo: 2	7397				
Prep Date:	Analysis D	Analysis Date: 7/9/2015			SeqNo: 8	22418	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								-
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	9,9		10.00		98.7	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

Page 9 of 20

Hall Environmental Analysis Laboratory, Inc.

WO#:

1507094

06-Aug-15

Client:

Western Refining Southwest, Inc.

Project:

Injection Well 7-1-15

Sample ID mb-20095	SampTy	ype: MBLK	Tes	tCode: E	PA Method	8270C: Semi	volatiles		
Client ID: PBW	Batch	ID: 20095	ŀ	RunNo: 2	7414				
Prep Date: 7/6/2015	Analysis Da	ate: 7/10/2015	;	SeqNo: 8	22558	Units: µg/L			
Analyte	Result	PQL SPK value	e SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10							
Acenaphthylene	ND	10							
Aniline	ND	10							
Anthracene	ND	10							
Azobenzene	ND	10							
Benz(a)anthracene	ND	10							
Benzo(a)pyrene	ND	10							
Benzo(b)fluoranthene	ND	10							
Benzo(g,h,i)perylene	ND	10							
Benzo(k)fluoranthene	ND	10							
Benzolc acid	ND	20							
Benzyl alcohol	ND	10							
Bis(2-chloroethoxy)methane	ND	10							
Bis(2-chloroethyl)ether	ND	10							
Bis(2-chloroisopropyl)ether	ND	10							
Bis(2-ethylhexyl)phthalate	ND	10							
4-Bromophenyl phenyl ether	ND	10							
Butyl benzyl phthalate	ND	10							
Carbazole	ND	10							
4-Chloro-3-methylphenol	ND	10							
4-Chloroaniline	ND	10							
2-Chloronaphthalene	ND	10							
2-Chlorophenol	ND	10							
4-Chlorophenyl phenyl ether	ND	10							
Chrysene	ND	10							
Di-n-butyl phthalate	ND	10							
Di-n-octyl phthalate	ND	10							
Dibenz(a,h)anthracene	ND	10							
Dibenzofuran	ND	10							
1,2-Dichlorobenzene	ND	10							
1,3-Dichlorobenzene	ND	10							
1,4-Dichlorobenzene	ND	10							
3,3'-Dichlorobenzidine	ND	10							
Diethyl phthalate	ND	10							
Dimethyl phthalate	ND	10							
2,4-Dichlorophenol	ND	20							
2,4-Dimethylphenol	ND	10							
4,6-Dinitro-2-methylphenol	ND	20							
2,4-Dinitrophenol	ND	20							
. —, · — · · · · · · · · · · · · · · · ·									

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#:

1507094

06-Aug-15

Client:

Western Refining Southwest, Inc.

Project:

Injection Well 7-1-15

Sample ID mb-20095	SampTy	pe: MBLK		Test	Code: El	A Method	8270C: Semi	olatiles/		
Client ID: PBW	Batch I	D: 20095		R	unNo: 2	7414				
Prep Date: 7/6/2015	Analysis Da	te: 7/10/2 0	015	s	eqNo: 8:	22558	Units: µg/L			
Analyte	Result	PQL SP	√ value 3	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	140		200.0		69.6	14.9	111			
Surr: Phenol-d5	150		200.0		74.2	11.3	108			
Surr: 2,4,6-Tribromophenol	150		200.0		75.2	15.7	154			
Surr: Nitrobenzene-d5	75		100.0		75.0	47.8	106			
Surr: 2-Fluorobiphenyl	76		100.0		75.9	21.3	123			
Surr: 4-Terphenyl-d14	52		100.0		52.2	14.3	135			
ош, 4-т орнонуга 14	02		100.0		VE.2	17,0	100			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#:

1507094

06-Aug-15

Client:

Western Refining Southwest, Inc.

Project:

Injection Well 7-1-15

Sample ID Ics-20095	SampT	ype: LC	s	Tes	Code: El	A Method	8270C; Semi	volatiles		
Client ID: LCSW	Batch	1D: 20 0	095	F	tunNo: 2	7414				
Prep Date: 7/6/2015	Analysis D	ate: 7/	10/2015	8	SeqNo: 8	22559	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	51	10	100.0	0	51.2	47.8	99.7			
4-Chloro-3-methylphenol	110	10	200.0	0	56.2	58.1	103			S
2-Chiorophenol	73	10	200.0	0	36.7	49.5	96.8			S
1,4-Dichlorobenzene	34	10	100.0	0	33.8	40.4	89.4			S
2,4-Dinitrotoluene	42	10	100.0	0	41.8	38.6	91.3			
N-Nitrosodi-n-propylamine	51	10	100.0	0	51.1	53.9	95.6			S
4-Nitrophenol	93	10	200.0	0	46.3	26.4	108			
Pentachlorophenol	98	20	200.0	0	49.1	36.5	86.6			
Phenol	85	10	200.0	0	42.7	29.3	108			
Pyrene	56	10	100.0	0	56.2	45.7	100			
1,2,4-Trichlorobenzene	43	10	100.0	0	42.9	39.3	94.5			
Surr: 2-Fluorophenol	67		200.0		33.4	14.9	111			
Surr: Phenol-d5	86		200.0		43.0	11.3	108			
Surr: 2,4,6-Tribromophenol	120		200.0		62.3	15.7	154			
Surr: Nitrobenzene-d5	47		100.0		46.6	47.8	106			S
Surr: 2-Fluorobiphenyl	53		100.0		53.0	21.3	123			
Surr: 4-Terphenyl-d14	44		100.0		44.1	14.3	135			

Sample ID Icsd-20095	SampT	ype: LC	SD	Tes	Code: El	PA Method	8270C: Semi	volatiles		
Client ID: LCSS02	Batch	ı ID: 20 0	095	R	tunNo: 2	7414				
Prep Date: 7/6/2015	Analysis D	ate: 7/	10/2015	S	eqNo: 8	22560	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	76	10	100.0	0	76.1	47.8	99.7	39.1	28.2	R
4-Chloro-3-methylphenol	160	10	200.0	0	81.3	58.1	103	36.4	24.4	R
2-Chlorophenol	150	10	200.0	0	76.8	49.5	96.8	70.6	28.1	R
1,4-Dichlorobenzene	72	10	100.0	0	72.5	40.4	89.4	72.9	31.2	R
2,4-Dinitrotoluene	55	10	100.0	0	54.6	38.6	91.3	26.4	44.4	
N-Nitrosodi-n-propylamine	76	10	100.0	0	76.4	53.9	95.6	39.6	24.2	R
1-Nitrophenol	130	10	200.0	0	63.8	26.4	108	31.8	36.6	
Pentachlorophenol	130	20	200.0	0	65.8	36.5	86.6	29.1	29.5	
Phenol	160	10	200.0	0	77.8	29.3	108	58.2	30	R
Pyrene	69	10	100.0	0	69.3	45.7	100	20.8	31	
1,2,4-Trichlorobenzene	86	10	100.0	0	85.7	39.3	94.5	66.6	24	R
Surr: 2-Fluorophenol	140		200.0		70.6	14.9	111	0	0	
Surr: Phenol-d5	160		200.0		79.2	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	160		200.0		82.0	15.7	154	0	0	
Surr: Nitrobenzene-d5	80		100.0		79.5	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	77		100.0		77.3	21.3	123	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#:

1507094

06-Aug-15

Client:

Western Refining Southwest, Inc.

Project:

Injection Well 7-1-15

Sample ID Icsd-20095	SampT	SampType: LCSD			Code: El	PA Method	8270C: Semi	volatiles		
Client ID: LCSS02	Batch	Batch ID: 20095			unNo: 2	7414				
Prep Date: 7/6/2015	Analysis D	Analysis Date: 7/10/2015			eqNo: 8	22560	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	51		100.0		51.2	14.3	135	0	0	

Sample ID mb-20218	SampT	SampType: MBLK			tCode: El	ivolatiles				
Client ID: PBW	Batch	Batch ID: 20218			RunNo: 2	7531				
Prep Date: 7/13/2015	Analysis Date: 7/15/2015			8	SeqNo: 8	26536	Units: %RE	С		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	90		200.0		45.0	14.9	111			
Surr: Phenol-d5	75		200.0		37.3	11.3	108			
Surr: 2,4,6-Tribromophenol	140		200.0		69.6	15.7	154			
Surr: Nitrobenzene-d5	64		100.0		64.4	47.8	106			
Surr: 2-Fluorobiphenyl	61		100.0		61.2	21.3	123			
Surr: 4-Terphenyl-d14	45		100.0		45.2	14.3	135			

Sample ID Ics-20218	SampT	SampType: LCS			tCode: El	ivolatiles				
Client ID: LCSW	Batch	Batch ID: 20218			RunNo: 2	7531				
Prep Date: 7/13/2015	Analysis Date: 7/15/2015			S	SeqNo: 8	26537	Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	110		200.0		53.4	14.9	111			
Surr: Phenol-d5	82		200.0		41.0	11.3	108			
Surr: 2,4,6-Tribromophenol	150		200.0		74.7	15.7	154			
Surr: Nitrobenzene-d5	74		100.0		74.2	47.8	106			
Surr: 2-Fluorobiphenyl	74		100.0		73.5	21.3	123			
Surr: 4-Terphenyl-d14	44		100.0		44.2	14.3	135			

Sample ID Icsd-20218	SampT	SampType: LCSD			tCode: El	ivolatiles				
Client ID: LCSS02	Batch	Batch ID: 20218			RunNo: 2	7531				
Prep Date: 7/13/2015	Analysis Date: 7/15/2015			S	SeqNo: 8	26538	Units: %RE	C		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	100		200.0		52.2	14.9	111	0	0	
Surr; Phenol-d5	84		200.0		41.8	11.3	108	0	0	
Surr: 2,4,6-Tribromophenol	150		200.0		75.7	15.7	154	0	0	
Surr: Nitrobenzene-d5	76		100.0		76.0	47.8	106	0	0	
Surr: 2-Fluorobiphenyl	69		100.0		68.5	21.3	123	0	0	
Surr: 4-Terphenyl-d14	46		100.0		45.5	14.3	135	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#:

1507094

06-Aug-15

Client:

Western Refining Southwest, Inc.

Project:

Injection Well 7-1-15

SampType: DUP

TestCode: SM2510B: Specific Conductance

Injection Well Client ID:

Sample ID 1507094-001b dup

Batch ID: R27329

RunNo: 27329

Prep Date:

Analysis Date: 7/6/2015

SeqNo: 819171

Units: µmhos/cm

Analyte

SPK value SPK Ref Val %REC LowLimit

HighLimit %RPD **RPDLimit**

Qual

Conductivity

PQL 2000 0.010

0.0491

20

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded H

Not Detected at the Reporting Limit ND

RPD outside accepted recovery limits R

% Recovery outside of range due to dilution or matrix S

Analyte detected in the associated Method Blank В

E Value above quantitation range

Analyte detected below quantitation limits J

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P Sample pH Not In Range

Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1507094

06-Aug-15

Client:

Western Refining Southwest, Inc.

Project:

Injection Well 7-1-15

Sample ID MB-20158

SampType: MBLK

TestCode: EPA Method 7470: Mercury

Client ID:

PBW

Batch ID: 20158

RunNo: 27365

Client ID:

Prep Date: 7/8/2015

Analysis Date: 7/8/2015

SeqNo: 820590

Units: mg/L HighLimit

%RPD **RPDLimit** Qual

Analyte Mercury

Result 0.00020

Sample ID LCS-20158

SampType: LCS Batch ID: 20158 TestCode: EPA Method 7470: Mercury

LCSW

SPK value SPK Ref Val %REC LowLimit

RunNo: 27365

Prep Date: 7/8/2015

Analysis Date: 7/8/2015

SeqNo: 820591 %REC

Units: mg/L

RPDLimit

Analyte

PQL Result 0.0051 0.00020

SPK value SPK Ref Val 0.005000

102

HighLimit 120 %RPD

Qual

Mercury

Sample ID 1507094-001DMS Injection Well

SampType: MS

TestCode: EPA Method 7470: Mercury

75

80

LowLimit

LowLimit

RunNo: 27365 SeqNo: 820635

Units: mg/L

Analyte Метсигу

Client ID:

Analysis Date: 7/8/2015

Batch ID: 20158

PQL

0.0010

SPK value SPK Ref Val 0.005000

%REC

HighLimit

125

RPDLimit

Qual

Sample ID 1507094-001DMSD

Prep Date: 7/8/2015

SampType: MSD

TestCode: EPA Method 7470: Mercury

Client ID: Injection Well Batch ID: 20158

RunNo: 27365

118

Prep Date:

7/8/2015

Analysis Date: 7/8/2015

0.0010

SegNo: 820638

Units: mg/L

Analyte Mercury

Result 0.0058

0.0059

SPK value SPK Ref Val PQL

0.005000

%REC 116 LowLimit 75 HighLimit 125 %RPD 1.62

%RPD

RPDLimit

Page 15 of 20

Qual 20

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Η Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RPD outside accepted recovery limits R

В Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Sample pH Not In Range

Reporting Detection Limit RL

P

Qualifiers:

S % Recovery outside of range due to dilution or matrix

Hall Environmental Analysis Laboratory, Inc.

WO#: 1507094

06-Aug-15

Client:

Western Refining Southwest, Inc.

Project:

Injection Well 7-1-15

Project:	Injecti	on Well 7-1-15								
Sample ID	MB-20102	SampType: I	/BLK	Tes	tCode: EF	PA 6010B: 1	Total Recover	able Meta	ls	
Client ID:	PBW	Batch ID: 2	20102	7	RunNo: 27	7378				
Prep Date:	7/6/2015	Analysis Date:	7/9/2015	S	SeqNo: 8	21352	Units: mg/L			
Analyte		Result PQL	. SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLImit	Qual
Arsenic		ND 0.02								
Barium		ND 0.02								
Calcium		ND 1.								
L.ead		ND 0.005								
Magnesium		ND 1.								
Potassium		ND 1.								
Sodium		ND 1.	0							
Sample ID	LCS-20102	SampType: I	_cs	Tes	tCode: El	PA 6010B: "	Total Recover	able Meta	als	
Client ID:	LCSW	Batch ID: 2	20102	F	RunNo: 2	7378				
Prep Date:	7/6/2015	Analysis Date:	7/9/2015	8	SeqNo: 8	21353	Units: mg/L			
Analyte		Result PQI	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		0.52 0.02	0.5000	0	103	80	120			
Barium		0.49 0.02	0.5000	0	98.5	80	120			
Calcium		51 1.		0	102	80	120			
Lead		0.50 0.005		0	100	80	120			
Magnesium		50 1.		0	101	80	120			
Potassium		48 1.		0	96.8	80	120			
Sodium		49 1.	0 50.00	0	98.9	80	120			
Sample ID	MB-20102	SampType: I	MBLK	Tes	tCode: E	PA 6010B:	Total Recover	able Met	als	
Client ID:	PBW	Batch ID: 2	20102	F	RunNo: 2	7491				
Prep Date:	7/6/2015	Analysis Date:	7/14/2015	\$	SeqNo: 8	24974	Units: mg/L			
Analyte		Result PQI	. SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium		ND 0.006	0							
Sample ID	LCS-20102	SampType: I	LCS	Tes	stCode: E	PA 6010B:	Total Recove	rable Met	als	
Client ID:	LCSW	Batch ID: 3	20102	ŀ	RunNo: 2	7491				
Prep Date:	7/6/2015	Analysis Date:	7/14/2015	;	SeqNo: 8	24975	Units: mg/L			
Analyte		Result PQI	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium		0,49 0.006			98.5	80	120			
Sample ID	MB-20102	SampType:	MBLK	Tes	stCode: E	PA 6010B:	Total Recove	rable Met	als	
Client ID:	PBW	Batch ID:			RunNo: 2					
Prep Date:		Analysis Date:			SeqNo: 8		Units: mg/L			
Analyte		Result PQ		SPK Ref Val		LowLimit	HighLimit	%RPD	RPDLimit	Qual

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Page 16 of 20

- P Sample pH Not in Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1507094

06-Aug-15

Client:

Western Refining Southwest, Inc.

Project:

Injection Well 7-1-15

Sample ID MB-20102	Samp [*]	Type: MI	BLK	Tes	tCode: El	PA 6010B:	Total Recover	able Meta	als	
Client ID: PBW	Bato	h ID: 20	102	F	RunNo: 2	7540				
Prep Date: 7/6/2015	Analysis I	Date: 7/	16/2015	S	SeqNo: 8	26932	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	ND	0.0020								
Selenium	ND	0.050								
Silver	ND	0.0050			•					

Sample ID LCS-20102	SampType	: LCS	Tes	tCode: EI	PA 6010B:	Total Recover	able Meta	ıls	
Client ID: LCSW	Batch ID:	20102	F	RunNo: 2	7540				
Prep Date: 7/6/2015	Analysis Date:	7/16/2015	8	SeqNo: 8	26933	Units: mg/L			
Analyte	Result Po	QL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50 0.00	020 0.5000	0	101	80	120			
Selenium	0.50 0.0	0.5000	0	99.7	80	120			
Silver	0.10 0.00	0.1000	0	105	80	120			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#:

1507094

06-Aug-15

Client:

Western Refining Southwest, Inc.

Project:

Injection Well 7-1-15

Sample ID 1507094-001b dup Client ID: Injection Well

SampType: DUP

Analysis Date: 7/6/2015

TestCode: SM4500-H+B: pH

Batch ID: R27329

RunNo: 27329 SeqNo: 819204

Units: pH units

Prep Date:

PQL.

RPDLImit

Qual

Analyte

Result

SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD

Н

7.46 1.68

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded H

Not Detected at the Reporting Limit ND

RPD outside accepted recovery limits R

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

Value above quantitation range

J Analyte detected below quantitation limits

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P Sample pH Not In Range

Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#:

1507094

06-Aug-15

Qual

Client:

Western Refining Southwest, Inc.

Project:

Injection Well 7-1-15

Sample ID	mb-1
Client ID:	PBW

SampType: MBLK Batch ID: R27329 TestCode: SM2320B: Alkalinity

RunNo: 27329

%RPD

Prep Date:

Client ID:

Analysis Date: 7/6/2015

SegNo: 819128

Units: mg/L CaCO3

HighLimit

Analyte Total Alkalinity (as CaCO3)

Sample ID Ics-1

Result **PQL** ND 20.00

TestCode: SM2320B: Alkalinity

Batch ID: R27329

SampType: LCS

RunNo: 27329

Prep Date: Analyte

LCSW

PBW

Analysis Date: 7/6/2015

SeqNo: 819129 LowLimit Units: mg/L CaCO3

Qual %RPD **RPDLimit**

RPDLimit

Total Alkalinity (as CaCO3)

PQL Result 78.36 20.00

SPK value SPK Ref Val %REC 80.00 98.0

SPK value SPK Ref Val %REC LowLimit

HighLimit 110

90

Sample ID mb-2

SampType: MBLK Batch ID: R27329

TestCode: SM2320B: Alkalinity RunNo: 27329

Units: mg/L CaCO3

Client ID: Prep Date:

Analysis Date: 7/6/2015 **PQL**

SeqNo: 819152 SPK value SPK Ref Val %REC LowLimit

HighLimit %RPD

RPDLimit Qual

Analyte Total Alkalinity (as CaCO3)

ND 20.00

Result

Result

79.44

TestCode: SM2320B: Alkalinity

Sample ID Ics-2 SampType: LCS Client ID: LCSW

Batch ID: R27329

RunNo: 27329 SegNo: 819153

Units: mg/L CaCO3

Prep Date: Analyte

Analysis Date: 7/6/2015

0

SPK value SPK Ref Val %REC LowLimit 90

%RPD HighLimit

RPDLimit Qual

Total Alkalinity (as CaCO3)

PQL 20,00

80.00

99.3

110

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix S
- Analyte detected in the associated Method Blank В
- Value above quantitation range Е
- Analyte detected below quantitation limits J
- Sample pH Not In Range P
- Reporting Detection Limit

Page 19 of 20

Hall Environmental Analysis Laboratory, Inc.

WO#:

1507094 06-Aug-15

Client:

Western Refining Southwest, Inc.

Project:

Injection Well 7-1-15

Sample ID MB-20129

SampType: MBLK

TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: PBW

Batch ID: 20129

RunNo: 27360

Prep Date: 7/7/2015

LCSW

Analysis Date: 7/8/2015 **PQL**

SeqNo: 820297

Units: mg/L

HighLimit

SPK value SPK Ref Val %REC LowLimit

RPDLimit

Qual

Analyte Total Dissolved Solids

ND 20.0

Sample ID LCS-20129

SampType: LCS Batch ID: 20129 TestCode: SM2540C MOD: Total Dissolved Solids

RunNo: 27360

SeqNo: 820298

Units: mg/L

Analyte

Client ID:

Analysis Date: 7/8/2015 Result

Result

PQL

SPK value SPK Ref Val %REC LowLimit 0

101

HighLimit 120 %RPD

%RPD

Prep Date: 7/7/2015

20.0

Total Dissolved Solids

1010

80

RPDLimit

Qual

1000

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix Holding times for preparation or analysis exceeded H

% Recovery outside of range due to dilution or matrix

Not Detected at the Reporting Limit ND RPD outside accepted recovery limits R

Analyte detected in the associated Method Blank

E Value above quantitation range

J

P Sample pH Not In Range

Reporting Detection Limit

Analyte detected below quantitation limits Page 20 of 20

MALL ENVIRONMENTAL ANALYSIS LABORATORY

ими илуп отпенци лишува каоот тогу

4901 Hawkins NE Albuquerque, NM 87109

TEL; 505-345-3975 FAX; 505-345-4107 Website; www.hallenvironmental.com

Sample Log-In Check List

ReptNo: 1 Western Refining Southw Work Order Number: 1507094 Client Name: 07/02/18 Received by/date: an Sham 7/2/2015 7:00:00 AM Logged By: **Anne Thorne** 7/2/2015 Completed By: **Anne Thorne** Reviewed By: Chain of Custody No 🗆 Yes 🗔 Not Present 🗹 1. Custody seals intact on sample bottles? Yes 🗸 No 🗌 Not Present 2. Is Chain of Custody complete? 3. How was the sample delivered? Courier Log In No 🗌 NA 🗔 Yes 🗸 4. Was an attempt made to cool the samples? NA 🗆 No 🔲 5. Were all samples received at a temperature of >0° C to 6.0°C Yes 🗹 No 🗌 Yes 🗸 6. Sample(s) in proper container(s)? Yes 🗹 No 🔲 7. Sufficient sample volume for indicated test(s)? No 🗆 V 8. Are samples (except VOA and ONG) properly preserved? Yes Yes 🗌 No 🗸 NA 🗆 9. Was preservative added to bottles? No 🗌 No VOA Viais 🗹 Yes 🗌 10.VOA vials have zero headspace? Yes \square No 🗹 11. Were any sample containers received broken? # of preserved bottles checked No 🗌 for pH: Yes 🔽 12. Does paperwork match bottle labels? 12)unless noted) (Note discrepancies on chain of custody) Adjusted* Yes 🗹 No 🗌 13. Are matrices correctly identified on Chain of Custody? No 🗀 14. Is it clear what analyses were requested? No 🗌 Checked by Yes 🔽 15. Were all holding times able to be met? (If no, notify customer for authorization.) Special Handling (if applicable) NA 🗹 Yes 🗌 16. Was client notified of all discrepancies with this order? No 🗌 Person Notified: Date By Whom: Via: ☐ eMail Phone Fax In Person Regarding: Client Instructions: 17. Additional remarks: 18. Cooler Information Seal Intact | Seal No Seal Dâte Cooler No Temp °C Condition Signed By 1.0 Good Yes

HALL ENVIRONMENTAL	ANALYSIS LABORATORY	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107	Analysis Request	0 ⁴) (Κ ≤0)	1004'2 2004 2004 3004 3004 3004	HTPH (A)	BE (GF)	ITM + X=TB HTM + X=TB B3 t 08 HqT Hqf Hqhhqhqhqhqhqhqhqhqqqqqqqqqqqqqqqqqq		X	X		*	**	×	*		Remarks:		
Turn-Around Time:	X Standard Rush	Project Name:	Injection Well 7-1-15	Project #:	PO# 12610939	Project Manager:		Sampler: Bbb On co. Kines Ranko	Sample Tiengeratine	Container Preservative HEAL No Type and # Type	5-40A HCI -201	1-liter amber -od	1- Segm/	1-500 ml	1-125m H2504 -00	1-500m1 HNO3 -00	1-50ml NaOff 7001	1-500m ZN acetete -00		Received by: Date Time	Date 77	
stody Record	Client Weslern (Ketining		Mailing Address: #50 CR 4990	3	Phone #: 525-632-1/25	email or Fax#:	OA/QC Package: M Standard Carrel Carrel	n □ Other	□ EDD (Type)	Matrix Sample Request ID	7-1-15 9:00 Has injection well					- ·				Date: Time: Relinquished by:	Time: Relinquished by	This in Allenan

	,	

NON-HAZARDOUS WASTE MANIFEST

	Plea	se print or type (Form designed for use on elite (12 pitch) typewriter)									
		NON-HAZARDOUS	Manifest		2.	Page 1	2					
		WASTE MANIFEST NMDO89416416							BLM -	1	of	l '
		3. Generator's Name and Mailing Address										
		WESTERN REFINING SOUTHWEST, INC.										
		50 CR 4990	31 HOSESI, THE	~,								
		BLOOMFIELD, NM 87413 4. Generator's Phone (888) 658 - 80	b									
		4. Generator's Phone (888) 658 - 80										
		5. Transporter 1 Company Name		6.	US EPA ID Numbe	er		A. State Trans	porter's ID			
				1				B. Transporter	1 Phone			
		7. Transporter 2 Company Name		8.	US EPA ID Numbe	ər		C. State Trans		×		
		1. Handpotter 2 Company Name		I.	20 11 71 11 11011	-1		The state of the s				
				<u> </u>				D. Transporter				
		9. Designated Facility Name and Site Address		10,	US EPA ID Numb	er		E. State Facili	ty's ID			
		AGUA MOSS CLASS I	- WELL									
		#345 CR \$50						F. Facility's Pr	ione			
		FARMINGTON, NM 874	2/	ı	÷			(505)	334- W	86		
		11. WASTE DESCRIPTION ·					12. Co	ntainers	13.	-	14	4.
		TI. WASTE BESCHIE FION					No.		Total Quantity		Un - Wt./	nit Mal
					CONTRACTOR		NO.	Type	Quartity	- 5	VVLI	VOI.
		a.										
		NON-HAZARDOUS, NON	- D.O. I KEG	U UAT	LED FIGOR	บ	1	TRUCK			BB	<u>.</u> ا
		(TREATED WATER	- NON-EXE	MPT	WATER			7. V				
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WASTE		G. Additional Descriptions for Materials Listed Above	1 1					H. Handling C	odes for Wastes Listed	Above		
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-HAZARDOUS												
N		15. Special Handling Instructions and Additional Info	rmation	ν.								
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NON												
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	-											
		16. GENERATOR'S CERTIFICATION: I hereby cert in proper condition for transport. The materials de	ify that the contents of this	shipment	are fully and accurately	y described a	and are in	all respects				
		propor containen for transporte frie materiale d			,		,	. 5				
											Date	
		Printed/Typed Name	A PROPERTY OF THE	1	Signature					Month	Day	Year
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	T	17. Transporter 1 Acknowledgement of Receipt of M	atariale						**************************************	1	Doto	
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19	N	Printed/Typed Name			Signature	A.				Month	Day	Year
	RAZSCORFER				VALUE OF THE OWNER OWNER OF THE OWNER OWN							
h	Ö	18. Transporter 2 Acknowledgement of Receipt of M	aterials								Date	
	T	Printed/Typed Name			Signature					Month	Day	Year
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		19. Discrepancy Indication Space	•				- Company of the Comp					
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	C							*				
	1	20. Facility Owner or Operator; Certification of receip	t ot the waste materials co	overed by the	nis manifest, except as	s noted in ite	m 19.		12	-		
	I										Date	
	T	Printed/Typed Name	,		Signature					Month	Day	Year
	Y									1	- 1	

RETURN COMPLETED COPY TO WESTERN REFINING

PRINTED ON RECYCLED PAPER SOV INK.

Transportation Tracker for Treated Water Shippments

Manifest No.	Transporter	Quantity (bbls)	Date Shipped	Time Shipped
BLM - 1	D-TRX	140	10-26-15	GIOAN
BLM - 2	D-Trix	130	10-26-15	9150
BLM - 3	D-Trix	140	10-26-15	11:00
BLM - 4	D-Tris	170	60-26-15	11:45
BLM - 5	D-Tria	170	11-26-15	1117 Pm
BLM - 6	D- Trix	140	10-26-15	1:50
BLM - 7	D-Tria	130	10-26-15	2157
BLM - 8	DaTrix	140	10-26-15	3:55
BLM - 9	D-Trix	130	10-26-15	4121 Pm
BLM - 10	D-trix	130	12-27-15	6:30 Am
BLM - 11	D-Trix	140	10-27-15	7:00 AM
BLM - 12	0-tasx	130	10-27-15	8135 Am
BLM - 13	D-Trik	140	10-27-15	9:13 AM
- BLM - 14	A-trik	130	10-27-15	10:25 AM
BLM - 15	D-Trix	140	10:07-15	11:00AM
BLM - 16	D-trix	130	10-27-15	12:15 PM
BLM - 17	D- Trix	140	10-27-15	1Z:SOPM
BLM - 18	D-trix	130	10-27-15	21,00 PM
BLM - 19	D-Trix	140	10-27-15	2:50 PM
BLM - 20	D-trix	130	12-27-15	3,45 Pm
BLM - 21	O-trix	130	18-28-15	6:40 Am
BLM - 22	D-Trix	140	10-08-15	2:15
BLM - 23	D-Trix	130	10-28-15	8:30 Am
BLM - 24	D-Trix	140	10-28-15	9:15
BLM - 25	D- trix	130	10-28-15	010:20 A
BLM - 26	D-Trix	140	10-28-15	11:00 AM
BLM - 27	O- trix	130	10-28-15	12:05 PM
BLM - 28	D-Trix	140	10-28-15	12:55 PM
BLM - 29	D-trix	130	10-28-15	2:00 PM
BLM - 30	D-Trix	140	10-28-15	3:00 PM
BLM - 31	O-trix	130	10-28-15	3:55 PM
BLM - 32	D-Trix	140	10-28-15	,
BLM - 33	D-trix	130	10-29-15	6140 Am
	D-Trix	140		7:35 AM

Return Completed Sheet to HSER

Treated Water Shippment Tracker to Agua Moss Class I Well

Manifest No.	Transporter	Quantity (bbl)	Date	Time
BLM-35	D-trix	130	10-29-15	8:35
BLM-36	D-Trix	140	10-29-15	9:40
BLM-37	P-trix	130	10-29-15	10:20
BLM-38	D-Trix	140	10-29-15	11:30
BLM-39	D- trix	130	10-29-15	12:05
BLM-40	D-Trix	140	10-29-15	1:30
BLM-41	O-trix	130	10-29-15	2,05
BLM-42	D-Trix	140	10:09-15	3:15
BLM-43	D-trix	130	10-29-15	4:10
BLM-44	D-trix	130	10-30-15	6,20
BLM-45	D-Trix	140	10-30-15	6:55
BLM-46	D- trix	130	10-30-15	8:20
BLM-47	D-Trix	HO	10-30-15	8:55
BLM-48	D- trix	130	10-30-15	10:00
BLM-49	D-Trix	140	10-30-15	10:50
BLM-50	O-tax	130	10-30-15	11:35
BLM-51	D-Trix	140	10-30-15	12:45
BLM-52	O-trix	130	10-30-15	1120
BLM-53	D. Trix	140	10-30-15	2:30
BLM-54	10-trix	130	10-30-15	3:15
BLM-55	p-trix	130	10-31-15	6:25
BLM-56	D-Trix	140	10-31-15	1:00
BLM-57	10-toix	130	10-31-15	9:25
BLM-58	D-Trix	140	10-31-15	10:50
BLM-59	D-trix	130	10-31-15	11,35
BLM-60	D-Trux	140	10-31-15	12:45
BLM-61	D-trix	130	10-31-15	1:15
BLM-62	D-Tax	140	10.31.15	0:30
BLM-63	D-trix	130	10-31-15	3:10
BLM-64	P-taix	130	11-2-15	6:50A
BLM-65	D-Trix	140	11-2-15	7:50
BLM-66	p-trix	130	11-2-15	8:40
BLM-67	D-Trix	140	11-2-15	9:40
BLM-68	n-trix	(30	11-2-13	10:20
BLM-69	Ď-Trix	140	11-2-15	11:25
BLM-70	O-trix	130	11-2-15	12100

Treated Water Shippment Tracker to Agua Moss Class I Well

Manifest No.	Transporter	Quantity (bbl)	Date	Time
BLM-71	D-Trik	140	11-2-15	1:20
BLM-72	D-trix	130	11-2-15	2150
BLM-73	D-Trix	IMO	11.0-15	3:00
BLM-74	D-trix	130	11-2-15	3:40
BLM-75	D-Trix	126	11-3-15	6:43
BLM-76	D-Triv	140	11.3-15	7:15
BLM-77	D-Trix	120	11-3-15	8113
BLM-78	D-Trix	140	11-3-15	8:55
BLM-79	D-Trex	120	11-3-15	9141
BLM-80	D- Trix	140	11-3-15	10:45
BLM-81	D-Trex	120	11-3-15	11:13
BLM-82	D. Trix	140	11.3-15	12:35
BLM-83	D-Trix	120	11-3-15	1100
BLM-84	D-trix	130	11-4-15	7:10 Am
BLM-85	D-Trix	140	11-4-15	8:05
BLM-86	O-trix	130	11-4-15	9:00
BLM-87	D. Triv	140	11-4-15	10:00
BLM-88	D-trix	130	11-4-15	10:40
BLM-89	D-Trix	140	11-4-15	11:55
BLM-90	O-trix	130	11-4-15	12:30
BLM-91	D-Trix	140	11-4-15	1:50
BLM-92	D-trix	130	11-4-15	2:20
BLM-93	D-Trix	140	11-4-15	3:40
BLM-94	n-trix	130	11-4-15	4:10
BLM-95	D-trix	130	11-5-15	6:30
BLM-96	D-trix	130	11-5-15	81,20
BLM-97	D-Trix	140	11-5-15	8:55
BLM-98	D-trix	130	11-5-15	10:10
BLM-99	D-Trix	140	11-5-15	11:35
BLM-100	D-frix	130	11-5-15	12:35
BLM-101	D-Trix	140	11-5-15	1:30
BLM-102	D-trix	(30	11-5-15	2120

Treated Water Shippment Tracker to Agua Moss Class I Well

		Quantity		Hiran Bi
Manifest No.	Transporter	(bbl)	Date	Time
BLM-103 /	D-Trix	120	11-10-15	8:14
BLM-104	D-Trix	140	11-10-15	9:25
BLM-105	D-Trix	120	11-10-15	9:54
BLM-106	D-Trix	140	11-10-15	11:15
BLM-107	D-Trix	120	11-10-15	11:47
BLM-108	D-Trik	140	11-10-15	1:00
BLM-109	D-Thix	120	11-10-15	1:36
BLM-110	O-Trix	140	11-10-15	3:00
BLM-111	D-Trix	120	11-10-15	3130
BLM-112	D-Trix	120	11-11-15	6135
BLM-113	D-Trix	140	11-11-15	7:25
BLM-114	D-Trix	120	11-11-15	8110
BLM-115	D-Teix	130	11-11-15	8:35
BLM-116	D-Trix	IHO	11-11-15	9:25
BLM-117	D-Trix	120	11-11-15	9:55
BLM-118	& J.Trix	190	11-11-15	10:25
BLM-119	D-Trix	140	11-11-15	11:20
BLM-120	D-Trix	120	11-11-15	11:45
BLM-121	O-Toix	130	11-11-15	12:10
BLM-122	D-Trix	140	11-11-15	1:10
BLM-123	D-Trix	130	11-11-15	1:58
BLM-124	D-Trix .	140	11-11-15	3:25
BLM-125	0-Trix	130	11-11-15	4:00
BLM-126	D-Trix	120	11-12-15	6:38
BLM-127	D-Trik	140	11-12-15	7:10
BLM-128	D-Tvix	120	11-12-15	8115
BLM-129	D-Triv	140	11-12-15	9:05
BLM-130	D-Trix	120	11-12-15	9147
BLM-131	D-Trix	140	11-12-15	10:50
BLM-132	D-Trix	120	11-12-15	11:43
BLM-133	D-trix	130	11-12-15	12:40
BLM-134	D-Trix	140	11-12-15	1:25

Manifest NO.	Transporter	Quantity (bbl)	Date	Time
BLM-103	D-Trik	140	11-5-15	3:35
BLM-104	O-drix	130	11-5-15	4:15
BLM-105	D-trix	130	11-6-15	6:20
BLM-106	D-Trix	140	11-6-15	6:55
BLM-107	D-to'x	130	11-6-15	8,25
BLM-108	DiTrix	140	11-6-15	9:05
BLM=109	0-46'X	130	11-6-15	M:10
BLM-110	D-Trix	140	11-6-15	111:00
BLM-111	D-Trix	140	11-6-15	12:50
BLM-112	D-Trix	140	11-6-15	3:45
BLM-113	D-Trik	IHO	11-7-15	6:45
BLM-114	n-Trix	130	11-7-15	9:00 Am
BLM-115	D-Trik	140	11.7.15	9:30
	0	1		<u> </u>
BLM-116	A-Trex	130	11-17-15	10:50
BLM-117	D-Trix	140	11-7-15	11:30
BLM-118	DTOK	140	11-7-15	1:35
BLM-119	D-Trix	130	11-7-15	@ 2:30
BLM-120	D-Trix	140	11.7-15	3:50
BLM-121	D-TVIV	120	11-9-15	#16:47
BLM-122	O-Trix	140	11-9-15	17:30
BLM-123	D-Tulk	120	11-9-15	8127
BLM-124	D-Tr:X	140	11-9-15	B.9:25
BLM-125	D-Trix	120	11-9-15	9:57
BLM-126	O-Trix	140	11-9-15	Oct 11
BLM-127	D-Trix	120	11-9-15	11:57
BLM-128	D-Trex	120	11-9-15	1130
BLM-129	D-Trux	120	11-9-15	3107
BLM-130	D-Trix	120	11-9-15	4:30
BLM-131	D-Trix	120	11-10-15	6:39
BLM-132	D-Trix	140	11-10-15	7:15
BLM-133				
BLM-134				
BLM-135				
BLM-136				
BLM-137				
BLM-138				
BLM-139				
BLM-140				
BLM-141				

Treated Water Shippment Tracker to Agua Moss Class I Well

Manifest No.	Transporter	Quantity (bbl)	Date	Time
BLM-135	D-Trik	140	11-12-15	3:15
BLM-136	D-Trix	140	11-13-15	6:55
BLM-137	D-TRIX	130	11-13-15	7:35
BLM-138	D-toix	120	11-13-15	8140
BLM-139	DiTrix	140	11-13-15	9:20
BLM-140	D-TRX	130	11-13-15	9:55
BLM-141	D-frix	120	11-13-15	10:50
BLM-142	D-Trix	IHO	11-13-15	11:25
BLM-143	D-TRIX	130	11-13-15	1205
BLM-144 .	D-trix	120	11-13-15	12:45
BLM-145	D-TRX	130	11-13-15	1:45
BLM-146	D-Trix	140	11-13-15	2:45
BLM-147	D-trix	120	11-13-15	3:30
BLM-148	D-trix	120	11-14-15	6:45
BLM-149	PTRIX	130	11-14-15	7:10
BLM-150	D-Trix	IHO	11-14-15	7:50
BLM-151	D- Hrix	120	11-14-15	81,30
BLM-152	D-TRIX	130	11-14-15	7:00
BLM-153	D-Trik	140	11-14-15	9:35
BLM-154	D-trix	120	11-14-15	10:20
BLM-155	D-TRIX	130	11-14-15	10:40
BLM-156	D-Trix	140	11-14-15	11:20
BLM-157	10-trix	120	11-14-15	12,00
BLM-158	D-TRIX	130	11-14-15	12:30
BLM-159	D-Trix	140	11-14-15	1:05
BLM-160	D-trix	120	11-14-15	1140
BLM-161	D-TRIX	130	11-14-15	210
BLM-162	D-Trix	140	11-14-15	2:55
BLM-163	D-trix	120	11-14-15	3:30
BLM-164	D-TRIX	130	11-14-15	4:00
BLM-165	D-Trix	120	11-16-15	6138
BLM-166	D-Trix	130	11-14-15	7:05

Manifest No.	Transporter	Quantity (bbl)		Time
BLM-167	D'Trix	140	11/16/15	7:45
BLM-168	D'Trix	120	11-16-15	8114
BLM-169	D'Trix	130	11-16-15	9:00
BLM-170	D'Trix	140	11-16-15	9135
BLM-171	D'Trix	120	11-16-15	10108
BLM-172	D'Trix	130	11-16-15	10:40
BLM-173	D'Trix	140	11-16-75	11:20
BLM-174	D'Trix	120	11-14-15	11:59
BLM-176	D'Trix	130	11-16-15	12:25
BLM-177	D'Trix	140	11-16-15	1:05
BLM-178	D'Trix	120	11-16-15	1136
BLM-179	D'Trix	130	11-16-15	2:00
BLM-180	D'Trix	140	11-16-15	245
BLM-181	D'Trix	120	11-16-15	3112
BLM-182	D'Trix	130	11-16-15	3:40
BLM-183	D'Trix	130	11-17-15	6:05
BLM-184	D'Trix	120	11-17-15	6:34
BLM-185	D'Trix	140	11-17-15	2:00
BLM-186	D'Trix	130	11-17-15	7:45
BLM-187	D'Trix	120	11-17-15	8133
BLM-188	D'Trix	140	11-17-15	9:00
BLM-189	D'Ţrix	130	11-17-15	9:25
BLM-190	D'Trix	120	11-17-15	9:56
BLM-191	D'Trix	140	11-17-15	10:40
BLM-192	D'Trix	130	11-17-15	11:05
BLM-193	D'Trix	120	11-17-15	11:32
BLM-194	D'Trix	140	11-17-15	1215
BLM-195	D'Trix	130	11-17-15	Q:45
BLM-196	D'Trix	120	11-17-15	1:15
BLM-197	D'Trix	140	11-17-15	2,00
BLM-198	D'Trix	130	11-17-15	2:20
BLM-199	D'Trix	120	11-17-15	2151
BLM-200	D'Trix	140	11-17-15	3:40

Manifest No.	Transport	Quantity	Date	Time
BLM-201	D-Trix	130	11-17-15	4:10
BLM-202	DITCIK	130	11-18-15	6:10
BLM-203	17-TRIX	131)	11-18-15	B: 30
BLM-204	O-trix	140	11-18-15	7:10
BLM-205	DTrix	130	11-18-15	7:40
BLM-206	D-TRIX	130	11-18-15	805
BLM-207	O-trix	140	11-18-13	8,20
BLM-208	D-Trix	130	11-18-15	9:15
BLM-209	O-TRIX	130	11-18-15	9:40
BLM-210 `	n-trix	140	11-18-15	10:45
BLM-211.	DTrix	130	11-18-15	11:10
BLM-212	D-TRX	130	11-18-15	11:35
BLM-213	D-toix	140	11-18-15	12:30
BLM-214	D-Trix	130	11-18-15	1:00
BLM-215	D-TRIX	130	11-18-15	1:30
BLM-216	D-Trix	120	11-18-15	1156
BLM-217	D-Trix	130	11-18-15	2:45
BLM-218	DTR,X	130	11-18-15	445
BLM-219	D-Trix	130	11-19-15	6:10
BLM-220	O-trix	140	11-19-15	6:45
BLM-221	D-TRX	130	11-19-15	7:05
BLM-222	D-Trix	130	11-19-15	7:55
BLM-223	D-frix	140	11-19-15	835
BLM-224	O-TRIX	130	11-18-15	850
BLM-225	D-Trik	130	11-19-15	9:20
BLM-226	D-trix	140	11-19-15	10:20
BLM-227	D-TRIX	130	11-19-15	10:40
BLM-228	D-Trix	130	11-19-15	11:10
BLM-229	D-trix	140	11-19-15	12:05
BLM-230	D-TRIX	130	11-19-15	12:30
BLM-231	D-Trix	130	11-19-15	12:50
BLM-232	Otrix	140	1:1-19-15	1:45
BLM-233	O-TRIX	130	11-1915	2:10
BLM-234	D-Trix	130	11-19-15	2:40
BLM-235	D-trix	140	11-19-15	3:35
BLM-236	D-TRIX	130	11-19-15	400
BLM-237	D-HIX	140	11-20-15	5:05
BLM-238	D-Trik	130	11-20-15	6:10
BLM-239	D-TRIX	130	11-20-15	6:30
BLM-240	D-Trix	130	11-20-15	7:35
BLM-241	O-fitx	140	11-20+15	8:00

Manifest No.	Transport	Quantity	Date	Time
BLM-242	D-TR,X	130	11-20-15	8:20
BLM-243	D-Trix	130	11-20-15	9:00
BLM-244	10-trix	140	11-20-15	9:30
BLM-245	D-TRIX	130	11-20-15	10:00
BLM-246	D-Trix	130	11-20-15	10:05
BLM-247	D-trix	140	11-20-15	11100
BLM-248	DIRIV	130	11-20-15	11:25
BLM-249	DiTric	130	11-20-15	11:55
BLM-250	U-fulx	140	11-20-15	12:35
BLM-251	DTRX	130	11-20-15	1100
BLM-252	D-Trix	130	11-20-15	1:25
BLM-253	D-trix	140	11-20-15 -	2:05
BLM-254	OTR X	130	11-20-15	230
BLM-255	DTrix	130	11-20-15	2:55
BLM-256	D-trix	140	11-20-10	3:35
BLM-257	D-TRIX	/3/	11-20-15	405
BLM-258	D-Trix	130	11-201-15	6115
BLM-259	DTRIX	130	11-21-15	6:35
BLM-260	D-trix	140	11-21-15	7:10
BLM-261	Ditrix	130	11-21-5	7:45
BLM-262	D-TRIX	130	11-21-15	10:00
BLM-263	D-trix	140	11-21-15	11:05
BLM-264	DTrix	130	11-21-15	11:30
BLM-265	D-TRIX	130	11-21-15	11:50
BLM-266	0-4n'x	140	11-21-15 1	2:40
BLM-267	DiTrix	130	11-21-15	1:05
BLM-268	D-TR.V	130	11-21-15	1125
BLM-269	D-trix	140	11-21-15	2120
BLM-270	D-Trix	130	11-21-15	2:45
BLM-271	D-TRIX	130	11-21-15	3:05
BLM-272	()- +(1) X	140	11-21-15	3,55
BLM-273	D-4vix	130	11-22-15	7/30
BLM-274	D-TRIX	130	11-22-15	7.55
BLM-275	D-TVIK	120	11-22-15	8(2)
BLM-276	15-4cix	ا کو ا	11-22-15	9:00
BLM-277	VIR,X	130	11-22-15	7125
BLM-278	D-Trix	120	11- 22-15	11,22
BLM-279	Prux	130	11-22-15	10:30
BLM-280	MTRIX	130	11-22-15	10:50
BLM-281	D-IM	120	11-22-15	11:14
BLM-282	10-418	<u> </u>	11-22-13	111:30

Manifest No.	Transport	Quantity	Date	Time
BLM-283	D-TRIX	130	11-22-15	12:10
BLM-284	DITTUIX	120	11-22-15	12137
BLM-285	D-trix	130	11-22-15	1,20
BLM-286	DIRIV	130	11-22-15	1:40
BLM-287	D-Trix	127)	11-22-15	2:06
BLM-288	D-trix	130	11-22-15	2150
BLM-289	D-TRIX	130	11-22-15	3/0
BLM-290	D-Trix	140	11-03-15	6:20
BLM-291	OTRIX	130	11-23-15	6:50
BLM-292	D-Tuix	130	11-23-15	7:12
BLM-293	D. Triv	140	11-23-15	8:10
BLM-294	D-Tux	1376	11-23-15	8:39
BLM-295	D-TRIX	130	11-23-15	9:00
BLM-296	D-Trik	140	11-23-15	9:50
BLM-297	DITHIX	130	11-23-15	10112
BLM-298	D-TRIX	130	11-23-15	10:30
BLM-299	D-Trix	140	11-23-15	11.25
BLM-300	D-Trix	130	11-23-15	11:49
BLM-301	D-TRIX	138	11-23-15	1210
BLM-302	D-Trix	140	11-23-15	1:00
BLM-303	D-Trix	130	11-23-15	1:22
BLM-304	17-TRIX	130	11-23-15	1150
BLM-305	D-Trik	140	11-23-15	2:35
BLM-306	DTWK	130	11-23-15	3:00
BLM-307	D-TRIX	130	11-23-15	3:20
BLM-308	D-Trix	140	11-24-15	6:15
BLM-309	DAPIK	E130	11-24-15	6:45
BLM-310	Dririx	140	11-24-15	1:55
BLM-311	DINIX	130	11-24-15	8:28
BLM-312	DTrix	140	11-24-15	9:25
BLM-313	DTAK	130	11-24-15	10:06
BLM-314	DTRIX	190	11-24-15	10:35
BLM-315	D-Trix	IHO	11-24-15	11:00
BLM-316	DIPIX	130	11-29-15	4.42
BLM-317	D-TRIX	130	11-7-4-15	12:05
BLM-318	D-Trix	140	11-24-15	12:35
BLM-319	Droix	130	11-24-15	1:17
BLM-320	11-TRIX	130	11-24-15	1:40
BLM-321	D-Trix	140	11-24-15	2:00
BLM-322	1-Trix	130	11-24-15	12/55
BLM-323	UTRIX	130	1124-15	3//5

Manifest No.	Transport	Quantity	Date	Time
BLM-324	DiTrix	140	11-24-15	3:55
BLM-325	D-Trix	140	11-25-15	6:10
BLM-326	D-TRIX	130	11-25-15	6:35
BLM-327	D-trix	130	11-25-15	7:00
BLM-328	D-Trix	iHO	11-25-15	7:45
BLM-329	OTRIV	130	11-25-15	8:05
BLM-330	D-trix	130	11-25-15	8130
BLM-331	D-Trix	140	11-25-15	9:15
BLM-332	D-TRX	130	11-25-15	9:40
BLM-333	D-trix	130	11-25-15	10:05
BLM-334	D Triv	140	11-25-15	10:50
BLM-335	D-TRIX	130	11-25-15	11:15
BLM-336	D-trix	130	11-25-15	11:40
BLM-337	DiTrix	140	11-25-15	12:30
BLM-338	DIRX	130	11-25-15	12:45
BLM-339	D-Trix	126	11-25-15	1105
BLM-340	10- tri x	130	11-25-15	1:25
BLM-341	D-TRIX	130	11-25-15	2:15
BLM-342	D-TVIX	120	11-25-15	2137
BLM-343	D-Trix	140	11-25-15	3:00
BLM-344	D-to'x	130	11-25-15	3125
BLM-345	D-TRIX	130	11-25-15	31:45
BLM-346	D-TRIX	130	11-27-15	6:05
BLM-347	DITTIL	140	11-27-15	6:35
BLM-348	DIRIX	130	11-27-15	7:55
BLM-349	D-Trix	140	11-27-15	8:25
BLM-350	DIRIX	130	11-27-15	9:20
BLM-351	DITTIX	140	11-27-15	10:00
BLM-352	D-TRIX	130	11-27-15	10:50
BLM-353	D-Trix	140	11-27-15	11:35
BLM-354	D-Trix.	130	11-27-15	12:00
BLM-355	D-TRIX	130	11-27-15	12:25
BLM-356	D-Trick	120	11-27-15	12:48
BLM-357	D-Trix	140	11-27-15	1:15
BLM-358	DIVIX	130	11.27-15	1:40
BLM-359	J-TRX	130	11-27-15	2'00
BLM-360	D-Trix	120	11-27-15	2:27
BLM-361	DITTIK	140	11-27-15	2:55
BLM-362	17-TRIX	130	11-27-15	3:25
BLM-363	DIRIX	130	11-28-15	0618
BLM-364	D-Trix	140	11-28-15	6:40

Manifest No.	Transporter	Quantity (bbl)	Date	Time
BLM- 345	D'Trix	120	11-28-15	7 1 22
BLM-366	D'Trix	130	11-29-15	750
BLM- 367	D'Trix	140	11-28-15	8:30
BLM- 368	D'Trix	120	11-28-15	8156
BLM-369	D'Trix	130	11-28-15	
BLM- 370	D'Trix	IHO	11-22-15	10:00
BLM-371	D'Trix	120	11-28-15	
BLM- 372	D'Trix	130	11-28-15	the state of the s
BLM-373	D'Trix	140	11-28-15	11:35
BLM-374	D'Trix	120	11-21-15	
BLM-375	D'Trix	130	1128-15	
BLM-376	O'Trix	140	11-28-15	1:05
ви-377	D'Trix	120	11-28-15	
BLM-318	D'Trix	130	11-28-15	1:55
BLM- 379	D'Trix	140	11-28-15	2:40
BLM-380	D'Trix	120	11-28-15	3108
BLM-381	O'Trix	130	11-24-15	3/39
BLM-382	D'Trix	120	11-29-15	6:07
BLM- 383	D'Trix	130	11-29-15	6:25
BLM-384	D'Trix	140	11-29-15	7/20
BLM-385	D'Trix	120	11-29-15	7:50
BLM-386	D'Trix	130	11-29-15	810
BLM-387	D'Trix	140	11-29-19	-9.115
BLM- 388	D'Trix	120	11-29-15	9:38
BLM-389	D'Trix	130	11-29-15/	0,00
BLM- 390	D'Trix	140	11-29-15	11:00
BLM- 391	D'Trix	120	11-29-15	11:23
BLM-392	D'Trix	130	11-27-15	11:45
BLM- 393	D'Trix	140	11-29-15	250
BLM-394	D'Trix	120	11-29-15	1:13

		Quantity		
Manifest No.	Transporter	(bbl)	Date	Time
BLM- 395	D'Trix	130	11-29-15	1:35
BLM-396	D'Trix	140	11-29-15	2.35
BLM- 397	D'Trix	130	11-29-15	305
BLM- 398	D'Trix	130	11-30-15	6:15
BLM 399	D'Trix	140	11-30-15	6:45
BLM-400	D'Trix	120	11-30-15	7:44
BLM-401	D'Trix	130	11-30-15	8:00
BLM-402	D'Trix	140	11-30-15	8:25
BLM- 403	D'Trix	120	11-30-15	8153
BLM- 404	D'Trix	130	11-30-15	9:25
BLM- 400	D°Trix	140	11-30-15	10:05
BLM-406	D'Trix	120	11-30-15	10133
BLM-407	D'Trix	130	11-30-15	10:55
BLM-408	D'Trix	140	11-30-15	11:35
BLM- 409	O'Trix	120	11-30-15	11:57
BLM-410	D'Trix	130	11-30-15	12:20
BLM- 411	D'Trix	140	11-30-15	1:00
BLM- 412	D'Trix	120	11-30-15	1128
BLM- 413	D'Trix	130	11-3015	1:50
BLM- 414	D'Trix	140	11-30-15	2:30
BLM- 415	D'Trix	120	11-30-15	2158
BLM-416	D'Trix	130	11-30-15	3:20
BLM- 417	D'Trix	140	11-30-15	4:05
BLM- 416	D'Trix	140	1000	6:25
BLM-419	D'Trix	130	12-1-15	7:05
BLM- 420	D'Trix	140	12-1-15	8:05
BLM- 421	D'Trix	130	12-1-15	9,00
BLM-422	D'Trix	140	12-1-15	9:45
BLM- 423	D'Trix	130	12-1-15	10:23
BLM- 434	D'Trix	130	12-1-13	11:00

Manifest No.	Transport	Quantity	Date	Time
BLM-425	D-Trix	140	12-1-15	11:30
BLM-426	D-Trix	130	12-1-15	12:15
BLM-427	D-Trix	120	12-1-15	12:31
BLM-428	D-Trix	130	12-1-15	12:55
BLM-429	D-Trix	140	10-1-15	1:00
BLM-429	D-Trix	136	12-1-15	70 150
BLM-430	D-Trix	130	12-1-15	2120
BLM-431	D-Trix	140	12-1-15	a:55
BLM-432	D-Trix	120	17-1-15	3:30
BLM-434	D-Trix	130	12-1-15	3155
BLM-435	D-Trix	140	12-2-15	6:40
BLM-436	D-Trix	130	12-2-15	2:00
BLM-437	D-Trix	130	12-2-15	7/30
BLM-438	D-Trix	140	12.2-15	8:15
BLM-439	D-Trix	130	12-2-15	9:00
BLM-440	D-Trix	130	12-2-15	9:30
BLM-441	D-Trix	140.	12-2-15	10:00
BLM-442	D-Trix	130	12-2-15	10125
BLM-443	D-Trix	130	12-2-15	11100
BLM-444	D-Trix	140	12-2-15	11:35
BLM-445	D-Trix	130	12-2-15	12:00
BLM-446	D-Trix	140	12-2-15	1:10
BLM-447	D-Trix	120	17-2-15	1125
BLM-448	D-Trix	130	12-2-15	2100
BLM-449	D-Trix	140	12-2-15	2:40
BLM-450	D-Trix	120	12-2-15	3:20
BLM-451	D-Trix	130	12-2-15	3:45
BLM-452	D-Trix	130	12-3-15	0630
BLM-453	D-Trix	120	12-3-15	7.05
BLM-454	D-Trix	130	12-3-15	3:00
BLM-455	D-Trix	120	12-3-15	8125
BLM-456	D-Trix	130	12-315	9:25
BLM-457	D-Trix	120	12-3-15	10:20
BLM-458	D-Trix	130	12-3-15	10:50
BLM-459	D-Trix	120	12-375	12:00
BLM-460	D-Trix	130	12-3-15	12,25
BLM-461	D-Trix	120	123-15	1145
BLM-462	D-Trix	130	12-3-15	2:10
BLM-463	D-Trix	129	12-3-15	3/25
BLM-464	D-Trix	130	12-5-15	4,00

Manifest No.	Transport	Quantity	Date	Time
BLM-465	D-Trix	130	12-4-15	0635
BLM-466	D-Trix	120	12-4-15	7:05
BLM-467	D-Trix	130	12-4-15	8:00
BLM-468	D-Trix	120	12-4-15	8:50
BLM-469	D-Trix	130	12-4-15	9:25
BLM-470	D-Trix	120	12-4-15	10135
BLM-471	D-Trix	130	12-4-15	11:00
BLM-472	D-Trix	120	12-4-15	12:20
BLM-473	D-Trix	130	12-4-15	12:45
BLM-474	D-Trix	140	12-4-15	1:30
BLM-475	D-Trix	120	12-4-15	2,00
BLM-476	D-Trix	140	12-4-15	3:10
BLM-477	D-Trix	120	12-4-15	3:50
BLM-478	D-Trix	170	12-7-15	7:20
BLM-479	D-Trix	140	12.7-15	7:50
BLM-480	D-Trix	140	12-7-15	9:25
BLM-481	D-Trix	140	12-7-15	11:00
BLM-482	D-Trix	140	12-7-15	12:30
BLM-483	D-Trix	120	12-7-15	1:00
BLM-484	D-Trix	140	12-7-15	2:00
BLM-485	D-Trix	120	12-7-15	2,35
BLM-486	D-Trix	120	12-7-15	4:10
BLM-487	D-Trix	120	12-8-15	635
BLM-488	D-Trix	140	12-8-15	7:10
BLM-489	D-Trix	120	12-8-15	4:20
BLM-490	D-Trix	140	12-8-15	8:55
BLM-491	D-Trix	120	12-8-15	9155
BLM-492	D-Trix	140	12-8-15	10:30
BLM-493	D-Trix	120	12-13-15	11:25
BLM-494	D-Trix	140	12-8-15	12:05
BLM-495	D-Trix	120	12-8-15	1255
BLM-496	D-Trix	140	12-8-15	1:40
BLM-497	D-Trix	120	17-8-15	2,25
BLM-498	D-Trix	140	12-8-15	3:15
BLM-499	D-Trix	120	12-8-15	4:00
BLM-500	D-Trix	140	12-9-15	6:30
BLM-501	D-Trix	120	17-9-15	7:00
BLM-502	D-Trix	140	12-9-15	8:10
BLM-503	D-Trix	120	12-9-15	8140
BLM-504	D-Trix	140	12-9-15	9:50
BLM-505	D-Trix	120	12-9-15	10130

Manifest No.	Transport	Quantity	Date	Time
BLM- 506	D-Trix	140	12-9-15	10:55
BLM- 507	D-Trix	120	12-9-15	11:00
BLM- 508	D-Trix	140	12-9-15	12:55
BLM- 509	D-Trix	120	12-9-15	2:04
BLM-510	D-Trix	140	12-9-15	2:40
BLM-511	D-Trix	120	12-9-15	7:50
BLM- 512	D-Trix	120	1210-15	6:40
BLM- 513	D-Trix	140	12-10-15	7:10
BLM-514	D-Trix	120	12-10-15	8:10
BLM- 515	D-Trix	140	12-10-15	8:45
BLM-516	D-Trix	120	12-10-15	9135
BLM-517	D-Trix	140	12-10-15	10:00
BLM- 518	D-Trix	120	12-10-15	11:10
BLM-519	D-Trix	120	12-10-15	12:40
BLM-520	D-Trix	140	12-10-15	2:10
BLM-521	D-Trix	120	12-10-16	2:40
BLM- 522	D-Trix	140	12-10-15	3:45
BLM-523	D-Trix	120,	12-10-15	4:10
BLM-524	D-Trix	120	12-11-15	6:40
BLM-525	D-Trix	121)	12-11-15	8:10
BLM-526	D-Trix	120	12-11-15	9:40
BLM-527	D-Trix	120.	12-11-15	11:15
BLM-528	D-Trix	121)	12-11-15	12:45
BLM-529	D-Trix	120	12-11-15	2115
BLM-530	D-Trix	120	12-11-15	3:45
BLM-53/	D-Trix	120	12-14-15	6:40
BLM-532	D-Trix	130	17-14-15	7/10
BLM-533	D-Trix	120	12-14-15	8:15
BLM-539	D-Trix	130	12-1445	8:50
BLM-535	D-Trix	120	12-14-15	9:50
BLM-536	D-Trix	130	12-14-15	10.25
BLM-537	D-Trix	140	12-14-15	10:50
BLM-538	D-Trix	120	12-14-15	11:15
BLM-539	D-Trix	140	12-14-15	12:20
BLM-540	D-Trix	120	12-14-15	12:50
BLM- 541	D-Trix	140	12-14-15	1:55
BLM-542	D-Trix	120	12-14-15	2:25
BLM- 543	D-Trix	140	12-14-15	3:35
BLM-544	D-Trix	120	12-1445	7:00
BLM-545	D-Trix	140	12-15-15	6:40
BLM-544	D-Trix	130	12-15-15	7:05

Manifest No.	Transport	Quantity	Date	Time
BLM- 547	D-Trix	140	12-15-15	8:10
BLM- 548	D-Trix	130	12-15-15	8:40
BLM- 549	D-Trix	140	12-15-15	9:45
BLM- 550	D-Trix	130	12-15-15	10:15
BLM- 551	D-Trix	140	12-15-15	11:25
BLM- 552	D-Trix	130	12-15-15	11:50
BLM- 553	D-Trix	140.	12-15-15	1:15
BLM- 554	D-Trix	130	12-15-15	1:40
BLM- 555	D-Trix	140	12-15-15	2:50
BLM- 554	D-Trix	130	12-15-15	320
BLM- 557	D-Trix	130	12-16-15	635
BLM-558	D-Trix	140	12-16-15	7:05
BLM-559	D-Trix	130	12-16-15	200
BLM-560	D-Trix	140	12-16-15	8:50
BLM-5 6/	D-Trix	130	12-16-15	9155
BLM-560	D-Trix	140	12-16-15	11:10
BLM-563	D-Trix	130	12-16-15	11:38
BLM-564	D-Trix	140	12-16-15	12:40
BLM-565	D-Trix	130	12-16-15	105
BLM-566	D-Trix	140	12-16-15	2:10
BLM-567	D-Trix	130	17-16-15	235
BLM-568	D-Trix	140	12-16-15	3:45
BLM-569	D-Trix	1311	12-16-15	4:10
BLM-570	D-Trix	130	12-17-15	Ce:35
BLM-571	D-Trix	140	12-17-15	7:05
BLM- 572	D-Trix	130	12-17-15	8131
BLM-5 73	D-Trix	140	12-17-15	9:05
BLM-574	D-Trix	130	12-17-15	10:02
BLM-575	D-Trix	140	12-17-15	19150
BLM-576	D-Trix	130	12-17-15	11130
BLM-577	D-Trix	140	12-17-15	12130
BLM-578	D-Trix	130	12-17-15	12156
BLM-579	D-Trix	130	12-17-15	7:25
BLM-580	D-Trix	140	12-17-15	2.'55
BLM-581	D-Trix	130	12-17-15	3151
BLM-582	D-Trix	130	12-18-15	6150
BLM-593	D-Trix	140	12-18-15	7150
BLM-584	D-Trix	136	12-18-15	8:25
BLM-585	D-Trix	140	12-18-15	9:35
BLM-586	D-Trix	130	12-18-15	10,20
BLM-587	D-Trix	140	12-18-15	11125

Manifest No.	Transport	Quantity	Date	Time
BLM- 588	D-Trix	130	12-18-15	11:47
BLM-5" 89	D-Trix	140	12-18-15	7:10
BLM-590	D-Trix	140	12-18-15	2:45
BLM- 591	D-Trix	130	12-21-15	6:49
BLM- 590	D-Trix	130	12-21-15	7:20
BLM- 593	D-Trix	130	12-21-15	8:16
BLM-594	D-Trix	130	12-01-15	8:50
BLM-5'95	D-Trix	130	12-21-15	9145
BLM- 596	D-Trix	130	12-21-15	10:15
BLM-597	D-Trix	130	12-21-15	11:04
BLM- 598	D-Trix	130	12-21-15	11:40
BLM-599	D-Trix	130	12-21-15	12136
BLM- 600	D-Trix	130	12-21-15	1:00
BLM-601	D-Trix	130	12-21-15	1157
BLM-600	D-Trix	130	12-21-15	2:35
BLM- 603	D-Trix	130	12-21-15	3:25
BLM- 604	D-Trix	140	12-22-15	6:50
BLM- (5 5	D-Trix	130	12-22-15	7:15
BLM-606	D-Trix	130	12-22-15	8145
BLM-607	D-Trix	130	12-22-15	10:20
BLM-608	D-Trix	130	12-22-15	11.55
BLM-609	D-Trix	121)	12-22-15	1235
BLM-610	D-Trix	130	12-22-15	1:25
BLM-611	D-Trix	120	12-22-15	2:10
BLM 6/2	D-Trix	130	12-22-15	3100
BLM-613	D-Trix	120	12-22-15	3:45
BLM- 6/4	D-Trix	130	12-23-15	6:45
BLM-6/5	D-Trix	130	12-2315	7:15
BLM-616	D-Trix	130	12-23-15	8:15
BLM-617	D-Trix	130	17-23-15	8.55
BLM-618	D-Trix	130	12-23-15	9:40
BLM-619	D-Trix	130	12-237.5	10130
BLM-620	D-Trix	130	12-23-15	1/310
BLM-621	D-Trix	130	12-23-15	11:50
BLM-622	D-Trix	130	12-23-15	12:40
BLM-623	D-Trix	130	12-23-15	1:25
BLM-624	D-Trix	140	12-23-15	2:10
BLM-625	D-Trix	130	12-23-15	2133
BLM-626	D-Trix	130	12-2315	3:10
BLM627	D-Trix	130	12-23-15	3:40
BLM-628	D-Trix	130	12-24-15	645

Manifest No.	Transport	Quantity	Date	Time
BLM-629	D-Trix	130	12-24-15	7:10
BLM- 6, 30	D-Trix	130	12-24-15	9:00
BLM-63/	D-Trix	730	12-24-15	9:25
BLM-632	D-Trix	130	12-24-15	10:20
BLM/ 33	D-Trix	130	12-24-15	11:20
BLM-634	D-Trix	130	12-24-15	12115
BLM 35	D-Trix	121	12-24-15	12:45
BLM-636	D-Trix	130	1)-24-15	55
BLM-637	D-Trix	130	12-24-15	2:15
BLM-638	D-Trix	130	12-24-15	3:30
BLM-638	D-Trix	/2/1	17-74-15	3 95
BLM- 440	D-Trix	130	12-28-15	7:00
BLM-641	D-Trix	130	12-28-15	8:50
BLM-640	D-Trix	130	12-28-15	10:30
BLM 5 4 3	D-Trix	140	12-28-15	10:55
BLM-644	D-Trix	130	12-28-15	12:00
BLM-645	D-Trix	140	12-28-15	12:35
BLM-646	D-Trix	130	12.28-15	1:25
BLM-647	D-Trix	140	12-28-15	2:15
BLM-648	D-Trix	130	12-28-15	2:55
BLM-649	D-Trix	140	12-24-15	345
BLM-650	D-Trix	130	12-29-15	640
BLM-651	D-Trix	140	12-29-15	7:15
BLM-652	D-Trix	130	12-28-15	8:15
BLM-653	D-Trix	140	12-29-15	9:00
BLM-654	D-Trix	130	12-28-15	9:40.
BLM-6505	D-Trix	140	12-29-15	10:40
BLM-6596	D-Trix	130	12-27-19	11:10
BLM-657	D-Trix	140	12-29-15	12:20
BLM-658	D-Trix	130	12-29-15	12:50
BLM- 659	D-Trix	140	12-29-15	1:50 .
BLM- 660	D-Trix	130	12-29-15	2:20
BLM- Cole!	D-Trix	140	12-29-15	3:25
BLM-662	D-Trix	130	122815	345
BLM- 663	D-Trix	140	12-30-15	7:45
BLM- 664	D-Trix	130	12-30-15	8,15
BLM- 665	D-Trix	140	12-30-15	9:20
BLM-666	D-Trix	130	12-30-15	1,45
BLM-667	D-Trix	140	12-30-15	10:55
BLM-664	D-Trix	130	12-30-15	1115
BLM-669	D-Trix	140	12-30-15	12:30

Manifest No.	Transport	Quantity	Date	Time
BLM-670	D-Trix	130	12-30-15	12:50
BLM-671	D-Trix	140	12-30-15	2:00
BLM-672	D-Trix	130	12-30-15	2:30
BLM- 673	D-Trix	140	12-30-15	3:40
BLM-674	D-Trix	1311	12-30-15	4:10
BLM-675	D-Trix	130	12-31-15	7:02
BLM-676	D-Trix	140	12-3145	7.45
BLM- 677	D-Trix	130	12-31-15	8:32
BLM-678	D-Trix	140	12-31-15	9,40
BLM-679	D-Trix	130	12-31-15	10:06
BLM-680	D-Trix	146	12 31-15	10:55
BLM-681	D-Trix	130	12-31-15	11:52
BLM-682	D-Trix	140	12-31-15	12:05
BLM-683	D-Trix	130	12-31-15	1170
BLM-684	D-Trix	140	12-31-15	3:00
BLM-685	D-Trix	130	12-31-15	3:36
BLM-686	D-Trix	130	12-1-1-16	6147
BLM-687	D-Trix	140	1-1-16	8100
BLM- 688	D-Trix	130	1-1-16	9111
BLM-689	D-Trix	140	1-1-16	9150
BLM-690	D-Trix	130	1-1-16	10133
BLM-691	D-Trix	140	1-1-16	11:35
BLM-692	D-Trix	130	1-1-16	12:02
BLM-693	D-Trix	140	1-1-16	1:15
BLM- 694	D-Trix	130	1-1-16	1:41
BLM-695	D-Trix	140	1-1-16	3:00
BLM-696	D-Trix	130	1-1-16	3126
BLM-697	D-Trix	130	1-4-16	7:20 AM
BLM-698	D-Trix	140	1-4-16e	8:10
BLM-699	D-Trix	130	1-4-16	8:55
BLM- '700	D-Trix	140	1-4-16	9:45
BLM- 10/	D-Trix	130	1-4-16	10,25
BLM- 700	D-Trix	140	1-4-16,	11:25
BLM-703	D-Trix	130	1-4-16	12,00pm
BLM- 704	D-Trix	140	1-4-16	1:00
BLM-705	D-Trix	130	1-4-16	1:40
BLM-706	D-Trix	140	1-4-16	2:50
BLM-707	D-Trix	130	1-4-16	3:15
BLM-708	D-Trix	130	1-5-16	6150
BLM-709	D-Trix	140	1-5-16	7:20
BLM-710	D-Trix	130	1-5-16	8:30

Bloomfield, NM87413

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- (e) kelly.robinson@wnr.com



Report Summary

Client: Western Refining

Chain of Custody Number: 15036

Samples Received: 12-20-12

Job Number: 96012-0115

Sample Number(s): 64027

Project Name/Location: Sand Blast Profile TK #35

Entire Report Reviewed By:

Date: _//3//3

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.



SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:

Western Refining

Project #:

96012-0115

Sample ID:

TK #35

Date Reported:

01-03-13

Lab ID#: Sample Matrix: 64027 Soil Date Sampled:

12-20-12

Preservative:

Cool

Date Received: Date Analyzed: 12-20-12 01-03-13

Condition:

Intact

Chain of Custody:

15036

Parameter

Result

Flash Point

> 95 °C

pН

7.39

Reactivity

Negative

RCRA Hazardous Waste Criteria

Parameter

Hazardous Waste Criterion

IGNITABILITY:

Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. (i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)

CORROSIVITY:

Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22.

(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)

REACTIVITY:

Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. (i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)

Reference:

40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments:

Sand Blast Profile TK #35



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Western Refining	Project #:	96012-0115
Sample ID:	TK #35	Date Reported:	01-03-13
Laboratory Number:	64027	Date Sampled:	12-20-12
Chain of Custody:	15036	Date Received:	12-20-12
Sample Matrix:	Soil	Date Analyzed:	01-02-13
Preservative:	Cool	Date Extracted:	01-02-13
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

		Det.	
	Concentration	Limit	
Parameter	(ug/Kg)	(ug/Kg)	
Benzene	70.4	10.0	
Toluene	143	10.0	
Ethylbenzene	43.4	10.0	
p,m-Xylene	327	10.0	
o-Xylene	77.2	10.0	
Total BTEX	661		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	113 %
	1,4-difluorobenzene	101 %
	Bromochlorobenzene	98.3 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846.

USEPA, December 1996.

Comments: Sand Blast Profile TK #35



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	0102BCA2 QA/QC	Date Reported:	01-03-13
Laboratory Number:	64028	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-02-13
Condition:	N/A	Analysis:	BTEX
		Dilution:	50

Calibration and	I-Cal RF:	C-Cal RF:	%Diff.	Blank	Detect.
Detection Limits (ug/L)		Accept. Range 0-15%		Conc	Limit
Benzene	7.2139E-06	7.2139E-06	0.00	ND	0.2
Toluene	1.4218E-06	1.4218E-06	0.00	ND	0.2
Ethylbenzene	1.9393E-06	1.9393E-06	0.00	ND	0.2
p,m-Xylene	1.9296E-06	1.9296E-06	0.00	ND	0.2
o-Xylene	2.0841E-06	2.0841E-06	0.00	ND	0.2

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	ND	ND	0.00	0 - 30%	10
Toluene	ND	ND	0.00	0 - 30%	10
Ethylbenzene	ND	ND	0.00	0 - 30%	10
p,m-Xylene	ND	ND	0.00	0 - 30%	10
o-Xylene	ND	ND	0.00	0 - 30%	10

Spike Conc. (ug/Kg)	Sample Amo	unt Spiked Spik	ed Sample % F	Recovery	Accept Range
Benzene	ND	2500	2730	109	39 - 150
Toluene	ND	2500	2380	95.2	46 - 148
Ethylbenzene	ND	2500	2250	90.0	32 - 160
p,m-Xylene	ND	5000	4570	91.4	46 - 148
o-Xylene	ND	2500	2340	93.6	46 - 148

ND - Parameter not detected at the stated detection limit.

Dilution: Spike and spiked sample concentration represent a dilution proportional to sample dilution.

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using

Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

QA/QC for Samples 64027-64029



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Western Refining	Project #:	96012-0115
Sample ID:	TK #35	Date Reported:	01-03-13
Laboratory Number:	64027	Date Sampled:	12-20-12
Chain of Custody No:	15036	Date Received:	12-20-12
Sample Matrix:	Soil	Date Extracted:	01-02-13
Preservative:	Cool	Date Analyzed:	01-02-13
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	2.3	0.2
Diesel Range (C10 - C28)	751	0.1
Total Petroleum Hydrocarbons	753	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating

Solid Waste, SW-846, USEPA, December 1996.

Comments: Sand Blast Profile TK #35



EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

N/A **QA/QC** Project #: Client: 01-03-13 0102TCAL QA/QC Date Reported: Sample ID: Date Sampled: N/A Laboratory Number: 64027 Date Received: Sample Matrix: Methylene Chloride N/A

Preservative: N/A Date Analyzed: 01-02-13
Condition: N/A Analysis Requested: TPH

I-Cal Date I-Cal RF: C-Cal RF: % Difference Accept. Range 0 - 15% Gasoline Range C5 - C10 01-02-13 1.0173E+03 1.0177E+03 0.04% 0 - 15% 01-02-13 1.0201E+03 1.0205E+03 0.04% Diesel Range C10 - C28

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	2.3	2.5	8.7%	0 - 30%
Diesel Range C10 - C28	751	809	7.7%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	2.3	250	251	100%	75 - 125%
Diesel Range C10 - C28	751	250	1,040	104%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating

Solid Waste, SW-846, USEPA, December 1996.

Comments:

QA/QC for Samples 64027-64029



EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client:	Western Refining	Project #:	96012-0115
Sample ID:	TK #35	Date Reported:	01-03-13
Laboratory Number:	64027	Date Sampled:	12-20-12
Chain of Custody:	15036	Date Received:	12-20-12
Sample Matrix:	TCLP Extract	Date Analyzed:	01-02-13
Preservative:	Cool	Date Extracted:	01-02-13
Condition:	Intact	Analysis Needed:	TCLP Metals

		Det.	Regulatory
	Concentration	Limit	Level
Parameter	(mg/L)	(mg/L)	(mg/L)
Arsenic	ND	0.001	5.0
Barium	0.847	0.001	100
Cadmium	ND	0.001	1.0
Chromium	ND	0.001	5.0
Lead	0.005	0.001	5.0
Mercury	ND	0.001	0.2
Selenium	ND	0.001	1.0
Silver	ND	0.001	5.0

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA,

December 1996.

Method 3010 Acid Digestion of Aqueous Samples and Extracts for Total

Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission

SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C

section 261.24, August 24, 1998.

Comments: Sand Blast Profile TK #35



EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS Quality Assurance Report

Conc. (mg/L)	Blank	Blank	Limit	.	·	Difference	Range 0% - 30%			
Blank & Duplicate	Instrument	Method	Detection	Dilution Sample	Duplicate		Acceptance			
Condition:		N/A		Date Extrac	cted:	C)1-02-13			
Analysis Requested	d:	TCLP Metals		Date Analy:	zed:	C	01-02-13			
Sample Matrix:		TCLP Extract		Date Recei	ved:	N	N/A			
Laboratory Number	r:	64008		Date Samp	led:	N	N/A			
Sample ID:		01-02 TCM C	QA/QC	Date Repor	ted:	0	01-03-13			
Client:		N/A		Project #:		N	N/A			

Arconio		2.50	0.047	2 20	00 20/		200/ 1200/
Conc. (mg/L)		Added		Sample	Recovery		Range
Spike		Spike	Sample	Spiked	Percent		Acceptance
Silver	ND	ND	0.001	0.004	0.005	23.3%	0% - 30%
Selenium	ND	ND	0.001	ND	ND	0.00%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.00%	0% - 30%
Lead	ND	ND	0.001	ND	ND	0.00%	0% - 30%
Chromium	ND	ND	0.001	0.182	0.180	0.990%	0% - 30%
Cadmium	ND	ND	0.001	0.003	0.004	16.1%	0% - 30%
Dariam	110	110	01001	0.2	0.2.	.01070	070 0070

Conc. (mg/L)	Added	Jampie	Sample	Recovery	Range
Arsenic	2.50	0.047	2.30	90.3%	80% - 120%
Barium	50.0	0.241	42.4	84.4%	80% - 120%
Cadmium	2.50	0.003	2.16	86.3%	80% - 120%
Chromium	5.00	0.182	4.50	86.8%	80% - 120%
Lead	5.00	ND	4.10	81.9%	80% - 120%
Mercury	1.00	ND	0.906	90.6%	80% - 120%
Selenium	1.00	ND	0.887	88.7%	80% - 120%
Silver	1.00	0.004	0.853	84.9%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Method 3010 Acid Digestion of Aqueous Samples and Extracts for Total Metals,

SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission,

SW-846, USEPA, December 1996.

Comments: QA/QC for Sample 64008-64011, 64015, 64027-64028, and 63943

CHAIN OF CUSTODY RECORD

ANALYSIS / PARAMETERS	L-	with H/I	CO 18 CHLO CHLO	7					-	12/20/12 152p					Idboratory@envirotech-inc.com
ANA	(1208 p	bortheW) bortheM bortheM 8 Mets Riena	BTEX VOC (X X						gnature)	gnature)			itory	uite 115, Durango, CO 81301
ion:		94012-0115	No./Volume Preservative of Containers HgCl ₂ HCl	2-19 ders)					Date Time Received by: (Signature)	Received by (Signature)		& enviroted	Analytical Laboratory	5795 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 • Iaboratory@envirotech-inc.com
Saun RIATT Prof.	Sampler Name:	Client No.:	Sample Lab No.	3:00 C40272-0								Other	re drop off area.		, NM 87401 • 505-632-0615 •
0			Sample Date	2								Aqueous	nours to secu		• Farmingtor
Client:	io 2	Client Phone No.:	Sample No./ Identification	1K# 35						Relinquished by: (Signature)	oy: (Sign	Sample Matrix Soil (A) Soil (A) Sludge (□)	ple(s) dropped off after)	5795 US Highway 64

Chavez, Carl J. EMNRD

From:

Chavez, Carl J, EMNRD.

Sent:

Wednesday, September 12, 2012 2:11 PM

To:

'Robinson, Kelly'

Subject:

RE: Request for Disposal Approval - Western Refining Southwest, Inc. - Sandblast Grit

Kelly:

Approved.

Thank you. Have a nice day!

Please be advised that NMOCD approval of this waste disposal request does not relieve Western Refining Southwest, Inc.-Bloomfield Refinery of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Western Refining Southwest, Inc.-Bloomfield Refinery of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

Office: (505) 476-3490

E-mail: CarlJ.Chavez@State.NM.US

Website: http://www.emnrd.state.nm.us/ocd/

"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the

Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Wednesday, September 12, 2012 11:07 AM

To: Chavez, Carl J, EMNRD

Subject: Request for Disposal Approval - Western Refining Southwest, Inc. - Sandblast Grit

Importance: High

Good Morning Carl,

Western Refining Southwest, Inc.- Bloomfield Refinery (Western) is requesting approval from the Oil Conservation Division (OCD) to dispose of sandblast grit material at the San Juan County Landfill located in Aztec, NM. This request is pursuant to Part 6.B of the facility's Discharge Permit(GW-001). A copy of the waste characterization analytical is attached.

If you have any questions, please feel free to contact me at your convenience.

Thank you for your time, and I hope you have a great week.

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616 (f) 505-632-4024
- (e) kelly.robinson@wnr.com



Report Summary

Client: Western Refining

Chain of Custody Number: 14279

Samples Received: 08-17-12

Job Number: 96012-0115

Sample Number(s): 63018

Project Name/Location: TK 23

Entire Report Reviewed By:

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.



_ Date: _8/28/12



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Western Refining	Project #:	96012-0115
Sample ID:	TK23 Scale	Date Reported:	08-21-12
Laboratory Number:	63018	Date Sampled:	08-16-12
Chain of Custody No:	14279	Date Received:	08-17-12
Sample Matrix:	Soil	Date Extracted:	08-20-12
Preservative:	Cool	Date Analyzed:	08-21-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	39.4	0.1
Total Petroleum Hydrocarbons	39.4	

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, December 1996.

Comments:

TK 23





EPA Method 8015 Modified Nonhalogenated Volatile Organics **Total Petroleum Hydrocarbons**

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	0821TCAL QA/QC	Date Reported:	08-21-12
Laboratory Number:	63034	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-21-12
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date 👈	I-Cal RF:	C-Cal RF: %	Difference)	Accept: Range
Gasoline Range C5 - C10	08-21-12	9.9960E+02	1.0000E+03	0.04%	0 - 15%
Diesel Range C10 - C28	08-21-12	9.9960E+02	1.0000E+03	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept: Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	271	108%	75 - 125%
Diesel Range C10 - C28	ND	250	294	118%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Was

SW-846, USEPA, December 1996.

Comments:

QA/QC for Samples 63013-63014, 63018 and 63033-63038





EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Western Refining	Project #:	96012-0115
Sample ID:	TK23 Scale	Date Reported:	08-21-12
Laboratory Number:	63018	Date Sampled:	08-16-12
Chain of Custody:	14279	Date Received:	08-17-12
Sample Matrix:	Soil	Date Analyzed:	08-21-12
Preservative:	Cool	Date Extracted:	08-20-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

		Det.	
	Concentration	Limit	
Parameter	(ug/Kg)	(ug/Kg)	
	,		
Benzene	ND	10.0	
Toluene	ND	10.0	
Ethylbenzene	. ND	10.0	
p,m-Xylene	ND	10.0	
o-Xylene	ND	10.0	
Total BTEX	ND		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	79.8 %
	1,4-difluorobenzene	88.8 %
	Bromochlorobenzene	100 %

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846.

USEPA, December 1996.

Comments:

TK 23





EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	0821BCAL QA/QC	Date Reported:	08-21-12
Laboratory Number:	63036	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-21-12
Condition:	N/A	Analysis:	BTEX
		Dilution:	50

Calibration and	I-Cal RF:	C-Cal RF:	%Diff.	Blank	Detect:
Detection Limits (ug/	L)	Accept. Range 0-15%		· Conc	Limit :
Benzene	7.6729E-06	7.6729E-06	0.000	ND	0.2
Toluene	7.5087E-06	7.5087E-06	0.000	ND	0.2
Ethylbenzene	8.3529E-06	8.3529E-06	0.000	ND	0.2
p,m-Xylene	5.9938E-06	5,9938E-06	0.000	ND	0.2
o-Xylene	8.7761E-06	8.7761E-06	0.000	ND	0.2

Duplicate Conc. (ug/Kg)	Sample : Du	plicate	%Diff.	Accept Range	Detect: Limit
Benzene	ND	ND	0.00	0 - 30%	10
Toluene	ND	ND	0.00	0 - 30%	10
Ethylbenzene	ND	ND	0.00	0 - 30%	10
p,m-Xylene	ND	ND	0.00	0 - 30%	10
o-Xylene	ND	ND	0.00	0 - 30%	10

Spike Conc. (ug/Kg)	Sample Amo	ount Spiked Spik	ked Sample %	Recovery	Accept Range
Benzene	ND	2500	2560	102	39 - 150
Toluene	ND	2500	2480	99.2	46 - 148
Ethylbenzene	ND	2500	2490	100	32 - 160
p,m-Xylene	ND	5000	4850	97.0	46 - 148
o-Xylene	ND	2500	2470	98.8	46 - 148

ND - Parameter not detected at the stated detection limit.

Dilution: Spike and spiked sample concentration represent a dilution proportional to sample dilution.

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using

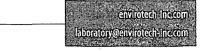
Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

QA/QC for Samples 63013-63014, 63018 and 63033-63038

Ph (505) 632-0615 Fx (505) 632-1865

Ph (970) 259-0615 Fr (800) 362-1879





EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client:	Western Refining	Project #:	96012-0115
Sample ID:	TK23 Scale	Date Reported:	08-21-12
Laboratory Number:	63018	Date Sampled:	08-16-12
Chain of Custody:	14279	Date Received:	08-17-12
Sample Matrix:	TCLP Extract	Date Analyzed:	08-20-12
Preservative:	Cool	Date Extracted:	08-17-12
Condition:	Intact	Analysis Needed:	TCLP Metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)	
Arsenic	ND	0.001	5.0	
Barium	0.092	0.001	100	
Cadmium	ND	0.001	1.0	
Chromium	ND	0001	5.0	
Lead	ND	0.001	5.0	
Mercury	ND	0.001	0.2	
Selenium	0.002	0.001	1.0	
Silver	ND	0.001	5.0	

ND - Parameter not detected at the stated detection limit.

References:

Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA.

December 1996.

Method 3010 Acid Digestion of Aqueous Samples and Extracts for Total

Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission

SW-846, USEPA. December 1996.

Note:

Regulatory Limits based on 40 CFR part 261 subpart C

section 261.24, August 24, 1998.

Comments:

TK23





N/A

Client:

EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS Quality Assurance Report

N/A

Chefit.		11/74		Project #.		1	N/A	
Sample ID:		08-20 TCM QA/QC		Date Rep	Date Reported:		08-21-12	
Laboratory Number:		63016		Date Sampled:		N/A		
Sample Matrix:		TCLP Extract		Date Rec	Date Received:		N/A	
Analysis Requested:		TCLP Metals		Date Analyzed:		08-20-12		
Condition:	enacembrases	N/A		Date Extracted:		08-17-12		
Blank & Duplicate In Conc. (mg/L)	strument Blank	Method Blank	Detection Limit	Sample		% Difference	Acceptance Range	
Arsenic	ND	ND	0.001	ND	ND	0.00%	0% - 30%	
Barium	ND	ND	0.001	0.213	0.218	2.49%	0% - 30%	
Cadmium	ND	ND	0.001	ND	ND	0.00%	0% - 30%	
Chromium	ND	ND	0.001	ND	ND	0.00%	0% - 30%	
Lead	ND	ND	0.001	ND	ND	0.00%	0% - 30%	
Mercury	ND	ND	0.001	ND	ND	0.00%	0% - 30%	
Selenium	ND	ND	0.001	ND	ND	0.00%	0% - 30%	
Silver	ND	ND	0.001	ND	ND	0.00%	0% - 30%	
Spike Conc. (mg/L)		Spike Addéd	Sample	Spiked Sample			Acceptance Range	
Arsenic	Salah Salah Salah Salah	0.250	ND	0.256	102%	. L.T. seel 65 decision in a	80% - 120%	
Barium		0.500	0.213	0.640	89.7%		80% - 120%	
Cadmium		0.250	ND	0.251	100%		80% - 120%	
Chromium		0.500	ND	0.477	95.4%		80% - 120%	
Lead		0.500	ND	0.491	98.1%		80% - 120%	
Mercury		0.100	ND	0.086	86.3%		80% - 120%	
Selenium		0.100	ND	0.100	100%		80% - 120%	

Project #:

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

ND

Method 3010 Acid Digestion of Aqueous Samples and Extracts for Total Metals,

SW-846, USEPA, December 1996.

0.100

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission,

0.093

92.7%

SW-846, USEPA, December 1996.

Comments: QA/QC for Sample 63016-63018, 62992, and 62985

Silver

80% - 120%



SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:

Western Refining

96012-0115

Sample ID:

TK23 Scale

Date Reported:

08-27-12

Lab ID#:

63018

Date Sampled:

08-16-12

Sample Matrix:

Soil

Date Received:

Project #:

08-24-12

Preservative:

Cool

Date Analyzed:

08-24-12

Condition:

Intact

Chain of Custody:

14279

Parameter

Result

IGNITABILITY:

Negative

CORROSIVITY:

Negative

pH = 7.39

REACTIVITY:

Negative

RCRA Hazardous Waste Criteria

Parameter

Hazardous Waste Criterion

IGNITABILITY:

Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21.

(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)

CORROSIVITY:

Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22.

(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)

REACTIVITY:

Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. (i.e. Violent reaction with water, strong base, strong acid, or the generation

of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)

Reference:

40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments:

TK 23

14279

CHAIN OF CUSTODY RECORD

Client: Western Refi Email results to:	ww	Pro	ject Name / Locat	ion:									A	NAL	YSIS	/ PAI	RAM	ETEF	द्ध			
Email results to:	zwnr.				n				8015)	1 8021)	8260)	S				-			Netal, -			
Client Phone No.: - 505 - 63み - L			ent No.: 96012 -						TPH (Method 8015)	BTEX (Method 8021)	VQC (Method 8260)	RCRA 8 Metals	Cation / Anion		TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE	A8 N		Sample Cool	Sample Intact
Sample No./ Identification	Sample Date	Sample Time	Lab No.		Volume ontainers	Pi HgCl ₂	reserva:	tive	TPH (BTEX	VOC.	RCRA	Cation	RĊI	TCLP	CO Ta	ТРН (CHLO	. RCEAS		Samp	Samp
TK23 Scale	8/16/12	945	430181	4)-	loz Jas				X	X				X					*		7	X
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Sample Matrix Soil Solid Sludge	Aqueous 🗌	Other 🗆																				
☐ Sample(s) dropped off after	hours to sec	ure drop off			en vi	/tica	ıl Lai	bora	tory	•							_			-	1	
5795 US Highway 64	• Farmingto	n, NM 87401	• 505-632-0615 • T	hree Spri	ngs • 65 M	ercad	lo Stre	et, Su	ite 11	15, Dυ	range	o, CC	8130	01 • I	abord	atory	@env	iroted	ch-inc.	com		

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Thursday, August 30, 2012 8:54 AM

To: Cc: 'Robinson, Kelly' Schmaltz, Randy

Subject:

RE: Request for Disposal Approval - Western Refining, Bloomfield Refinery - Sandblast

Grit

Ms. Robinson:

Good morning.

Approved.

We should handle future sandblast material disposal requests similarly. Please contact me if you have questions. Thank you.

Please be advised that OCD approval of this plan does not relieve Western Refining Southwest, Inc. of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Western Refining Southwest, Inc. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

Office: (505) 476-3490

E-mail: CarlJ.Chavez@State.NM.US

Website: http://www.emnrd.state.nm.us/ocd/

"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the

Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Wednesday, August 29, 2012 2:27 PM

To: Chavez, Carl J, EMNRD **Cc:** Schmaltz, Randy

Subject: Request for Disposal Approval - Western Refining, Bloomfield Refinery - Sandblast Grit

Good Afternoon Sir,

As a follow-up to your phone discussion earlier this afternoon, Western Refining Southwest, Inc. – Bloomfield Refinery (Western) is requesting the Oil Conservation Division's approval to dispose of sandblast grit material at the San Juan County Landfill located in Aztec, NM. The waste characterization analytical results for this material is attached for your review. This request is pursuant to Part 6.B of the facility's Discharge Permit (GW-001).

If you have any questions regarding this material, please do not hesitate to contact me at your convenience.

Thank you so much for your time, and I appreciate you taking the time to talk with me earlier today.

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com



Report Summary

Client: Western Refining

Chain of Custody Number: 14089

Samples Received: 08-16-12

Job Number: 96012-0115

Sample Number(s): 62985

Project Name/Location: Sand Blast Media TK #35

Entire Report Reviewed By:

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.



Date: _8/23/12



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics **Total Petroleum Hydrocarbons**

Client:	Western Refining	Project #:	96012-0115
Sample ID:	TK #35 Scale	Date Reported:	08-17-12
Laboratory Number:	62985	Date Sampled:	08-16-12
Chain of Custody No:	14089	Date Received:	08-16-12
Sample Matrix:	Soil	Date Extracted:	08-16-12
Preservative:	Cool	Date Analyzed:	08-17-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)	
Gasoline Range (C5 - C10)	ND	0.2	
Diesel Range (C10 - C28)	ND	0.1	
Total Petroleum Hydrocarbons	ND		

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, December 1996.

Comments:

Sand Blast Media TK #35





Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	0817TCAL QA/QC	Date Reported:	08-17-12
Laboratory Number:	62977	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-17-12
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	. I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	08-17-12	9.9960E+02	1.0000E+03	0.04%	0 - 15%
Diesel Range C10 - C28	08-17-12	9.9960E+02	1.0000E+03	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1 .
Total Petroleum Hydrocarbons	ND	

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	197	78.7%	75 - 125%
Diesel Range C10 - C28	ND ³	250	213	85.3%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Was

SW-846, USEPA, December 1996.

Comments:

QA/QC for Samples 62985-62987, 62977 and 62992

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS



Anal	ytical	Labor	atory
------	--------	-------	-------

Client:	Western Refining	Project #:	96012-0115
Sample ID:	TK #35 Scale	Date Reported:	08-17-12
Laboratory Number:	62985	Date Sampled:	08-16-12
Chain of Custody:	14089	Date Received:	08-16-12
Sample Matrix:	Soil	Date Analyzed:	08-17-12
Preservative:	Cool	Date Extracted:	08-16-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

	Dilution.	JU
	A STATE OF THE STA	Det.
	Concentration	Limit
Parameter	(ug/Kg)	(ug/Kg)
Benzene	17.6	10.0
Toluene	69.7	10.0
Ethylbenzene	17.9	10.0
p,m-Xylene	90.3	10.0
o-Xylene	40.9	10.0
Total BTEX	236	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
,	Fluorobenzene	84.0 %
	1,4-difluorobenzene	90.9 %
	Bromochlorobenzene	93.8 %

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

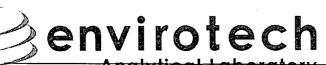
Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846.

USEPA, December 1996.

Comments:

Sand Blast Media TK #35

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS



Alluly	ncar Laborar e) 					
Glient:	N/A		roject #:	N	/A		
Sample ID:	0817BCAL QA/QC		ate Reported:		8-17-12		
Laboratory Number:	62977		ate Sampled:		N/A		
Sample Matrix:	Soil		ate Received:	N/A			
Preservative:	N/A		Date Analyzed:		8-17-12		
Condition:	N/A		nalysis:	BTEX			
	i. Digita ili majar ji karan minajaran pinga anggayan sasaran ang	D	ilution:	50			
Calibration and	I-Cal RF:	C-Cal RF:	%Diff:	Blank	Detect.		
Detection Limits (ug/L)	A STATE OF THE STA	ccept. Range 0-15%		Conc	Limit		
Benzene	1.2207E-05	1.2207E-05	0.000	ND	0.2		
Toluene	8.0323E-06	8.0323E-06	0.000	ND	0.2		
Ethyibenzene	7.6267E-06	7.6267E-06	0.000	ND	0.2		
p,m-Xylene	5.5308E-06	5.5308E-06	0.000	ND	0.2		
o-Xylene	7.7118E-06	7.7118E-06	0.000	ND	0.2		
Duplicate Conc. (ug/Kg) Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene	Sample ND ND ND ND ND ND	Duplicate ND ND ND ND ND ND	%Diff. 0.00 0.00 0.00 0.00 0.00	0 - 30% 0 - 30% 0 - 30% 0 - 30% 0 - 30%	Detect. Limit 10 10 10 10 10 10		
in and the second of the secon	the same of the same and the same and the same of	11	and the second				
Spike Conc. (ug/Kg)	Sample	Amount Spiked !	Spiked Sample	% Recovery	Accept Range		
Benzene	ND	2500	2400	96.0	39 - 150		
Toluene	ND	2500	2450	98.0	46 - 148		
Ethylbenzene	ND	2500	2460	98.4	32 - 160		
p,m-Xylene	ND	5000	4870	97.4	46 - 148		
o-Xylene	ND	2500	2440	97.6	46 - 148		
- 7.5 lone	ND	2500	244U	91.0	40 - 148		

ND - Parameter not detected at the stated detection limit.

Dilution: Spike and spiked sample concentration represent a dilution proportional to sample dilution.

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using

Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

QA/QC for Samples 62985-62987, 62977 and 62992



SUSPECTED HAZARDOUS **WASTE ANALYSIS**

Client:

Western Refining

Project #:

96012-0115

Sample ID:

TK #35 Scale

Date Reported:

08-23-12

Lab ID#:

62985

Date Sampled:

08-16-12

Sample Matrix:

Soil

Date Received:

08-16-12

Preservative:

Cool

Date Analyzed:

08-23-12

Condition:

Intact

Chain of Custody:

14089

Parameter

Result

IGNITABILITY:

Negative

CORROSIVITY:

Negative

pH = 4.48

REACTIVITY:

Negative

RCRA Hazardous Waste Criteria

Parameter

Hazardous Waste Criterion

IGNITABILITY:

Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21.

(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)

CORROSIVITY:

Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22.

(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)

REACTIVITY:

Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. (i.e. Violent reaction with water, strong base, strong acid, or the generation

of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)

Reference:

40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments:

Sand Blast Media TK #35



EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client:	Western Refining	Project #:	96012-0115
Sample ID:	TK#35 Scale	Date Reported:	08-21-12
Laboratory Number:	62985	Date Sampled:	08-16-12
Chain of Custody:	14089	Date Received:	08-16-12
Sample Matrix:	TCLP Extract	Date Analyzed:	08-20-12
Preservative:	Cool	Date Extracted:	08-17-12
Condition:	Intact	Analysis Needed:	TCLP Metals

		Det.	Regulatory
	Concentration	Limit	· Level
Parameter	(mg/L)	(mg/L)	(mg/L)
Arsenic	0.005	0.001	5.0
Barium	0.010	0.001	100
Cadmium	0.008	0.001	1.0
Chromium	0.734	0.001	5.0
Lead	0.001	0.001	5.0
Mercury	ND	0.001	0.2
Selenium	ND	0.001	1.0
Silver	ND	0.001	5.0

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA,

December 1996.

Method 3010 Acid Digestion of Aqueous Samples and Extracts for Total

Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission

SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C

section 261.24, August 24, 1998.

Comments: Sand Blast Media TK#35



EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS Quality Assurance Report

						·			
Client:		N/A		Project #:		N	N/A		
Sample ID:		08-20 TCM	QA/QC	Date Report	ted:	0	8-21-12		
Laboratory Number:		63016		Date Sampl	ed:	N	I/A		
Sample Matrix:		TCLP Extra	ct	Date Receiv	/ed:	N	I/A		
Analysis Requested:		TCLP Metal	s	Date Analyz	zed:	0	8-20-12		
Condition:		N/A		Date Extrac			8-17-12		
Blank & Duplicate Ir Conc. (mg/L)	nstrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Difference	Acceptance Range		
Arsenic	ND	ND	0.001	ND	ND	0.00%	0% - 30%		
Barium	ND	ND	0.001	0.213	0.218	2.49%	0% - 30%		
Cadmium	ND	ND	0.001	ND	ND	0.00%	0% - 30%		
Chromium	ND	ND	0.001	ND	ND	0.00%	0% - 30%		
Lead	ND	ND	0.001	ND	ND	0.00%	0% - 30%		
Mercury	ND	ND	0.001	ND	ND	0.00%	0% - 30%		
Selenium	ND	ND	0.001	ND	ND	0.00%	0% - 30%		
Silver	ND	ND	0.001	ND	ND	0.00%	0% - 30%		
Spike Conc. (mg/L)		Spike Added	Sample	Spiked Sample	Percent Recovery		Acceptance Range		
Arsenic		0.250	ND	0.256	102%		80% - 120%		
Barium		0.500	0.213	0.640	89.7%		80% - 120%		
Cadmium		0.250	ND	0.251	100%		80% - 120%		
Chromium		0.500	ND	0.477	95.4%		80% - 120%		
Lead		0.500	ND	0.491	98.1%		80% - 120%		
Mercury		0.100	ND	0.086	86.3%		80% - 120%		
Selenium		0.100	ND	0.100	100%		80% - 120%		
Silver		0.100	ND	0.093	92.7%		80% - 120%		

ND - Parameter not detected at the stated detection limit.

References:

Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Method 3010 Acid Digestion of Aqueous Samples and Extracts for Total Metals,

SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission,

SW-846, USEPA, December 1996.

Comments:

QA/QC for Sample 63016-63018, 62992, and 62985

14089

CHAIN OF CUSTODY RECORD

Client: Western Ref Email results to: Kelly. Robinson @wv	Sallator	PE	ojeet Name / Locat	>	ANALYSIS / PARAMETERS																	
Email results to:	1101709	·Sa	Bob Ky	ject-No	البون					£	<u></u>	1 5			Ι						T	T
Kelly Robinson @wv	m.con	<u>- \ </u>	PAND BLAST	- Me	Pia TK	it= 3	75		3015	802	8260	S 72			_	-						
Client Phone No.:		Cli	ont No.:		0115				TPH (Method 8015)	BTEX (Method 8021)	Method	RCRA 8 Metals TC	/ Anion		TCLP with H/P	CO Table 910-1	118.1)	RIDE			e Cool	Sample Intact
Sample No./ Identification	Sample Date	Sample Time	Lab No.	of Co	Volume ontainers	-	eservat HCI	ive	ТРН (Л	втех	voc (RCRA	Cation	RCI	TCLP	со Та	TPH (418.1)	CHLORIDE			Sample	Sampl
TK#35 scale	8-16-12	430	62985	2-80	JARS				X	X		X		X							Y	у
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Sample Matrix Soil☑ Solid ☐ Sludge ☐	Aqueous []	Other 🗌																		***************************************		
☐ Sample(s) dropped off after I			area.	<u>ا</u>	nvi Analy	r C) † (e C	: h	,											1	
5795 US Highway 64	• Farmingto	n, NM 8740	• 505-632-0615 • T	hree Spri	ngs • 65 Me	ercac	o Stre	et, Su	ite 11	5, Du	range	o, CC	8130	01 • 1	abore	atory@	@env	iroted	ch-inc.	com		

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD

Sent: Tuesday, August 21, 2012 2:52 PM

To: Robinson, Kelly (Kelly.Robinson@wnr.com)

Subject: FW: Request for Disposal Approval - Crude solids from Bloomfield Refinery

Kelly:

Re: Bloomfield Refinery is scheduled to clean-out the on-site heater treator vessel. This vessel uses steam to knock-out excess water from unrefined crude that is brought into the facility via tanker trucks. There are no chemicals introduced into this process. Over time, it is possible that grit and/or heavy crude solids have collected in the bottom of the heater treater. Western would like permission to dispose of this crude material off-site at an OCD Permitted facility in New Mexico. Since the waste material generated from a heater treater clean-out is crude, Western believes that this waste would qualify as a RCRA exempt material.

Good afternoon. The waste stream described above appears to be a liquid waste for disposal and not land treatment, and is defined under the exempt oilfield waste categories as: Accumulated material, i.e., hydrocarbon, solids and emulsion from product separator, fluid treating vessels and product impoundments; and/or liquid hydrocarbon removed from production water before injection or disposal.

While the waste generated is an "oilfield exempt waste" that was not listed in the discharge permit as a certain waste stream type, but it is liquid and still must be tested for disposal under Rule 35.8(D)(3). Therefore, it would seem that land treatment cannot be applied with testing under Rule 35.8(D)(2) (see regulation below). Rule 35.8(B)(1) still requires testing for disposal at a Solid Waste Facility. OCD would consider the test results and approval of a disposal facility at that time.

The OCD has land treatment regulations for treatment facilities like EnviroTech with minimum acceptance criteria, which would likely require additional testing, i.e., chlorides, to determine if the waste liquid stream could be accepted by EnviroTech. I would consult with EnviroTech on the practice of mixing liquid wastes that exceed the above specified testing criteria with clean soils to land treat at their facility.

Please contact me to discuss further or if you have questions.

19.15.35.8 DISPOSAL OF CERTAIN NON-DOMESTIC WASTE AT SOLID WASTE FACILITIES:

- A. A person may dispose of certain non-domestic waste arising from the exploration, development, production or storage of oil or gas; certain non-domestic waste arising from the oil field service industry; and certain non-domestic waste arising from oil or gas' transportation, treatment or refinement at a solid waste facility in accordance with 19.15.35.8 NMAC.
 - B. Procedure.
- (1) A person may dispose of waste listed in Paragraph (1) of Subsection D of 19:15:35.8 NMAC at a solid waste facility without the division's prior written authorization.
- (2) A person may dispose of waste listed in Paragraph (2) of Subsection D of 19.15.35.8 NMAC at a solid waste facility after testing and the division's prior written authorization. Before the division grants authorization, the applicant for the authorization shall provide copies of test results to the division and to the solid waste facility where the applicant will dispose of the waste. In appropriate cases and so long as a representative sample is tested, the division may authorize disposal of a waste stream listed in Paragraph (2) of Subsection D of 19.15.35.8 NMAC without individual testing of each delivery.
- (3) A person may dispose of waste listed in Paragraph (3) of Subsection D of 19.15.35.8 NMAC at a solid waste facility on a case- by-case basis after testing the division may require and the division's prior written authorization. Before the division grants authorization, the applicant for the authorization shall provide copies of test results to the division and to the solid waste facility where it will dispose of the waste.
- (4) Simplified procedure for holders of discharge plans. Holders of an approved discharge plan may amend the discharge plan to provide for disposal of waste listed in Paragraph (2) of Subsection D of 19.15.35.8 NMAC and, as applicable, Paragraph (3) of Subsection D of

19.15.35.8 NMAC. If the division approves the amendment to the discharge plan, the holder may dispose of wastes listed in Paragraphs (2) and (3)

of Subsection D of 19.15.35.8 NMAC at a solid waste facility without obtaining the division's prior written authorization.

- **C.** The following provisions apply to the types of waste described below as specified.
 - (1) The person disposing of the waste does not have to test the following waste before disposal:
 - (a) barrels, drums, five-gallon buckets or one-gallon containers so long as they are empty and EPA-clean;
 - (b) uncontaminated brush and vegetation arising from clearing operations;
 - (c) uncontaminated concrete:
 - (d) uncontaminated construction debris:
- (e) non-friable asbestos and asbestos contaminated waste material, so long as the disposal complies with applicable federal regulations and state rules for non-friable asbestos materials and so long as the facility operator removes the asbestos from steel pipes and boilers and, if applicable, recycles the steel;
 - (f) detergent buckets, so long as the buckets are completely empty;
 - (g) fiberglass tanks so long as the tank is empty, cut up or shredded and EPA clean;
 - (h) grease buckets, so long as empty and EPA clean;
 - (i) uncontaminated ferrous sulfate or elemental sulfur so long as recovery and sale as a raw material is not possible;
 - (j) metal plate and metal cable;
 - (k) office trash;
 - (I) paper and paper bags, so long as the paper bags are empty;
 - (m) plastic pit liners, so long as the person cleans them well;
 - (n) soiled rags or gloves, which if wet pass the paint filter test prior to disposal; or
 - (o) uncontaminated wood pallets.
 - (2) The person disposing of the waste shall test the following wastes for the substances indicated prior to disposal:
 - (a) activated alumina for TPH and BTEX;
 - (b) activated carbon for TPH and BTEX;
 - (c) amine filters, which the facility operator air-dries for at least 48 hours before testing, for BTEX;
 - (d) friable asbestos and asbestos-contaminated waste material, which the facility operator removes asbestos from steel pipes

and boilers and, if applicable, recycles the steel before disposal, where the disposal otherwise complies with applicable federal regulations and state rules for friable asbestos materials pursuant to NESHAP;

(e) cooling tower filters, which the facility operator drains and then air-dries for at least 48 hours before testing, for

TCLP/chromium;

- (f) dehydration filter media, which the facility operator drains and then air-dries for at least 48 hours before testing, for TPH and BTEX:
- (g) gas condensate filters, which the facility operator drains and then air-dries for at least 48 hours before testing, for BTEX;
- (h) glycol filters, which the facility operator drains and then air-dries for at least 48 hours before testing, for BTEX;
- (i) iron sponge, which the facility operator oxidizes completely, for ignitability testing;
- (j) junked pipes, valves and metal pipe for NORM;
- (k) molecular sieves, which the facility operator cools in a non-hydrocarbon inert atmosphere and hydrates in ambient air for at

least 24 hours before testing, for TPH and BTEX;

- (I) pipe scale and other deposits removed from pipeline and equipment for TPH, TCLP/metals and NORM;
- (m) produced water filters, which the facility operator drains and then air-dries for at least 48 hours before testing, for corrosivity;
- (n) sandblasting sand for TCLP/metals or, if the division requires, TCLP/total metals; or
- (o) waste oil filters, which the facility operator drains thoroughly of oil at least 24 hours before testing and recycles the oil and metal parts, for TCLP/metals.
- (3) A person may dispose of the following wastes on a case-by-case basis with the division's approval:
 - (a) sulfur

contaminated

soil;

- (b) catalysts;
- (c) contaminated soil other than petroleum contaminated soil;
- (d) petroleum contaminated soil in the event of a director-declared emergency;
- (e) contaminated concrete;

- (f) demolition debris not otherwise specified in 19.15.35.8 NMAC;
- (g) unused dry chemicals; in addition to testing the division requires, the person applying for division approval shall forward a copy of the material safety data sheet to the division and the solid waste facility on each chemical proposed for disposal;
- (h) contaminated ferrous sulfate or elemental sulfur;
- (i) unused pipe dope;
- (j) support balls;
- (k) tower packing materials;
- (I) contaminated wood pallets;
- (m) partial sacks of unused drilling mud; in addition to testing the division requires, the person applying for division approval shall forward a copy of the material safety data sheet to division and the solid waste facility at which the it will dispose of the partial sacks; or
- (n) other wastes as applicable.
- **D.** Testing.

(1) The person applying for division approval to dispose of waste in a solid waste facility shall conduct testing required by

NMAC according to the Test Methods for Evaluating Solid Waste, EPA No. SW-846 and shall direct questions concerning the standards or a particular testing facility to the division.

- (2) The testing facility shall conduct testing according to the test method listed:
 - (a) TPH: EPA method 418.1 or 8015 (DRO and GRO only) or an alternative, division-approved hydrocarbon analysis;
 - (b) TCLP: EPA Method 1311 or an alternative hazardous constituent analysis approved by the division;
 - (c) paint filter test: EPA

Method 9095A;

(d) ignitability test: EPA

Method 1030;

(e) corrosivity: EPA Method

1110;

- (f) reactivity: test procedures and standards the division establishes on a case-by-case basis; and
- (g) NORM. 20.3.14 NMAC.
- (3) To be eligible for disposal pursuant to 19:15:35.8 NMAC; the concentration of substances the testing facility identifies during testing shall not exceed the following limits:
 - (a) benzene: 9.99 mg/kg;
 - (b) BTEX: 499.99 mg/kg (sum of all);
 - (c) TPH: 1000 mg/kg;
 - (d) hazardous air pollutants: the standards set forth in NESHAP; and
 - (e) TCLP:
 - (i) arsenic: 5 mg/l,
 - (ii) barium:

100 mg/l,

- (iii) cadmiu
- m: 1 mg/l,
- (iv) chromiu
- m: 5 mg/l,
- (v) lead: 5

mg/l,

(vi) mercury: 0.2 mg/l,

(vii) selenium: 1 mg/l, and

(viii) silver: 5 mg/l.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

Office: (505) 476-3490

E-mail: CarlJ.Chavez@State.NM.US

Website: http://www.emnrd.state.nm.us/ocd/

"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Tuesday, August 21, 2012 1:40 PM

To: Chavez, Carl J, EMNRD **Cc:** Schmaltz, Randy

Subject: Request for Disposal Approval - Crude solids from Bloomfield Refinery

Good Morning Sir,

Over the course of the next couple weeks, Western Refining Southwest, Inc. – Bloomfield Refinery is scheduled to clean-out the on-site heater treater vessel. This vessel uses steam to knock-out excess water from unrefined crude that is brought into the facility via tanker trucks. There are no chemicals introduced into this process. Over time, it is possible that grit and/or heavy crude solids have collected in the bottom of the heater treater. Western would like permission to dispose of this crude material off-site at an OCD Permitted facility in New Mexico. Since the waste material generated from a heater treater clean-out is crude, Western believes that this waste would qualify as a RCRA exempt material.

Since this type of waste stream is not generated routinely at the Bloomfield Facility, it was not included in the current Discharge Permit Application and therefore is not one of the OCD pre-approved waste streams. Therefore, off-site disposal of the anticipated crude waste from the heater treater turnaround requires OCD approval.

If you have any questions, please let me know at your convenience.

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Tuesday, August 21, 2012 7:00 AM

To: Cc: 'Robinson, Kelly' Schmaltz, Randy

Subject:

RE: Western Refining Southwest, Inc. - Bloomfield Refinery - Request for Disposal

(GW-001)

Kelly:

The New Mexico Oil Conservation Division hereby approved the disposal of sandblast media at the nearby NMED Solid Waste Disposal Facility.

Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

Office: (505) 476-3490

E-mail: CarlJ.Chavez@State.NM.US

Website: http://www.emnrd.state.nm.us/ocd/

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Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Friday, August 17, 2012 9:59 AM

To: Chavez, Carl J, EMNRD **Cc:** Schmaltz, Randy

Subject: RE: Western Refining Southwest, Inc. - Bloomfield Refinery - Request for Disposal

Importance: High

Good Morning Sir,

I left you a message on your voice-mail, but thought that it may be easier for I better explained myself on "paper."

The waste facility for the sandblast media is an NMED Permitted facility through the Solid Waste Bureau Department. The facility has provided me preliminary approval for acceptance on the waste; however that approval is contingent on Western providing Waste Management documentation that OCD also approves of disposal of this material at their landfill. Waste Management cites that their need for OCD approval is to ensure that they would not be accepting any type of waste that would be considered unacceptable by OCD. They site regulation 19.15.35.8 NMAC within which it does identify sandblasting sand as an acceptable non-domestic waste pending specific analytical (which was provided earlier). In addition, Waste Management did state that their DMP for their facility indicates sand blast grit as a NM Special Waste and therefore they manage it as such.

With this said, if the disposal facility does not have any reservation in accepting of this material based on the analytical earlier provided, would OCD have any objection of Western disposing of this material at the Waste Management facility?

Sir, I apologize for taking up so much of your time, and I promise to do what I can to make any future requests less complicated for everyone involved.

Sincerely,

Kelly R. Robinson
Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

(o) 505-632-4166

(c) 505-801-5616

(f) 505-632-4024

(e) kelly.robinson@wnr.com

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Thursday, August 16, 2012 4:51 PM

To: Robinson, Kelly **Cc:** Schmaltz, Randy

Subject: RE: Western Refining Southwest, Inc. - Bloomfield Refinery - Request for Disposal

Kelly:

Good afternoon.

I think the dilemma we face has to do with the regulated facility receiving the waste.

If the waste is in the OCD Discharge Permit, no permission is needed from the OCD for waste going to an OCD permitted treatment/disposal facility. However, when the waste is to go to a non-OCD permitted facility, the operator must contact that facility for permission and any criteria required for treatment or disposal. To my knowledge, RCRA facilities will only accept OCD type "Special Waste" if it has that certification and typically only chloride and/or petroleum hydrocarbon contaminated oilfield "special waste".

Consequently, your waste is not even "special waste" to the RCRA facility. Please contact the RCRA facility to check to see if they will accept the waste. Sandblast waste may be a RCRA waste they will accept.

Call me tomorrow if you have questions or for further communication on this. Thanks.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

Office: (505) 476-3490

E-mail: CarlJ.Chavez@State.NM.US

Website: http://www.emnrd.state.nm.us/ocd/

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Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Thursday, August 16, 2012 3:24 PM

To: Chavez, Carl J, EMNRD **Cc:** Schmaltz, Randy

Subject: Western Refining Southwest, Inc. - Bloomfield Refinery - Request for Disposal

Importance: High

Good Afternoon Sir,

Western Refining Southwest, Inc. – Bloomfield Refinery (Western) recently completed sandblasting activities that were conducted on Tank 12 in preparation for conducting an internal tank inspection. Following completion of sandblasting activities on Tank 12, approximately 20 cubic yards of sandblast waste material was generated. This waste is very similar to the waste OCD approved on January 10, 2012 with the exception that the media in January of this year was generated from sandblasting the inside shell of a different tank although the service of the tank was the same.

Please find attached the analytical results of a composite sample collected of the sandblast waste material.

- TPH-DRO and GRO
- Total Benzene, Toluene, Ethlylbenzene, and Xylenes
- TCLP RCRA 8 Metals
- Reactivity, Corrosively, and Ignitability

The analytical results indicate that the sandblast media is <u>non-hazardous</u>. Since this type of waste stream was not included in the facility's approved Discharge Plan, Western respectfully requests approval from the New Mexico Oil Conservation Division (OCD) to dispose of the sandblast media waste at the San Juan County Landfill located at #78 Road 3140 in Aztec, New Mexico. This landfill is operated by Waste Management.

If there are any questions on this topic, please feel free to contact me at your convenience. As always, I very much appreciate your time and consideration in this matter.

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com

Chavez, Carl J. EMNRD

From:

Chavez, Carl J. EMNRD

Sent:

Wednesday, August 15, 2012 7:42 AM

To:

'Robinson, Kelly'

Cc:

Schmaltz, Randy; VanHorn, Kristen, NMENV

Subject:

RE: Western Refining Southwest, Inc. - Bloomfield Refinery - Request for Disposal

Approval

Kelly:

Good morning.

The OCD notices that this is a small volume of RCRA derived waste from a RCRA investigation, which is not a listed OCD waste stream under the OCD discharge permit and likely reason you are contacting the OCD for approval. OCD recommends that you contact a RCRA Landfill for disposal criteria and acceptance of the RCRA derived waste.

Since the analytical data has not identified petroleum hydrocarbon contaminated soils or cuttings are present, the request for land treatment at an OCD permitted land treatment facility does not appear to be applicable. The elevated reactive sulfide may require disposal at a RCRA disposal facility.

OCD General Comments on the Analytical Data Submittal:

- 1) BTEX is not present and TPH (DRO/GRO) is negligible to dispose at an OCD permitted landfarm. OCD landfarms have Chloride limits based on the depth to water table at the land treatment facility and Chlorides were not analyzed.
- 2) Hall Environmental Laboratory QA/QC: LCS spikes for Mercury do not appear to meet QA/QC because the PQL and ND are much higher than the spiked sample concentration with percent recovery that does not appear to be accurate. The same for metals QA/QC.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

Office: (505) 476-3490

E-mail: CarlJ.Chavez@State.NM.US

Website: http://www.emnrd.state.nm.us/ocd/

"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the

Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Tuesday, August 14, 2012 3:56 PM

To: Chavez, Carl J, EMNRD

Cc: Schmaltz, Randy

Subject: Western Refining Southwest, Inc. - Bloomfield Refinery - Request for Disposal Approval

Good Afternoon Sir!

Western Refining Southwest, Inc. – Bloomfield Refinery respectfully requests OCD's consideration and approval to dispose of approximately one cubic yard of soil cutting generated during recent RCRA Investigation activities conducted at the Bloomfield Refinery. One composite waste characterization sample was collected and submitted to the laboratory for analysis. The sample was analyzed for the following:

- BTEX by EPA Method 8021B
- TCLP RCRA 8 Metals by EPA Method 6010B
- Reactivity, Ignitability, Corrosivity
- TPH-DRO and GRO

Pending OCD approval, Western will be requesting Envirotech's acceptance of this waste at their land farm in Hill Top, New Mexico.

If you have any questions or need any additional information, please feel free to contact me at your convenience. Thank you so much for your time, and I hope you have a wonderful evening!

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com

Chavez, Carl J, EMNRD

From:

Robinson, Kelly < Kelly.Robinson@wnr.com>

Sent:

Tuesday, August 14, 2012 3:56 PM

To:

Chavez, Carl J, EMNRD

Cc:

Schmaltz, Randy

Subject:

Western Refining Southwest, Inc. - Bloomfield Refinery - Request for Disposal Approval

Attachments:

Rpt_1205797_v1.pdf; Western Refining Southwest- Bloomfield Refinery.pdf

Good Afternoon Sir!

Western Refining Southwest, Inc. – Bloomfield Refinery respectfully requests OCD's consideration and approval to dispose of approximately one cubic yard of soil cutting generated during recent RCRA Investigation activities conducted at the Bloomfield Refinery. One composite waste characterization sample was collected and submitted to the laboratory for analysis. The sample was analyzed for the following:

- BTEX by EPA Method 8021B
- TCLP RCRA 8 Metals by EPA Method 6010B
- Reactivity, Ignitability, Corrosivity
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If you have any questions or need any additional information, please feel free to contact me at your convenience. Thank you so much for your time, and I hope you have a wonderful evening!

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

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- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

June 05, 2012

Bob Krakow

Western Refining Southwest, Inc.

#50 CR 4990

Bloomfield, NM 87413

TEL: (505) 632-4135 FAX (505) 632-391.1

RE: Drill Cuttings 5-16-12

OrderNo.: 1205797

Dear Bob Krakow:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/17/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1205797

Date Reported: 6/5/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Matrix: SOIL

Client Sample ID: Group 6+8

Project: Lab ID: Drill Cuttings 5-16-12

1205797-001

Collection Date: 5/16/2012 1:15:00 PM

Received Date: 5/17/2012 10:15:00 AM

Analyses	Result RL Qual Units		al Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.049	mg/Kg	1	5/23/2012 2:59:18 AM
Toluene	ND	0.049	mg/Kg	1	5/23/2012 2:59:18 AM
Ethylbenzene	ND	0.049	mg/Kg	1	5/23/2012 2:59:18 AM
Xylenes, Total	ND	0.098	mg/Kg	1	5/23/2012 2:59:18 AM
Surr: 4-Bromofluorobenzene	84.1	80-120	%REC	1	5/23/2012 2:59:18 AM
MERCURY, TCLP					Analyst: IDC
Mercury	ND	0.020	mg/L	1	5/22/2012 3:32:25 PM
EPA METHOD 6010B: TCLP METALS					Analyst: JLF
Arsenic	ND	5.0	mg/L	1	5/23/2012 11:12:54 AM
Barium	ND	100	mg/L	1	5/23/2012 11:12:54 AM
Cadmium	ND	1.0	mg/L	1	5/23/2012 11:12:54 AM
Chromium	ND	5.0	mg/L	1	5/23/2012 11:12:54 AM
Lead	ND	5.0	mg/L	1	5/23/2012 11:12:54 AM
Selenium	ND	1.0	mg/L	1	5/23/2012 11:12:54 AM
Silver	ND	5.0	mg/L	1	5/23/2012 11:12:54 AM

Qualifiers:

*/X Value exceeds Maximum Contaminant Level.

Е Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

Spike Recovery outside accepted recovery limits

В Analyte detected in the associated Method Blank

Η Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Reporting Detection Limit

Page 1 of 4

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com 504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:

HALL ENVIRONMENTAL ANALYSIS LAB

Batch #:

120522049

Address:

4901 HAWKINS NE SUITE D

Project Name:

1205797

ALBUQUERQUE, NM 87109

Attn:

ANDY FREEMAN

Analytical Results Report

Sample Number

120522049-001

Sampling Date

5/16/2012

Date/Time Received 5/

5/22/2012 1:00 PM

Client Sample ID

1205797-001B / GROUP 6+8

Sampling Time

1:15 PM

Matrix

Soil

Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	6/4/2012	CRW	SW846 CH7	
Ignitability	Negative			5/24/2012	JWC	EPA 1030	
pН	7.55	ph Units		5/30/2012	ETL	EPA 9045	
Reactive sulfide	524	mg/kg	200	6/4/2012	JTT	SW846 CH7	
%moisture	8.5	Percent		5/31/2012	CRW	%moisture	

Authorized Signature

John Coddington, Lab Manager

MCL

EPA's Maximum Contaminant Level

ND PQL Not Detected Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory. The results reported relate only to the samples indicated.

Soil/solid results are reported on a dry-weight basis unless otherwise noted.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1205797

05-Jun-12

Client:

Western Refining Southwest, Inc.

Project:

Drill Cuttings 5-16-12

Sample ID MB-2011	SampT	ype: ME	BLK	Tes						
Client ID: PBS	Batc	n ID: 20	11	F	RunNo: 2	921	•			
Prep Date: 5/18/2012	Analysis Date: 5/21/2012			SeqNo: 81658			Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050							,	
Toluene	ND	0.050								
Ethylbenzene	· ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.85		1.000		84.9	80	120			

Sample ID LCS-2011	Samp1	Type: LC	s	Tes	tCode: El					
Client ID: LCSS Batch-ID: 2011 RunNo: 2921										
Prep Date: 5/18/2012	Analysis [Date: 5 /	22/2012	S	SeqNo: 8	1659	Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.050	1.000	0	82.6	83.3	107			S
Toluene	0.87	0.050	1.000	0	86.6	74.3	115			
Ethylbenzene	0.85	0.050	1.000	0	85.2	80.9	122			
Xylenes, Total	2.6	0.10	3.000	0	85.4	85.2	123			
Surr: 4-Bromofluorobenzene	0.88		1.000		88.0	80	120			

Qualifiers:

R RPD outside accepted recovery limits

RL Reporting Detection Limit

Page 2 of 4

^{*/}X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

I Analyte detected below quantitation limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1205797

05-Jun-12

Client:

Western Refining Southwest, Inc.

Project:

Drill Cuttings 5-16-12

Sample ID MB-2065

SampType: mblk

TestCode: MERCURY, TCLP

Client ID: **PBW**

Batch ID: 2065

RunNo: 2954

Prep Date: 5/22/2012

Analysis Date: 5/22/2012

SeqNo: 82002

Units: mg/L HighLimit

%RPD **RPDLimit**

Qual

Analyte Mercury

Result PQL SPK value SPK Ref Val %REC LowLimit ND 0.020

Client ID:

LCSW

SampType: Ics Batch ID: 2065

RunNo: 2954

Prep Date: 5/22/2012

Sample ID LCS-2065

Analysis Date: 5/22/2012

SeqNo: 82003

Units: mg/L

Result

PQL SPK value SPK Ref Val %REC

HighLimit

%RPD **RPDLimit**

0.005000

TestCode: MERCURY, TCLP

0.020

Analyte Mercury

ND

101

120

Qual

Qualifiers:

Value exceeds Maximum Contaminant Level.

Value above quantitation range E

J Analyte detected below quantitation limits

Analyte detected in the associated Method Blank Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Reporting Detection Limit

Page 3 of 4

RPD outside accepted recovery limits R

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1205797

05-Jun-12

Client:

Western Refining Southwest, Inc.

Project:

Drill Cuttings 5-16-12

Sample ID MB-2061	SampT	ype: ME	BLK	Tes						
Client ID: PBW	Batch	1D: 20	61	RunNo: 2973						
Prep Date: 5/22/2012	Analysis D	ate: 5/	23/2012	5	SeqNo: 8	2596	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								
Selenium	ND	1.0								
Silver	ND	5.0								

Sample ID LCS-2061	SampType: LCS TestCode: EPA Method 6010B: TCLP Metals											
Client ID: LCSW	Batch	1D: 20	61	RunNo: 2973								
Prep Date: 5/22/2012	Analysis D	ate: 5/	23/2012	S	SeqNo: 8	2597	Units: mg/L	•				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Arsenic	ND	5.0	0.5000	0	96.0	80	120					
Barium	ND	100	0.5000	0	83.9	80	120					
Cadmium	ND	1.0	0.5000	0	87.2	80	120					
Chromium	ND	5.0	0.5000	0.001050	84.9	80	120					
Lead	ND	5.0	0.5000	0.002200	82.4	80	120					
Selenium	ND	1.0	0.5000	0	81.6	80	120					
Silver	ND	5.0	0.1000	0.0004000	88.0	80	120					

Qualifiers:

^{*/}X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

Analyte detected below quantitation limits

R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87105

TEL: 505-345-3975 FAX: 505-345-410; Website: www.hallenvironmental.com

Sample Log-In Check List

Client N	lame:	Western Re	efining Southwes	st, Inc Bloomfield	Work On	der Nur	nber: 1	1205797		
Receive	ed by/date:	:		05/17/12						,
Logged	Ву:	Lindsay Ma	angin	5/17/2012 10:15:0	00 AM		0	y Hlygo		
Complet	eted By:	Lindsay Ma	ingin	5/18/2012 9:26:23	AM		4	ymys yllys		
Reviewe	ed By: .	1728		05/18/12			V			
Chain e	of Custo	ody								
1. We	ere seals ir	ntact?			Yes	□ N	。	Not Present		
2. Is C	Chain of C	ustody comp	lete?		Yes	☑ N	• 	Not Present		
3. Hov	w was the	sample deliv	/ered?		<u>UPS</u>					•
Log In			•	•						•
4. Co	olers are p	oresent? (see	19. for cooler s	pecific information)	Yes	✓ N	o 🗆	na 🗆		•
5. Wa	ıs an atten	npt made to	cool the samples	s?	Yes	☑ N	• 	na 🗆	•	
6. We	ere all sam	ples receive	d at a temperatu	re of >0° C to 6.0°C	Yes	✓ N	• 	na 🗆		
7. Sar	mple(s) in	proper conta	niner(s)?		Yes	✓ N	o 🗆			
8. Suf	fficient sar	nple volume	for indicated tes	t(s)?	Yes	☑ N	o 🗆			
9. Are	samples	(except VOA	and ONG) prop	erly preserved?	Yes	✓ N	• 🗆			
10. Wa	is preserva	ative added t	o bottles?		Yes	□ N	o 🗹	NA \square		
11. VO	A vials ha	ve zero head	Ispace?		Yes	□ N	o 🗆	No VOA Vials 🗹		
12. We	ere any sai	mple contain	ers received bro	ken?	Yes		• 🔽	[
		ork match bo ancies on ch	ottle labels? ain of custody)	•	Yes	✓ N	o	# of present bottles check for pH:		
14. Are	matrices	correctly ide	ntified on Chain	of Custody?	Yes	✓ N	• 		(<2 or >1:	2 unless noted)
15. Is it	t clear wha	at analyses w	vere requested?			✓ N		Adjus	ted?	
		-	le to be met? authorization.)		Yes	☑ N	o 🗆	Check	ed by:	
Special	l Handli	ing (if app	licable)							
17. Wa	s client no	otified of all d	iscrepancies wit	n this order?	Yes	□ N	□	NA 🗹		
	By Who Regardi	ng:		Da Via	te: eMa	i 🗀 i	Phone	☐ Fax ☐ In Pe	rson	
L_		estructions:	-							_
18. Add	ditional rer	marks:								
	oler Infori Cooler No		Condition S	Seal Intact Seal No	Seal Da	te	Signo	ed By		

Chain-of-Custody Record				Turn-Around Time:				HALL ENVIRONMENTAL													
Client	West	erp	Refining	Standard □ Rush			1	94.													AAY A
					Project Name:			ANALYSIS LABORATORY www.hallenvironmental.com						-17							
Vailing Address: #58 CR 4990				DRILL (Littings	5-16-12		49	01 H							, NM		19			MAY-17-2012
Bloonfield, NM 874/3			Project #:	- Miley 5		7								•			,,				
Phone #: 525-632 -4135								Tel. 505-345-3975 Fax 505-345-4107 Analysis Request							10:16						
email or				Project Mana	ger:		_	(ylc	el)					SO,)				Т	TT		1 6
JA/QC	Package:						021	S or	Die				_	ŧΙ	8						
Stan	dard		☐ Level 4 (Full Validation)		4			(3	3as/				3	g	2						
				Sampler:	264 Ter	ny 2,9 on his	(8021)	TPH (Gas only)) BS	=	=	=	الح	စ္နီ	88					2	, I E
□ EDĐ	(Type)		· · · · · · · · · · · · · · · · · · ·	Onsteel Sample (12)	ant.	T. No.	對子	+	801	418	8	A I	<u>s</u>	ဖွံ့ ြ	93 /		€			2	STE
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Date	Time	Matrix	Sample Request ID	Container	Preservative	THEALAND C	7	+	Met	Met	Met	S.	18	S (F)	Pes	ا ج	Sec	Ţ	1 1	hhie	
00.0	,		Ozmpio requoerio	Type and #	Туре		BTEX +	BTEX + MTBE	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals TC	Anions (F,CI,NO3,NO2,PO	8081 Pesticides / 8082 PCB	8260B (VOA)	8270 (Semi-VOA)	<u> </u>		Air Bubbles (Y or N)	
5-16-12	1:15	Sil	Group le + 8	1-fortor		1205797-001		"	-	╌┤	╣	*	-	8 ·	8	~ -	ᢡ┼	+	+	+	WESTERN REFBLOOMFIELD
516-12	1:15		Group 6 + 8	1-803 Jas		140714-101	1				\dashv	+	X	\dashv	\dashv		寸,	1	┼┼	十	- [[]
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Date: 010 16 -12	3:00	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	beit Kroken	/ /		Date Time	Ker	narks	S .												
D 76 - 13 Date:	Time:	Reinquish	ed by:	Received by:	YM July	<i>205 17 12 10 5</i>	-														P. 6
T Cate:				Y 7/	1																P.01/01
•	E .	I.	\ /	• •	: /		1														,

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Report Summary

Client: Western Refining Southwest, Inc.

Chain of Custody Number: 14088.

Samples Received: 07-18-12

Job Number: 96012-0115

Sample Number(s): 62630

Project Name/Location: Bloomfield Refinery

Entire Report Reviewed By:

Date: 7/24/12

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Western Refining Southwest, Inc	Project #:	96012-0115
Sample ID:	Grp 6/8 Soil Cuttings	Date Reported:	07-20-12
Laboratory Number:	62630	Date Sampled:	07-17-12
Chain of Custody No:	14088	Date Received:	07-18-12
Sample Matrix:	Soil	Date Extracted:	07-18-12
Preservative:	Cool	Date Analyzed:	07-19-12
Condition:	Intact	Analysis Requested:	8015 TPH

		Det.
	Concentration	Limit
Parameter	(mg/Kg)	(mg/Kg)

Gasoline Range (C5 - C10)

ND

0.2

ND - Parameter not detected at the stated detection limit.

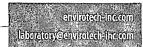
References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating

Solid Waste, SW-846, USEPA, December 1996.

Comments:

Bloomfield Refinery





EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	0719TCAL QA/QC	Date Reported:	07-20-12
Laboratory Number:	62630	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-19-12
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF: %	Difference	Accept. Range
Gasoline Range C5 - C10	07-19-12	9.9960E+02	1.0000E+03	0.04%	0 - 15%
Diesel Range C10 - C28	07-19-12	9.9960E+02	1.0000E+03	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	296	118%,	75 - 125%
Diesel Range C10 - C28	ND	250	305	122%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Was

SW-846, USEPA, December 1996.

Comments:

QA/QC for Samples 62630, 62632-62633, 62636-62638 and 62640





12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Lynn Berry EnviroTech- NM 5796 US. Highway 64 Farmington, NM 87401

Report Summary

Thursday July 26, 2012

Report Number: L586026 Samples Received: 07/20/12 Client Project: 96012-0115

Description: Bloomfield Refinery

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Daphne Richards , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704/BI0041, ND - R-140. NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1, TX - T104704245-11-3, OK - 9915, PA - 68-02979

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

This report may not be reproduced, except in full, without written approval from ESC Lab Sciences. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



YOUR LAB OF CHOICE

Sample ID

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

July 26,2012

Lynn Berry EnviroTech- NM 5796 US. Highway 64 Farmington, NM 87401

ESC Sample # : L586026-01

Project # : 96012-0115

Date Received : July 20, 2012 Description : Bloomfield Refinery

Site ID : : GRP 6/8 SOIL CUTTINGS-62630

Collected By : K. Robinson Collection Date : 07/17/12 15:00

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	92.5	0.100	8	2540G	07/26/12	1
Diesel and Oil Ranges						
C10-C28 Diesel Range	6.0	4.3	mg/kg	8015	07/24/12	1
C28-C40 Oil Range	BDL	4.3	mq/kq	8015	07/24/12	1
Surrogate Recovery			, ,			
o-Terphenyl	94.3		% Rec.	8015	07/24/12	1

This report shall not be reproduced, except in full, without the written approval from ESC. The reported analytical results relate only to the sample submitted Reported: 07/26/12 13:05 Printed: 07/26/12 13:05

Summary of Remarks For Samples Printed 07/26/12 at 13:05:37

TSR Signing Reports: 288 R5 - Desired TAT

Auto QC on all reports Full TCLP also requires RCI Dry wt PO NUMBERS ON ALL PROJECTS Glycols-sub outs \$225

Sample: L586026-01 Account: ENVIROFNM Received: 07/20/12 09:00 Due Date: 07/27/12 00:00 RPT Date: 07/26/12 13:05

7



YOUR LAB OF CHOICE EnviroTech- NM

Lynn Berry 5796 Us. Highway 64

Farmington, NM 87401

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5659 Fax (615) 758-5859

Tam I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L586026

July 26, 2012

		Labo	ratory Blank				
Analyte	Result	Uni	.s % F	ec	Limit	Batch	Date Analyzed
C10-C28 Diesel Range	< 4	mg/l	kg			WG603731	07/23/12 21:0
C28-C40 Oil Range	< 4	mg/1	kg			WG603731	07/23/12 21:0
o-Terphenyl		% Re	ec. 90	0.94	50-150	WG603731	07/23/12 21:0
Total Solids	< .1					. WG604447	07/26/12 09:3
		I	Duplicate				
Analyte	Units	Result	Duplicate	RPD	Limit	Ref Sam	p Batch
Total Solids	%	83.0	81.0	2.89	5	L586630	-03 WG 60 4 4 4
		Laborato	ry Control Sa	mple			
Analyte	Units	Known V		Result	% Rec	Limit	Batch
Total Solids	8	50	50	n	100.	85-115	WG 60444

Batch number /Run number / Sample number cross reference

WG603731: R2269096: L586026-01 WG604447: R2273454: L586026-01

^{* *} Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



YOUR LAB OF CHOICE

EnviroTech- NM Lynn Berry 5796 US. Highway 64

Farmington, NM 87401

Quality Assurance Report

L586026

July 26, 2012

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859 Tax I.D. 62-0814289

Est. 1970

The data package includes a summary of the analytic results of the quality control samples required by the SW-646 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

Company Name/Address:		Alt	ernate billin	g information:			A	nalysis/Co	ntainer/P	reservative	G153	ain of Custody
EnviroTech- NM											Prepared by:	1ge
5706 HC Hisham 64	٠										₩ ENVIRO	ONMENTAL
5796 US. Highway 64 Farmington.NM 87401											SCIENC	CE CORP.
											12065 Let	oanon Road
Report to: Lynn Berry		Ema	il to: lipecr	y@ enviro	tech line	CO					Mt. Juliet,	IN 37122
Project	г· .		City/Sate Collected	The Chialito	icer inter	COMI					Phone (6	15) 758-5858
Description: Bloowfield Re- Phone: (505) 632-0615	Client Project #	<u> </u>	ESC Key	/:		<u></u>	ا ما					00) 767-5859
FAX:	9405 941		1				(A)				FAX (6	15) 758-5859
Collected by: K. Robinson	Site/Facility ID		P.O.#:	20174	^		ORL,					DHEW YES
Collected by (signature):	Rush? (Lal	b MUST Be N	lotified)		Its Needed:		8				CoCode: ENVIRO	FNN (lab use only
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Immediately Packed on Ice N Y Y	Tw	o Day	. 50%	FAX?		of	80				Shipped Via:	
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Remarks:								4341	9823	054710w	Oth	er
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CHAIN OF CUSTODY RECORD

1408

Client: Western Refining Scuthward, luc	Project Name / Locat	ion: reid Rafi	ueri		ANALYSIS / PARAMETERS											
Email results to: Kelly. Robinson Cienro conn	Sampler Name:	Project Name / Location: Sisour Geid Refinery Sampler Name: Lelly Robinsiss Client No.:			1 8021)	8260)			0				TPH-DRO, MRO, CARD			
Client Phone No.: 505 - 632 - 41 しゅ	Client No.:	Client No.: — 94012-0115			BTEX (Method 8021)	VOC (Method 8260) RCBA 8 Metals	Cation / Anion		TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE	DRO N		Sample Cool	Sample Intact
Sample No./ Identification Sample Sam Date Tin	l Lab No.	No./Volume of Containers	Preservative HgCl2 HCI	TPH (Method 8015)	втех	VOC RCB/	Cation	E E	TCLP	CO T ₈	TPH (CHLC	Нал		Samp	Samp
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□ Sample(s) dropped off after hours to secure drop off area. envirotech Analytical Laboratory																
5795 US Highway 64 • Farmington, NM 8	37401 • 505-632-0615 • Ti				5, Durc	ıngo, C	O 813	01 • le	aborc	atory@	@env	irotec	:h-inc.	com		

Chavez, Carl J, EMNRD

From:

Robinson, Kelly < Kelly.Robinson@wnr.com>

Sent:

Thursday, May 31, 2012 7:07 AM

To:

Chavez, Carl J, EMNRD

Subject:

RE: Request for Disposal Approval - Broken Concrete at the Bloomfield Refinery Facility

(GW-001) OCD Discharge Permit Condition 6(B)

I apologize sir! I said Crouch Mesa because the landfill is up in that area. The actual address of the facility is in Aztec, NM and called out on your list as the San Juan County Landfill which is operated by Waste Management. I have had preliminary discussions with Waste Management regarding this material in order to determine whether they would consider accepting this much concrete. They did say it should be fine pending (1) OCD approval due to their permit requirements, and (2) review of the analytical and acceptance of the profile.

As you requested, I will work with the Solid Waste Bureau for final disposal of the material. I just wanted to make sure you were in approval of this process since it is not a normal "waste stream" for the Bloomfield facility. As always, I appreciate your time and help in this matter!

I hope you have a great day!

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

(o) 505-632-4166

(c) 505-801-5616

(f) 505-632-4024

(e) kelly.robinson@wnr.com

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Thursday, May 31, 2012 6:56 AM

To: Robinson, Kelly

Subject: RE: Request for Disposal Approval - Broken Concrete at the Bloomfield Refinery Facility (GW-001) OCD

Discharge Permit Condition 6(B)

Kelly:

Please find attached the last listing for RCRA Solid Waste Disposal Facilities in NM. I don't see "Crouch Mesa" listed. You may want to confirm that the facility is an NMED- Solid Waste Bureau permitted facility.

Since I do not regard the waste debris that you specified to be oilfield exempt/non-exempt waste, it should be handled as RCRA Solid Waste and NMED deals with this type of waste.

Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

Office: (505) 476-3490

E-mail: CarlJ.Chavez@State.NM.US

Website: http://www.emnrd.state.nm.us/ocd/

"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Wednesday, May 30, 2012 5:08 PM

To: Chavez, Carl J, EMNRD

Subject: RE: Request for Disposal Approval - Broken Concrete at the Bloomfield Refinery Facility (GW-001) OCD

Discharge Permit Condition 6(B)

Thank you sir!

I appreciate the quick response. We will make sure to follow the conditions of your approval. Thank you for your time.

Have a great evening!

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Wednesday, May 30, 2012 4:18 PM

To: Robinson, Kelly

Subject: RE: Request for Disposal Approval - Broken Concrete at the Bloomfield Refinery Facility (GW-001) OCD

Discharge Permit Condition 6(B)

Kelly:

Good afternoon. In accordance with New Mexico Oil Conservation Division (OCD) Discharge Permit Section 6(B), and the supporting analytical data, the OCD hereby **approves** of the disposal with the condition that the operator meet the acceptance criteria of the receiving RCRA Solid Waste Disposal Facility.

- 6. Waste Disposal and Storage: The owner/operator shall dispose of all oil field exempt and non-exempt (non-hazardous) wastes at an OCD permitted or approved facility. Also, the owner/operator shall store waste at the facility in compliance with this section.
- B. OCD Part 35 Waste: Pursuant to OCD Part 35 (19.15.35 et seq. NMAC) disposal of certain non-domestic waste without notification to the OCD is allowed at NMED permitted solid waste facilities if the waste stream has been identified in the discharge permit and existing process knowledge of the waste stream does not change. Otherwise, notification and OCD approval are required in advance of disposal.

Please contact me if you have questions. Thank you.

Please be advised that OCD approval of this plan does not relieve the owner/operator of responsibility should their operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

Office: (505) 476-3490

E-mail: CarlJ.Chavez@State.NM.US

Website: http://www.emnrd.state.nm.us/ocd/

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http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Wednesday, May 30, 2012 2:52 PM

To: Chavez, Carl J, EMNRD

Subject: Request for Disposal Approval - Broken Concrete at the Bloomfield Refinery Facility

Good Afternoon Sir.

Western Refining Southwest, Inc. – Bloomfield Refinery (Western) respectfully requests OCD's consideration and approval to dispose of approximately 23 cubic yards of broken concrete at the Waste Management OCD permitted landfill near Crouch Mesa, New Mexico.

As you may know, several of the process units at the Bloomfield Refinery facility have been sold to Holly Refining. One of those units sold is the Poly Gas Unit. The majority of the equipment from this unit is skid-mounted. Originally when Giant installed the unit, the skid-mounted equipment was set and concrete was poured over the skid bases for stability. In preparation for re-locating the skid-mounted equipment, concrete from around the skids has been removed using a jackhammer. The concrete shows no visible signs of impacts. To ensure the condition of the concrete, we collected a composite sample of the concrete chips and submitted it to Envirotech for the following analysis:

- TPH-GRO, TPH-DRO, and Total TPH
- Total VOCs (Benzene, Toluene, Ethylbenzene, and Xylenes)
- TCLP RCRA 8 Metals

The analytical results from these test are attached. Upon approval from OCD to dispose of this material, Western will contact Waste Management to develop an approved profile of the material. If there are any questions on this or anything else, please feel free to contact me at your convenience.

Thank you for your time, sir! I hope you had a wonderful holiday weekend.

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com

Chavez, Carl J, EMNRD

From:

Chavez, Carl J. EMNRD

Sent:

Wednesday, May 30, 2012 4:18 PM

To:

'Robinson, Kelly'

Subject:

RE: Request for Disposal Approval - Broken Concrete at the Bloomfield Refinery Facility

(GW-001) OCD Discharge Permit Condition 6(B)

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- 6. Waste Disposal and Storage: The owner/operator shall dispose of all oil field exempt and non-exempt (non-hazardous) wastes at an OCD permitted or approved facility. Also, the owner/operator shall store waste at the facility in compliance with this section.
- B. OCD Part 35 Waste: Pursuant to OCD Part 35 (19.15.35 et seq. NMAC) disposal of certain non-domestic waste without notification to the OCD is allowed at NMED permitted solid waste facilities if the waste stream has been identified in the discharge permit and existing process knowledge of the waste stream does not change. Otherwise, notification and OCD approval are required in advance of disposal.

Please contact me if you have questions. Thank you.

Please be advised that OCD approval of this plan does not relieve the owner/operator of responsibility should their operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

Office: (505) 476-3490

E-mail: <u>CarlJ.Chavez@State.NM.US</u>

Website: http://www.emnrd.state.nm.us/ocd/

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Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Wednesday, May 30, 2012 2:52 PM

To: Chavez, Carl J, EMNRD

Subject: Request for Disposal Approval - Broken Concrete at the Bloomfield Refinery Facility

Good Afternoon Sir,

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As you may know, several of the process units at the Bloomfield Refinery facility have been sold to Holly Refining. One of those units sold is the Poly Gas Unit. The majority of the equipment from this unit is skid-mounted. Originally when Giant installed the unit, the skid-mounted equipment was set and concrete was poured over the skid bases for stability. In preparation for re-locating the skid-mounted equipment, concrete from around the skids has been removed using a jackhammer. The concrete shows no visible signs of impacts. To ensure the condition of the concrete, we collected a composite sample of the concrete chips and submitted it to Envirotech for the following analysis:

- TPH-GRO, TPH-DRO, and Total TPH
- Total VOCs (Benzene, Toluene, Ethylbenzene, and Xylenes)
- TCLP RCRA 8 Metals

The analytical results from these test are attached. Upon approval from OCD to dispose of this material, Western will contact Waste Management to develop an approved profile of the material. If there are any questions on this or anything else, please feel free to contact me at your convenience.

Thank you for your time, sir! I hope you had a wonderful holiday weekend.

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc. 111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com

Chavez, Carl J, EMNRD

From:

Robinson, Kelly < Kelly.Robinson@wnr.com>

Sent:

Wednesday, May 30, 2012 2:52 PM

To:

Chavez, Carl J, EMNRD

Subject:

Request for Disposal Approval - Broken Concrete at the Bloomfield Refinery Facility

Attachments:

Western Refining- Mics. Broken Concrete.pdf

Good Afternoon Sir.

Western Refining Southwest, Inc. – Bloomfield Refinery (Western) respectfully requests OCD's consideration and approval to dispose of approximately 23 cubic yards of broken concrete at the Waste Management OCD permitted landfill near Crouch Mesa, New Mexico.

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- TPH-GRO, TPH-DRO, and Total TPH
- Total VOCs (Benzene, Toluene, Ethylbenzene, and Xylenes)
- TCLP RCRA 8 Metals

The analytical results from these test are attached. Upon approval from OCD to dispose of this material, Western will contact Waste Management to develop an approved profile of the material. If there are any questions on this or anything else, please feel free to contact me at your convenience.

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Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Western Refining	Project #:	96012-0115
Sample ID:	Broken Concrete	Date Reported:	03-29-12
Laboratory Number:	61530	Date Sampled:	03-26-12
Chain of Custody No:	13645	Date Received:	03-27-12
Sample Matrix:	Soil	Date Extracted:	03-28-12
Preservative:	Cool	Date Analyzed:	03-28-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	23.7	0.1
Total Petroleum Hydrocarbons	23.7	·

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, December 1996.

Comments:

Mics. Broken Concrete

Analyst

Ph (505) 632-0615 Fx (505) 632-1865

Ph (970) 259-0615 Fr (800) 362-1879

5796 US Highway 64, Farmington, NM 87401

Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301

oratory@envirotech=inc-cor



EPA Method 8015 Modified Nonhalogenated Volatile Organics **Total Petroleum Hydrocarbons**

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	0328TCAL QA/QC	Date Reported:	03-29-12
Laboratory Number:	61528	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-28-12
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF: 🤇	% Difference	Accept: Range
Gasoline Range C5 - C10	03-28-12	9.9960E+02	1.0000E+03	0.04%	0 - 15%
Diesel Range C10 - C28	03-28-12	9.9960E+02	1.0000E+03	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	291	116%	75 - 125%
Diesel Range C10 - C28	ND	250	289	116%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Was

SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 61491-61492, 61510-61518, 61528-61530 and 61533-61534

5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

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Ph (970) 259-0615 Fr (800) 362-1879



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Western Refining	Project #:	96012-0115
Sample ID:	Broken Concrete	Date Reported:	04-03-12
Laboratory Number:	61530	Date Sampled:	03-26-12
Chain of Custody:	13645	Date Received:	03-27-12
Sample Matrix:	Soil	Date Analyzed:	04-02-12
Preservative:	Cool	Date Extracted:	03-28-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

	Diadion.	00	
		Det.	
	Concentration	Limit	
Parameter	(ug/Kg)	(ug/Kg)	
Benzene	ND	10.0	
Toluene	ND	10.0	
Ethylbenzene	ND	10.0	
p,m-Xylene	ND	10.0	
o-Xylene	ND	10.0	
Total BTEX	ND		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	94.9 %
	1,4-difluorobenzene	104 %
	Bromochlorobenzene	108 %

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846.

USEPA, December 1996.

Comments:

Mics. Broken Concrete

Ph (505) 632-0615 Fx (505) 632-1865

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Ph (970) 259-0615 Fr (800) 362-1879

laboratory@envirotech-inc.co



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	F	roject #:	N/.	Α		
Sample ID:	0402BCAL QA/QC		ate Reported:		-03-12		
Laboratory Number:	61536		ate Sampled:	N/			
Sample Matrix:	Soil		ate Received:	N/A			
Preservative:	N/A		ate Analyzed:	04	-02-12		
Condition:	N/A	A	nalysis:	BT	EX		
		C	ilution:	50			
Calibration and	I-Cal RF:	C-Cal RF:	%Diff.	Blank	Detect.		
Detection Limits (ug/L)	ccept. Range 0-15%		Conc	Limit		
Benzene	5.5928E-06	5.6442E-06	0.009	ND	0.2		
Toluene	5.1378E-06	5.1231E-06	0.003	ND	0.2		
Ethylbenzene	5.8070E-06	5.7083E-06	0.017	ND	0.2		
p,m-Xylene	4.3584E-06	4.3584E-06	0.000	ND	0.2		
o-Xylene	6.3618E-06	6.3618E-06	0.000	ND	0.2		
Duplicate Conc. (ug/Kg) Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene	Sample ND 23.3 ND 27.3 ND	Duplicate ND 23.1 ND 26.5 ND	%Diff. A 0.00 0.01 0.00 0.03 0.00	0 - 30% 0 - 30% 0 - 30% 0 - 30% 0 - 30% 0 - 30%	10 10 10 10 10 10		
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range		
Benzene	ND	2500	2810	112	39 - 150		
Toluene	23.3	2500	2800	111	46 - 148		
Ethylbenzene	ND	2500	2770	111	32 - 160		
p,m-Xylene	27.3	5000	5650	112	46 - 148		
• •	ND						
o-Xylene	שא	2500	2870	115	46 - 148		

ND - Parameter not detected at the stated detection limit.

Dilution: Spike and spiked sample concentration represent a dilution proportional to sample dilution.

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

QA/QC for Samples 61528-61530, 61536-61539 and 61581-61589

Analyst 5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

Review

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boratory@envirotech+inc.com



EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client:	Western Refining	Project #:	96012-0115
Sample ID:	Broken Concrete	Date Reported:	03/28/12
Laboratory Number:	61530	Date Sampled:	03/26/12
Chain of Custody:	13645	Date Received:	03/27/12
Sample Matrix:	TCLP Extract	Date Analyzed:	03/28/12
Preservative:	Cool	Date Extracted:	03/27/12
Condition:	Intact	Analysis Needed:	TCLP Metals

		Det.	Regulatory	
	Concentration	Limit	Level	
Parameter	(mg/L)	(mg/L)	(mg/L)	
Arsenic	0.002	0.001	5.0	
Barium	0.327	0.001	100	
Cadmium	ND	0.001	1.0	
Chromium	0.015	0.001	5.0	
Lead	ND	0.001	5.0	
Mercury	ND	0.001	0.2	
Selenium	0.003	0.001	1.0	
Silver	0.010	0.001	5.0	

ND - Parameter not detected at the stated detection limit.

References:

Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA,

December 1996.

Method 3010 Acid Digestion of Aqueous Samples and Extracts for Total

Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission

SW-846, USEPA. December 1996.

Note:

Regulatory Limits based on 40 CFR part 261 subpart C

section 261.24, August 24, 1998.

Comments:

Mics. Broken Concrete

Analysť

Review∕

laboratory@envirotech-inccom

Ph (505) 632-0615 Fx (505) 632-1865

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EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS Quality Assurance Report

							100 Roport		
Client:		N/A		Project #:		1	V/A		
Sample ID:		03-28 TCM	QA/QC	Date Repo	orted:	(03/28/12		
Laboratory Number:		61530		Date Sam	pled:	ļ	N/A		
Sample Matrix:		TCLP Extra	ct	Date Rece	eived:	N/A			
Analysis Requested:		TCLP Meta	ls	Date Anal	yzed:	(03/28/12		
Condition:	parril markace gyraphe Wood	N/A	Virginiae _ heyerhogener norman	Date Extra			03/27/12		
Blank & Duplicate In	strumen Blank	t Method Blank	Detection Limit	Sample	Duplicate	% Difference	Acceptance Range		
Arsenic	ND	ND	0.001	0.002	0.001	12.5%	0% - 30%		
Barium	ND	ND	0.001	0.327	0.362	10.9%	0% - 30%		
Cadmium	ND	ND	0.001	ND	ND	0.00%	0% - 30%		
Chromium	ND	ND	0.001	0.015	0.015	0.00%	0% - 30%		
Lead	ND	ND	0.001	ND	ND	0.00%	0% - 30%		
Mercury	ND	ND	0.001	ND	ND	0.00%	0% - 30%		
Selenium	ND	ND	0.001	0.003	0.002	24.0%	0% - 30%		
Silver	ND	ND	0.001	0.010	0.010	2.04%	0% - 30%		
Spike 25, SV		Spike	Sample	Spiked	Percent	Krektisk	Acceptance		
Conc. (mg/L)		Added		Sample		ry (j.	Range		
Arsenic		0.250	0.002	0.240	95.2%		80% - 120%		
Barium		0.500	0.327	0.755	91.3%		80% - 120%		
Cadmium		0.250	ND	0.226	90.0%		80% - 120%		
Chromium		0.500	0.015	0.437	84.9%		80% - 120%		
Lead		0.500	ND	0.446	89.3%		80% - 120%		
Mercury		0.100	ND	0.137	137%	*	80% - 120%		
Selenium		0.100	0.003	0.095	92.8%		80% - 120%		
Silver		0.100	0.010	0.093	84.5%		80% - 120%		

ND - Parameter not detected at the stated detection limit.

References:

Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Method 3010 Acid Digestion of Aqueous Samples and Extracts for Total Metals,

SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission,

SW-846, USEPA, December 1996.

Comments:

QA/QC for Sample 61530 and 61532.

Analyst

5796 US Highway 64, Farmington, NM 87401

Review

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^{*} Note: The identification of the analyte is acceptable; the reported value may be biased high.

13645

CHAIN OF CUSTODY RECORD

Client: Western Ref	7	,	Project Name / Loca Mics Brok		<i>-</i>								Α	NAL	YSIS	/ PAI	RAM	ETEF	S			
Email results to:			Sampler Name:	n conc	me/me				(015)	8021)	3260)				下红	_						
Client Phone No.:			Client No.:						ethod 8	Method	lethod 8	Metals	Anion		4	le 910-	18.1)	IDE			Cool	Intact
Sample No./ Identification	Sample Date	Sampl Time	e Lab No.	No./Vol of Conta		Pr HgCl ₂	eservat HCI	ive	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP ******	CO Table 910-1	TPH (418.1)	CHLORIDE			Sample (Sample Intact
Broken Coverate	3-36-12	4:00	<u></u> ω(530	1-80.	Jar				×	X					×						V	1
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Relinquished by: (Signature)					R	lecei	ved b	V: (Sig	gnatu	írey												
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Sample(s) dropped off after	hours to sec	cure drop	off area.	多 ei	n v i Analy	r C) † (e C	h											,		
5795 US Highway 64	I • Farmingto	on, NM 87	401 • 505-632-0615 •	Three Springs	s • 65 Me	rcâd	lo Stre	et, Su	ite 11	5, Du	ırang	o, C(S 8130	01 • I	abor	atory(@env	iroted	:h-inc.	com		

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Tuesday, January 17, 2012 12:19 PM

To:

'Robinson, Kelly' Schmaltz, Randy

Cc: Subject:

RE: Request for Disposal Approval

Approved with the conditions provided below:

1) 19.15.36.15 SPECIFIC REQUIREMENTS APPLICABLE TO LANDFARMS:

A. Oil field waste acceptance criteria. Only soils and drill cuttings predominantly contaminated by petroleum hydrocarbons shall be placed in a landfarm. The division may approve placement of tank bottoms in a landfarm if the operator demonstrates that the tank bottoms do not contain economically recoverable petroleum hydrocarbons. Soils and drill cuttings placed in a landfarm shall be sufficiently free of liquid content to pass the paint filter test, and shall not have a chloride concentration exceeding 500 mg/kg if the landfarm is located where ground water is less than 100 feet but at least 50 feet below the lowest elevation at which the operator will place oil field waste or exceeding 1000 mg/kg if the landfarm is located where ground water is 100 feet or more below the lowest elevation at which the operator will place oil field waste. The person tendering oil field waste for treatment at a landfarm shall certify, on form C-138, that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content, and that the samples have been found to conform to these requirements. The landfarm's operator shall not accept oil field waste for landfarm treatment unless accompanied by this certification.

2) Provide a final C-141 with verification of soil remediation and accompanying C-138s from the waste treatment accepting facilities and supporting documentation that verifies the release was cleaned up, i.e., bottom hole analytical data, photos, etc.

Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/

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Nation?" To see how, go to "Pollution Prevention & Waste Minimization" at:

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental)

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Tuesday, January 17, 2012 11:36 AM

To: Chavez, Carl J, EMNRD **Cc:** Schmaltz, Randy

Subject: Request for Disposal Approval

Good Morning Sir,

I apologize. I meant to send this to you earlier today. As a follow-up to the voice mail I left for you yesterday, Western Refining Southwest, Inc. – Bloomfield Refinery (Western) had an incident over the weekend that resulted in a release of crude oil within the containment dike of the Bloomfield Refinery Tank Farm. The majority of the crude oil released was recovered using the on-site vacuum truck. Western contracted with Envirotech who has completed stock-piling of the crude-impacted soil (i.e. exempt waste) on secondary containment until such time that Western receives OCD approval for disposal of the material.

With this said, Western is requesting OCD's approval to dispose of approximately 300 cubic yards of crude impacted soil at either of the following two OCD permitted land farms in the Bloomfield area:

- Waste Management Land Farm located in Aztec, NM; or
- Envirotech Land Farm located south of Bloomfield, NM.

If you have any questions or need any additional information, please do not hesitate to contact me at your convenience.

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Tuesday, January 10, 2012 8:01 AM

To: Cc: 'Robinson, Kelly' Schmaltz, Randy

Subject:

RE: Request for Disposal at RCRA Solid Waste Facility

Kelly:

Approved. Also, contingent upon the receiving facility approval to dispose of waste.

Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/

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Nation?" To see how, go to "Pollution Prevention & Waste Minimization" at: http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental)

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Monday, January 09, 2012 3:13 PM

To: Chavez, Carl J, EMNRD

Cc: Schmaltz, Randy

Subject: RE: Request for Disposal

Good Afternoon Sir,

Once again, I appreciate your time in review of our request for disposal of the sandblast media generated at the Bloomfield Refinery. As a follow-up to your earlier request for additional analytical, we have sampled and received the analytical results for the TPH-DRO analysis on the media. For convenience of your review, you will find attached both analytical reports that should together provide the necessary analytical information for waste characterization verification. I have been in-contact with Waste Management regarding consideration of acceptance of this material. Pending OCD approval, they have indicated that this material will qualify for disposal at their non-hazardous landfill located in Aztec, NM.

If you have any questions on this topic, please don't hesitate to contact me at your convenience.

Thank you, Sir, for your time.
I hope you have a great evening!

Sincerely,

Kelly R. Robinson
Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Friday, January 06, 2012 7:14 AM

To: Robinson, Kelly

Subject: RE: Request for Disposal

Kelly:

I understand your rationale for not running DRO. Thanks.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/

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From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Thursday, January 05, 2012 5:07 PM

To: Chavez, Carl J, EMNRD

Subject: Re: Request for Disposal

No sir, you do not need to send me the regulation, but I appreciate the offer. We will sample for TPH-DRO tomorrow and I will resend to you all the analytical once those results are know for your full review.

Thank you for your time, and I hope you have a good evening!

Sincerely,

Kelly Robinson Western Refining -Kelly

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Thursday, January 05, 2012 05:02 PM

To: Robinson, Kelly

Subject: RE: Request for Disposal

Kelly:

Yes, because this is stipulated in Rule 35 for approval of non-household oilfield wastes to the receiving facility. Let me know if you want me to send you the provision. Thank you.

Carl J. Chavez, CHMM New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/

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From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Thursday, January 05, 2012 5:00 PM

To: Chavez, Carl J, EMNRD

Subject: Re: Request for Disposal

Sir.

We did not run DRO solely because sine the tank that was sand blasted served as a premium gasoline finished product tank, we did not think the analysis of TPH-DRO was an issue. Sir, do we still need to analysis for DRO for waste acceptance?

Sincerely,

Kelly Robinson Western Refining -Kelly

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Thursday, January 05, 2012 04:26 PM

To: Robinson, Kelly

Subject: RE: Request for Disposal

Kelly:

One item for TPH that I don't see a value for is DRO. Is there any reason why DRO is not analyzed for? For TPH under 8015M, OCD requires GRO + DRO to satisfy TPH. Why is DRO missing? Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

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Website: http://www.emnrd.state.nm.us/ocd/

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http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental)

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Thursday, January 05, 2012 2:46 PM

To: Chavez, Carl J, EMNRD

Cc: Schmaltz, Randy

Subject: RE: Request for Disposal

Sir,

Thank you so much for the quick response.

As you requested, I have reviewed our most recent OCD Discharge Permit application for the Bloomfield Refinery and confirmed that we did not include sandblast media as a routine waste stream generated at the Bloomfield Refinery. Therefore, pursuant to the regulations you state below, we respectfully request OCD's consideration for disposal approval of this material.

If you have any questions, please don't hesitate to let me know. Thank you so much for your time, and I hope you have a great day!

Sincerely,

Kelly R. Robinson
Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Thursday, January 05, 2012 1:43 PM

To: Robinson, Kelly **Cc:** Schmaltz, Randy

Subject: RE: Request for Disposal

Kelly:

Good afternoon. I will reply today. Generally, if the sandblast media (a non-exempt oilfield waste) is identified as a waste stream in your previous OCD Discharge Permit application(s), it has already been approved for disposal. If you can confirm that it is already included in the approved discharge permit, you do not need OCD approval.

Please let me know if this material is already in the discharge permit approval (see permit requirements below- highlighted text)?

6. Waste Disposal and Storage: The owner/operator shall dispose of all oil field exempt and non-exempt (non-hazardous) wastes at an OCD permitted or approved facility. Also, the owner/operator shall store waste at the facility in compliance with this section.

A. Oilfield Exempt or Non-exempt (non-hazardous) Wastes: Oilfield wastes regulated by the OCD may be disposed of at an OCD approved facility upon proper waste determination pursuant to 40 CFR Part 261 Any waste stream that is not listed in the discharge permit application must be approved for disposal by the OCD on a case-by-case basis.

- B. OCD Part 35 Waste: Pursuant to OCD Part 35 (19.15.35 et seq. NMAC) disposal of certain non-domestic waste without notification to the OCD is allowed at NMED permitted solid waste facilities if the waste stream has been identified in the discharge permit and existing process knowledge of the waste stream does not change. Otherwise, notification and OCD approval are required in advance of disposal..
- C. Waste Storage: The owner/operator shall store all waste in an impermeable bermed area, except waste generated during emergency response operations for up to 72 hours. All waste storage areas shall be identified in the discharge permit application. Any waste storage area not identified in the permit shall be approved on a case-by-case basis only. The owner/operator shall not store oil field waste on-site for more than 180 days unless approved by the OCD.

Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/

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Nation?" To see how, go to "Pollution Prevention & Waste Minimization" at:

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental)

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Tuesday, January 03, 2012 5:02 PM

To: Chavez, Carl J, EMNRD **Cc:** Schmaltz, Randy

Subject: Request for Disposal

Good Afternoon Sir and Happy New Year,

Western Refining Southwest, Inc. – Bloomfield Refinery recently completed sandblasting activities that were conducted on Tank 11 in preparation for conducting an internal tank inspection. Following completion of sandblasting activities on Tank 11, approximately 8 cubic yards of sandblast waste material was generated. As such, Western Refining Southwest, Inc. – Bloomfield Refinery respectfully requests the New Mexico Oil Conservation Division's (OCD's) approval to dispose of the sandblast media waste at the San Juan County Landfill located at #78 Road 3140 in Aztec, New Mexico.

Please find attached the analytical results of a composite sample collected of the sandblast waste material. Tank 11 previously operated in gasoline service; therefore the composite sample was analyzed for the following constituents:

- Total Petroleum Hydrocarbons Gasoline Range Organics (TPH-GRO)
- Total Benzene, Toluene, Ethlylbenzene, and Xylenes
- TCLP RCRA 8 Metals
- Reactivity, Corrosively, and Ignitability

The analytical results indicate that the sandblast media is non-hazardous.

Upon receipt of OCD's approval, a profile of the material will be established with Waste Management and arrangements will be made to transport the material to the San Juan Regional Landfill. If you have any questions, please do not hesitate to contact me at your convenience.

I appreciate your time and I hope you had a wonderful holiday season.

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com



EPA METHOD 8015 Modified Nonhalogenated Volatile Total Petroleum Hydrocarbons

96012-0115
01-09-12
01-06-12
01-06-12
01-06-12
01-06-12
8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid

Waste, SW-846, USEPA, December 1996.

Comments:

Tank 11

Analyst

Review



Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	01-06-12 QA/QC	Date Reported:	01-09-12
Laboratory Number:	60734	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-06-12
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal ^l RF;	C-Cal RF: %	Difference	Accept: Range
Gasoline Range C5 - C10	40914	9.996E+02	1.000E+03	0.04%	0 - 15%
Diesel Range C10 - C28	40914	9.996E+02	1.000E+03	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	0.7	0.2
Diesel Range C10 - C28	0.7	0.1

Duplicate Conc. (mg/Kg)	Sample	Duplicate	>% Difference	Range
Gasoline Range C5 - C10	ИD	ND	0.00%	0 - 30%
Diesel Range C10 - C28	ИD	ИD	0.00%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	273	109%	75 - 125%
Diesel Range C10 - C28	ND	250	247	98.9%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid

Waste,

SW-846, USEPA, December 1996.

Comments:

QA/QC for Samples 60731-60734 and 60742-60749

Analyst

5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (970) 259-0615 Fr (800) 362-1879



13142

CHAIN OF CUSTODY RECORD

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-		-	ANALYSIS / PARAMETERS	PARAN	I/SIS	NALY	_ ≽	_							on:	Project Name / Location: $\int a_n \zeta dt$	Proj		Client: Western Refining
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COVER LETTER

Tuesday, November 01, 2011

Kelly Robinson Western Refining Southwest, Inc. PO Box 159 Bloomfield, NM 87413

TEL: (505) 632-4166 FAX (505) 632-3911

RE: Tank #11 10-24-11

Dear Kelly Robinson:

Order No.: 1110B27

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 10/25/2011 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901

AZ license # AZ0682

Hall Environmental Analysis Laboratory, Inc.

Date: 01-Nov-11
Analytical Report

CLIENT: Lab Order: Western Refining Southwest, Inc.

1110B27

1110027

Tank #11 10-24-11

Project: Lab ID:

1110B27-01

Client Sample ID: TK#11

Collection Date: 10/24/2011 10:00:00 AM

Date Received: 10/25/2011

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE		······································		Analyst: RAA
Gasoline Range Organics (GRO)	8.4	4.9	mg/Kg	1	10/27/2011 11:59:07 PM
Surr: BFB	99.6	75.2-136	%REC	1	10/27/2011 11:59:07 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.049	mg/Kg	1	10/27/2011 11:59:07 PM
Toluene	0.20	0.049	mg/Kg	1	10/27/2011 11:59:07 PM
Ethylbenzene	0.12	0.049	mg/Kg	1	10/27/2011 11:59:07 PM
Xylenes, Total	0.69	0.097	mg/Kg	1	10/27/2011 11:59:07 PM
Surr: 4-Bromofluorobenzene	107	80-120	%REC	1	10/27/2011 11:59:07 PM
MERCURY, TCLP					Analyst: ELS
Mercury	ND	0.020	mg/L	1	10/27/2011 12:59:29 PM
EPA METHOD 6010B: TCLP METALS	S				Analyst: RAGS
Arsenic	ND	5.0	mg/L	1	10/27/2011 3:04:31 PM
Barium	ND	100	mg/L	5	10/27/2011 3:06:19 PM
Cadmium	ND	1.0	mg/L	1	10/27/2011 3:04:31 PM
Chromium	ND	5.0	mg/L	1	10/27/2011 3:04:31 PM
Lead	ND	5.0	mg/L	1	10/27/2011 3:04:31 PM
Selenium	· ND	1.0	mg/L	1	10/27/2011 3:04:31 PM
Silver	ND	5,0	mg/L	1	10/27/2011 3:04:31 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com 504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:

HALL ENVIRONMENTAL ANALYSIS LAB

Batch #:

111026013

Address:

4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109

Project Name:

1110B27

Attn:

ANDY FREEMAN

Analytical Results Report

Sample Number

111026013-001

Soll

Sampling Date

10/24/2011 **Date/Time Received**

10/26/2011 11:00 AM

Client Sample ID

1110B27-01B / TK#11

Sampling Time

10:00 AM Sample Location

Matrix Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	10	10/27/2011	CRW	SW846 CH7	
Ignitability	Negative			10/26/2011	JWC	EPA 1030	
pH	4.68	ph Units		10/26/2011	KFG	EPA 9045	
Reactive sulfide	ND	mg/kg	15	10/27/2011	JTT	SW846 CH7	
%moisture	0	Percent		10/26/2011	KFG	%moisture	

Authorized Signature

MCL

EPA's Maximum Contaminant Level

ND

Not Detected

PQL

Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory. The results reported relate only to the samples indicated. Soll/solid results are reported on a dry-weight basis unless otherwise noted.

Date: 01-Nov-11

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

Tank #11 10-24-11

Work Order:

1110B27

J									1110027
Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec L	owLimit Hig	ghLimit %RPI	O RPDLimit Qual
Method: EPA Method 8015B: (Sasoline Rar	nge			· · · · · · · · · · · · · · · · · · ·				
Sample ID: 1110B27-01AMSD		MSD				Batch ID:	29064	Analysis Date:	10/28/2011 3:20:41 AM
Gasoline Range Organics (GRO)	38.33	mg/Kg	5.0	24.78	8.363	121	72.4	149 0.69	1 19.2
Sample ID: MB-29064		MBLK				Batch ID:	29064	Analysis Date:	10/27/2011 11:30:15 PM
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0			٨			
Sample ID: LCS-29064		LCS				Batch ID:	29064	Analysis Date:	10/27/2011 9:35:07 PM
Gasoline Range Organics (GRO)	29.98	mg/Kg	5.0	25	0	120	86.4	132	
Sample ID: 1110B27-01AMS	20.00	MS	0.0		•	Batch ID:	29064	Analysis Date:	10/28/2011 2:51:55 AN
Gasoline Range Organics (GRO)	38.06	mg/Kg	4.9	24.73	8.363	120	72.4	149	

Method: EPA Method 8021B: \ Sample ID: 1110B27-01AMSD	/ Olatiles	MSD				Batch ID:	29064	Analysis Date:	10/28/2011 2:23:08 AM
•	4.040		0.050	0.004	0.0000			·	
Benzene Toluene	1.042 1.257	mg/Kg	0.050 0.050		0.0202 0.2003	103 107	67.2 62.1	113 7.88 116 2.74	
	1.257	mg/Kg	0.050	0.991	0.2003	107	67.9	127 0.83	
Ethylbenzene Vylanas Total	3.925	mg/Kg	0.099		0.6912	109	60.6	134 2.11	
Xylenes, Total	3.920	mg/Kg <i>MBLK</i>		2.973	0.0912	Batch ID:	29064	Analysis Date:	
Sample ID: MB-29064						Datell ID.	23004	Allalysis Date.	10/2//2011 11.50.15 FW
Benzene -	ND	mg/Kg	0.050						
Foluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Kylenes, Total	ND	mg/Kg	0.10			D . () ID.		A b - 1 - D - 1	40/00/0044 5 44.44.44
Sample ID: LCS-29064		LCS				Batch ID:	29064	Analysis Date:	10/28/2011 5:44:44 AM
Benzene	1.027	mg/Kg	0.050	1	0	103	83.3	107	
Toluene	1.036	mg/Kg	0.050	1	0	104	74.3	115	
Ethylbenzene	1.049	mg/Kg	0.050	1	0	105	80.9	122	
Xylenes, Total	3.161	mg/Kg	0,10	3	0	105	85.2	123	
Sample ID: 1110B27-01AMS		MS				Batch ID:	29064	Analysis Date:	10/28/2011 1:54:25 AM
Benzene	0.9633	mg/Kg	0.049		0.0202	95.4	67.2	113	
Toluene	1.223	mg/Kg	0.049		0.2003	103	62.1	116	
Ethylbenzene	1.180	mg/Kg	0.049	0.989	0.116	108	67.9	127	
Xylenes, Total	3.843	mg/Kg	0.099	2.967	0.6912	106	60.6	134	
Method: MERCURY, TCLP									
Sample ID: 1110B27-01AMSD		MSD				Batch ID:	29106	Analysis Date:	10/27/2011 1:03:05 PM
Mercury	ND	mg/L	0.020	0.005	0	102	75	125 0	20
Sample ID: MB-29106		MBLK				Batch ID:	29106	Analysis Date:	10/27/2011 12:32:53 PM
Mercury	ND	mg/L	0.020						
Sample ID: LCS-29106		LCS				Batch ID:	29106	Analysis Date:	10/27/2011 12:34:40 PM
Mercury	NĐ	mg/L	0.020	0.005	0	105	80	120	
Sample ID: 1110B27-01AMS	110	MS	0.020	0.000	•	Batch ID:	29106	Analysis Date:	10/27/2011 1:01:17 PM
•	NC		0.000	. 0.005	^			•	. 4/2//24/1 1.01.17 1 19
Mercury	ND	mg/L	0.020	0.005	0	105	75	125	

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E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Date: 01-Nov-11

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

Tank #11 10-24-11

Work Order:

1110B27

Analyte	Result	Units	PQL	SPK V	a SPK ref	%Rec Lo	owLimit Hi	ghLimit %RPD	RPDLimit	Qual
Method: EPA Method 6010B:	TCLP Metals		•							
Sample ID: MB-29105		MBLK				Batch ID:	29105	Analysis Date:	10/27/2011 2	:49:15 PN
Arsenic	ND	mg/L	5.0							
Barium	ND	mg/L	100							
Cadmium	ND	mg/L	1.0							
Chromium	ND	mg/L	5.0							
Lead	ND	mg/L	5.0							
Selenium	ND	mg/L	1.0							
Silver	NO	mg/L	5.0					•		
Sample ID: SPLP FLUID		MBLK				Batch ID:	29105	Analysis Date:	10/27/2011 2	:53:09 PN
Arsenic	ND	mg/L	5.0							
Barlum	ND	mg/L	100							
Cadmium	ND	mg/L	1.0							
Chromium	ND	mg/L	5.0							
Lead	ND	mg/L	5.0							
Selenium	ND	mg/L	1.0							
Silver	ND	mg/L	5.0							
Sample ID: LCS-29105		LCS				Batch ID:	29105	Analysis Date:	10/27/2011 2	:51:13 PN
Arsenic ·	ND	mg/L	5.0	0.5	0	120	80	120		S
Barium	ND	mg/L	100	0.5	0	105	80	120		
Cadmium	ND	mg/L	1.0	0.5	0	11 1	80	120		
Chromium	ND	mg/L	5.0	0.5	0	105	80	120		
Lead	ND	mg/L	5.0	0.5	0	103	80	120		
Selenium	ND	mg/L	1.0	0.5	0	121	80	120		S
Silver	ND	mg/L	5.0	0.1	0.0006	109	80	120		

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT			Date Receive	d:	10/25/2011
Work Order Number 1110B27	/ ///		Received by	: AMG	
Checklist completed by:	Many) /0/ZB	Sample ID Is	abels checked by:	Initials
Matrix:	Carrier name:	UPS	·		
Shipping container/cooler in good condition?		Yes 🗹	No 🗌	Not Present	
Custody seals intact on shipping container/cook	er?	Yes 🗹	No 🗆	Not Present	Not Shipped
Custody seals intact on sample bottles?	·	Yes 🗹	No 🗀	N/A 🗆	
Chain of custody present?		Yes 🗹	No 🗆		
Chain of custody signed when relinquished and	received?	Yes 🗹	No 🗀		
Chain of custody agrees with sample labels?		Yes 🗹	No 🗌		
Samples in proper container/bottle?		Yes 🗹	No 🗆	•	
Sample containers intact?		Yes 🗹	No 🗀	1	
Sufficient sample volume for indicated test?		Yes 🗹	No 🗀		
All samples received within holding time?		Yes 🗹	No 🗀		Number of preserved bottles checked for
Water - VOA vials have zero headspace?	No VOA vials subn	nitted 🗹	Yes 🗌	No 🗌	pH:
Water - Preservation labels on bottle and cap m	atch?	Yes 🗌	No 🗀	N/A 🗹	
Water - pH acceptable upon receipt?		Yes 🗌	No 🗆	N/A 🗹	<2 >12 unless noted below.
Container/Temp Blank temperature?		10.1°	<6° C Acceptab		2010
COMMENTS:			If given sufficien	t time to cool.	•
	_ 				
Client contacted	Date contacted:		Pers	son contacted	
Contacted by:	Regarding:				
Comments:					
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Client: Western Refling Record Client: Western Refling Address: 50 Ch #990 Elocutield NN 8741 Phone #: 545-632-446141.		0-24-11 10:00		\dashv			}	\dashv	\dashv	_	+			Time:	ff nec
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Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Friday, January 06, 2012 7:14 AM

To:

'Robinson, Kelly'

Subject:

RE: Request for Disposal

Kelly:

I understand your rationale for not running DRO. Thanks.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/

"Why not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward with the Rest of the

Nation?" To see how, go to "Pollution Prevention & Waste Minimization" at: http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental)

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Thursday, January 05, 2012 5:07 PM

To: Chavez, Carl J, EMNRD

Subject: Re: Request for Disposal

No sir, you do not need to send me the regulation, but I appreciate the offer. We will sample for TPH-DRO tomorrow and I will resend to you all the analytical once those results are know for your full review.

Thank you for your time, and I hope you have a good evening!

Sincerely,

Kelly Robinson Western Refining

-Kelly

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Thursday, January 05, 2012 05:02 PM

To: Robinson, Kelly

Subject: RE: Request for Disposal

Kelly:

Yes, because this is stipulated in Rule 35 for approval of non-household oilfield wastes to the receiving facility. Let me know if you want me to send you the provision. Thank you.

Carl J. Chavez, CHMM New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490

Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/

"Why not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward with the Rest of the

Nation?" To see how, go to "Pollution Prevention & Waste Minimization" at: http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental)

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Thursday, January 05, 2012 5:00 PM

To: Chavez, Carl J, EMNRD

Subject: Re: Request for Disposal

Sir.

We did not run DRO solely because sine the tank that was sand blasted served as a premium gasoline finished product tank, we did not think the analysis of TPH-DRO was an issue. Sir, do we still need to analysis for DRO for waste acceptance?

Sincerely,

Kelly Robinson Western Refining -Kelly

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Thursday, January 05, 2012 04:26 PM

To: Robinson, Kelly

Subject: RE: Request for Disposal

Kelly:

One item for TPH that I don't see a value for is DRO. Is there any reason why DRO is not analyzed for? For TPH under 8015M, OCD requires GRO + DRO to satisfy TPH. Why is DRO missing? Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/

"Why not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward with the Rest of the

Nation?" To see how, go to "Pollution Prevention & Waste Minimization" at:

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental)

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Thursday, January 05, 2012 2:46 PM

To: Chavez, Carl J, EMNRD

Cc: Schmaltz, Randy

Subject: RE: Request for Disposal

Sir.

Thank you so much for the quick response.

As you requested, I have reviewed our most recent OCD Discharge Permit application for the Bloomfield Refinery and confirmed that we did not include sandblast media as a routine waste stream generated at the Bloomfield Refinery. Therefore, pursuant to the regulations you state below, we respectfully request OCD's consideration for disposal approval of this material.

If you have any questions, please don't hesitate to let me know. Thank you so much for your time, and I hope you have a great day!

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Thursday, January 05, 2012 1:43 PM

To: Robinson, Kelly **Cc:** Schmaltz, Randy

Subject: RE: Request for Disposal

Kelly:

Good afternoon. I will reply today. Generally, if the sandblast media (a non-exempt oilfield waste) is identified as a waste stream in your previous OCD Discharge Permit application(s), it has already been approved for disposal. If you can confirm that it is already included in the approved discharge permit, you do not need OCD approval.

Please let me know if this material is already in the discharge permit approval (see permit requirements below- highlighted text)?

6. Waste Disposal and Storage: The owner/operator shall dispose of all oil field exempt and non-exempt (non-hazardous) wastes at an OCD permitted or approved facility. Also, the owner/operator shall store waste at the facility in compliance with this section.

A. Oilfield Exempt or Non-exempt (non-hazardous) Wastes: Oilfield wastes regulated by the OCD may be disposed of at an OCD approved facility upon proper waste determination pursuant to 40 CFR Part 261 Any waste stream that is not listed in the discharge permit application must be approved for disposal by the OCD on a case-by-case basis.

- B. OCD Part 35 Waste: Pursuant to OCD Part 35 (19.15.35 et seq. NMAC) disposal of certain non-domestic waste without notification to the OCD is allowed at NMED permitted solid waste facilities if the waste stream has been identified in the discharge permit and existing process knowledge of the waste stream does not change. Otherwise, notification and OCD approval are required in advance of disposal..
- C. Waste Storage: The owner/operator shall store all waste in an impermeable bermed area, except waste generated during emergency response operations for up to 72 hours. All waste storage areas shall be identified in the discharge permit application. Any waste storage area not identified in the permit shall be approved on a case-by-case basis only. The owner/operator shall not store oil field waste on-site for more than 180 days unless approved by the OCD.

Thank you.

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/

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Nation?" To see how, go to "Pollution Prevention & Waste Minimization" at:

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental)

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Tuesday, January 03, 2012 5:02 PM

To: Chavez, Carl J, EMNRD **Cc:** Schmaltz, Randy

Subject: Request for Disposal

Good Afternoon Sir and Happy New Year,

Western Refining Southwest, Inc. – Bloomfield Refinery recently completed sandblasting activities that were conducted on Tank 11 in preparation for conducting an internal tank inspection. Following completion of sandblasting activities on Tank 11, approximately 8 cubic yards of sandblast waste material was generated. As such, Western Refining Southwest, Inc. – Bloomfield Refinery respectfully requests the New Mexico Oil Conservation Division's (OCD's) approval to dispose of the sandblast media waste at the San Juan County Landfill located at #78 Road 3140 in Aztec, New Mexico.

Please find attached the analytical results of a composite sample collected of the sandblast waste material. Tank 11 previously operated in gasoline service; therefore the composite sample was analyzed for the following constituents:

- Total Petroleum Hydrocarbons Gasoline Range Organics (TPH-GRO)
- Total Benzene, Toluene, Ethlylbenzene, and Xylenes
- TCLP RCRA 8 Metals
- Reactivity, Corrosively, and Ignitability

The analytical results indicate that the sandblast media is non-hazardous.

Upon receipt of OCD's approval, a profile of the material will be established with Waste Management and arrangements will be made to transport the material to the San Juan Regional Landfill. If you have any questions, please do not hesitate to contact me at your convenience.

I appreciate your time and I hope you had a wonderful holiday season.

Sincerely,

Kelly R. Robinson
Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com

Chavez, Carl J, EMNRD

From:

Robinson, Kelly [Kelly.Robinson@wnr.com]

Sent:

Tuesday, January 03, 2012 5:02 PM

To: Cc: Chavez, Carl J, EMNRD

Subject:

Schmaltz, Randy Request for Disposal

Attachments:

Tank 11 Sandblast Media_1110B27.pdf

Good Afternoon Sir and Happy New Year,

Western Refining Southwest, Inc. – Bloomfield Refinery recently completed sandblasting activities that were conducted on Tank 11 in preparation for conducting an internal tank inspection. Following completion of sandblasting activities on Tank 11, approximately 8 cubic yards of sandblast waste material was generated. As such, Western Refining Southwest, Inc. – Bloomfield Refinery respectfully requests the New Mexico Oil Conservation Division's (OCD's) approval to dispose of the sandblast media waste at the San Juan County Landfill located at #78 Road 3140 in Aztec, New Mexico.

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I appreciate your time and I hope you had a wonderful holiday season.

Sincerely,

Kelly R. Robinson
Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (0) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com



COVER LETTER

Tuesday, November 01, 2011

Kelly Robinson Western Refining Southwest, Inc. PO Box 159 Bloomfield, NM 87413

TEL: (505) 632-4166 FAX (505) 632-3911

RE: Tank #11 10-24-11

Dear Kelly Robinson:

Order No.: 1110B27

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 10/25/2011 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901

AZ license # AZ0682

Date: 01-Nov-11 Analytical Report

CLIENT:

Western Refining Southwest, Inc.

Client Sample ID: TK#11

Lab Order:

1110B27

Collection Date: 10/24/2011 10:00:00 AM

Project: Tank #11 10-24-11 Date Received: 10/25/2011 Matrix: SOIL

Lab ID: 1110B27-01

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE		***			Analyst: RAA
Gasoline Range Organics (GRO)	8.4	4.9		mg/Kg	1	10/27/2011 11:59:07 PM
Surr: BFB	99.6	75.2-136		%REC	1	10/27/2011 11:59:07 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.049		mg/Kg	1	10/27/2011 11:59:07 PM
Toluene	0.20	0.049		mg/Kg	1	10/27/2011 11:59:07 PM
Ethylbenzene	0.12	0.049		mg/Kg	1	10/27/2011 11:59:07 PM
Xylenes, Total	0.69	0.097		mg/Kg	. 1	10/27/2011 11:59:07 PM
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	10/27/2011 11:59:07 PM
MERCURY, TCLP						Analyst: ELS
Mercury	DN	0.020		mg/L	1	10/27/2011 12:59:29 PM
EPA METHOD 6010B: TCLP METALS	;					Analyst: RAGS
Arsenic	ND	5.0		mg/L	1	10/27/2011 3:04:31 PM
Barium	ND	100		mg/L	5	10/27/2011 3:06:19 PM
Cadmium	ND	1.0		mg/L	1	10/27/2011 3:04:31 PM
Chromium	ND	5.0		mg/L	1	10/27/2011 3:04:31 PM
Lead	ND	5.0		mg/L	1	10/27/2011 3:04:31 PM
Selenium	ND	1.0		mg/L	1	10/27/2011 3:04:31 PM
Silver	ND	5,0	•	mg/L	1	10/27/2011 3:04:31 PM

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Е Estimated value
- Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits

Date: 01-Nov-11

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

Tank #11 10-24-11

Work Order:

1110B27

Analyte	Result	Units	PQL	SPK V	a SPK ref	%Rec Lo	owLimit Hi	ghLimit %RPD	RPDLimit Qual
Method: EPA Method 6010B: Sample ID: MB-29105	TCLP Metals	MBLK				Batch ID:	29105	Analysis Date:	10/27/2011 2:49:15 PM
Arsenic	ND	mg/L	5.0			ş			
Barium	ND	mg/L	100						
Cadmium	ND	mg/L	1.0						
Chromium	ND	mg/L	5.0						
Lead	ND	mg/L	5.0		•				
Selenium	ND	mg/L	1.0			•			
Silver	ND	mg/L	5.0					•	
Sample ID: SPLP FLUID		MBLK			,	Batch ID:	29105	Analysis Date:	10/27/2011 2:53:09 PM
Arsenic	ND	mg/L	5:0	•					
Barium	ND	mg/L	100						
Cadmium	ND	mg/L	1.0						
Chromium	ND ·	mg/L	5.0						
Lead	ND	mg/L	5.0						
Selenium	ND	mg/L	1.0						
Silver	ND	mg/L	5.0						•
Sample ID: LCS-29105		LCS				Batch ID:	29105	Analysis Date:	10/27/2011 2:51:13 PM
Arsenic	ND	mg/L	5.0	0.5	0	120	80	120	S
Barium	ND	mg/L	100	0.5	0	105	80	120	
Cadmium	ND	mg/L	1.0	0.5	0	111	80	120	•
Chromium	ND	mg/L	5.0	0.5	0	105	80	120	
Lead	ND	mg/L	5.0	0.5	0	103	80	120	•
Selenium	ND	mg/L	1.0	0.5	0	121	80	120	\$
Silver	ND	mg/L	5.0	0.1	0.0006	109	80	120	

Qual	ifiers:
------	---------

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT			Date Received	:	10/25/2011
Work Order Number 1110B27	111		Received by:	AMG	_
Checklist completed by:	Many	/0/25/ Date	// Sample ID lab	pels checked by:	Initials
Matrix:	Carrier name: <u>UF</u>	<u> </u>	•		
Shipping container/cooler in good condition?	Ye	s 🗹	No 🗆	Not Present \square	
Custody seals intact on shipping container/coole	er? Ye	s 🗹	No 🗆	Not Present \Box	Not Shipped
Custody seals intact on sample bottles?	Ye	s 🗹	No 🗀	N/A	
Chain of custody present?	Ye	s 🗹	No 🗆		
Chain of custody signed when relinquished and	received? Ye	s 🗹	No 🗆		
Chain of custody agrees with sample labels?	Ye	s 🗹	No 🗆		
Samples in proper container/bottle?	Ye	s 🗹	No 🗆		
Sample containers intact?	Ye	s 🔽	No 🗌	•	
Sufficient sample volume for indicated test?	Ye	s 🗹	No 🗌	•	
All samples received within holding time?	Ye	s 🗹	No 🗌		Number of preserved
Water - VOA vials have zero headspace?	No VOA vials submitte	d 🗹	Yes 🗌	No 🗆	bottles checked for pH:
Water - Preservation labels on bottle and cap m	atch? Ye	s 🗌	No 🗆	N/A 🗹	
Water - pH acceptable upon receipt?	Ye	s 🗌	No 🗆	N/A 🗹	<2 >12 unless noted below.
Container/Temp Blank temperature?	1		<6° C Acceptable		Delow.
COMMENTS:		I	if given sufficient	time to cool.	•
			,		
Client contacted	Date contacted:		Perso	on contacted	,
Contacted by:	Regarding:				
Comments:					
	_				
			······································		
			·	· · · · · · · · · · · · · · · · · · ·	4//
Corrective Action					
	/ 50 / 100	3030			
	.,,				

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com 504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Cllent:

HALL ENVIRONMENTAL ANALYSIS LAB

Batch #:

111026013

Address:

4901 HAWKINS NE SUITE D

Project Name:

1110B27

ALBUQUERQUE, NM 87109

Attn:

ANDY FREEMAN

Analytical Results Report

Sample Number

111026013-001

Sampling Date

10/24/2011

Date/Time Received

10/26/2011 11:00 AM

Client Sample ID Matrix

1110B27-01B / TK#11 Soil

Sampling Time

10:00 AM Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifler
Cyanide (reactive)	ND	mg/Kg	10	10/27/2011	CRW	SW846 CH7	
Ignitability	Negative			10/26/2011	JWC	EPA 1030	
pН	4.68	ph Units		10/26/2011	KFG	EPA 9045	
Reactive sulfide	, ND	mg/kg	15	10/27/2011	JTT	SW846 CH7	
%moisture	0	Percent		10/26/2011	KFG	%moisture	

Authorized Signature

MCL

EPA's Maximum Contaminant Level

NO

Not Detected

PQL

Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory. The results reported relate only to the samples indicated.

Soll/solid results are reported on a dry-weight basis unless otherwise noted.

Date: 01-Nov-11

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

Tank #11 10-24-11

Work Order:

1110B27

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec L	owLimit Hig	ghLimit %RPE	RPDLimit Qual
Method: EPA Method 8015B: C	Sasoline Rai	nge							
Sample ID: 1110B27-01AMSD		MSD				Batch ID:	29064	Analysis Date:	10/28/2011 3:20:41 AM
Gasoline Range Organics (GRO)	38.33	mg/Kg	5.0	24.78	8.363	121	72.4	149 0.691	19.2
Sample ID: MB-29064		MBLK				Batch ID:	29064	Analysis Date:	10/27/2011 11:30:15 PM
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: LCS-29064		LCS				Batch ID:	29064	Analysis Date:	10/27/2011 9:35:07 PM
Gasoline Range Organics (GRO)	29.98	mg/Kg	5.0	25	. 0	120	86.4	132	
Sample ID: 1110B27-01AMS	20.00	MS	0.0	20	ŭ	Batch ID:	29064	Analysis Date:	10/28/2011 2:51:55 AN
Gasoline Range Organics (GRO)	38.06	mg/Kg	4.9	24.73	8.363	120	72.4	149	
Marked FDA Marked 0004Da									
Method: EPA Method 8021B: \ Sample ID: 1110B27-01AMSD	ojatiles	MSD				Batch ID:	29064	Analysis Date:	10/28/2011 2:23:08 AM
·	4.040		0.050	0.004	0.0000			•	4
Benzene	1.042	mg/Kg	0.050		0.0202	103	67.2	113 7.88	14.3
Toluene	1.257	mg/Kg	0.050		0.2003	107	62.1	116 2.74	15.9
Ethylbenzene	1.190	mg/Kg	0.050	0.991	0.116	108	67.9	127 0.839	
Xylenes, Total	3.925	mg/Kg	0.099	2.973	0.6912	109	60.6	134 2.11	12.6
Sample ID: MB-29064		MBLK	•			Batch ID:	29064	Analysis Date:	10/27/2011 11:30:15 PM
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: LCS-29064		LCS				Batch ID:	29064	Analysis Date:	10/28/2011 5:44:44 AM
Benzene	1.027	mg/Kg	0.050	1	0	103	83.3	107	
Toluene	1.036	mg/Kg	0.050	1	0	104	74.3	115	
Ethylbenzene	1.049	mg/Kg	0.050	1	0	105	80.9	122	•
Xylenes, Total	3.161	mg/Kg	0.10	3	0	. 105	85.2	123	
Sample ID: 1110B27-01AMS		MS				Batch ID:	29064	Analysis Date:	10/28/2011 1:54:25 AM
Benzene	0.9633	mg/Kg	0.049	0.989	0.0202	95.4	67.2	113	•
Toluene	1.223	mg/Kg	0.049	0.989	0.2003	103	62.1	116	
Ethylbenzene	1.180	mg/Kg	0.049	0.989	0.116	108	67.9	127	
Xylenes, Total	3.843	mg/Kg	0.099	2.967	0.6912	106	60.6	134	
Method: MERCURY, TCLP									
Sample ID: 1110B27-01AMSD		MSD				Batch ID:	29106	Analysis Date:	10/27/2011 1:03:05 PM
Mercury	ND	mg/L	0.020	0.005	0	102	75	125 0	20
Sample ID: MB-29106		MBLK				Batch ID:	29106		10/27/2011 12:32:53 PM
Mercury	ND	mg/L	0.020						
Sample ID: LCS-29106	.,_	LCS	5.525			Batch ID:	29106	Analysis Date:	10/27/2011 12:34:40 PM
Mercury	ND	mg/L	0.020	0.005	0	105	80	120	
Sample ID: 1110B27-01AMS		MS	5.020	2,000	•	Batch ID:	29106	Analysis Date:	10/27/2011 1:01:17 PM
·			0.020	0.005	0			•	
Mercury	ND	mg/L	0.020	0.005	0	105	75	125	•

O	ua	ifi	e	rs	•

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Tum-Around Time:			AVK 井 // 10-24-// 4901 Hawki	Project #:	H/35	Project Manager:	OS'*	8)************************************	FRANK (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	molecature 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Container Preservative Tippe T	2-80-14m						Received by: Date Time Remarks:	Received by: State Time
Chain-of-Custody Record Tum-Around	Slient: WesterNSRefiving Standard	Project Name	Wailing Address: 50 CR 4990 MUK	Bloom Field, NN 874/3 Project#	632 - 4161	-633-39// Project Mar	OA/QC Package:	Standard			□ EDD (Type)	Date Time Matrix Sample Request ID Container	24-1 10.00 May 1 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						Thelan	Time: Refinquished by:

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Thursday, November 04, 2010 2:15 PM

To:

'Hurtado, Cindy'

Subject:

RE: Bloomfield Refinery - South Evaporation Pond

Cindy:

The OCD has completed its review of your waste disposal submittal and hereby **deny** the request to dispose of the waste in a solid waste landfill (see comments, and/or recomendations below).

have the following comments and/or recommendations:

- 1) OCD notices on the sample receipt checklist, the container temperature was 12.9 °C, but should have been delivered less than 6 °C; thus, compromising the QA/QC of the volatile analyses, i.e., BTEX and TPH. Also, TPH was not analyzed per the testing requirements below.
- 2) Reactive sulfide busted for characteristically hazardous waste.

§ 261.23 Characteristic of reactivity.

- (a) A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has any of the following properties:
- (1) It is normally unstable and readily undergoes violent change without detonating.
- (2) It reacts violently with water.
- (3) It forms potentially explosive mixtures with water.
- (4) When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.
- (5) It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.
- (6) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.
- (7) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.
- (8) It is a forbidden explosive as defined in 49 CFR 173.54, or is a Division 1.1, 1.2 or 1.3 explosive as defined in 49 CFR 173.50 and 173.53.
- (b) A solid waste that exhibits the characteristic of reactivity has the EPA Hazardous Waste Number of D003.
- [45 FR 33119, May 19, 1980, as amended at 55 FR 22684, June 1, 1990; 75 FR 13002, Mar. 18, 2010]
- 3) No pH was provided to show negative results and the method of analysis is in question (see required method of analysis below)?

§ 261.22 Characteristic of corrosivity.

- (a) A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:
- (1) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using Method 9040C in 'Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in §260.11 of this chapter.
- (2) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55 °C (130 °F) as determined by Method 1110A in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW–846, and as incorporated by reference in §260.11 of this chapter.
- [45 FR 33119, May 19, 1980, as amended at 46 FR 35247, July 7, 1981; 55 FR 22684, June 1, 1990; 58 FR 46049, Aug. 31, 1993; 70 FR 34561, June 14, 2005]
- 4) The Ignitability method is in question.

§ 261.21 Characteristic of ignitability.

- (a) A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:
- (1) It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume and has flash point less than 60 °C (140 °F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D 93–79 or D 93–80 (incorporated by reference, see §260.11), or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D 3278–78 (incorporated by reference, see §260.11).
- (2) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.
- 5) The reactivity w
- 5) No TPH analysis was provided to satisfy the testing requirements provided below.

19.15.35.8 DISPOSAL OF CERTAIN NON-DOMESTIC WASTE AT SOLID WASTE FACILITIES:

B Procedure

(2) A person may dispose of waste listed in Paragraph (2) of Subsection D of 19.15.35.8 NMAC at a solid waste facility after testing

and the division's prior written authorization. Before the division grants authorization, the applicant for the authorization shall provide copies of

test results to the division and to the solid waste facility where the applicant will dispose of the waste. In appropriate cases and so long as a

representative sample is tested, the division may authorize disposal of a waste stream listed in Paragraph (2) of Subsection D of 19.15.35.8 NMAC

without individual testing of each delivery.

(3) A person may dispose of waste listed in Paragraph (3) of Subsection D of 19.15.35.8 NMAC at a solid waste facility on a casebycase basis after testing the division may require and the division's prior written authorization. Before the division grants authorization, the

applicant for the authorization shall provide copies of test results to the division and to the solid waste facility where it will dispose of the waste.

(4) Simplified procedure for holders of discharge plans. Holders of an approved discharge plan may amend the discharge plan to provide for disposal of waste listed in Paragraph (2) of Subsection D of 19.15.35.8 NMAC and, as applicable, Paragraph (3) of Subsection D of

19.15.35.8 NMAC. If the division approves the amendment to the discharge plan, the holder may dispose of wastes listed in Paragraphs (2) and (3)

of Subsection D of 19.15.35.8 NMAC at a solid waste facility without obtaining the division's prior written authorization.

D. Testing.

19.15.35 NMAC

http://www.nmcpr.state.nm.us/nmac/parts/title19/19.015.0035.htm[1/16/2009 4:33:09 PM]

The person applying for division approval to dispose of waste in a solid waste facility shall conduct testing required by 19.15.35.8 NMAC according to the Test Methods for Evaluating Solid Waste, EPA No. SW-846 and shall direct questions concerning the standards or a

particular testing facility to the division.

(2) The testing facility shall conduct testing according to the test method listed:

(a) TPH: EPA method 418.1 or 8015 (DRO and GRO only) or an alternative, division-approved hydrocarbon analysis;

(b) TCLP: EPA Method 1311 or an alternative hazardous constituent analysis approved by the division;

(c) paint filter test: EPA Method 9095A;

(d) ignitability test: EPA Method 1030;

(e) corrosivity: EPA Method 1110;

(f) reactivity: test procedures and standards the division establishes on a case-by-case basis; and

(g) NORM. 20.3.14 NMAC.

(3) To be eligible for disposal pursuant to 19.15.35.8 NMAC, the concentration of substances the testing facility identifies during testing shall not exceed the following limits:

(a) benzene: 9.99 mg/kg;

(b) BTEX: 499.99 mg/kg (sum of all);

(c) TPH: 1000 mg/kg;

(d) hazardous air pollutants: the standards set forth in NESHAP; and

(e) TCLP:

(i) arsenic: 5 mg/l, (ii) barium: 100 mg/l, (iii) cadmium: 1 mg/l, (iv) chromium: 5 mg/l,

(v) lead: 5 mg/l,

(vi) mercury: 0.2 mg/l, (vii) selenium: 1 mg/l, and

(viii) silver: 5 mg/l.

[19.15.35.8 NMAC - Rp, 19.15.9.712 NMAC, 12/1/08]

Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/index.htm

(Pollution Prevention Guidance is under "Publications")

From: Hurtado, Cindy [mailto:Cindy.Hurtado@wnr.com]

Sent: Thursday, November 04, 2010 10:11 AM

To: Chavez, Carl J, EMNRD

Cc: Schmaltz, Randy; Robinson, Kelly; Krakow, Bob **Subject:** Bloomfield Refinery - South Evaporation Pond

Good Morning Carl,

Western Refining Southwest, Inc. – Bloomfield Refinery (WRSI-BR) personnel are planning to clean out the sediment in the South Evaporation Pond in preparation of inspection of the pond liner. WRSI-BR requests permission to dispose of the sediment (estimated at 100 yards spread over the 5 acre pond) at the San Juan County Landfill located at #73 Road 3140 Aztec, New Mexico. Please find attached analytical data from a composite sample of the sediment that was collected on July 27, 2010. Analysis consists of Reactivity (SW 846), Corrosivity (1110A), Ignitability (1030), BTEX (5021B), and RCRA 8 Metals (6010B – TCLP).

As soon as Bloomfield Refinery receives direction or approval from OCD, a profile will be established with Waste Management for disposal.

Sincerely, Cindy

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery cindy.hurtado@wnr.com
505-632-4161

Chavez, Carl J, EMNRD

From: Hurtado, Cindy [Cindy.Hurtado@wnr.com]
Sent: Thursday, November 04, 2010 10:11 AM

To: Chavez, Carl J, EMNRD

Cc:Schmaltz, Randy; Robinson, Kelly; Krakow, BobSubject:Bloomfield Refinery - South Evaporation Pond

Attachments: Sediment Analytical 7-2010.pdf

Good Morning Carl,

Western Refining Southwest, Inc. – Bloomfield Refinery (WRSI-BR) personnel are planning to clean out the sediment in the South Evaporation Pond in preparation of inspection of the pond liner. WRSI-BR requests permission to dispose of the sediment (estimated at 100 yards spread over the 5 acre pond) at the San Juan County Landfill located at #73 Road 3140 Aztec, New Mexico. Please find attached analytical data from a composite sample of the sediment that was collected on July 27, 2010. Analysis consists of Reactivity (SW 846), Corrosivity (1110A), Ignitability (1030), BTEX (5021B), and RCRA 8 Metals (6010B – TCLP).

As soon as Bloomfield Refinery receives direction or approval from OCD, a profile will be established with Waste Management for disposal.

Sincerely, Cindy

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery cindy.hurtado@wnr.com
505-632-4161



COVER LETTER

Thursday, August 19, 2010

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4161 FAX (505) 632-3911

RE: South Evap. Pond 7-27-10

Dear Cindy Hurtado:

Order No.: 1007979

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 7/28/2010 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901 AZ license # AZ0682 ORELAP Lab # NM100001

Texas Lab# T104704424-08-TX



Date: 19-Aug-10

CLIENT:

Western Refining Southwest, Inc.

Project:

South Evap. Pond 7-27-10

Lab Order:

1007979

CASE NARRATIVE

Analytical Comments for METHOD 8021BTEX_S, SAMPLE 1007979-01A: Necessary dilution for foamy matrix.

Date: 19-Aug-10

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

1007979

South Evap. Pond 7-27-10

Project: Lab ID:

1007979-01

Client Sample ID: South Evap. Pond

Collection Date: 7/27/2010 12:30:00 PM

Date Received: 7/28/2010

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.50	mg/Kg	10	7/31/2010 12:30:54 PM
Toluene	ND	0.50	mg/Kg	10	7/31/2010 12:30:54 PM
Ethylbenzene	ND	0.50	mg/Kg	10	7/31/2010 12:30:54 PM
Xylenes, Total	ND	1.0	mg/Kg	10	7/31/2010 12:30:54 PM
Surr: 4-Bromofluorobenzene	118	64.7-120	%REC	10	7/31/2010 12:30:54 PM
MERCURY, TCLP				é	Analyst: IC
Mercury	ND	0.020	mg/L	1	8/10/2010 7:33:08 PM
EPA METHOD 6010B: TCLP METALS					Analyst: SNV
Arsenic	ND	5.0	mg/L	1	8/11/2010 10:49:15 AM
Barium	ND	100	mg/L	5	8/11/2010 10:51:38 AM
Cadmium	ND	1.0	mg/L	1	8/11/2010 10:49:15 AM
Chromium	ND	5.0	mg/L	1	8/11/2010 10:49:15 AM
Lead	ND	5.0	mg/L	1	8/11/2010 10:49:15 AM
Selenium	ND	1.0	mg/L	1	8/11/2010 10:49:15 AM
Silver	ND	5.0	mg/L	1	8/11/2010 10:49:15 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Page 1 of 1

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com 504 E Sprague Ste. D · Spokane WA 99202 · (509) 838-3999 · Fax (509) 838-4433 · email.spokane@anateklabs.com

Client:

HALL ENVIRONMENTAL ANALYSIS LAB

Batch #:

100812024

Address:

4901 HAWKINS NE SUITE D

Project Name:

1007979

ALBUQUERQUE, NM 87109

Attn:

ANDY FREEMAN

Analytical Results Report

Sample Number

100812024-001

Sampling Date

7/27/2010

Date/Time Received

8/12/2010 10:50 AM

Client Sample ID

1007979-01B / SOUTH EVAP.

Sampling Time

12:30 PM

POND

Solid

Matrix Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/kg	1	8/19/2010	MAS	SW846 CH7	
Ignitability	Negative			8/18/2010	JWC	EPA 1030	
Reactive sulfide	413	mg/kg	50	8/18/2010	JTT	SW846 CH7	
%moisture	3.3	Percent	:	8/19/2010	CRW	%moisture	

Authorized Signature

John Coddington, Lab Manager

MCL

EPA's Maximum Contaminant Level

ND Not Detected

PQL

Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory. The results reported relate only to the samples indicated. Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Analek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87693; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Analek Labs WA: EPA:WA00169; CA:Cert2632; ID:WA00169; WA:C595; MT:Cert0095

Analytical Data

Client: Hall Environmental Analysis Laboratory

Job Number: 560-21690-1

Sdg Number: 1007979/July 27, 2010

Client Sample ID:

1007979-01B South Evap Pond

Lab Sample ID:

560-21690-1

Client Matrix:

Solid

Date Sampled: 07/27/2010 1230

Date Received: 08/13/2010 0955

1110A Corrosivity Toward Steel

Method:

Analyte

1110A

Analysis Batch: 560-50589

Instrument ID:

NOEQUIP

Preparation:

N/A

Lab File ID:

1.0

N/A

Dilution: Date Analyzed:

08/17/2010 1505

Initial Weight/Volume: Final Weight/Volume: 1.0 g 1.0 g -

Date Prepared:

DryWt Corrected: N

Result (mm/year)

Qualifier

RL 0.10

Corrosivity toward Steel

<0.10

Date: 19-Aug-10

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

South Evap. Pond 7-27-10

Work Order:

1007979

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec L	owLimit Hig	hLimit %RPD	RPDLimit Qual
Method: EPA Method 8021B:	Volatiles								
Sample ID: MB-23193		MBLK			1	Batch ID:	23193	Analysis Date:	7/29/2010 11:46:09 AM
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: LCS-23193		LCS				Batch ID:	23193	Analysis Date:	7/29/2010 1:44:07 PM
Benzene	0.9838	mg/Kg	0.050	1	0	98.4	78.8	132	
Toluene	0.9823	mg/Kg	0.050	1	0	98.2	78.9	112	
Ethylbenzene	1.073	mg/Kg	0.050	1	0	107	69.3	125	
Kylenes, Total	3.204	mg/Kg	0.10	3	. 0	107	73	128	•
Method: MERCURY, TCLP		,							
Sample ID: MB-23326		MBLK				Batch ID:	23326	Analysis Date:	8/10/2010 7:28:01 PM
Viercury	ND	mg/L	0.020		•			•	
Sample ID: LCS-23326	112	LCS	0.020			Batch ID:	23326	Analysis Date:	8/10/2010 7:29:43 PM
Mercury	ND	mg/L	0.020	0.005	. 0	102	80	120	
							-		
Method: EPA Method 6010B: Sample ID: MB-23330	ICLP Metals	MBLK				Batch ID:	23330	Analysis Date:	8/11/2010 10:34:37 AM
Arsenic	N/D		5 0			Daton 15.	20000	7 (iidiyələ Dato.	
Risemo Barium	ND ND	mg/L mg/L	5.0 100						
Cadmium	ND	mg/L	1.0						
Chromium	ND	mg/L	5.0						
_ead	ND	mg/L	5.0						
Selenium	ND	mg/L	1.0						
Silver	ND	mg/L	5.0						
Sample ID: FLUID 2	140	MBLK	0.0			Batch ID:	23330	Analysis Date:	8/11/2010 10:41:06 AM
Arsenic	ND	mg/L	5.0					,	,
3arium	ND	mg/L	100						
Cadmium	ND	mg/L	1.0		;				
Chromium	ND	mg/L	5.0						
_ead	ND	mg/L	5.0						
Selenium	ND	mg/L	1.0						
Silver	ND	mg/L	5.0						
Sample ID: LCS-23330		LCS				Batch ID:	23330	Analysis Date:	8/11/2010 10:45:14 AN
Arsenic	ND	mg/L	5.0	0.5	0	119	80	120	
Barium	ND	mg/L	100	0.5	0	104	80	120	
Cadmium	ND	mg/L	1.0	0.5	0	112	80	120	
Chromium	ND	mg/L	5.0		0.0013	103	80	120	
.ead	ND	mg/L	5.0	0.5	0	101	80	120	
	ND	mg/L	1.0	0.5	ō	118	80	120	
Selenium	עמו								

Ona	lifiers

E Estimated value

Page 1

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Quality Control Results

Client: Hall Environmental Analysis Laboratory

Job Number: 560-21690-1

Sdg Number: 1007979/July 27, 2010

Method Blank - Batch: 560-50589

Method: 1110A Preparation: N/A

Client Matrix:

Lab Sample ID: MB 560-50589/1

Solid

Dilution:

Date Analyzed: 08/17/2010 1505

Date Prepared:

Analysis Batch: 560-50589

Prep Batch: N/A

Units: mm/year

Instrument ID: No Equipment Assigned

Lab File ID:

Initial Weight/Volume:

Final Weight/Volume:

1.0 g 1.0 g

N/A

Corrosivity toward Steel

Analyte

Result

Qual

RL.

< 0.10

0.10

Duplicate - Batch: 560-50589

560-21690-1

Lab Sample ID: Client Matrix: Dilution:

Salid 1.0

Date Analyzed:

08/17/2010 1505

Date Prepared:

Analysis Batch: 560-50589

Prep Batch: N/A

Units: mm/year

Method: 1110A Preparation: N/A

Instrument ID: No Equipment Assigned

Lab File ID: N/A

Initial Weight/Volume:

1.0 g

Final Weight/Volume:

1.0 g

Result RPD Limit Qual Analyte Sample Result/Qual Corrosivity toward Steel < 0.10 NC 20 < 0.10

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT			Date Receive	d:	7/28/2010
Work Order Number 1007979			Received by	: TLS	-t:
				abels checked by:	()
Checklist completed by:	Mallega	Date	3-10-88	10	Initials
Matrix:	Carrier name: <u>UP</u>	<u>s</u>			
Shipping container/cooler in good condition?	Yes	· 🗹	No 🗀	Not Present	
Custody seals intact on shipping container/cooler?	Yes	. 🗆	No 🗀	Not Present 🗹	Not Shipped
Custody seals intact on sample bottles?	Yes	; 	No 🗆	N/A ✓	
Chain of custody present?	Yes	· 🗹	No 🗌	•	
Chain of custody signed when relinquished and rece	eived? Yes	•	No 🗌		
Chain of custody agrees with sample labels?	Yes	. ☑	No 🗆		
Samples in proper container/bottle?	Yes	· 🗹	No 🗆		
Sample containers intact?	Yes	· 🔽	No 🗆		
Sufficient sample volume for indicated test?	Yes	· 🗹	No 🗌		
All samples received within holding time?	Yes	· 🗹	No 🗌		Number of preserved
•	lo VOA vials submitted	$ \mathbf{V} $	Yes 🗌	No 🗌	bottles checked for pH:
Water - Preservation labels on bottle and cap match	n? Yes	: 🗆	No 🗌	N/A 🗹	
Water - pH acceptable upon receipt?	Yes		No 🗀	N/A ☑	<2 >12 unless noted
Container/Temp Blank temperature?	12	2.9°	<6° C Acceptab	le	below.
COMMENTS:			If given sufficient	t time to cool.	
				•	
Client contacted Dat	te contacted:		Pers	on contacted	
Contacted by:	garding:				
Comments:					,
					
A		· 1		·	
			····		
		1			
Corrective Action					

Date: Time: Relinquished by: Date: Time: Relinquished by:						-	727-1012:30 Studge South EVAP. PAUD	Date Time Matrix Sample Request ID	□ EDD (Type)	Accreditation ☐ NELAP ☐ Other	Standard Level 4 (Full Validation)			-633-	5/20mf; eld, NM 97413	Mailing Address#50 CR4990		Western Ketining	Chain-of-Custody Record
Received by: Date Time Received by: Date Time						Q	2-89. JARS -1	Container Preservative HEAL No. Type and # Type	Temperature シピン・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・	Sampler: Bob On Ice: Toges = SENO			Project Manager:		Project #:	South EMP, DOND 7-27-10	riojectivalile.	Standard 🗆 Rush	Turn-Around Time:
Remarks:								BTEX + MT TPH Method TPH (Method 8310 (PNA d RCRA 8 Me Anions (F,C) 8081 Pestici 8260B (VOA 8270 (Semi-	BE 80 4 4 od 5 or F tals	+ TPH (15B (0 18.1) (04.1) (2AH) (7C) (3,NO) (5 / 808)	(Ga Gas/	Dies	nly) sel)	Ana	Oi	4901 Hawkins NE - Albuquerque, NM 87109	www.hallenvironmental.com	ANALYSIS LABORATORY	HALL ENVIRONMENTAL

Air Bubbles (Y or N)

Turn-Around Time:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Thursday, April 29, 2010 1:48 PM

To:

'Hurtado, Cindy'

Cc:

Powell, Brandon, EMNRD

Subject:

RE: Bloomfield Refinery

Cindy:

Denied. Please find below the highlighted limits that form the basis for OCD's denial.

19.15.35.8(D)(3) Testing

- (2) The testing facility shall conduct testing according to the test method listed:
- (a) TPH: EPA method 418.1 or 8015 (DRO and GRO only) or an alternative, division-approved hydrocarbon analysis;
- (b) TCLP: EPA Method 1311 or an alternative hazardous constituent analysis approved by the division;
- (c) paint filter test: EPA Method 9095A;
- (d) ignitability test: EPA Method 1030;
- (e) corrosivity: EPA Method 1110;
- (f) reactivity: test procedures and standards the division establishes on a case-by-case basis; and
- (g) NORM. 20.3.14 NMAC.
- (3) To be eligible for disposal pursuant to 19.15.35.8 NMAC, the concentration of substances the testing facility identifies during testing shall not exceed the following limits:
- (a) benzene: 9.99 mg/kg;
- (b) BTEX: 499.99 mg/kg (sum of all);
- (c) TPH: 1000 mg/kg;
- (d) hazardous air pollutants: the standards set forth in NESHAP; and (Waste Management Form indicates presence of NESHAP)
- (e) TCLP:
- (i) arsenic: 5 mg/l, (ii) barium: 100 mg/l, (iii) cadmium: 1 mg/l,
- (iv) chromium: 5 mg/l,
- (v) lead: 5 mg/l,
- (vi) mercury: 0.2 mg/l,(vii) selenium: 1 mg/l, and
- (viii) silver: 5 mg/l.

[19.15.35.8 NMAC - Rp, 19.15.9.712 NMAC, 12/1/08]

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/ index.htm (Pollution Prevention Guidance is under "Publications")

From: Hurtado, Cindy [mailto:Cindy.Hurtado@wnr.com]

Sent: Wednesday, April 28, 2010 3:41 PM

To: Chavez, Carl J, EMNRD **Cc:** Schmaltz, Randy

Subject: Bloomfield Refinery

Good Afternoon Carl,

Bloomfield Refinery personnel have cleaned out the Merox Sand Filter and Diesel Salt Dryers within the facility. Salt Dryer Vessels contained salt that was used to remove water (condensed steam) from diesel product when the refinery was operational. The Merox Sand Filter contained sand/gravel that was used to remove water and caustic from LPG product while the refinery was operational.

Bloomfield Refinery requests permission to dispose of the Salt Dryer Media and the Merox Sand Filter Media at San Juan County Landfill. Waste Management personnel assure me that the TPH levels are within their permit.

Thank you for your prompt attention to this matter, Cindy

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery
cindy.hurtado@wnr.com
505-632-4161

Chavez, Carl J, EMNRD

From: Hurtado, Cindy [Cindy.Hurtado@wnr.com]
Sent: Wednesday, April 28, 2010 3:41 PM

Sent: Wednesday, April 28, 2010 3:41 PM Chavez, Carl J, EMNRD

Cc: Schmaltz, Randy
Subject: Bloomfield Refinery

Attachments: Salt Dryer WM Profile.pdf; Sand Filter WM Profile.pdf; Composite Salt and Sand Filter Media

Analysis.pdf

Good Afternoon Carl,

Bloomfield Refinery personnel have cleaned out the Merox Sand Filter and Diesel Salt Dryers within the facility. Salt Dryer Vessels contained salt that was used to remove water (condensed steam) from diesel product when the refinery was operational. The Merox Sand Filter contained sand/gravel that was used to remove water and caustic from LPG product while the refinery was operational.

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Thank you for your prompt attention to this matter, Cindy

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery cindy.hurtado@wnr.com
505-632-4161

Cenerator's Ronnazardous waste frome differen

Requested Disposal Facility Renewal for Profile Number					
A. Waste Generator Facility Information (mi					
1. Generator Name: Western Refining Southwest, Inc Blog					
2. Site Address: #50 Road 4990			ess: <u>cindy.hurtado(</u>		
3. City/ZIP: Bloomfield 87413			5-632-4161		
4. State: New Mexico			e: USEPA ID #: NMD(
5. County: San Juan					
6. Contact Name/Title: <u>Cindy Hurtado - Environmental Coo</u> B. Customer Information same as above	ia.co		(if applicable):		
1. Customer Name:					
2. Billing Address:					
3. City, State and ZIP:					
4. Contact Name:					
5. Contact Email:	10	. City, State an	d ZIP:	man against ett stetlandin die e try og cyt i the ett andresen from Managary for etter e	ray garangap materia and a statema passars handra and statemanapan s halos a statema
C.Waste Stream Information					
1. DESCRIPTION					
a. Common Waste Name: Salt Dryer Media	*****************	4- 40/ West 1 who supplied \$1111/2 ma \$2 / No 100-100 ft.		production against ay Egith 100 to a contract bounds. And deliver in contract to the second	
State Waste Code(s):					
b. Describe Process Generating Waste or Source of Cont.					
Salt Dryer Vessels contain salt that was used		•		•	•
the refinery was operational. The refinery has	shut o	down and the	e salt has been	removed from	the salt dryer
vessels.					
c. Typical Color(s): white to gray		d transfer to the second section as the second of the second	namenani da	and the second s	and the state of t
d. Strong Odor? 🖸 Yes 🗹 No Describe:			garanana galantifiyaddina yayaran kidi inda ada ada ada ada ada ada ada ada ada		engang ngan ngapagan pagang an anggan arawan dan manggang ngang ngang ang ang
e. Physical State at 70°F: 🗹 Solid 🗀 Liquid 🗀	Powde	er 🔾 Semi-S	olid or Sludge 🏻 🖸	Other:	andreas has a spirit of the last of some cannot be stilled decreasing parameters.
f. Layers? 🗹 Single layer 🚨 Multi- layer 🚨	NA				
g. Water Reactive? 🗀 Yes 🇹 No 🏻 If Yes, Descri	be:	office whiles from your spin to making one propriet inch to		Nephrica V 21 - 100 (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
h. Free Liquid Range (%):to					
i. pH Range: ☐ ≤2 ☐ 2.1-12.4 ☐ ≥12.5 ☑			al:		
j. Liquid Flash Point: □ < 140°F □ ≥ 140°F					
k, Flammable Solid: 🖸 Yes 🖼 No		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	All and the law of the Autority	TO BE AND BE SHE A COMMITTEE OF THE SECOND	
l. Physical Constituents: List all constituents of waste s	tream -	(e.g. Soil 0-80			ed)
Constituents (Total Composition Must be > 100%)		Lower Range	Unit of Measure	Upper Range	Unit of Measure
1. salt 2. dirt/gravel/sand	-	95)	%	100	%
3.					
4					
5. 6.					
2. ESTIMATED QUANTITY OF WASTE AND SHIPPING INFORMA		AND THE PERSON NAMED IN TH			
	HUTUN				
a. 🗹 One Time Event 🗀 Base 🗀 Repeat Event	16			finish out to the	
b. Estimated Annual Quantity: 12				,	,
c. Shipping Frequency: Uni					
d. Is this a U.S. Department of Transportation (USDOT)		,	•		
e. USDOT Shipping Description (if applicable):					
SAFETY REQUIREMENTS (Handling, PPE, etc.):					



©2008 Waste Management, Inc.

Generator's Nonhazardous Waste Profile Sheet

	D. Regulatory Status (Please check appropriate res	ponses)	***************************************				
1.	Is this a USEPA (40 CFR Part 261)/State hazardous waste? If yes, contact	t your sales r	epresentative.			Yes	☑ No
2.	Is this waste included in one or more of categories below (Check all tha	t apply)? If y	es, attach sup	porting document	ation.	🗀 Yes	🗹 No
	☐ Delisted Hazardous Waste ☐ Exclude	ed Wastes Uni	der 40 CFR 261	.4			
	☐ Treated Hazardous Waste Debris ☐ Treated	l Characterist	ic Hazardous W	/aste			,
3.	Is the waste from a Federal (40 CFR 300, Appendix B) or state mandated	d clean-up? If	yes, see instr	uctions.		Yes	☑ No
4.	Does the waste represented by this waste profile sheet contain radioacti	ive material?				Yes	☑ No
	a. If yes, is disposal regulated by the Nuclear Regulatory Commission?			☐ Yes ☐ No)		
	b. If yes, is disposal regulated by a State Agency for radioactive waste/1			☐ Yes ☐ No			,
5.	Does the waste represented by this waste profile sheet contain concentr	rations of reg	ulated Polychlo			☐ Yes	☑ No
	a. If yes, is disposal regulated under TSCA?			☐ Yes ☐ No)		
	Does the waste contain untreated, regulated, medical or infectious wast	e?			_	Yes	☑ No
7.	Does the waste contain asbestos?			If Yes, □	1 Friable	☐ Nor	n Friable
8.	Is this profile for remediation waste from a facility that is a major $% \left(1\right) =\left(1\right) \left(1$	source of Ha	zardous Air P	ollutants (Site Re	emediatio	n NESHA	Ρ,
	40 CFR 63 subpart GGGGG)?				🗹 Yes	□ No	0
	If yes, does the waste contain <500 ppmw VOHAPs at the poi	nt of determ	ination?		✓ Yes	☐ No)
	E. Generator Certification (Please read and certify)			· · · · · · · · · · · · · · · · · · ·			
By	signing this Generator's Waste Profile Sheet, I hereby certify that all:						
-	Information submitted in this profile and all attached documents conta	in true and a	rcurate descrin	itions of the waste	material		
	Relevant information within the possession of the Generator regarding l		•				
۷.	·	(nown or susp	iected nazarus	percanning to tins	s waste iid	is been	
	disclosed to WM/the Contractor;				•••		
3.	Analytical data attached pertaining to the profiled waste was derived fr	om testing a	representative	sample in accorda	ance with		
	40 CFR 261.20(c) or equivalent rules; and						
4.	Changes that occur in the character of the waste (i.e. changes in the pr					ator	
	and disclosed to WM (and the Contractor if applicable) prior to providing	g the waste t	to WM (and the	e Contractor if app	licable).		
5.	Check all that apply:						÷
	🖄 Attached analytical pertains to the waste. Identify laboratory & sam	iple ID #'s an	d parameters t	ested:			
	Hall Environmental Analysis Lab - RCI, TCLP RCRA 8 Metals, M	lethod 8260	3, Method 827	'0, Method 8015B	3# Pa	ges: <u>15</u>	
	Only the analyses identified on the attachment pertain to the waste	(identify by	laboratory & s	ample ID #'s and p	oarameter	s tested).	
	Attachment #:		_				
	☐ Additional information necessary to characterize the profiled waste	has been atta	ched (other t	nan analytical).			
	Indicate the number of attached pages:		(-2	,			
	☐ I am an agent signing on behalf of the Generator, and the delegation	n of authorit	v to me from t	he Generator for t	his sionat	ure is	
	available upon request.	ni or doctions	y to me nom t	ine deficited for the	ms signar	.0,0	
	☐ By Generator process knowledge, the following waste is not a listed	waste and is	helow all TCLE	regulatory limits			
c .				dinator			
					····		
Co	mpany Name: Bloomfield Refinery	Name (Print	t): <u>Cindy Hur</u>	tado			
Da	te: 4-27-2010						
	FOR WI	M USE ONI	.Y		·		
М	anagement Method: 🚨 Landfill 🚨 Bioremediation	Approvat D	ecision:	☐ Approved	☐ Not	Approved	i
	Non-hazardous solidification 🚨 Other:	Waste Appro	oval Expiration	n Date:			-
M	anagement Facility Precautions, Special Handling Procedures or L	imitation	☐ Shall not	contain free liqu	iid		
	approval:			must be schedul		lienneal f	acility
-	· • • • • • • • • • • • • • • • • • • •		,				-
	•		• •	Number must acc	' -	•	ment
				nifest must accor			
W	M Authorization Name / Title:			Date:	,		
St	ate Authorization (if Required):	**************************************		Date:			

May 2008



COVER LETTER

Thursday, April 22, 2010

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4161 FAX (505) 632-3911

RE: Composite-Merox Filter Media/Salt Dryer

Dear Cindy Hurtado:

Order No.: 1004180

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 4/9/2010 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901 AZ license # AZ0682 ORELAP Lab # NM100001 Texas Lab# T104704424-08-TX



Date: 22-Apr-10

CLIENT:

Western Refining Southwest, Inc.

Project:

Composite-Merox Filter Media/Salt Dryer

Lab Order:

1004180

CASE NARRATIVE

"S" flags denote that the surrogate was not recoverable or elevated due to sample dilution or matrix interferences.

Date: 22-Apr-10

CLIENT: Lab Order: Western Refining Southwest, Inc.

1004180

Composite-Merox Filter Media/Salt Dryer

Project: Lab ID:

1004180-01

Client Sample ID: Composite/Merox/Salt Dryer

Collection Date: 4/8/2010 8:30:00 AM

Date Received: 4/9/2010

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E ORGANICS					Analyst: JB
Diesel Range Organics (DRO)	3700	200		mg/Kg	20	4/13/2010 8:32:09 AM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	4/13/2010 8:32:09 AM
Surr: DNOP	0	61.7-135	s	%REC	20	4/13/2010 8:32:09 AM
EPA METHOD 8015B: GASOLINE RA	NGE					Analyst: NSB
Gasoline Range Organics (GRO)	110	100		mg/Kg	20	4/17/2010 2:20:44 AM
Surr: BFB	146	65.9-118	s	%REC	20	4/17/2010 2:20:44 AM
MERCURY, TCLP			`			Analyst: IC
Mercury	ND	0.020		mg/L	1	4/19/2010 4:56:03 PM
EPA METHOD 6010B: TCLP METAL:	S					Analyst: RAGS
Arsenic	ND	5.0		mg/L	1	4/20/2010 6:53:02 PM
Barium	ND	100		mg/L	1	4/20/2010 6:53:02 PM
Cadmium	ND	1.0		mg/L	1	4/20/2010 6:53:02 PM
Chromium	ND	5.0		mg/L	1	4/20/2010 6:53:02 PM
Lead	ND	5.0		mg/L	1	4/20/2010 6:53:02 PM
Selenium	ND	1.0		mg/L	1	4/20/2010 6:53:02 PM
Silver	ND	5.0		mg/L	1	4/20/2010 6:53:02 PM
EPA METHOD 8270C: SEMIVOLATILI	ES					Analyst: JDC
Acenaphthene	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Acenaphthylene	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Aniline	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Anthracene	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Azobenzene	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Benzo(g,h,l)perylene	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Benzoic acid	ND	0.50		mg/Kg	1	4/15/2010 7:14:04 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	4/15/2010 7:14:04 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Carbazole	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	4/15/2010 7:14:04 PM

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Ε Estimated value
- Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits

Page 1 of 5

Date: 22-Apr-10

CLIENT:

Western Refining Southwest, Inc.

Client Sample ID: Composite/Merox/Salt Dryer

Lab Order:

1004180

Project:

Composite-Merox Filter Media/Salt Dryer

Collection Date: 4/8/2010 8:30:00 AM

Lab ID:

1004180-01

Date Received: 4/9/2010

Matrix: SOIL

Analyses	Result	PQL	Qual Un	its DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATIL	.ES				Analyst: JDC
4-Chloroaniline	ND	0.50	mg/	Kg 1	4/15/2010 7:14:04 PM
2-Chloronaphthalene	ND	0.25	mg/		4/15/2010 7:14:04 PM
2-Chlorophenol	ND	0.20	. mg/		4/15/2010 7:14:04 PM
4-Chlorophenyl phenyl ether	ND	0.20	mg/	Kg 1	4/15/2010 7:14:04 PM
Chrysene	ND	0.20	mg/	Kg 1	4/15/2010 7:14:04 PM
Di-n-butyl phthalate	ND	0.50	mg/	Kg 1	4/15/2010 7:14:04 PM
Di-n-octyl phthalate	ND	0.25	mg/	Kg 1	4/15/2010 7:14:04 PM
Dibenz(a,h)anthracene	ND	0.20	mg/	Kg 1	4/15/2010 7:14:04 PM
Dibenzofuran	ND	0.20	mg/	Kg 1	4/15/2010 7:14:04 PM
1,2-Dichlorobenzene	ND	0.20	mg/	Kg 1	4/15/2010 7:14:04 PM
1,3-Dichlorobenzene	ND	0.20	mg/	Kg 1	4/15/2010 7:14:04 PM
1,4-Dichlorobenzene	ND	0.20	mg/	Kg 1	4/15/2010 7:14:04 PM
3,3'-Dichlorobenzidine	ND	0.25	mg/	K g 1	4/15/2010 7:14:04 PM
Diethyl phthalate	ND	0.20	mg/	Kg 1	4/15/2010 7:14:04 PM
Dimethyl phthalate	ND	0.20	mg/	Kg 1	4/15/2010 7:14:04 PM
2,4-Dichlorophenol	ND	0.40	mg/	Kg 1	4/15/2010 7:14:04 PM
2,4-Dimethylphenol	ND	0.30	mg/	Kg 1	4/15/2010 7:14:04 PM
4,6-Dinitro-2-methylphenol	ND	0.50	mg/	Kg 1	4/15/2010 7:14:04 PM
2,4-Dinitrophenol	ND	0.40	mg/i	Kg 1	4/15/2010 7:14:04 PM
2,4-Dinitrotoluene	ND	0.50	mg/	Kg 1	4/15/2010 7:14:04 PM
2,6-Dinitrotoluene	ND	0.50	mg/	Kg 1	4/15/2010 7:14:04 PM
Fluoranthene	ND	0.20	mg/	Kg 1	4/15/2010 7:14:04 PM
Fluorene	ND	0.20	mg/l	Kg 1	4/15/2010 7:14:04 PM
Hexachlorobenzene	ND	0.20	mg/l	Kg 1	4/15/2010 7:14:04 PM
Hexachlorobutadiene	ND	0.20	mg/l	Kg 1	4/15/2010 7:14:04 PM
Hexachlorocyclopentadiene	ND	0.20	mg/l	Kg 1	4/15/2010 7:14:04 PM
Hexachloroethane	ND	0.20	mg/l	Kg 1	4/15/2010 7:14:04 PM
Indeno(1,2,3-cd)pyrene	. ND	0.20	mg/l	Kg 1	4/15/2010 7:14:04 PM
Isophorone	ND	0.50	mg/l	Kg 1	4/15/2010 7:14:04 PM
2-Methylnaphthalene	2.6	0.20	mg/l	Kg 1	4/15/2010 7:14:04 PM
2-Methylphenol	ND	0.50	mg/l	Kg 1	4/15/2010 7:14:04 PM
3+4-Methylphenol	ND	0.20	mg/i	Kg 1	4/15/2010 7:14:04 PM
N-Nitrosodi-n-propylamine	ND	0.20	mg/l	K g 1	4/15/2010 7:14:04 PM
N-Nitrosodiphenylamine	ND	0.20	mg/l		4/15/2010 7:14:04 PM
Naphthalene	ND	0.20	mg/l	-	4/15/2010 7:14:04 PM
2-Nitroaniline	ND	0.20	mg/l	•	4/15/2010 7:14:04 PM
3-Nitroaniline	ND	0.20	mg/l		4/15/2010 7:14:04 PM
4-Nitroaniline	ND	0.25	mg/l		4/15/2010 7:14:04 PM
Nitrobenzene	ND	0.50	mg/l	*	4/15/2010 7:14:04 PM
2-Nitrophenol	ND	0.20	mg/l	_	4/15/2010 7:14:04 PM
4-Nitrophenol	ND	0.20	mg/l	K g 1	4/15/2010 7:14:04 PM

Qualiflers:

- Value exceeds Maximum Contaminant Level
- Estimated value
- Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Η
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits

Page 2 of 5

Date: 22-Apr-10

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

1004180

Client Sample ID: Composite/Merox/Salt Dryer

Collection Date: 4/8/2010 8:30:00 AM

Pi

Project:	Composite-Merox Filter Media/Salt Dryer	Date Received:	4/9/2010
Lab ID:	1004180-01	Matrix:	SOIL

Analyses	Result	. PQL	Qual Unit	s DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES					Analyst: JDC
Pentachlorophenol	ND	0.40	mg/K	g 1	4/15/2010 7:14:04 PM
Phenanthrene	0.41	0.20	mg/K	g 1	4/15/2010 7:14:04 PM
Phenol	ND	0.20	mg/K	g 1	4/15/2010 7:14:04 PM
Pyrene	ND	0.20	mg/K	g 1	4/15/2010 7:14:04 PM
Pyridine	ND	0.50	mg/K	g 1	4/15/2010 7:14:04 PM
1,2,4-Trichlorobenzene	ND	0.20	mg/K	g 1	4/15/2010 7:14:04 PM
2,4,5-Trichlorophenol	ND	0.20	mg/K	g 1	4/15/2010 7:14:04 PM
2,4,6-Trichlorophenol	ND	0.20	mg/K	g 1	4/15/2010 7:14:04 PM
Surr: 2,4,6-Tribromophenol	33.2	28.4-132	%RE	C 1	4/15/2010 7:14:04 PM
Surr: 2-Fluorobiphenyl	45.7	37.4-123	%RE	1	4/15/2010 7:14:04 PM
Surr: 2-Fluorophenol	62.1	28.6-110	%RE	3 1	4/15/2010 7:14:04 PM
Surr: 4-Terphenyl-d14	69.5	29.2-111	%REG	3 1	4/15/2010 7:14:04 PM
Surr: Nitrobenzene-d5	49.9	33.8-126	%RE	1	4/15/2010 7:14:04 PM
Surr: Phenol-d5	65. 8	35.3-110	%RE	1	4/15/2010 7:14:04 PM
EPA METHOD 8260B: VOLATILES					Analyst: DAM
Benzene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Toluene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Ethylbenzene	ND	0.50	mg/K	10	4/13/2010 4:34:50 PM
Methyl tert-butyl ether (MTBE)	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,2,4-Trimethylbenzene	7.2	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,3,5-Trimethylbenzene	2.4	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,2-Dichloroethane (EDC)	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,2-Dibromoethane (EDB)	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Naphthalene	ND	1.0	mg/Kg	10	.4/13/2010 4:34:50 PM
1-Methylnaphthalene	ND	2.0	mg/Kg	10	4/13/2010 4:34:50 PM
2-Methylnaphthalene	2.1	2.0	mg/Kg	10	4/13/2010 4:34:50 PM
Acetone	ND	7.5	mg/Kg	10	4/13/2010 4:34:50 PM
Bromobenzene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Bromodichloromethane	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Bromoform	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Bromomethane	ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
2-Butanone	ND	5.0	mg/Kg	10	4/13/2010 4:34:50 PM
Carbon disulfide	ND	5.0	mg/Kg	10	4/13/2010 4:34:50 PM
Carbon tetrachloride	ND .	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
Chlorobenzene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Chloroethane	ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
Chloroform	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Chloromethane	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
2-Chlorotoluene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
4-Chlorotoluene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Ε Estimated value
- Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Н
- MCL Maximum Contaminant Level
- Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits

Page 3 of 5

Date: 22-Apr-10

CLIENT:

Western Refining Southwest, Inc.

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Lab Order:

1004180

Composite-Merox Filter Media/Salt Dryer

Project: Lab ID:

1004180-01

Client Sample ID: Composite/Merox/Salt Dryer

Collection Date: 4/8/2010 8:30:00 AM

Date Received: 4/9/2010

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES					Analyst: DAM
cis-1,2-DCE	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
cis-1,3-Dichloropropene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,2-Dibromo-3-chloropropane	. ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
Dibromochloromethane	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Dibromomethane	ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
1,2-Dichlorobenzene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,3-Dichlorobenzene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,4-Dichlorobenzene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Dichlorodifluoromethane	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,1-Dichloroethane	ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
1,1-Dichloroethene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,2-Dichloropropane	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,3-Dichloropropane	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
2,2-Dichloropropane	ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
1,1-Dichloropropene	ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
Hexachlorobutadiene	ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
2-Hexanone	ŅD	5.0	mg/Kg	10	4/13/2010 4:34:50 PM
Isopropylbenzene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
4-Isopropyltoluene	1.1	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
4-Methyl-2-pentanone	ND	5.0	mg/Kg	10	4/13/2010 4:34:50 PM
Methylene chloride	ND	1.5	mg/Kg	10	4/13/2010 4:34:50 PM
n-Butylbenzene	1.8	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
n-Propylbenzene	0.50	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
sec-Butylbenzene	0.60	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Styrene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
tert-Butylbenzene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,1,1,2-Tetrachloroethane	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,1,2,2-Tetrachloroethane	ND	0.50	. mg/Kg	10	4/13/2010 4:34:50 PM
Tetrachloroethene (PCE)	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
trans-1,2-DCE	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
trans-1,3-Dichloropropene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,2,3-Trichlorobenzene	ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
1,2,4-Trichlorobenzene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,1,1-Trichloroethane	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,1,2-Trichloroethane	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Trichloroethene (TCE)	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Trichlorofluoromethane	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,2,3-Trichloropropane	ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
Vinyl chloride	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Xylenes, Total	ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
Surr: 1,2-Dichloroethane-d4	88.3	74-108	%REC	10	4/13/2010 4:34:50 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Page 4 of 5

Hall Environmental Analysis Laboratory, Inc.

Date: 22-Apr-10

CLIENT:

Western Refining Southwest, Inc.

Western Kerning Southwe

Client Sample ID: Composite/Merox/Salt Dryer

Lab Order:

1004180

Collection Date: 4/8/2010 8:30:00 AM

Project:

Composite-Merox Filter Media/Salt Dryer

Date Received: 4/9/2010

Lab ID:

1004180-01

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Surr: 4-Bromofluorobenzene	. 138	71.5-127	S	%REC	10	4/13/2010 4:34:50 PM
Surr: Dibromofluoromethane	115	78.1-106	S	%REC	10	4/13/2010 4:34:50 PM
Surr: Toluene-d8	82.0	77.9-109		%REC	10	4/13/2010 4:34:50 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Page 5 of 5



YOU'F LINE OFFICHOUCE

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D, 62-0814289

Est. 1970

REPORT OF ANALYSIS

Anne Thorne Hall Environmental Analysis Laborat 4901 Hawkins NE Albuquerque, NM 87109

April 20, 2010

Date Received

ESC Sample # : L453743-01

Description

April 1004180

Site ID :

Sample ID Collected By : Collection Date :

04/08/10 08:30

13, 2010

COMPOSITE/MEROX/SALT DRYER

Project # : 1004180

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9040C	04/16/10	1
Ignitability	See Footnote		Deg. F	D93/1010A	04/20/10	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	04/16/10	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	04/16/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL) Note: The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 04/20/10 17:08 Printed: 04/20/10 17:09 L453743-01 (IGNITABILITY) - Did Not Ignite @ 170F

Date: 22-Apr-10

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

Composite-Merox Filter Media/Salt Dryer

Work Order:

1004180

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec L	owLimit Hi	ghLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8016B: D	iesel Range	o Organics									
Sample ID: MB-21898		MBLK				Batch ID:	21898	Analysis	Date:	4/11/2010	1:09:56 AM
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						•		
Sample ID: LCS-21898		LCS				Batch ID:	21898	Analysis	Date:	4/11/2010	1:46:11 AM
Diesel Range Organics (DRO)	43.22	mg/Kg	10	50	0	86.4	64.6	116			
Sample ID: LCSD-21898		LCSD				Batch ID:	21898	Analysis	Date:	4/11/2010	2:22:23 AM
Diesel Range Organics (DRO)	45.58	mg/Kg	10	50	0	91.2	64.6	116	5.30	17.4	
Method: EPA Method 8015B: G	asoline Rar	nge									
Sample ID: MB-21900		MBLK				Batch ID:	21900	Analysis	Date:	4/15/2010	8:35:07 PM
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-21900		LCS				Batch ID:	21900	Analysis	Date:	4/16/2010	4:40:18 AM
Gasoline Range Organics (GRO)	25.11	mg/Kg	5.0	25	1.66	93.8	77.7	1.35			

O	ual	ifi	ers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Date: 22-Apr-10

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

Composite-Merox Filter Media/Salt Dryer

Work Order:

1004180

Analyte	Result	Units	PQL	SPK Va S	SPK ref	%Rec L	owLimit Hig	ghLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C;	Semivolatiles	1				· 					
Sample ID: 1004180-01Bmsd		MSD				Batch ID:	21907	Analys	is Date:	4/15/2010 8	3:14:38 PM
Acenaphthene	0.8210	mg/Kg	0.20	1.67	0	49.2	24	125	4.68	30	
4-Chloro-3-methylphenol	1.283	mg/Kg	0.50	3.33	0	38.5	14.6	154	3.20	30	
2-Chlorophenol	1.761	mg/Kg	0.20	3.33	0	52.9	13.3	149	31.3	30	R
1,4-Dichlorobenzene	0.7377	mg/Kg	0.20	1,67	0	44.2	23.6	118	17.7	30	
2,4-Dinitrotoluene	0.6323	mg/Kg	0.50	1.67	0	37.9	28	136	10.7	30	
N-Nitrosodi-n-propylamine	1.209	mg/Kg	0.20	1.67	0	72.4	28	114	5.44	30	
4-Nitrophenol	ND	mg/Kg	0.20	3.33	0	0	13.1	150	0	0	\$
Pentachlorophenol	0.7910	mg/Kg	0.40	3.33	0	23.8	20.1	139	8.25	30	
Phenol	1.440	mg/Kg	0.20	3.33	0	43.2	17.3	141	27.7	30	
Ругеле	0.9810	mg/Kg	0.20	1.67	0	58.7	29	131	21.7	30	
1,2,4-Trichlorobenzene	0.5583	mg/Kg	0.20	1.67	0	33.4	17.9	126	2.60	30	
Sample ID: mb-21907		MBLK				Batch ID:	21907	Analys	is Date:	4/15/2010 4	I;41:23 PM
Acenaphthene	ND	mg/Kg	0.20							•	
Acenaphthylene	ND	mg/Kg	0.20								
Aniline	ND	mg/Kg	0.20								
Anthracene	ND	mg/Kg	0.20						•		
Azobenzene	ND	mg/Kg	0.20								
Benz(a)anthracene	ND	mg/Kg	0.20								
Benzo(a)pyrene	ND	mg/Kg	0.20								
Benzo(b)fluoranthene	ND	mg/Kg	0.20								
Benzo(g,h,i)perylene	ND	mg/Kg	0.20								
Benzo(k)fluoranthene	ND	mg/Kg	0.20								
Benzoic acid	ND	mg/Kg	0.50								
Benzyl alcohol	ND	mg/Kg	0.20								
Bis(2-chloroethoxy)methane	ND	mg/Kg	0.20								
Bis(2-chloroethyl)ether	ND	mg/Kg	0.20								
Bis(2-chloroisopropyl)ether	ND	mg/Kg	0.20								
Bis(2-ethylnexyl)phthalate	ND	mg/Kg	0.50				•				
4-Bromophenyl phenyl ether	ND	mg/Kg	0.20								
Butyl benzyl phthalate	ND	mg/Kg	0.20								
Carbazole	ND	mg/Kg	0.20								
4-Chloro-3-methylphenol	ND	mg/Kg	0.50								
4-Chloroaniline	ND	mg/Kg	0.50								
2-Chloronaphthalene	ND	mg/Kg	0.25								
2-Chlorophenol	ND	mg/Kg	0.20								
4-Chlorophenyl phenyl ether	ND	mg/Kg	0.20			•					
Chrysene	ND	mg/Kg	0.20								
DI-n-butyl phthalate	ND	mg/Kg	0.50								
Di-n-octyl phthalate	ND	mg/Kg	0.25								
Dibenz(a,h)anthracene	ND	mg/Kg	0.20								
Dibenzofuran	ND	mg/Kg	0.20								
1,2-Dichlorobenzene	ND	mg/Kg	0.20								
1,3-Dichlorobenzene	ND	mg/Kg	0.20								
1,4-Dichlorobenzene	ND	mg/Kg	0.20								

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

Composite-Merox Filter Media/Salt Dryer

Work Order:

1004180

Analyte	Result	Units	PQL	SPK Va SPK ref	%Rec	LowLimit F	lighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C	: Semivolatile									
Sample ID: mb-21907		MBLK			Batch ID:	21907	Analysis	Date:	4/15/2010	4:41:23 PI
3,3 -Dichlorobenzidine	ND	mg/Kg	0.25							
Diethyl phthalate	ND	mg/Kg	0.20							
Dimethyl phthalate	ND	mg/Kg	0.20							
2,4-Dichlorophenol	ND	mg/Kg	0.40							
2,4-Dimethylphenol	ND	mg/Kg	0.30							
4,6-Dinitro-2-methylphenol	ND	mg/Kg	0.50							
2,4-Dinitrophenol	ND	mg/Kg	0.40							
2,4-Dinitrotoluene	ND	mg/Kg	0.50							
2,6-Dinitrotoluene	ND	mg/Kg	0.50							
Fluoranthene	ND	mg/Kg	0.20							
Fluorene	ND	mg/Kg	0.20							
Hexachlorobenzene	ND	mg/Kg	0.20							
Hexachlorobutadiene	ND	mg/Kg	0.20							
Hexachlorocyclopentadiene	ND	mg/Kg	0.20							
Hexachloroethane	ND	mg/Kg	0.20							
Indeno(1,2,3-cd)pyrene	ND	mg/Kg	0.20							
Isophorone	ND	mg/Kg	0.50							
2-Methylnaphthalene	ND	mg/Kg	0.20							
2-Methylphenol	МÐ	mg/Kg	0.50							
3+4-Methylphenol	ND	mg/Kg	0.20							
N-Nitrosodi-n-propylamine	ND	mg/Kg	0.20							
N-Nitrosodiphenylamine	ND	mg/Kg	0.20							
Naphthalene	ND	mg/Kg	0.20							
2-Nitroaniline	ND	mg/Kg	0.20							
3-Nitroaniline	ND	mg/Kg	0.20							
4-Nitroaniline	ND	mg/Kg	0.25							
Nitrobenzene	ND	mg/Kg	0.50							
2-Nitrophenol	ND	mg/Kg	0.20							
4-Nitrophenol	ND	mg/Kg	0.20							
Pentachlorophenol	ND	mg/Kg	0.40							
Phenanthrene	ND	mg/Kg	0.20							
Phenol	ND	mg/Kg	0.20						•	
Pyrene	ND	mg/Kg	0.20							
Pyridine	ND	mg/Kg	0.50							
1,2,4-Trichlorobenzene	ND	mg/Kg	0.20							
2,4,5-Trichlorophenol	ND	mg/Kg	0.20							
2,4,6-Trichlorophenol	ND	mg/Kg	0.20							
Sample ID: Ics-21907		LCS			Batch ID:	21907	Analysis I	Date:	4/15/2010 5	:12:09 PM
Acenaphthene	1.200	mg/Kg	0.20	1.67 0	71.8	39.4	101			
I-Chloro-3-methylphenol	1.955	mg/Kg	0.50	3.33 0	58.7	40.1	96.6			
2-Chlorophenol	2.211	mg/Kg	0.20	3.33 0	66.4	32.2	94.6			
,4-Dichlorobenzene	1.107	mg/Kg	0.20	1.67 0	66.3	32.2	96.7			
2.4-Dinitrotoluene	1.099	mg/Kg	0.50	1.67 0	65.8	39.4	111			
N-Nitrosodi-n-propylamine	1.010	mg/Kg	0.20	1.67 0	60.5	41.1	89.8			

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Date: 22-Apr-10

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

Composite-Merox Filter Media/Salt Dryer

Work Order:

1004180

Analyte	Result	Units	PQL	SPK Va S	SPK ref	%Rec L	owLimit Hi	ghLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C:	Semivolatile						*****				
Sample ID: Ics-21907		LCS				Batch ID:	21907	Analys	is Date:	4/15/2010	5:12:09 PM
4-Nitrophenol	2.199	mg/Kg	0.20	3.33	0	66.0	18.1	122			
Pentachlorophenol	2.322	mg/Kg	0.40	3.33	0	69.7	37.5	98.8		,	
Phenol	1.974	mg/Kg	0.20	3.33	0	59.3	.29	96			
Pyrene	1.139	mg/Kg	0.20	1.67	0	68,2	37.7	94.4			
1,2,4-Trichlorobenzene	1.210	mg/Kg	0.20	1.67	0	72.4	35.6	101			
Sample ID: lcsd-21907		LCSD				Batch ID:	21907	Analys	s Date:	4/15/2010	5:42:39 PN
Acenaphthene	1.210	mg/Kg	0.20	1.67	0	72.5	39.4	101	0.858	25	
4-Chloro-3-methylphenol	2.297	mg/Kg	0.50	3.33	0	69.0	40.1	96.6	16.1	25	
2-Chlorophenol	2.350	mg/Kg	0.20	3.33	0	70.6	32.2	94.6	6.11	25	
1,4-Dichlorobenzene	1,118	mg/Kg	0.20	1.67	0	66.9	32.2	96.7	0.929	25	
2,4-Dinitrotoluene	1.216	mg/Kg	0.50	1.67	0	72.8	39.4	111	10.1	25	
N-Nitrosodi-n-propylamine	1.134	mg/Kg	0.20	1.67	0	67.9	41.1	89.8	11.6	25	
4-Nitrophenol	2.546	mg/Kg	0.20	3.33	0	76.5	18.1	122	14.6	25	
Pentachlorophenol	2.294	mg/Kg	0.40	3.33	0	68.9	37.5	98.8	1.21	25	
Phenol	2.075	mg/Kg	0.20	3.33	0	62.3	29	96	5.00	25	
Pyrene	1.108	mg/Kg	0.20	1.67	0	66.3	37.7	94.4	2.76	25	
1,2,4-Trichlorobenzene	1.176	mg/Kg	0.20	1.67	0	70.4	35.6	101	2.79	25	
Sample ID: 1004180-01Bms		MS				Batch ID:	21907	Analys	is Date:	4/15/2010	7:44:22 PM
Acenaphthene	0.8603	mg/Kg	0.20	1.67	0	51.5	24	125		,	
4-Chloro-3-methylphenol	1.324	mg/Kg	0.50	3.33	0	39.8	14.6	154			
2-Chlorophenol	1.284	mg/Kg	0.20	3.33	0	38.6	13.3	149			
1,4-Dichlorobenzene	0.6180	mg/Kg	0.20	1.67	0	37.0	23.6	118			
2,4-Dinitrotoluene	0.5680	mg/Kg	0.50	1.67	0	34.0	28	136			
N-Nitrosodi-n-propylamine	1.145	mg/Kg	0.20	1.67	0	68.6	28	114			•
4-Nitrophenol	ND	mg/Kg	0.20	3.33	0	0	13.1	150			s
Pentachlorophenol	0.7283	mg/Kg	0.40	3.33	0	21.9	20.1	139			
Phenol	1.089	mg/Kg	0.20	3.33	0	32.7	17.3	141			
Pyrene	0.7893	mg/Kg	0.20	1.67	0	47.3	29	131			
1,2,4-Trichlorobenzene	0.5440	mg/Kg	0.20	1.67	0	32.6	17.9	126	<u> </u>		
Method: MERCURY, TCLP											
Sample ID: MB-21980 (#3306)		MBLK				Batch ID:	21980	Analys	is Date:	4/19/2010 4	1:23:44 PM
Mercury	ND	mg/L	0.020								
Sample ID: LCS-21980	· · -	LCS				Batch ID:	21980	Analys	is Date:	4/19/2010 4	1:25:28 PM
Mercury	ИD	mg/L	0.020	0.005	0	103	80	120			
					-						

Qua	lifia	-
Vua	eer ic	

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project: Composite-Merox Filter Media/Salt Dryer

Work Order:

1004180

Analyte	Result	Units	PQL	SPK V	a SPK ref	%Rec L	owLimit Hi	ghLimit	%RPD	RPDLimit	Qual
Method: EPA Method 6010B:	TCLP Metals										
Sample ID: MB-21983		MBLK				Batch ID:	21983	Analysis	Date:	4/20/2010	5:34:10 PN
Arsenic	ND	mg/L	5.0								
Barlum	ND	mg/L	100								
Cadmium	ND	mg/L	1.0								
Chromium	ND	mg/L	5.0								
-ead	ND	mg/L	5.0								
Selenium	ND	mg/L	1.0					•			
Silver	ND	mg/L	5.0								
Sample ID: MB-21983		MBLK				Batch ID:	21983	Analysis	Date:	4/21/2010 6	5:02:14 PM
-ead	ND	mg/L	5.0								
Sample ID: LCS-21983		LCS				Batch ID:	21983	Analysis	Date:	4/20/2010 5	5:37:13 PN
Arsenic	ND	mg/L	5.0	0.5	0	108	80	120			
Barium	ND	mg/L	100	0.5	0	94.2	80	120			
Cadmium	ND	mg/L	1.0	0.5	0	101	80	120			
Chromium	ND	mg/L	5.0	0.5	0	97.3	80	120			
ead	ND	mg/L	5.0	0.5	0.0018	94.6	80	120			
Selenium	ND	mg/L	1.0	0.5	0	108	80	120			
Bilver	ND	mg/L	5.0	0.5	0.0009	108	80	120			
Sample ID: LCS-21983		LCS				Batch ID:	21983	Analysis	Date:	4/21/2010 6	:04:39 PM
ead	ND	mg/L	5.0	0.5	0	97.3	80	120			

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT			Date Received	t:	4/9/2010
Work Order Number 1004180			Received by	TLS	Λ
Checklist completed by:		4 Q	Sample ID la	bels checked b	y: (L)
Matrix:	Carrier name:	<u>UPS</u>			
Shipping container/cooler in good condition?		Yes 🗹	No 🗌	Not Present	
Custody seals intact on shipping container/coole	er?	Yes 🗹	No 🗆	Not Present	Not Shipped
Custody seals intact on sample bottles?		Yes 🗹	No 🗀	N/A	
Chain of custody present?	,	Yes 🗹	No 🗀		
Chain of custody signed when relinquished and	received?	Yes 🗹	No 🗆		
Chain of custody agrees with sample labels?		Yes 🗹	No 🗆		
Samples in proper container/bottle?		Yes 🗹	No 🗌		
Sample containers intact?		Yes 🗹	No 🗀		
Sufficient sample volume for indicated test?		Yes 🗹	No 🗌		
All samples received within holding time?		Yes 🗹	No 🗆		Number of preserved bottles checked for
Water - VOA vials have zero headspace?	No VOA vials subm	nitted 🗹	Yes 🗌	No 🗌	pH:
Water - Preservation labels on bottle and cap m	atch?	Yes 🔲	No 🗌	N/A ☑	:
Water - pH acceptable upon receipt?		Yes 🗌	No 🗌	N/A 🗹	<2 >12 unless noted below.
Container/Temp Blank temperature?		1.3°	<6° C Acceptable		2
COMMENTS:			If given sufficient	time to cool.	
					•
•					
Client contacted	Date contacted:		Pers	on contacted	
Contacted by:	Regarding:				
Comments:					
·					
Corrective Action			······································		
CONTORION					
					

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Wednesday, March 31, 2010 2:33 PM

To:

'Hurtado, Cindy'

Cc:

Schmaltz, Randy, Pinkerton, Barbara

Subject:

Western Refining Southwest, Inc.- Bloomfield Refinery FCC fines updated report (GW-001)

Approved.

Please be advised that NMOCD approval of this plan does not relieve Western Refining Southwest, Inc. of responsibility should their operations pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Western Refining Southwest, Inc. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/ index.htm (Pollution Prevention Guidance is under "Publications")

From: Hurtado, Cindy [mailto:Cindy.Hurtado@wnr.com]

Sent: Wednesday, March 31, 2010 2:25 PM

To: Chavez, Carl J, EMNRD

Cc: Schmaltz, Randy; Pinkerton, Barbara **Subject:** FW: FCC fines updated report

Good Afternoon Carl,

Please find attached the updated FCC Fines 8-04-09 & 8-05-09 lab report. Also, read below for the laboratory manager's explanation. Previous analysis of the fines had always been ND with a PQL of 1.0. I guess my eye was trained to see that decimal whether it was there or not. Please contact me if you need more information.

Thanks, Cindy

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery
<u>cindy.hurtado@wnr.com</u>
505-632-4161

From: andy [mailto:andy@hallenvironmental.com]

Sent: Wednesday, March 31, 2010 1:36 PM

To: Hurtado, Cindy

Subject: FCC fines updated report

Cindy,

I have attached the updated report for the FCC Fines sample. The selenium PQL should have been at 1.0mg/L on the original report. I have attached the updated report with the selenium PQL listed at 1.0mg/L. Selenium is ND at this PQL.

Thank you,

Andy Freeman
Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
505-345-3975
505-345-4107 fax
andy@hallenvironmental.com
www.hallenvironmental.com

Cindy:

The OCD DQOs for Selenium were not met in the submittal. For example, the lab ND for Selenium was 5 mg/L; however, the hazardous limit is 1 mg/L. Please have the lab determine if this was typo or whether the FCC waste busted for Selenium, which would make characteristically hazardous waste.

Thank you.

Carl J. Chavez, CHMM New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/index.htm (Pollution Prevention Guidance is under "Publications")

From: Hurtado, Cindy [mailto:Cindy.Hurtado@wnr.com]

Sent: Tuesday, March 30, 2010 9:09 AM

To: Chavez, Carl J, EMNRD

Cc: Schmaltz, Randy; Pinkerton, Barbara

Subject: Request for Landfill Disposal of FCC Spent Catalyst Fines

Good Morning Carl,

OCD approved disposal of Bloomfield Refinery's Spent Fluid Catalytic Cracker Waste (alumina-based) to the San Juan County Landfill on 1-12-2010. Waste Management is requesting that Bloomfield Refinery obtain OCD approval to amend the existing profile for FCC Spent Catalyst to include FCC Fines. In that regard, the only changes made on the profile are to include a reddish color and to attach TCLP and RCI analysis of the fines. Please find attached to this e-mail the amended Waste Management Profile (100272NM) for Spent FCC Catalyst and the TCLP and RCI analysis for the FCC Fines.

The fines are produced at the end of the catalytic cracking process and the very fine particles of spent catalyst are caught in the filter mechanism in the Precipitator. Rappers then knock the fine dust into the hopper carts. FCC Fines had previously been approved for disposal on Bloomfield Refinery's on-site landfill that is no longer active.

Please contact Randy Schmaltz if you have questions.

Thank you for your prompt attention to this matter,

Cindy

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery
cindy.hurtado@wnr.com
505-632-4161

Chavez, Carl J, EMNRD

From:

Hurtado, Cindy [Cindy.Hurtado@wnr.com] Wednesday, March 31, 2010 2:25 PM

Sent: To:

Chavez, Carl J, EMNRD

Cc:

Schmaltz, Randy; Pinkerton, Barbara

Subject:

FW: FCC fines updated report

Attachments:

DOC033110.pdf

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Thanks, Cindy

Cindy Hurtado
Environmental Coordinator
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cindy.hurtado@wnr.com
505-632-4161

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To: Hurtado, Cindy

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Thank you,

Andy Freeman
Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
505-345-3975
505-345-4107 fax
andy@hallenvironmental.com
www.hallenvironmental.com

This message has been scanned for viruses and dangerous content by <u>MailScanner</u>, and is believed to be clean.

Hall Environmental Analysis Laboratory, Inc.

Date: 31-Mar-10

CLIENT:

Western Refining Southwest, Inc.

Client Sample ID: FCC Fines

Lab Order:

0908058

Tag Number:

Project:

FCC Fines 8-4-09 & 8-5-09

Collection Date: 8/5/2009 3:40:00 PM

Lab ID:

0908058-02A

Date Received: 8/5/2009

Matrix: SOLID

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
MERCURY, TCLP					Analyst: MMS
Mercury	ND	0.020	mg/L	1	8/11/2009 4:37:25 PM
EPA METHOD 6010B: TCLP METALS					Analyst: IC
Arsenic	ND -	5.0	mg/L	10	8/14/2009 3:20:36 PM
Barium	ND	100	mg/L	10	8/14/2009 12:55:01 PM
Cadmium	ND	1.0	mg/L	10	8/14/2009 12:55:01 PM
Chromium	ND	5.0	mg/L	10	8/14/2009 12:55:01 PM
Lead	ND	5.0	mg/L	10	8/14/2009 12:55:01 PM
Selenium	ND	1.0	mg/L	10	8/14/2009 6:22:57 PM
Silver	ND	5.0	mg/L	10	8/14/2009 12:55:01 PM

Spike recovery outside accepted recovery limits

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

RL Reporting Limit

Value exceeds Maximum Contaminant Level

E Estimated value

Analyte detected below quantitation limits

Not Detected at the Reporting Limit ND



COVER LETTER

Wednesday, March 31, 2010

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990

Bloomfield, NM 87413

TEL: (505) 632-4161 FAX (505) 632-3911

RE: FCC Fines 8-4-09 & 8-5-09

Dear Cindy Hurtado:

Order No.: 0908058

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 8/5/2009 for the analyses presented in the following report.

This report is an addendum to the report dated August 19, 2009. This is an updated report. The selenium PQL has been updated.

No determination of compounds below these (denoted by the ND or < sign) has been made.

Reporting limits are determined by EPA methodology.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682 ORELAP Lab # NM100001 Texas Lab# T104704424-08-TX





LABORATORY ANALYTICAL REPORT

Clienti.

Hall Environmental

Project: Lab ID

0908088

B09080684-001

Client Sample ID: 0908058-01A FCC Fines

Report Date: 08/17/09

Collection Date: 08/04/09 14:35

DateReceived: 08/06/09

Matrix: Soll

Analyses:	Result Units	Mick Qualifiers RL QCL	Method	Analysis Date/18y
IGNITABILITY Fleen Point (Ignited) (V)	:≥200° - '*F	Ø.039	SW1010M	08/17/09/11/04/Lings
CORROSIVITY pHiof Solliand Waste	3.94 8.07	0 <u>.10</u> .	BW9046D	.08/14/08 13:00 %oir
REACTIVITY Gyanida, Reactive Sunney, Reactive	NO marka	0.05 250 20 600	SWB46:Ch.7 SWB46:Ch.7	08/14/08:18/40 / kjp 08/12/08:08/00 / pwo

Report Definitions:

RL - Analyte reporting limit:

QCL - Quality control limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Glient: Hall Environmental

Project: 0908058

Report Date: 08/17/09 Work Orden B09080584.

Analyte	Result Units	ŖĿ	%REC	Low Limit	High Limit	RPD	RPbLImit	Qual.
Method: SW1010M		,			 		Batch	:R]0444
sample ID;: (LOS-18134142 Flash-Point (ID)(((3))((V))	Laboratory Control Sample 49.5 "F	30	100	Run: Misc 98	HZW_090817© 102		ØB/17	700 11:0 ²
Method: 6W848 Gn'7	,, 			,			Pet	čn: 40885
Sample ID: MB-40685 Cyanide, Reactive	Mathod Blank: ND mg/kg	0.05	**	Run! AUTO	AN201.B_09081	4B	09/14	/04 15:07
Mathod: SW848 Ch 7	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						Balch	R134228
Sample 10; MB-R134228 Suilide, Reactive	Mathod Blank NO mg/kg	10		RunsMi6C	H2W_0808120		-68/12	/00 08:00
Sample:IDt LGS-R/194229 Guilde: Readlive	Lubbratory Control Sample 22 mg/kg	20	7,6	Rún: MISC 50	HZW_0908120 150		08/12	/08 08 :00
Sample ID: Brapardo Volc bur Sulide, Reactive	Sample Duplicale 180 malka	20 -	٠,	Fun Misc-	fizw. 090812D	1 4	50 50445	<i>Ŋ</i> ġŌ <i>ġ</i>)ႳႳ
Method: SW9035D						****	Balch;	R134317
Sample lor Bosobozse odtadup:	Sample Dupitoate 9:20: \$:01.	0.10		Run: 产作列i	STER_080818A	۲,0.	08/13 10	/09 13:00

Qualiflors:

RL - Analyte reporting limit.

ND:- Not detected at the reporting limit:

Date: 31-Mar-10

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Fines 8-4-09 & 8-5-09

Work Order:

0908058

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec Lo	wLimit Hi	ghLimit %RPD	RPDLimit Qual
Method: MERCURY, TCLP Sample ID: 0908058-02AMSD		MSD				Batch ID:	19811	Analysis Date:	8/11/2009 4:40:59 PM
Mercury Sample ID: MB-19811	ND	mg/L <i>MBLK</i>	0.020	0.005	0	101 Batch ID:	75 19811	125 0 Analysis Date:	20 8/11/2009 4:26:55 PM
Mercury Sample ID: LCS-19811	ND	mg/L LCS	0.020			Batch ID:	19811	Analysis Date:	8/11/2009 4:28:38 PM
Mercury Sample ID: 0908058-02AMS	ND	mg/L MS	0.020	0.005	0	99.7 Batch.ID:	80 . 19811	120 .Analysis Date:	8/11/2009 4:39:12 PM
Mercury	ND	mg/L	0.020	0.005	0	99.7	75	125	•

Qualifiers:

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

E Estimated value

J Analyte detected below quantitation limits

Date: 31-Mar-10

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Fines 8-4-09 & 8-5-09

Work Order:

0908058

Analyte		Resuit	Units	PQL	SPK Va	SPK ref	%Rec Lo	owLimit Hig	ghLimit	%RPD	RPDLimit	Qual
Method:	EPA Method 6010B:	TCLP Metals										
Sample ID:	0908058-02AMSD		MSD				Batch ID:	19867	Analysi	s Date:	8/14/2009	1:13:33 PM
Barium		ND	mg/L	100	0.5	0.1619	120	75	125	0	20	
Cadmium		ND	mg/L	1.0	0.5	0	124	75	125	0	20	
Chromium		ND	mg/L	5.0	0.5	0.1071	115	75	125	0	20	
Lead		ND .	mg/L	5.0	0.5	0.0345	120	75	125	0	20	
Silver		ND	mg/L	5.0	0.5	0	90.7	75	125	0	20	
Sample ID:	0908058-02AMSD		MSD				Batch ID:	19887	Analysi	is Date:	8/14/2009	3:35:46 PN
Arsenic		ND	mg/L	5.0	0.5	1.887	170	75	125	0	20	S
Sample ID:	0908058-02AMSD	•	MSD		**		Batch ID:	19867	Analysi	s Date:	8/14/2009	6:27:56 PM
, Selenium		ND	mg/L	10	0.5	0	0	75	125	0	20	s
Sample ID:	MP-10840	ND	MBLK		0.5	Ü	Batch ID:	19840	Analysi		8/11/2009	
•	1115-13040	ND		400			Baton IB.	10010	,a., o.	o outo.	0/11/2000	
Barium Cadusissa	•	ND	mg/L	100								
Cadmium		ND	mg/L	1.0								
Chromium		ND	mg/L	5.0								
Silver		ND	mg/L	5.0			Datah ID.	4000=	Amalusi	in Datas	0/4 4/2000 4/	0.57.40 88
Sample ID:	MB-19867		MBLK				Batch ID:	19867	Analysi	s Date:	8/14/2009 1	U:57:4U AIV
Arsenic		ND	mg/L	5.0								
Barium		ND	mg/L	100								
Cadmium		ND	mg/L	1.0								
Chromium		ND	mg/L	5.0								
Lead		ND	mg/L	5.0								
Selenium		ND	mg/L	1.0								
Silver		ND	mg/L	5.0								
Sample ID:	LCS-19840		LCS				Batch ID:	19840	Analysi	is Date:	8/11/2009	4:55:39 PN
Barium		ND	mg/L	100	0.5	0.0012	108	80	120			
Cadmium		ND	mg/L	1.0	0.5	0	116	80	120			
Chromium		ND	mg/L	5.0	0.5	0	95.6	80	120			
Silver		ND	mg/L	5.0	0.5	0	84.4	80	120			
Sample ID:	LCS-19867		LCS				Batch ID:	19867	Analysi	is Date:	8/14/2009 1	1:00:55 AN
Arsenic		ND	mg/L	5.0	0.5	0	110	80	120			
Barium		ND	mg/L	100	0.5	0.0015	98.0	80	120			
Cadmium		ND	mg/L	1.0	0.5	0.0008	106	80	120			
Chromium		ND	mg/L	5.0	0.5	0	99.6	80	120			
Lead		ND	mg/L	5.0	0.5	0.0069	98.3	80	120			
Selenium		ND	mg/L	1.0	0.5	0	119	80	120			
Silver		ND	mg/L	5.0	0.5	0.006	104	80	120	•		
Sample ID:	0908058-02AMS		MS				Batch ID:	19867	Analysi	is Date:	8/14/2009 1	2:57:46 PN
Barium		ND	mg/L	100	0.5	0.1619	121	75	125			
Cadmium		ND	mg/L	1.0	0.5	0	127	75	125			s
Chromium		ND	mg/L	5.0		0.1071	118	75	125			
Lead		ND	mg/L	5.0		0.0345	129	75	125			s
Silver		ND	mg/L	5.0	0.5	0	89.0	75	125			
	0908058-02AMS		MS			-	Batch ID:	19867	Analysi	·- D	6/4 4/0000	3:31:31 PN

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

Date: 31-Mar-10

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Fines 8-4-09 & 8-5-09

Work Order:

0908058

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec Lo	owLimit Hi	ghLimit %RPD	RPDLimit Qual
Method: EPA Method 6010B: Sample ID: 0908068-02AMS	TCLP Metals	MS		,		Batch ID:	19867	Analysis Date:	8/14/2009 3:31:31 PM
Arsenic Sample ID: 0908058-02AMS	ND	mg/L <i>MS</i>	5.0	0.5	1.887	128 Batch ID:	75 19867	125 Analysis Date:	8/14/2009 6:25:27 PM
Selenium	ND	mg/L	10	0.5	0	0	75	125	s

Qualifiers:

E Estimated value

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Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT				Date Receive	ed:		8/5/2009	
Work Order Number 0908058	Λ			Received b	y: TLS			
Checklist completed by:	M			Sample ID	labels checked		Air	
Signature			Ds				•	
Matrix:	Carrier name	UPS	3					
Shipping container/cooler in good condition?		Yes		No 🗌	Not Present			
Custody seals intact on shipping container/cooler	?	Yes	\square	No 🗆	Not Present		Not Shipped	<u> </u>
Custody seals intact on sample bottles?		Yes	`- 🔲	No 🗌	N/A	\checkmark		
Chain of custody present?		Yes	\checkmark	No 🗆				
Chain of custody signed when relinquished and re	ceived?	Yes	V	No 🗆				
Chain of custody agrees with sample labels?		Yes	V	No 🗆	¥			
Samples in proper container/bottle?		Yeş	V	No 🗌				
Sample containers intact?		Yes	Ø	No 🗆				
Sufficient sample volume for indicated test?		Yes	¥	No 🗔				٠
All samples received within holding time?	·	Yes	V	No 🗀			Number of pro	
Water - VOA vials have zero headepace?	No VOA vials subn	nitted	V	Yes 🗌	No 🗌		bottles checke pH:	ad for
Water - Preservation labels on bottle and cap mate	ch?	Yes		No 🗆	N/A ☑			
Water - pH acceptable upon recelpt?		Yes		No 🗆	N/A 🔽		<2 >12 unless	noted
Container/Temp Blank temperature?		6.	9°	<6° C Acceptet	ıle		below.	
COMMENTS:				if given sufficien	t time to cool.			
							•	
					=====			=
•								
Client contactedD	ate contacted:			Pers	on contacted			
Contacted by:	egarding:							

Comments:			******					
					-			·····
	144.							
Coverative Auton					· · · · · · · · · · · · · · · · · · ·			
Corrective Action								
	1				·		***	·—·-

HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109	Tel	(8021) (Valuese) (leseiDiese)	+ TPH (G) 159 (G) 169 (G) 169 (G) 169 (G) 17 (G) 169 (BTEX + MTBE BTEX + MTBE TPH (Method 8 BTEX + Method 8 BTEX + Method 8 BTEX + MTBE BTEX + M	XXX							Remarks:	Date Time
Tum-Around Time:		Project Manager.	Sampler: Fab	Container Preservative Type and # Type			·					Kecewed by: Date CUID SISION SISIO	
dy Record	Phone #: 525 - 632 - 4/6/	email or Fax#: COS — 653 ~ 41/6/ OA/OG-Package: □ Level 4 (Full Validation)	□ Other	Date Time Matrix Sample Request ID	8-4-9 2135 pooder FCC Filles						- 1	8-4-042150 (Coto Kaller)	Date: Time: Refinquished by: Received by:

	MALL ENVIRONMENTAL ANALYSIS LABORATORY	Manual Parameter Charles	www.italie.itylioliilleliidi. 4901 Hawkins:NE - Albuquerque, NM 87109		<	(08	Seid,	/88;	15B (C)	08 14 14 15 000, 14 15 000, 14 15 15 15 15 15 15 15 15 15 15 15 15 15 15 1	TPH Method EDB (Method B310 (PNA of RCRA 8 Method Anions (F,Cl. 8081 Pesticle 8250 (Semi- 8270 (Semi- 6270 (Semi- 6270 (Semi- 6270 (Semi- 6270 (Semi-	XXX						· · · · · · · · · · · · · · · · · · ·	Any or the contracted data will be death indated on the analytical remort
库			49	¥		<u></u>					atm + Xata atm + Xata							 Remarks	vessibility
Tum-Around Time:	□ Standard □ Rush	Project Name:	FCC Fines 805-09	Project #:	Direct	Project Manager:			Sampler:		Container Preservative Type and # Type	1-800 Jac						Received by Date Time Received by: Date Time	contracted to other accordited laboratories. This serves as notice of this
Chain-of-Custody Record	Client Western Refinery		Mailing Address: #50 CR 4990	- Bloomfield, N.M. 874/3	Phone #. 505 -6.33 - 4/6/	1	QA/QC Package:	☐ Standard ☐ Level 4 (Full Validation)	Accreditation	□ EDD (Type)	Date Time Matrix Sample Request ID	Stoseof 344 Stid Fee Fines						Sinking Sine: Reinquished by. Sinking Sine Reinquished by.	if necessary, samples submitted to Hall Environmental may be subcontracted to

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Wednesday, March 31, 2010 10:26 AM

To:

'Hurtado, Cindy'

Cc:

Schmaltz, Randy; Pinkerton, Barbara

Subject:

RE: Request for Landfill Disposal of FCC Spent Catalyst Fines

Cindy:

The OCD DQOs for Selenium were not met in the submittal. For example, the lab ND for Selenium was 5 mg/L; however, the hazardous limit is 1 mg/L. Please have the lab determine if this was typo or whether the FCC waste busted for Selenium, which would make characteristically hazardous waste.

Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/index.htm (Pollution Prevention Guidance is under "Publications")

From: Hurtado, Cindy [mailto:Cindy.Hurtado@wnr.com]

Sent: Tuesday, March 30, 2010 9:09 AM

To: Chavez, Carl J, EMNRD

Cc: Schmaltz, Randy; Pinkerton, Barbara

Subject: Request for Landfill Disposal of FCC Spent Catalyst Fines

Good Morning Carl,

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Please contact Randy Schmaltz if you have questions.

Thank you for your prompt attention to this matter,

Cindy

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery
cindy.hurtado@wnr.com
505-632-4161

Generator's Nonnazardous waste frome aneet

	Requested Disposal Facility					
WASTE MANAGEMENT	☐ Renewal for Profile Number					
	erator Facility Information (mu					
	Western Refining Southwest, Inc Bloo					
	0 Road 4990					
	field 87413				9. FAX: <u>505</u> -	
	ico				2000110110	
	an .				0089416416	
	itle: <u>Cindy Hurtado - Environmental Coor</u>	dine			1000	
B. Customer	nformation 🗹 same as above		P. O. Number:			delication of the second secon
Customer Name:		б.	Phone:		FAX:	
Billing Address:		7.	Transporter Na	me:	Manager Manage	TOTAL TOTAL CONTRACTOR OF THE PROPERTY CONTRACTOR OF THE PROPERTY OF THE PROPE
City, State and Z	IP:	8.	Transporter ID	# (if appl.):		
Contact Name: _		9.	Transporter Ad	dress:		
Contact Email:		10	. City, State an			
C. Waste Strea	m Information					
DESCRIPTION						
a. Common Was	te Name: Spent FCC Catalyst				Parks and the same of the same	
	Code(s):					
	cess Generating Waste or Source of Conta					
1	ised in a catalytic cracking proc	ess	of neavy hyd	rocarbons. C	over time the ca	ataiyst activity
degrades a	nd becomes spent.					
	(s): off-white to reddish color					
	☐ Yes ☑ No Describe:					
_	e at 70°F: 🖸 Solid 🖸 Liquid 🗹		er 🔾 Semi-So	olid or Sludge C	Other:	and a paper time and a page and a summanish data data and dataset and the entire the purple of the second states.
•	🛘 Single layer 🔲 Multi- layer 🗀 🗎					
	ve? 🗖 Yes 🗹 No If Yes, Describ					P. 1. 2. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
		NA(sol				
i. pH Range:	☐ ≤2 ☐ 2.1-12.4 ☐ ≥12.5 ☐ I			al: <u>4-8</u>	n-	
j. Liquid Flash I			▼ NA(solid)	☐ Actual:		
k. Flammable So			/ C. 4 0 00	N Maria 0 20/4)	. [] /C Att	
	tituents: List all constituents of waste st	ream -	Lower Range	Unit of Measure	: U (See Attache	Unit of Measure
L. Alumina Silica	Matrix		99	%	1	%
Petroleum Hyd	drocarbons		0	%		%
						-
ō						
),				and the second s		
ESTIMATED QUAN	ITITY OF WASTE AND SHIPPING INFORMAT	ION				
a. 🗹 One Time E	vent 🗖 Base 📮 Repeat Event					
b. Estimated Ar	nual Quantity: 100 💆 Tons	Cu Cu	bic Yards 🚨 [rums 🚨 Gallor	ns 🗀 Other (specif	y):
	quency:Unit:				. , ,	• ,
	Department of Transportation (USDOT) F					
	ing Description (if applicable):					
	MENTS (Handling, PPE, etc.):					



Generator's Nonhazardous Waste Profile Sheet

D. Regulatory Status (Please check appropriate resp	onses)
1. Is this a USEPA (40 CFR Part 261)/State hazardous waste? If yes, contact	your sales representative.
2. Is this waste included in one or more of categories below (Check all that ☐ Delisted Hazardous Waste ☐ Excluded	apply)? If yes, attach supporting documentation. ☐ Yes No l Wastes Under 40 CFR 261.4
☐ Treated Hazardous Waste Debris ☐ Treated	Characteristic Hazardous Waste
3. Is the waste from a Federal (40 CFR 300, Appendix B) or state mandated	
4. Does the waste represented by this waste profile sheet contain radioactiv	e material?
a. If yes, is disposal regulated by the Nuclear Regulatory Commission?	Yes No
b. If yes, is disposal regulated by a State Agency for radioactive waste/NC	,
5. Does the waste represented by this waste profile sheet contain concentra a. If yes, is disposal regulated under TSCA?	tions of regulated Polychlorinated Biphenyls (PCBs)? Yes No Yes No
Does the waste contain untreated, regulated, medical or infectious waste	,
7. Does the waste contain asbestos?	If Yes, Triable Non Friable
8. Is this profile for remediation waste from a facility that is a major so	
40 CFR 63 subpart GGGGG)?	☐ Yes ☐ No
If yes, does the waste contain <500 ppmw VOHAPs at the point	
E. Generator Certification (Please read and certify b	
By signing this Generator's Waste Profile Sheet, I hereby certify that all:	y signature below)
1. Information submitted in this profile and all attached documents contain	true and accurate descriptions of the waste materials
 Relevant information within the possession of the Generator regarding kn 	
disclosed to WM/the Contractor;	own or suspected integrals perturning to this waste has been
3. Analytical data attached pertaining to the profiled waste was derived from	n testing a representative sample in accordance with
40 CFR 261.20(c) or equivalent rules; and	
4. Changes that occur in the character of the waste (i.e. changes in the prod	ess or new analytical) will be identified by the Generator
and disclosed to WM (and the Contractor if applicable) prior to providing	the waste to WM (and the Contractor if applicable).
5. Check all that apply:	
🗹 Attached analytical pertains to the waste. Identify laboratory & samp	le ID #'s and parameters tested:
Hall Environmental Laboratory - FCC Fines 8-04-09 / 8-5-09 - TCL	· ·
\square Only the analyses identified on the attachment pertain to the waste (identify by laboratory & sample ID #'s and parameters tested).
Attachment #:	
Additional information necessary to characterize the profiled waste had	as been attached (other than analytical).
Indicate the number of attached pages:	
I am an agent signing on behalf of the Generator, and the delegation	of authority to me from the Generator for this signature is
available upon request. By Generator process knowledge, the following waste is not a listed w	acts and is holowall TCLP regulatory limits
	itle: Environmental Coordinator
/ '	
	lame (Print): Cindy Hurtado
Date: 3-29-2010	
	USE ONLY
•	pproval Decision:
☐ Non-hazardous solidification ☐ Other: W	
Management Facility Precautions, Special Handling Procedures or Lin	·
on approval:	Shipment must be scheduled into disposal facility
Taylory - American Residents and American Assertance	Approval Number must accompany each shipment
Addressed Proper Commissions (San California Control C	☐ Waste Manifest must accompany load
WM Authorization Name / Title:	Date:
State Authorization (if Required):	Date:



COVER LETTER

Wednesday, August 19, 2009

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4161 FAX (505) 632-3911

RE: FCC Fines 8-4-09 & 8-5-09

Dear Cindy Hurtado:

Order No.: 0908058

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 8/5/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Exerman, Business Manager Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682 ORELAP Lab # NM100001 Texas Lab# T104704424-08-TX



Hall Environmental Analysis Laboratory, Inc.

Date: 19-Aug-09

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0908058

FCC Fines 8-4-09 & 8-5-09

Project: Lab ID:

0908058-02

Client Sample ID: FCC Fines

Collection Date: 8/5/2009 3:40:00 PM

Date Received: 8/5/2009

Matrix: SOLID

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
MERCURY, TCLP	+	······································			Analyst: MMS
Mercury	ND	0.020	mg/L	1	8/11/2009 4:37:25 PM
EPA METHOD 6010B: TCLP METALS					Analyst: IC
Arsenic	ND	5.0	mg/L	10	8/14/2009 3:20:36 PM
Barium	ND	100	mg/L	10	8/14/2009 12:55:01 PM
Cadmium	ND	1.0	mg/L	10	8/14/2009 12:55:01 PM
Chromium	ND	5.0	mg/L	10	8/14/2009 12:55:01 PM
Lead	ND	5.0	mg/L	10	8/14/2009 12:55:01 PM
Selenium	ND	10	mg/L	10	8/14/2009 6:22:57 PM
Silver	ND	5.0	mg/L	10	8/14/2009 12:55:01 PM

Se 1 mg/L

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Page 1 of 1



LABORATORY ANALYTICAL REPORT

Clienti,

Hall Environmental

Project:

0908058

Lab ID:

B09080584-001

Client Sample ID: 0908058-01A FCC Fines

Report Date: 08/17/09

Collection Date: 08/04/09 14:35

DateReceived: 08/06/09

Matrix: Soil

Analyses	Result Units	MCL/ Qualifiers RL QCL	Method	Analysis Date / By
IGNITABILITY Flash Point (Ignitability)	:>200 °F	80.0	SW1010M	08/17/09/11/04 / mgs
CORROSIVITY pH of Soll and Waste	3(94) (8(0)	0.10	8W9045D	08/13/09 13:00 / elr
REACTIVITY Cyanide, Reactive Sunder, Reactive	ND mg/kg	0.05. 250 20 600	SW846 Ch 7 SW846 Ch 7	.08/14/09:15:40 / kjp 08/12/09:08:00 / pwc

Report Definitions: RL - Analyte reporting limit:

QCL - Quality control limit.

MCL - Maximum contaminant level,

ND - Not detected at the reporting limit.



QA/QC Summary Report

Cilent: Hall Environmental

Project: 0908058

Report Date: 08/17/09

Work Order: B09080584

Analyte	Result Units	RL	%REC	Low Limit	High Limit	ŔPD	RPDLImit	Qual
Method: SW1010M					· · · · · · · · · · · · · · · · · · ·		Batch	R134442
Sample ID: LOS-R134442 Flash Point (Ignilability)	Laboratory Control Sample 89.5 "F	30	100	Run: MISC- 98	HZW_0908176 102		98/13	7/09 11:04
Method: SW846 Ch 7		 		····			Bat	ch: 40685
Sample ID; MB-40685 Cyanide, Reactive	Method Blank ND mg/kg	0.05		Runt AUTO	AN201-B_0908	14B	08/14	/09 15:07
Method; SW846 Gh 7	the state of the s	 	···		· · · · · · · · · · · · · · · · · · ·		Batch:	R134229
Sample ID; MB-R134229 Sullide, Reactive	Method Blank ND mg/kg	10		Run: MISC:	HZW_090812D		√08/12	/09 08:00
Sample ID; LCS-R134229 Sulfide, Reactive	Laboratory Control Sampte 22 mg/kg	20	76	Run: MISC- 50	HZW_090812D 150	:	08/12	/09 0 8:00
Sample ID: B09080500-001C DUP Sulfide, Reactive	Sample Duplicate 180 mg/kg	20	-,	Run MISC-	HZW_090812D	11	08/12 20	/09.08:00
Method: SW9045D			·· ····	· ************************************			Batch:	R134317
Sample ID: B09080256-001ADUP pH of Soil and Waste	Sample Dupiloate 9.20 ś.ü.	0.10		Run: PH ME	TER_090813A	0,1	08/13 10	/09 13:00

Qualiflers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit:

Date: 19-Aug-09

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Fines 8-4-09 & 8-5-09

Work Order:

0908058

Analyte	Result	Units	PQL	SPK Va S	PK ref	%Rec Lo	wLimit Hi	ghLimit	%RPD	RPDLimit	Qual
Method: MERCURY, TCLP Sample ID: 0908058-02AMSD		MSD		,		Batch ID:	19811	Analysia	s Date:	8/11/2009	4:40:59 PM
Mercury Sample ID: MB-19811	ND	mg/L <i>MBLK</i>	0.020	0.005	0	101 Batch ID:	75 19811	125 Analysis	0 Date:	20 8/11/2009	4:26:55 PM
Mercury Sample ID: LCS-19811	ND	mg/L LCS	0.020			Batch ID:	19811	Analysis	Date:	8/11/2009	1:28:38 PM
Mercury Sample ID: 0908058-02AMS	ΝD	mg/L <i>MS</i>	0.020	0.005	0	99.7 Batch ID:	80 1 9811	120 Analysis	Date:	8/11/2009	4:39:12 PM
Mercury	ND	mg/L	0.020	0.005	0	99.7	75	125			

Qualifiers:

R RPD outside accepted recovery limits

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

E Estimated value

J Analyte detected below quantitation limits

H Holding times for preparation or analysis exceeded

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project: FCC Fines 8-4-09 & 8-5-09

Work Order:

0908058

Analyte		Result	Units	PQL	SPK V	SPK ref	%Rec Lo	owLimit Hig	ghLimit	%RPD	RPDLimit	Qual
Method:	EPA Method 8010B:	TCLP Metals										
Sample ID:	0908058-02AMSD		MSD				Batch ID:	19867	Analysi	s Date:	8/14/2009	1:13:33 PM
Barium		ND	mg/L	100	0.5	0.1619	120	75	125	0	20	
Cadmium		ND	mg/L	1.0	0.5	0	124	75	125	٥	20	
Chromium		ND	mg/L	5.0	0.5	0.1071	115	75	125	· 0	20	
Lead		ND	mg/L	5.0	0.5	0.0345	120	75	125	O	20	
Silver		ND	mg/L	5.0	0.5	0	90.7	75	125	0	20	
Sample ID:	0908058-02AMSD		MSD				Batch ID:	19867	Analysi	s Date:	8/14/2009	3:35:46 PM
Arsenic		ND	mg/L	5.0	0.5	1.887	170	75	125	0	20	s
Sample ID:	0908058-02AMSD		MSD				Batch ID:	19867	Analysi	s Date:	8/14/2009	6:27:56 PM
Selenium		ND	mg/L	10	0.5	0	0	75	125	0	20	s
Sample ID:	MD 40840	ND	MBLK	10	0.0	Ū	Batch ID:	19840	Analysi		8/11/2009	
•	MD-18040						baton ib.	10040	, maryon	o Date.	0///2005	7. 00 .00 T N
Barium		ND	mg/L	100								
Cadmium		ND	mg/L	1.0								
Chromium		ND	mg/L	5.0								
Silver		ND	mg/L	5.0								
Sample ID:	MB-19867		MBLK				Batch ID:	19867	Analysi	s Date:	8/14/2009 10	0:57:40 AM
Arsenic		ND	mg/L	5.0			**					
Bariu m		ND	mg/L	100								
Cadmium		ND	mg/L	1.0								
Chromium		ND	mg/L	5.0				•				
Lead		ND	mg/L	5.0								
Selenium		ND	mg/L	1.0								
Silver		ND	mg/L	5.0								
Sample ID:	LCS-19840		LCS				Batch ID:	19840	Analysi	s Date:	8/11/2009	4:55:39 PM
Barium		ND	mg/L	100	0.5	0.0012	108	80	120			
Cadmium		ND	mg/L	1.0	0.5	0	116	80	120			
Chromium		ND	mg/L	5.0	0.5	0	95.6	80	120			
Silver		ND	mg/L	5.0	0.5	0	84.4	80	120			
Sample ID:	LCS-19867		LCS.				Batch ID:	19867	Analysi	s Date:	8/14/2009 1	1:00:55 AN
Arsenic		ND	mg/L	5.0	0,5	0	110	80	120			
Barium		ND	mg/L	100	0.5	0.0015	98.0	80	120			
Cadmium		ND	mg/L	1.0	0.5	0.0008	106	80	120			
Chromium		ND	mg/L	5.0	0.5	0	99.6	80	120			
Lead		ND	mg/L	5.0	0.5	0.0069	98.3	80	120			
Selenium		ND	mg/L	1.0	0.5	0	119	80	120			
Silver		ND	mg/L	5.0	0.5	0.006	104	80	120			
	0908058-02AMS		MS				Batch ID:	19867	Analysi	s Date:	8/14/2009 1:	2:57:46 PM
Barium		ND	mg/L	100	0.5	0.1619	121	75	125			
Cadmium		ND	mg/L	1.0	0.5	0	127	75	125			s
Chromium		ND	mg/L	5.0		0.1071	118	75	125			
Lead		ND	mg/L	5.0		0.0345	129	75	125	-		s
Silver		ND	mg/L	5.0	0.5	0	89.0	75	125			-
	0908058-02AMS	.,	MS		2.0	-	Batch ID:	19867	Analysi			3:31:31 PN

Ons	lifters:

E Estimated value

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

Date: 19-Aug-09

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Fines 8-4-09 & 8-5-09

Work Order:

0908058

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec Lo	owLimit Hig	ghLimit %RPD	RPDLimit Qual
Method: EPA Method 6010B: Sample ID: 0908058-02AMS	TCLP Metals	MS				Batch ID:	19867	Analysis Date:	8/14/2009 3:31:31 PM
Arsenic Sample ID: 0908058-02AMS	ND	mg/L <i>MS</i>	5.0	0.5	1.887	128 Batch (D:	75 19867	125 Analysis Date:	S 8/14/2009 6:25:27 PM
Selenium	ND	mg/L	10	0.5	0	0	75	125	S

Qualifiers:

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

E Estimated value

J Analyte detected below quantitation limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT			Date Re	ceived:		8/5/2009	
Work Order Number 0908058			Receive	ed by: TLS	5		
Checklist completed by:			8 Sample	ID labels check	ed by:	Initials	
Signature	~	0	Pate			,	
Matrix: Carri	ername <u>UPS</u>	<u> </u>					
Shipping container/cooler in good condition?	Yes		No 🗆	Not Prese	ent 🗀		
Custody seals intact on shipping container/cooler?	Yes	\checkmark	No 🗀	Not Prese	∍nt 🗀	Not Shipped	
Custody seals intact on sample bottles?	Yes		No 🗌	N/A	\checkmark		
Chain of custody present?	Yes	\checkmark	No 🗀				
Chain of custody signed when relinquished and received?	Yes	\checkmark	No 🗌				
Chain of custody agrees with sample labels?	Yes	V	No 🗌				
Samples in proper container/bottle?	Yes	V	No 🗆				
Sample containers intact?	Yes	V	No 🗌	•			
Sufficient sample volume for indicated test?	Yes	V	No 🗆				
All samples received within holding time?	Yes	V	No 🗀				f preserved
Water - VOA vials have zero headspace? No VOA	vials submitted	\checkmark	Yes 🗌	No		bottles cho pH:	ecked for
Water - Preservation labels on bottle and cap match?	Yes		No 🗀	N/A	V		
Water - pH acceptable upon receipt?	Yes		No 🗌	N/A	V	<2 >12 unl	ess noted
Container/Temp Blank temperature?	6.	.9°	<6° C Acce	eptable		below.	
COMMENTS:			if given suff	icient time to co	ol.		
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Client contacted Date contact	cted:			Person contacte	∍d		
Contacted by: Regarding:	****						
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	Client: Western Refinery		Mailing Address: #50	Bloom Pield	Phone #:	email or Fax#: 505 - 635 - 4/6/	OA/QG-Package: EVStandard	Accreditation	T EDD (Tyne)		Date Time N	8-4-012:35 pmd												Date: Time: 8-4-99-01-50	Date:	
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email or Fax#: 505-633	505-1	635 3911	Project Manager:	jer:					-						6	$\overline{\mathbf{x}}$		
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Date Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		82	BTEX +	∍M HqT	M) H9T	M) 803 8310 (P	8 AROR) anoinA) 80928	S) 07 <u>2</u> 8	<u> </u>	70 }		Air Bubk
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Jate: Time.	Relinquished b	ed By:	Received by:		Date / Ti	jue Jue								,				
If necessary,	samples subn	If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.	I ontracted to other ac	redited laboratori	ies. This serves as n	notice of this p	ossibility	Any su	o-contra	ted data	will be o	learly no	tated or	the an	alytical	eport.		1

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Tuesday, January 12, 2010 3:37 PM

To:

'Hurtado, Cindy' 'Schmaltz, Randy'

Cc: Subject:

RE: Request for Landfill Waste Disposal Spent FCC Alumina-based Waste

Cindy:

Based upon the laboratory analytical results provided, OCD hereby approves of your request pursuant to 19.15.35.8 NMAC for disposal of the proposed non-domestic waste at a solid waste facility. The following waste is approved:

Bloomfield Refinery (GW-001) – Spent Fluid Catalytic Cracker Waste (alumina-based) (based upon review of TCLP Metals, BTEX, SVOC, PAH, Ignitability, Reactivity, and Corrosivity results)

Waste Management is responsible for the review of any additional testing that they request beyond the testing parameters specified under the provisions of Subsection C of Section 8 of 19.15.35 NMAC. Please confirm with the San Juan Regional County Landfill (SJRCL) of any additional testing they might require and their willingness to accept such waste prior to delivery.

Please be advised that approval of this request does not relieve Western Refining Southwest (WRSW) of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve WRSW of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If you have any questions regarding this matter, please do not hesitate to contact me. Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/index.htm (Pollution Prevention Guidance is under "Publications")

From: Hurtado, Cindy [mailto:Cindy.Hurtado@wnr.com]

Sent: Monday, January 11, 2010 4:21 PM **To:** Chavez, Carl J, EMNRD; Schmaltz, Randy

Subject: Request for Disposal

Good Afternoon Carl,

Western Refining Southwest, Inc personnel are in the planning stages of mothballing the Fluidized Catalytic Cracking Unit at the Bloomfield Refinery and requests permission to dispose of approximately 100 tons of spent FCC Catalyst at the San Juan County Landfill located at #78 Road 3140 Aztec, New Mexico. Please find attached the MSDS for fresh FCC Catalyst. Also attached is analytical data for both fresh and spent catalyst that was sampled on December 4, 2009. Both samples were analyzed for Reactivity, Corrosivity, Ignitability, RCRA 8 Metals – TCLP, Total TAB Metals, Total BTEX, Total PAHs, and Total Semi-Volatiles (8270). The results indicate that the spent FCC catalyst does not leach out contaminants and is non-hazardous. Fresh FCC catalyst will be transferred to WRSI's Gallup Refinery.

As soon as Bloomfield Refinery receives direction or approval from OCD, a profile will be established with Waste Management and contractors contacted to complete the mothballing project.

Sincerely, Cindy Hurtado

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery
cindy.hurtado@wnr.com
505-632-4161

This inbound email has been scanned for malicious software and transmitted safely to you using Webroot Email Security.

Discharge Plan Renewal Application

February 2009.

Bloomfield Refinery utilizes 15 active recovery wells within the process area as well as the Hammond Ditch French Drain Recovery System to pump and treat hydrocarbon impacted groundwater. The groundwater recovered with these systems is transferred to the API Separator for treatment.

This discharge typically ranges from 9,000 to11,000 gallons per day.

Spent Caustic

Section 7.0

20-25 Baume caustic is used in the Merox Treater to remove H2S (Hydrogen sulfide) from the LPG stream coming into the unit. After the caustic is spent it is stored in Tank #10 until it can be transported and disposed of in an off-site hazardous waste treatment facility.

This discharge typically ranges from 3,800 to 4,000 gallons per month.

Diesel/Kerosene Salt Dryers

Four salt wash vessels are used to remove impurities from diesel and kerosene product streams. Occasionally, the salt must be replaced and, at that time, the vessels are drained. Wastewater containing dissolved solids and trace hydrocarbons are discharged to the process sewer.

This discharge typically ranges from 800 to 1,000 gallons per event when replacing salt. This event occurs 2 –3 times per year.

Sources of solid waste include the following. Most of the wastes are generated intermittently and then removed, collected, containerized, and stored until shipped off-site for recycling or disposal.

Fluid Catalytic Cracking Unit (FCCU) Catalyst

A metallic (alumina) catalyst is used within the FCCU to convert hydrocarbon molecules. The material is a dry, metallic solid and is non hazardous. This catalyst is periodically replaced and the spent catalyst and fines are deposited in the on-site landfill and covered with soil.

Approximately 200 to 300 tons of spent FCCU catalyst is generated every year.

Naphtha Hydrotreating Unit (NHT) and Sulfur Guard Catalyst

There are two reactors that contain metallic catalyst in this unit. One reactor is used to convert hydrocarbon molecules and the other is used to adsorb sulfur molecules. The

Western Refining Southwest, Inc. Bloomfield Refinery

Chavez, Carl J, EMNRD

From:

Hurtado, Cindy [Cindy.Hurtado@wnr.com]

Sent:

Monday, January 11, 2010 4:21 PM

To:

Chavez, Carl J, EMNRD; Schmaltz, Randy

Subject:

Request for Disposal

Attachments:

FCC Catalyst 12-2009.pdf; MSDS FCC Catalyst.doc

Good Afternoon Carl.

Western Refining Southwest, Inc personnel are in the planning stages of mothballing the Fluidized Catalytic Cracking Unit at the Bloomfield Refinery and requests permission to dispose of approximately 100 tons of spent FCC Catalyst at the San Juan County Landfill located at #78 Road 3140 Aztec, New Mexico. Please find attached the MSDS for fresh FCC Catalyst. Also attached is analytical data for both fresh and spent catalyst that was sampled on December 4, 2009. Both samples were analyzed for Reactivity, Corrosivity, Ignitability, RCRA 8 Metals – TCLP, Total TAB Metals, Total BTEX, Total PAHs, and Total Semi-Volatiles (8270). The results indicate that the spent FCC catalyst does not leach out contaminants and is non-hazardous. Fresh FCC catalyst will be transferred to WRSI's Gallup Refinery.

As soon as Bloomfield Refinery receives direction or approval from OCD, a profile will be established with Waste Management and contractors contacted to complete the mothballing project.

Sincerely, Cindy Hurtado

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery
cindy.hurtado@wnr.com
505-632-4161

This inbound email has been scanned for malicious software and transmitted safely to you using Webroot Email Security.



COVER LETTER

Thursday, December 10, 2009

Kelly Robinson Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (602) 908-6617 FAX (505) 632-3911

RE: FCC Catalyst

Dear Kelly Robinson:

Order No.: 0912074

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 12/4/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901 AZ license # AZ0682 ORELAP Lab # NM100001

Texas Lab# T104704424-08-TX



Date: 11-Dec-09

CLIENT:

Western Refining Southwest, Inc.

Project:

FCC Catalyst

Lab Order:

0912074

CASE NARRATIVE

[&]quot;S" flags denote that the surrogate recovery was poor due to matrix interferences.

Date: 11-Dec-09

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0912074

Client Sample 1D: FCC Spent Catalyst

Collection Date: 12/3/2009 11:00:00 AM

Project:

FCC Catalyst

Date Received: 12/4/2009

Lab ID:

0912074-01

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES		······································			Analyst: NSB
Benzene	ND	0.050	mg/Kg	1	12/8/2009 12:33:20 AM
Toluene	ND	0.050	mg/Kg	1	12/8/2009 12:33:20 AM
Ethylbenzene	ND	0.050	mg/Kg	1	12/8/2009 12:33:20 AM
Xylenes, Total	ND	0.10	mg/Kg	1	12/8/2009 12:33:20 AM
Surr: 4-Bromofluorobenzene	106	64.7-120	%REC	1	12/8/2009 12:33:20 AM
EPA METHOD 8310: PAHS					Analyst: JAT
Naphthalene	ND	0.25	mg/Kg	. 1	12/10/2009 12:30:41 PM
1-Methylnaphthalene	ND	0.25	mg/Kg	1	12/10/2009 12:30:41 PM
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/10/2009 12:30:41 PM
Acenaphthylene	ND	0.25	mg/Kg	1	12/10/2009 12:30:41 PM
Acenaphthene	ND	0.25	mg/Kg	1	12/10/2009 12:30:41 PM
Fluorene	ND	0.030	mg/Kg	1	12/10/2009 12:30:41 PM
Phenanthrene	ND	0.015	mg/Kg	1	12/10/2009 12:30:41 PM
Anthracene	ND	0.015	mg/Kg	1	12/10/2009 12:30:41 PM
Fluoranthene	ND	0.020	mg/Kg	1	12/10/2009 12:30:41 PM
Pyrene	ND	0.025	mg/Kg	1	12/10/2009 12:30:41 PM
Benz(a)anthracene	ND	0.010	mg/Kg	1	12/10/2009 12:30:41 PM
Chrysene	ND	0.011	mg/Kg	1	12/10/2009 12:30:41 PM
Benzo(b)fluoranthene	ND	0.010	mg/Kg	1	12/10/2009 12:30:41 PM
Benzo(k)fluoranthene	ND	0.010	mg/Kg	1	12/10/2009 12:30:41 PM
Benzo(a)pyrene	ND	0.010	mg/Kg	1	12/10/2009 12:30:41 PM
Dibenz(a,h)anthracene	ND	0.010	mg/Kg	1 .	12/10/2009 12:30:41 PM
Benzo(g,h,i)perylene	ND	0.010	mg/Kg	1	12/10/2009 12:30:41 PM
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	1	12/10/2009 12:30:41 PM
Surr: Benzo(e)pyrene	65.4	25.6-129	%REC	11	12/10/2009 12:30:41 PM
EPA METHOD 7471: MERCURY		•			Analyst: TES
Mercury	ND	0.033	mg/Kg	1	12/8/2009 4:51:13 PM
MERCURY, TCLP					Analyst: IC
Mercury	ND	0.020	mg/L	1	12/10/2009 2:21:19 PM
EPA METHOD 6010B: SOIL METALS					Analyst: RAGS
Aluminum	110000	15000	mg/Kg	5000	12/11/2009 1:50:29 PM
Antimony	NĐ	12	mg/Kg	5	12/9/2009 5:33:56 PM
Arsenic	230	12	mg/Kg	5	12/9/2009 5:33:56 PM
Barium	410	1.9	mg/Kg	20	12/10/2009 1:08:53 PM
Beryllium	ND	0.73	mg/Kg	5	12/9/2009 5:33:56 PM
Cadmium	ND	0.49	mg/Kg	5	12/9/2009 5:33:56 PM
Calcium	1700	120	mg/Kg	5	12/9/2009 5:33:56 PM
Chromium	29	1.5	mg/Kg	5	12/9/2009 5:33:56 PM

- Value exceeds Maximum Contaminant Level
- Estimated value E
- Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

Date: 11-Dec-09

CLIENT: Lab Order: Western Refining Southwest, Inc.

0912074

Client Sample ID: FCC Spent Catalyst

Collection Date: 12/3/2009 11:00:00 AM

Project:

FCC Catalyst.

Date Received: 12/4/2009

Lab ID:

0912074-01

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 6010B: SOIL METALS					Analyst: RAG
Cobalt	2.2	1.5	mg/Kg	5	12/9/2009 5:33:56 PM
Copper	70	1.5	mg/Kg	5	12/9/2009 5:33:56 PM
Iron	13000	490	mg/Kg	500	12/10/2009 2:07:01 PM
Lead	49	1.2	mg/Kg	5	12/9/2009 5:33:56 PM
Magnesium	8000	120	mg/Kg	. 5	12/9/2009 5:33:56 PM
Manganese	80	0.49	mg/Kg	. 5	12/9/2009 5:33:56 PM
Nickel	120	2.4	mg/Kg	5	12/9/2009 5:33:56 PM
Potassium	650	240	mg/Kg	5	12/9/2009 5:33:56 PM
Selenium	ND	24	mg/Kg	10	12/10/2009 1:05:17 PM
Silver	ND	1.2	mg/Kg	5	12/9/2009 5:33:56 PM
Sodium	3600	120	mg/Kg	5	12/9/2009 5:33:56 PM
Thallium	ND	12	mg/Kg	5	12/9/2009 5:33:56 PM
Vanadium	640	49	mg/Kg	20	12/10/2009 1:08:53 PM
Zinc	1200	240	mg/Kg	100	12/10/2009 1:12:26 PM
EPA METHOD 6010B: TCLP METALS					Analyst: SNV
Arsenic	ND	5.0	mg/L	1	12/9/2009 6:01:24 PM
Barium	ND	100	mg/L	1	12/9/2009 6:01:24 PM
Cadmium	ND	1.0	mg/∟	1	12/9/2009 6:01:24 PM
Chromium	ND	5.0	m g/L	1	12/9/2009 6:01:24 PM
Lead	ND	5.0	mg/L	1	12/9/2009 6:01:24 PM
Selenium	ND	1.0	mg/L	1	12/10/2009 1:23:41 PM
Silver	ND	5.0	mg/L	1	12/9/2009 6:01:24 PM
EPA METHOD 8270C: SEMIVOLATILES					Analyst: LBJ
Acenaphthene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Acenaphthylene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Aniline	ND	0.20	mg/Kg	· 1	12/8/2009 12:35:52 PM
Anthracene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Azobenzene	ND	0.20	mg/Kg	. 1	12/8/2009 12:35:52 PM
Benz(a)anthracene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Benzo(a)pyrene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Benzo(b)fluoranthene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Benzo(g,h,i)perylene	ND	0.50	mg/Kg	· 1	12/8/2009 12:35:52 PM
Benzo(k)fluoranthene	ND	0.20	mg/Kg	1.	12/8/2009 12:35:52 PM
Benzoic acid	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
Benzyl alcohol	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Bis(2-chloroethoxy)methane	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Bis(2-chloroethyl)ether	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Bis(2-chloroisopropyl)ether	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Bis(2-ethylhexyl)phthalate	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
4-Bromophenyl phenyl ether	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM

- Value exceeds Maximum Contaminant Level
- E Estimated value
- Analyte detected below quantitation limits
- Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Date: 11-Dec-09

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0912074

Client Sample ID: FCC Spent Catalyst

Project:

FCC Catalyst

Date Received: 12/4/2009

Collection Date: 12/3/2009 11:00:00 AM

Lab ID:

0912074-01

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLAT	TILES				Analyst: LBJ
Butyl benzyl phthalate	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Carbazole	ND	0.20	mg/Kg	. 1	12/8/2009 12:35:52 PM
4-Chloro-3-methylphenol	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
4-Chloroaniline	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
2-Chloronaphthalene	ND	0.25	mg/Kg	1	12/8/2009 12:35:52 PM
2-Chlorophenol	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
4-Chlorophenyl phenyl ether	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Chrysene	ND	0.20	mg/Kg	. 1	12/8/2009 12:35:52 PM
Di-n-butyl phthalate	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
Di-n-octyl phthalate	. ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Dibenz(a,h)anthracene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Dibenzofuran	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
1,2-Dichlorobenzene	ND	0.20	. mg/Kg	1	12/8/2009 12;35:52 PM
1,3-Dichlorobenzene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
1,4-Dichlorobenzene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
3,3'-Dichlorobenzidine	ND	0.25	mg/Kg	1	12/8/2009 12:35:52 PM
Diethyl phthalate	ND	0.20	mg/Kg⊦	·1	12/8/2009 12:35:52 PM
Dimethyl phthalate	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
2,4-Dichlorophenol	ND	0.40	. mg/Kg	1	12/8/2009 12:35:52 PM
2,4-Dimethylphenol	ND	0.30	mg/Kg	1	12/8/2009 12:35:52 PM
4,6-Dinitro-2-methylphenol	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
2,4-Dinitrophenol	ND	0.40	mg/Kg	1	12/8/2009 12:35:52 PM
2,4-Dinitrotoluene	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
2,6-Dinitrotoluene	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
Fluoranthene	ND	0.25	mg/Kg	1	12/8/2009 12:35:52 PM
Fluorene	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
Hexachlorobenzene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Hexachlorobutadiene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Hexachlorocyclopentadiene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Hexachloroethane	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Indeno(1,2,3-cd)pyrene	. ND	0.25	mg/Kg	1	12/8/2009 12:35:52 PM
Isophorone	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/8/2009 12:35:52 PM
2-Methylphenol	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
3+4-Methylphenol	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
N-Nitrosodi-n-propylamine	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
N-Nitrosodiphenylamine	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Naphthalene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
2-Nitroaniline	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
3-Nitroaniline	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
4-Nitroaniline	ND	0.25	mg/Kg	1	12/8/2009 12:35:52 PM
Nitrobenzene	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM

- Value exceeds Maximum Contaminant Level
- Е Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

Date: 11-Dec-09

CLIENT: Lab Order: Western Refining Southwest, Inc.

0912074

Project:

FCC Catalyst

Lab ID:

0912074-01

Client Sample ID: FCC Spent Catalyst

Collection Date: 12/3/2009 11:00:00 AM

Date Received: 12/4/2009

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATIL	.ES	** * * * * * * * * * * * * * * * * * * *			Analyst: LBJ
2-Nitrophenol	ND	0.20	m g/K g	1	12/8/2009 12:35:52 PM
4-Nitrophenol	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Pentachlorophenol	ND	0.40	mg/Kg	1	12/8/2009 12:35:52 PM
Phenanthrene _	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Phenol	. ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Pyrene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Pyridine	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
1,2,4-Trichlorobenzene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
2,4,5-Trichlorophenol	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
2,4,6-Trichlorophenol	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Surr: 2,4,6-Tribromophenol	66.6	35.5-141	%REC	1	12/8/2009 12:35:52 PM
Surr: 2-Fluorobiphenyl	62.1	30.4-128	%REC	. 1	12/8/2009 12:35:52 PM
Surr: 2-Fluorophenol	57.8	28.1-129	%REC	1	12/8/2009 12:35:52 PM
Surr: 4-Terphenyl-d14	56.5	34.6-151	%REC	1	12/8/2009 12:35:52 PM
Surr; Nitrobenzene-d5	60.1	26.5-122	%REC	1	12/8/2009 12:35:52 PM
Surr: Phenol-d5	60.3	37.6-118	%REC	1	12/8/2009 12:35:52 PM

Value exceeds Maximum Containinant Level

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

RL Reporting Limit

Date: 11-Dec-09

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0912074

FCC Catalyst

Project: Lab ID:

0912074-02

Client Sample ID: FCC Fresh Catalyst

Collection Date: 12/3/2009 11:30:00 AM

Date Received: 12/4/2009

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.050	mg/Kg	1	12/8/2009 1:03:37 AM
Toluene	ND	0.050	mg/Kg	1	12/8/2009 1:03:37 AM
Ethylbenzene ·	ND	0.050	mg/Kg	1	12/8/2009 1:03:37 AM
Xylenes, Total	ND	0.10	mg/Kg	1	12/8/2009 1:03:37 AM
Surr: 4-Bromofluorobenzene	97.9	64.7-120	%REC	1	12/8/2009 1:03:37 AM
EPA METHOD 8310: PAHS					Analyst: JAT
Naphthalene	ND	0.25	mg/Kg	1	12/10/2009 12:50:52 PM
1-Methylnaphthalene	ND	0.25	mg/Kg	1	12/10/2009 12:50:52 PM
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/10/2009 12:50:52 PM
Acenaphthylene	ND	0.25	mg/Kg	1	12/10/2009 12:50:52 PM
Acenaphthene	ND	0.25	mg/Kg	1	12/10/2009 12:50:52 PM
Fluorene	ND	0.030	mg/Kg	1	12/10/2009 12:50:52 PM
Phenanthrene	ND	0.015	mg/Kg	1	12/10/2009 12:50:52 PM
Anthracene	ND	0.015	mg/Kg	1	12/10/2009 12:50:52 PM
Fluoranthene	ND	0.020	mg/Kg	1	12/10/2009 12:50:52 PM
Pyrene	ND	0.025	mg/Kg	1	12/10/2009 12:50:52 PM
Benz(a)anthracene	- ND	0.010	mg/Kg.	1	12/10/2009 12:50:52 PM
Chrysene	ND	0.011	mg/Kg	1	12/10/2009 12:50:52 PM
Benzo(b)fluoranthene	ND	0.010	mg/Kg	1	12/10/2009 12:50:52 PM
Benzo(k)fluoranthene	ND	0.010	mg/Kg	1	12/10/2009 12:50:52 PM
Benzo(a)pyrene	ND	0.010	mg/Kg	1	12/10/2009 12:50:52 PM
Dibenz(a,h)anthracene	ND	0.010	mg/Kg	1	12/10/2009 12:50:52 PM
Benzo(g,h,i)perylene	ND	0.010	mg/Kg	1	12/10/2009 12:50:52 PM
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	1	12/10/2009 12:50:52 PM
Surr: Benzo(e)pyrene	63.2	25.6-129	%REC	1	12/10/2009 12:50:52 PM
EPA METHOD 7471: MERCURY					Analyst: TES
Mercury	0.073	0.033	mg/Kg	1	12/8/2009 4:52:58 PM
MERCURY, TCLP					Analyst: IC
Mercury	ND	0.020	mg/L	1	12/10/2009 2:23:06 PM
EPA METHOD 6010B: SOIL METALS					Analyst: RAGS
Aluminum	130000	15000	mg/Kg	5000	12/10/2009 2:09:56 PM
Antimony	ND	12	mg/Kg	5	12/10/2009 12:38:51 PM
Arsenic	180	12	mg/Kg	5	12/10/2009 12:38:51 PM
Barium	9.2	0.48	mg/Kg	5	12/10/2009 12:38:51 PM
Beryllium	ND	0.72	mg/Kg	5	12/10/2009 12:38:51 PM
Cadmium	ND	0.48	mg/Kg	5	12/10/2009 12:38:51 PM
Calcium	ND	120	mg/Kg	5	12/10/2009 12:38:51 PM
Chromium	12	1.4	mg/Kg	5	12/10/2009 12:38:51 PM

- Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
 - RL Reporting Limit

Date: 11-Dec-09

CLIENT:

Western Refining Southwest, Inc.

0912074 Lab Order:

Project: Lab ID:

0912074-02

FCC Catalyst

Date Received: 12/4/2009

Client Sample ID: FCC Fresh Catalyst

Collection Date: 12/3/2009 11:30:00 AM

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 6010B: SOIL METALS	3				Analyst: RAGS
Cobalt	ND	1.4	mg/Kg	5	12/10/2009 12:38:51 PM
Copper	2.2	1.4	mg/Kg	5	12/10/2009 12:38:51 PM
Iron	570	19	mg/Kg	20	12/10/2009 1:15:10 PM
Lead	ND	1.2	mg/Kg	5	12/10/2009 12:38:51 PM
Magnesium	[®] ND	120	mg/Kg	5	12/10/2009 12:38:51 PM
Manganese	3.3	0.48	mg/Kg	5	12/10/2009 12:38:51 PM
Nickel	2.6	2.4	mg/Kg	5	12/10/2009 12:38:51 PM
Potassium	ND	240	mg/Kg	5	12/10/2009 12:38:51 PM
Selenium	ND	12	mg/Kg	5	12/10/2009 12:38:51 PM
Silver	ND	1.2	mg/Kg	5	12/10/2009 12:38:51 PM
Sodium	2400	120	mg/Kg	· 5	12/10/2009 12:38:51 PM
Thallium	ND	12	mg/Kg	5	12/10/2009 12:38:51 PM
Vanadium	.18	12	mg/Kg	5	12/10/2009 12:38:51 PM
Zinc	12	12	. mg/Kg	5	12/10/2009 12:38:51 PM
EPA METHOD 6010B: TCLP METAL	_S ·	•			Analyst: SNV
Arsenic	ND	5.0	mg/L	1	12/9/2009 6:14:04 PM
Barium	ND	100	mg/L	1	12/9/2009 6:14:04 PM
Cadmium	ND	1.0	mg/L	1	12/9/2009 6:14:04 PM
Chromium	ND	5.0	mg/L	1	12/9/2009 6:14:04 PM
Lead	ND	5.0	mg/L	1	12/9/2009 6:14:04 PM
Selenium	ND	1.0	mg/L	1	12/10/2009 1:29:22 PM
Silver	ND	5.0	mg/L	1	12/9/2009 6:14:04 PM
EPA METHOD 8270C: SEMIVOLATII	LES				Analyst: LBJ
Acenaphthene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Acenaphthylene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Aniline	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Anthracene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Azobenzene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Benz(a)anthracene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Benzo(a)pyrene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Benzo(b)fluoranthene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Benzo(g,h,i)perylene	ND	0.50	mg/Kg	1	12/8/2009 2:35:36 PM
Benzo(k)fluoranthene	ND	0.20	mg/K g	1	12/8/2009 2:35:36 PM
Benzoic acid	ND	0.50	mg/Kg	1	12/8/2009 2:35:36 PM
Benzyl alcohol	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Bis(2-chloroethoxy)methane	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Bis(2-chloroethyl)ether	· ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Bis(2-chloroisopropyl)ether	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Bis(2-ethylhexyl)phthalate	ND	0.50	mg/Kg	1	12/8/2009 2:35:36 PM
4-Bromophenyl phenyl ether	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM

- Value exceeds Maximum Contaminant Level
- Estimated value E
- Analyte detected below quantitation limits J
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

Date: 11-Dec-09

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0912074

Project:

FCC Catalyst

Lab ID:

0912074-02

Client Sample ID: FCC Fresh Catalyst

Collection Date: 12/3/2009 11:30:00 AM

Date Received: 12/4/2009

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
PA METHOD 8270C: SEMIVOLA	TILES				Analyst: LB.
Butyl benzyl phthalate	ND	0.20	mg/Kg	.1	12/8/2009 2:35:36 PM
Carbazole	ND	0.20	mg/Kg	<u>,</u> 1	12/8/2009 2:35:36 PM
4-Chloro-3-methylphenol	ND	0.50	mg/Kg	1 .	12/8/2009 2:35:36 PM
4-Chloroaniline	ND	0.50	mg/Kg	1	12/8/2009 2:35:36 PM
2-Chloronaphthalene	ND	0.25	mg/ Kg	1	12/8/2009 2:35:36 PM
2-Chlorophenol	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
4-Chlorophenyl phenyl ether	ND	0.20	mg/Kg	· 1	12/8/2009 2:35:36 PM
Chrysene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Di-n-butyl phthalate	ND	0.50	mg/Kg	, 1	12/8/2009 2:35:36 PM
Di-n-octyl phthalate	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Dibenz(a,h)anthracene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Dibenzofuran	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
1,2-Dichlorobenzene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
1,3-Dichlorobenzene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
1,4-Dichlorobenzene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
3,3'-Dichlorobenzidine	ND	0.25	mg/Kg	1	12/8/2009 2:35:36 PM
Diethyl phthalate	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Dimethyl phthalate	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
2,4-Dichlorophenol	ND	0.40	mg/Kg	1	12/8/2009 2:35:36 PM
2,4-Dimethylphenol	ND	0.30	mg/Kg	1	12/8/2009 2:35:36 PM
4,6-Dinitro-2-methylphenol	ND	0.50	mg/Kg	1	12/8/2009 2:35:36 PM
2,4-Dinitrophenol	ND	0.40	mg/Kg	1	12/8/2009 2:35:36 PM
2,4-Dinitrotoluene	ND	0.50	mg/Kg	1	12/8/2009 2:35:36 PM
2,6-Dinitrotoluene	ND	0.50	mg/Kg	1	12/8/2009 2:35:36 PM
Fluoranthene	ND	0.25	mg/Kg	1	12/8/2009 2:35:36 PM
Fluorene	ND	0.50	mg/Kg	1	12/8/2009 2:35:36 PM
Hexachlorobenzene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Hexachlorobutadiene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Hexachlorocyclopentadiene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Hexachloroethane	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/8/2009 2:35:36 PM
Isophorone	ND	0.50	mg/Kg	1	12/8/2009 2:35:36 PM
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/8/2009 2:35:36 PM
2-Methylphenol	ND	0.50	mg/Kg	1	12/8/2009 2:35:36 PM
3+4-Methylphenol	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
N-Nitrosodi-n-propylamine	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
N-Nitrosodiphenylamine	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Naphthalene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
2-Nitroaniline	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
3-Nitroaniline	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
4-Nitroaniline	ND	0.25	mg/Kg	1	12/8/2009 2:35:36 PM
Nitrobenzene	ND	0.50	mg/Kg	1	12/8/2009 2:35:36 PM

- Value exceeds Maximum Contaminant Level
- E Estimated value
- Analyte detected below quantitation limits j
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Date: 11-Dec-09

CLIENT:

Western Refining Southwest, Inc.

Client Sample ID: FCC Fresh Catalyst

Lab Order:

0912074

Collection Date: 12/3/2009 11:30:00 AM

Project:

FCC Catalyst

Date Received: 12/4/2009

Lab ID:

0912074-02

Matrix: SOIL

. 1	T) 14	DOL	01	TI-st4	75.77	The day A . New A . I
Analyses	Result	PQL	Quai	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES			_			Analyst: LBJ
2-Nitrophenol	ND	0.20		mg/Kg	1	12/8/2009 2:35:36 PM
4-Nitrophenol	ND	0.20		mg/Kg	1	12/8/2009 2:35:36 PM
Pentachlorophenol	ND	0.40	•	mg/Kg	1	12/8/2009 2:35:36 PM
Phenanthrene	ND	0.20		mg/Kg	1	12/8/2009 2:35:36 PM
Phenol	ND	0.20		mg/Kg	1 .	12/8/2009 2:35:36 PM
Pyrene	ND	0.20		mg/Kg	1	12/8/2009 2:35:36 PM
Pyridine	ND	0.50		mg/Kg	1	12/8/2009 2:35:36 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	12/8/2009 2:35:36 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	12/8/2009 2:35:36 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	12/8/2009 2:35:36 PM
Surr: 2,4,6-Tribromophenol	44.5	35.5-141		%REC	1	12/8/2009 2:35:36 PM
Surr: 2-Fluorobiphenyl	61.8	30.4-128		%REC	1	12/8/2009 2:35:36 PM
Surr: 2-Fluorophenol	26.7	28.1-129	S	%REC	1	12/8/2009 2:35:36 PM
Surr: 4-Terphenyl-d14	52.3	34.6-151		%REC	1	12/8/2009 2:35:36 PM
Surr: Nitrobenzene-d5	57.5	26.5-122		%REC	1	12/8/2009 2:35:36 PM
Surr: Phenol-d5	29.4	37.6-118	S	%REC	1	12/8/2009 2:35:36 PM

Value exceeds Maximum Contaminant Level

E Estimated value

Analyte detected below quantitation limits J

ND Not Detected at the Reporting Limit

Spike recovery outside accepted recovery limits

Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

Reporting Limit



YOUR LAB OF CHOICE

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758~5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

December 10, 2009

Anne Thorne Hall Environmental Analysis Laborat 4901 Hawkins NE Albuquerque, NM 87109

December 05, 2009

ESC Sample # : L435261-01

Date Received : Description :

Site ID :

Sample ID

FCC SPENT CATALYST

Project # : 0912074

Collected By : Collection Date :

12/03/09 11:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9040C	12/06/09	1
Ignitability	See Footnote		Deg. F	D93/1010A	12/09/09	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012в	12/10/09	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	12/10/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL) Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

. Reported: 12/10/09 17:03 Printed: 12/10/09 17:03 L435261-01 (IGNITABILITY) - Did Not Ignite @ 170 F



12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

YOUR LAB OF CHOICE

REPORT OF ANALYSIS

December 10, 2009

Anne Thorne Hall Environmental Analysis Laborat 4901 Hawkins NE Albuquerque, NM 87109

ESC Sample # :

L435261-02

Date Received Description

December: 05, 2009

Site ID :

Sample ID

FCC FRESH CATALYST

Project # :

0912074

Collected By : Collection Date :

12/03/09 11:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9040C	12/06/09	1
Ignitability	See Footnote		Deg. F	D93/1010A	12/09/09	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	12/10/09	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030в	12/10/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL) The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 12/10/09 17:03 Printed: 12/10/09 17:03 L435261-02 (IGNITABILITY) - Did Not Ignite @ 170 F

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Catalyst

Work Order:

0912074

Analyte	Result	Units	PQL	SPK Va	a SPK ref	%Rec L	owLimit Hi	ghLimit %RPD	RPDLimit Qual
Method: EPA Method 8021B	: Volatiles								
Sample ID: MB-20785	•	MBLK				Batch ID:	20785	Analysis Date:	12/8/2009 3:06:27 AM
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050					•	
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: LCS-20785		LCS				Batch ID:	20785	Analysis Date:	12/8/2009 2:36:06 AM
Benzene	0.9195	mg/Kg	0.050	1	0.0166	90.3	78.8	132	
Toluene	0.9017	mg/Kg	0.050	1	0.0065	89.5	78.9	112	
Ethylbenzene	1.007	mg/Kg	0.050	1	0	101	69.3	125	
Xylenes, Total	3.083	mg/Kg	0.10	3	0	103	73	128	

Qualifiers:

R RPD outside accepted recovery limits

S Spike recovery outside accepted recovery limits

E Estimated value

J Analyte detected below quantitation limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Catalyst

Work Order:

0912074

Analyte	Result	Units	PQL	SPK Va SPK ref	%Rec LowLimit HighLimit			%RPD	RPDLimit	RPDLimit Qual	
Method: EPA Method 82700	: Semivolatiles	3									
Sample ID: mb-20802		MBLK		-	Batch ID:	20802	Analys	is Date:	12/8/2009 1	1:11:27 A	
Acenaphthene	ND	mg/Kg	0.20								
Acenaphthylene	ND	mg/Kg	0.20								
Aniline	. ND	mg/Kg	0.20								
Anthracene	ND	mg/Kg	0.20								
Azobenzene	ND	mg/Kg	0.20	•							
Benz(a)anthracene	ND	mg/Kg	0.20								
Benzo(a)pyrene	ND	mg/Kg	0.20								
Benzo(b)fluoranthene	ND	mg/Kg	0.20								
Benzo(g,h,i)perylene	ND	mg/Kg	0.50								
Benzo(k)fluoranthene	ND	mg/Kg	0.20								
Benzoic acid	ND	mg/Kg	0.50								
Benzyl alcohol	ND	mg/Kg	0.20								
Bis(2-chloroethoxy)methane	ND	mg/Kg	0.20								
Bis(2-chloroethyl)ether	ND	mg/Kg	0.20								
Bis(2-chloroisopropyl)ether	ND	mg/Kg	0.20								
Bis(2-ethylhexyl)phthalate	ND	mg/Kg	0.50					•			
4-Bromophenyl phenyl ether	ND	mg/Kg	0.20								
Butyl benzyl phthalate	ND	mg/Kg	0.20								
Carbazole	ND	mg/Kg	0.20								
4-Chloro-3-methylphenol	ND	mg/Kg	0.50								
4-Chloroaniline	ND	mg/Kg	0.50								
2-Chloronaphthalene	ND	mg/Kg	0.25								
2-Chlorophenol	ND	mg/Kg	0.20								
4-Chlorophenyl phenyl ether	ND	mg/Kg	0.20								
Chrysene	ND	mg/Kg	0.20								
Di-n-butyl phthalate	ND	mg/Kg	0.50								
Di-n-octyl phthalate	ND	mg/Kg	0.20						:		
Dibenz(a,h)anthracene	ND	mg/Kg	0.20								
Dibenzofuran	ND	mg/Kg	0.20								
1,2-Dichlorobenzene	ND	mg/Kg	0.20								
1,3-Dichlorobenzene	ND	mg/Kg	0.20								
1,4-Dichlorobenzene	ND	mg/Kg	0.20								
3,3'-Dichlorobenzidine	ND	mg/Kg	0.25								
Diethyl phthalate	ND	mg/Kg	0.20								
Dimethyl phthalate	ND	mg/Kg	0.20			•					
2,4-Dichlorophenol	ND .	mg/Kg	0.40								
2,4-Dimethylphenol	· ND	mg/Kg	0.30								
4,6-Dinitro-2-methylphenol	ND ND	mg/Kg	0.50								
2,4-Dinitrophenol	ND	mg/Kg	0.40								
2,4-Dinitrotoluene	ND	mg/Kg	0.50								
2,6-Dinitrotoluene	ND ND	mg/Kg	0.50								
Fluoranthene	ND	mg/Kg	0.25								
Fluorene	ND	mg/Kg	0.50								
Hexachlorobenzene	ND	mg/Kg	0.20								

E Estimated value

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Catalyst

Work Order:

0912074

Analyte	Result	Units	PQL	SPK Va SPK re	of %Rec L	.owLimit Hi	ghLimit %RPD	RPDLimit Qual
Method: EPA Method 82700	: Semivolatile	5						
Sample ID: mb-20802		MBLK			Batch ID:	20802	Analysis Date:	12/8/2009 11:11:27
Hexachlorobutadiene	ND	mg/Kg	0.20					•
Hexachlorocyclopentadiene	ND	mg/Kg	0.20					
Hexachloroethane	ND	mg/Kg	0.20					
Indeno(1,2,3-cd)pyrene	ND	mg/Kg	0.25					
Isophorone	ND	mg/Kg	0.50					•
2-Methylnaphthalene	, ND	mg/Kg	0.25					
2-Methylphenol	ND	mg/Kg	0.50		•			
3+4-Methylphenol	ND	mg/Kg	0.20					
N-Nitrosodi-n-propylamine	ND	mg/Kg	0.20					
N-Nitrosodiphenylamine	ND	mg/Kg	0.20					
Naphthalene	ND	mg/Kg	0.20					
2-Nitroaniline	ND	mg/Kg	0.20					
3-Nitroaniline	ND	mg/Kg	0.20					
4-Nitroaniline	ND	mg/Kg	0.25					
Nitrobenzene	ND	mg/Kg	0.50					
2-Nitrophenol	ND	mg/Kg	0.20					
4-Nitrophenol	ND	mg/Kg	0.20					
Pentachlorophenol	ND	mg/Kg	0.40					
Phenanthrene	ND	mg/Kg	0.20					
Phenol	ND	mg/Kg	0.20					
Pyrene	ND	mg/Kg	0.20					
Pyridine	ND	mg/Kg	0.50					•
1,2,4-Trichlorobenzene	ND	mg/Kg	0.20					
2,4,5-Trichlorophenol	ND	mg/Kg	0.20					
2,4,6-Trichlorophenol	ND	mg/Kg	0.20					
Sample ID: 1cs-20802		LCS			Batch ID:	20802	Analysis Date:	12/8/2009 11:41:14
Acenaphthene	1.437	mg/Kg	0.20	1.67 0	86.0	42.5	90	
4-Chloro-3-methylphenol	2.668	mg/Kg	0.50	3.33 0	80.1	39.6	101	
2-Chlorophenol	2.470	mg/Kg	0.20	3.33 0	74.2	40.1	96.7	
1,4-Dichlorobenzene	1.306	mg/Kg	0.20	1.67 0	78.2	34.6	95.3	
2,4-Dinitrotoluene	1.514	mg/Kg	0.50	1.67 0	90.7	37.1	101	•
N-Nitrosodi-n-propylamine	1.265	mg/Kg	0.20	1.67 0	75.7	33.3	103	
4-Nitrophenol	1.645	mg/Kg	0.20	3.33 0	49.4	32.7	125	
Pentachlorophenol	2.324	mg/Kg	0.40	3.33 0	69.8	35.5	99.3	
Phenol	2.710	mg/Kg	0.20	3.33 0	81.4	35.5	104	
Pyrene	1.180	mg/Kg	0.20	1.67 0	70.6	34.4	90.6	
1,2,4-Trichlorobenzene	1.292	mg/Kg	0.20	1.67 0	77.4	38.5	95	

Qual	ifiers
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E Estimated value

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Catalyst

Work Order:

0912074

Analyte	Result	Units	PQL	SPK Va S	SPK ref	%Rec Lo	owLimit Hig	ghLimit %RPD	RPDLimit Qual
Method: EPA Method 8310	: PAHs								
Sample ID: MB-20803		MBLK				Batch ID:	20803	Analysis Date:	12/10/2009 11:50:18 AM
Naphthalene	ND	mg/Kg	0.25						
1-Methylnaphthalene	ND	mg/Kg	0.25						
2-Methylnaphthalene	ND	mg/Kg	0.25						
Acenaphthylene	ND	mg/Kg	0.25					•	
Acenaphthene	ND	mg/Kg	0.25						
Fluorene	ND	m g/K g	0.030						
Phenanthrene	ND	mg/Kg	0.015						
Anthracene	ND	mg/Kg	0.015						
Fluoranthene	ND	mg/Kg	0.020						
Pyrene	ND	mg/Kg	0.025						
Benz(a)anthracene	ND	mg/Kg	0.010						
Chrysene	ND	mg/Kg	0.011						
Benzo(b)fluoranthene	ND	mg/Kg	0.010						
Benzo(k)fluoranthene	ND	mg/Kg	0.010						
Benzo(a)pyrene	ND	mg/Kg	0.010						
Dibenz(a,h)anthracene	ND	mg/Kg	0.010						
Benzo(g,h,i)perylene	ND	mg/Kg	0.010						
ndeno(1,2,3-cd)pyrene	ND	mg/Kg	0.10						
Sample ID: LCS-20803	ND	LCS	0.10			Batch ID:	20803	Analysis Date:	12/10/2009 12:10:30 P
	4 400			^	_			_	12/10/2000 12:10:001
laphthalene	1.408	mg/Kg	0.25	2	0	70.4	24.9	105	•
-Methylnaphthalene	1.562	mg/Kg	0.25	2	0	78.1	31.9	106	
2-Methylnaphthalene	1.425	mg/Kg	0.25	2	0	71.3	30	103	•
Acenaphthylene	1.408	mg/Kg	0.25	2	0	70.4	36.2	107	
Acenaphthene 	1.538	mg/Kg	0.25	2	0	76.9	37.2	107	
Fluorene	0.09475	mg/Kg	0.030	0.2	0	47.4	22.4	87.7	
Phenanthrene	0.05450	mg/Kg	0.015	0.101	0	54.2	32.6	91.9	
Anthracene	0.05700	mg/Kg	0.015	0.101	0	56.7	34.4	101	
Fluoranthene	0.1168	mg/Kg	0.020	0.201	0	58.2	35.9	106	•
Pyrene	0.07500	mg/Kg	0.025	0.2	0	37.5	24.1	96.4	
Benz(a)anthracene	0.02125	mg/Kg	0.010	0.02	0	106	21.6	111	
Chrysene	0.08700	mg/Kg	0.011	0.101	0	86.5	28.6	104	
Benzo(b)fluoranthene	0.01475	mg/Kg	0.010	0.025	0	59.0	28.8	123	
Benzo(k)fluoranthene	ND	mg/Kg	0.010	0.013	0	74.0	30.3	114	·
Benzo(a)pyrene	ND	mg/Kg	0.010		0	64.0	24.4	105	
Dibenz(a,h)anthracene	0.01675	mg/Kg	0.010	0.025	0	67.0	23.6	110	
Benzo(g,h,i)perylene	0.01625	mg/Kg	0.010	0.025	0	65.0	31.7	99.9	
ndeno(1,2,3-cd)pyrene	ND ND	mg/Kg	0.10	0.050	0	61.0	25.1	114	
Method: EPA Method 7471	: Mercury								
Sample ID: MB-20812		MBLK				Batch ID:	20812	Analysis Date:	12/8/2009 4:47:43 P
Mercury	ND	mg/Kg	0.033						,
Sample ID: LCS-20812		LCS				Batch ID:	20812	Analysis Date:	12/8/2009 4:49:27 PI
Mercury	0.1699	mg/Kg	0.033	0.167	0	102	80	120	•

E Estimated value

Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Catalyst

Work Order:

0912074

Analyte	Result	Units	PQL	SPK Va SPK re	f %Rec Lo	owLimit Hi	ghLimit	%RPD	RPDLimit Qual
Method: MERCURY, TCLP Sample ID: MB-20831		MBLK		7	Batch ID:	20831	Analysis	Date:	12/10/2009 2:16:06 PM
Mercury Sample ID: LCS-20831	ND	mg/L LCS	0.020		Batch ID:	20831	Analysis	o Date:	12/10/2009 2:17:49 PM
Mercury	ND	mg/L	0.020	.0.005 0	99.2	80	120	·	

Qualifiers:

R RPD outside accepted recovery limits

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

E Estimated value

J Analyte detected below quantitation limits

H Holding times for preparation or analysis exceeded

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Catalyst

Work Order:

0912074

Analyte		Result	Units	PQL	SPK Va SPK ref	%Rec Lov	wLimit Hig	jhLimit 	%RPD	RPDLimit	Qual
Method:	EPA Method 6010	B: Soil Metals									
Sample ID:	MB-20806		MBLK	•		Batch ID:	20806	Analysis	Date:	12/8/2009	2:09:24 PN
_ead		ND .	mg/Kg	0.25							
Sodium		ND	mg/Kg	25							
Sample ID:	MB-20806		MBLK			Batch ID:	20806	Analysis	Date:	12/9/2009	4:44:45 PN
Aluminum		ND	mg/Kg	3.0		•					
Antimony		ND	mg/Kg	2.5							
Arsenic		ND	mg/Kg	2.5							
Barium		ND	mg/Kg	0.10							
Beryllium		ND	mg/Kg	0.15							
Cadmium	•	ND	mg/Kg	0.10							
Calcium		ND ·	mg/Kg	25							
Chromium		ND	mg/Kg	0.30							
Cobalt		ND	mg/Kg	0.30							
Copper		ND	mg/Kg	0.30							
Lead		ND	mg/Kg	0.25							
Magnesium		ND	mg/Kg	25		•					
Nickel		ND	mg/Kg	0.50							
otassium		ND	mg/Kg	50							
Silver		ND	mg/Kg	0.25							
Sodium		ND	mg/Kg	25							
Thallium		ND	mg/Kg	2.5							
Vanadium		ND	mg/Kg	2.5							
Zinc		ND	mg/Kg	2.5							
	MB-20816		MBLK			Batch ID:	20816	Analysis	Date:	12/9/2009	4:50:40 PN
Aluminum		ND	mg/Kg	3.0				•			
Antimony		ND	mg/Kg	2.5							
Arsenic		. ND	mg/Kg	2.5							
Barium		ND	mg/Kg	0.10							
Beryllium		ND	mg/Kg	0.15							
Cadmium		ND	mg/Kg	0.10							
Calcium		ND	mg/Kg	25							
Chromium		ND	mg/Kg	0.30							
Cobalt		ND	mg/Kg	0.30							
Copper		ND	mg/Kg	0.30							
Lead		. ND	mg/Kg	0.25							
Magnesium		ND	mg/Kg	25							
Manganese		ND	mg/Kg	0.10							
Nickel		ND	mg/Kg	0.50					•		
Potassium		ND	mg/Kg	50							
Silver		ND	mg/Kg	0.25							
Sodium		ND	mg/Kg	25							
Thallium		ND	mg/Kg	2.5							
/anadium		ND	mg/Kg	2.5							
		ND	mg/Kg	2.5							
Zinc		ND	1119/119	2.0							

Qualifiers:

Page 6

E Estimated value

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Catalyst

Work Order:

0912074

Analyte	Result	Units	PQL	SPK Va	a SPK ref	%Rec Lo	owLimit Hi	ghLimit %RP[RPDLimit Qual
Method: EPA Method 6010)B: Soil Metals				· <u>-</u>				
Sample ID: MB-20806		MBLK				Batch ID:	20806	Analysis Date:	12/10/2009 12:18:36 PM
Iron	1.934	mg/Kg	1.0						
Manganese	0.1365	mg/Kg	0.10						
Selenium	ND	mg/Kg	2.5					•	
Sample ID: MB-20816		MBLK				Batch ID:	20816	Analysis Date:	12/10/2009 12:24:26 PM
Iron	ND	mg/Kg	1.0			•		•	
Selenium	ND	mg/Kg	2.5						
Sample ID: LCS-20806		LCS				Batch ID:	20806	Analysis Date:	12/8/2009 2:11:56 PM
Lead	23.97	mg/Kg	0.25	25	0	95.9	80	120	
Sodium	2644	mg/Kg	25	2500	0	106	80	120	
Sample ID: LCS-20806		LCS				Batch ID:	20806	Analysis Date:	12/9/2009 4:47:37 PM
Aluminum	26.79	mg/Kg	3.0	25	0.5305	105	80	120	
Antimony	24.79	mg/Kg	2.5	25	0	99.2	80	120	
Arsenic	26.65	mg/Kg	2.5	25	0	107	80	120	
Barium	25.42	mg/Kg	0.10	25	0	102	80	120	
Beryllium	25.94	mg/Kg	0.15	25	0	104	80	120	
Cadmium	25.77	mg/Kg	0.10	25	0	103	80	120	
Calcium	2565	mg/Kg	25	2500	0	103	80	120	
Chromium	25.51	mg/Kg	0.30	25	0	102	80	120	
Cobalt	23.44	mg/Kg	0.30	25	0	93.7	80	120	
Copper	26.07	mg/Kg	0.30	25	0	104	80	120	
Lead	25.23	mg/Kg	0.25	25	0	101	80	120	
Magnesium	2566	mg/Kg	25	2500	0	103	80	120	
Nickel	25.31	mg/Kg	0.50	25	0.0668	101	80	120	
Potassium	2612	mg/Kg	50	2500	0	104	80	120	
Silver	26.44	mg/Kg	0.25		0.0563	106	80	120	
Sadium	2729	mg/Kg	25	2500	0	109	80	120	
Thallium	25.52	mg/Kg	2.5	25	0	102	80	120	
Vanadium	26.02	mg/Kg	2.5	25		104	80	120	*
Zinc	25.13	mg/Kg	2.5	25	0	101	80	120	
Sample ID: LCS-20806		LCS				Batch ID:	20806	Analysis Date:	12/10/2009 12:21:25 PM
Iron	25.62	mg/Kg	1.0	25	1.934	94.8	80	120	В
Manganese	25.12	mg/Kg	0.10	25	0.1365	99.9	80	120	В
Selenium	25.22	mg/Kg	2.5	25	0	101	80	120	
Sample ID: LCS-20816		LCS				Batch ID:	20816	Analysis Date:	12/10/2009 12:27:15 PM
Iron	22.79	mg/Kg	1.0	25	0.9577	87.3	80	120	
Selenium	23.00	mg/Kg	2.5	25	0	92.0	80	120	

E Estimated value

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Catalyst

Work Order:

0912074

Analyte		Result	Units	PQL	SPK Va	SPK ref		wLimit Hig	hLimit %RPI	D RPDLimit Qual
Method:	EPA Method 6010B:	TCLP Metals								
Sample ID:	MB-20830		MBLK				Batch ID:	20830	Analysis Date:	12/9/2009 4:56:39 PN
Arsenic		ND	mg/L	5.0						
Barium		ND	mg/L	100						
Cadmium		ND	mg/L	1.0						
Chromium		ND	mg/L	5.0						
Lead		ND	mg/L	5.0						
Silver		ND	mg/L	5.0						
Sample ID:	MB-20830		MBLK				Batch ID:	20830	Analysis Date:	12/10/2009 12:30:17 PN
Selenium		ND	mg/L	1.0						•
Sample ID:	LCS-20830		LCS				Batch ID:	20830	Analysis Date:	12/9/2009 5:03:37 PN
Arsenic		ND	mg/L	5.0	0.5	0	108	80	120	
Barium		ND	mg/L	100	0.5	0.0012	99.6	80	120	
Cadmlum		ND	mg/L	1.0	0.5	0	105	80	120	
Chromium		ND	mg/L	5.0	0.5	0	99.4	80	120	
Lead		ND	mg/L	5.0	0.5	0.0035	96.4	80	120	
Silver		ND	mg/L	5.0	0.5	0	109	80 -	120	
Sample ID:	LCS-20830		LCS				Batch ID:	20830	Analysis Date:	12/10/2009 12:34:48 PM
Selenium		ND	mg/L	1.0	0.5	0	112	80	120	

Qualifiers:

R RPD outside accepted recovery limits

Spike recovery outside accepted recovery limits

E Estimated value

J Analyte detected below quantitation limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit



YOUR LAB OF CHOICE

Hall Environmental Analysis Laboratory Anne Thorne 4901 Hawkins NE

Albuquerque, NM 87109

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L435261

December 10, 2009

Analyte	Result		aboratory Units	Blank 8 Rec		Limit	Bat	ch Date	Analyzed
Corrosivity	5.50		700		eren eren eren eren eren eren eren eren	A. C.		53892 12/0	
Reactive Sulf.(SW846 7.3.4.1)	< 25		mg/kg				WG4	54467 12/1	0/09 14:0
Reactive CN (SW846 7.3.3.2)	< ,125	<u> </u>	mg/kg	Contractors			WG4	54469 12/1	.0/ <u>09</u> 15;0
Anályte	Units	Resul	Duplic t Dup	are:: licate	RPD	Limit	Re	f Samp	Batch
Corrosivity		0	: ', į 0		' 0 35 7 6		2.4	35261 - 01	W Q4 5389
Ignitability Reactive Sulf. (SW846 7.3.4.1)	Deg. 1 mg/kg	? 0 .0	0	2000 C	0 \$400 kg 0	10 20		35261~02 35261-01	WG45427 WG45446
Reactive CN (SW845 7, 3, 3, 2)	mg/kg			Tages or	·00-33-3-69-3	20	* L4	36261-01	WG45446
				trol Sampl					
Analyte	Units	Know	n Val	Resu	11t	% Rec	Lim		Batch
Corrosivity		9.68		9.70		100.	97.	9-100.8	WG45389
Ignitability	Deg. I	7 82	COD AND S	84.0	8748-A.MOLS	102.	96-	104 5008/0/19/8/88	WG45427
Reactive Sulf.(SW846 7.3.4.1)	mg/kg	100	(V) #12 (15) #6/0 (6/05)	84.0	81 S 475864 S, 41 V, 178	B4.0	70-	130	WG45446
Analyte	W-24	Laboratory Result		Sample Dup %Rec	licate	*11.	,	14-16	D-5-1
	ONIUS		Ref		41000 IU (VOSEL 1	Limit	RPD	Limit	Batch
Corrosivity		9,70	44. 9 864 9 .004	100		97.9-100.8	1000 -1 000-1000-1000	av.	
Ignitability Reactive Sulf.(SM846 7.3.4.1)	Deg. F mg/kg	7 83.0 80.0	84.0 84.0	101. 80.0		96-104 70-130	1.20	20 20	WG45427 WG45446

Batch number /Run number / Sample number cross reference

WG453892: R1023174: L435261-01 02 WG454275: R1029408: L435261-01 02 WG454467: R1032008: L435261-01 02 WG454469: R1032128: L435261-01 02

^{* *} Calculations are performed prior to rounding of reported values .

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT			•	Date F	Received:			12/4/2009
Work Order Number 0912074				Rece	eived by:	TLS		Λ .
Checklist completed by:			12/4	Sam	ple ID labe	ils checkei	d by:	Initials
Matrix:	Carrier name	UPS		-				
Shipping container/cooler in good condition?		Yes	✓	No [_ N	lot Presen	t 🗆	
Custody seals intact on shipping container/coole	er?	Yes	\checkmark	No [) N	lot Presen	t 🗆	Not Shipped
Custody seals intact on sample bottles?		Yes		No [_ r	√A	\checkmark	
Chain of custody present?		Yes	\checkmark	No [
Chain of custody signed when relinquished and	received?	Yes	\checkmark	No [
Chain of custody agrees with sample labels?		Yes	✓	No [
Samples in proper container/bottle?		Yes	\checkmark	No []			
Sample containers intact?		Yes	\checkmark	No [•	•
Sufficient sample volume for indicated test?		Yes	V	No [
All samples received within holding time?		Yes	V	` No [Number of preserved
Water - VOA vials have zero headspace?	No VOA vials subr	nitted	\checkmark	Yes [No [bottles checked for pH:
Water - Preservation labels on bottle and cap m	atch?	Yes	_ ·	No [N/A 🛚		
Water - pH acceptable upon receipt?		Yes		No [N/A		<2 >12 unless noted
Container/Temp Blank temperature?		4.	1°		cceptable			below.
COMMENTS:				If given s	ufficient tir	me to cool	•	
·	•							
·								
				**				
Client contacted	Date contacted:				Person	contacted		
Contacted by:	Regarding:							
Comments:								

							_	
								,,,
			·· ····					
Corrective Action								

HALL ENVIRONR ANALYSIS LABO www.hallenvironmental.com www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87 Tel. 505-345-3975 Fax 505-345-4107	BTEX + MTBE + TMB's (802) BTEX + MTBE + TPH (Gas of TPH (Method 8015B (Gas/Die)) TPH (Method 504.1) EDB (Method 504.1) B310 (PNA or PAH) RCRA 8 Metals - TCLP RORY Pesticides / 8082 PCB's 8081 Pesticides / 8082 PCB's 8081 Pesticides / 8082 PCB's 8081 Pesticides / 8082 PCB's 8081 Pesticides / 8082 PCB's 8081 Pesticides / 8082 PCB's 8081 Pesticides / 8082 PCB's 8081 Pesticides / 8082 PCB's 8081 Pesticides / 8082 PCB's 8081 Pesticides / 8082 PCB's 8260 (YOA)	X	-2 X X X X X X X X X			Time Remarks:	
Turn-Around Time: Standard Tkush Asar Project Name: Project #: Project Manager:	Sampler: Openhow / ICR Sampler Emperiment / ICR Sampler Emperative / Type and # Type	(2) Ecs. Las Nova	2) Boz Lu Nove			Received by, Date	Received by the Time Date Time
of-Custody Record en Refining Afield Refinent field Non 87401 SS 633-4166 Kelly, Robinson Churcom		12/3/9 11:00 Sdid FCC Spent Cotalyst (2) 808. I	43/9 11:30 Solid FCC Fresh Cotoly (2) Boz)			Time: Relinquished by:	

PASADENA CATALYST QUALITY ASSURANCE SYSTEM

REFERENCE NUMBER: ICS409

SAFETY

AUTHORIZATION: SFTY MGR.

ORIGINAL ISSUE DATA: OCTOBER 26, 1995

DATE

VERSION: 03-10-2004

DOCUMENT ID NUMBER SD016

REVISION LEVEL:194

TO OUR VALUED CUSTOMERS,

THE ATTACHED MSDS (MSDS NUMBER 14-FCCMSDS) DESCRIBES THE FOLLOWING AKZO

CHEMICALS INC. PRODUCTS:

ADVANCE 907S2B	CONQUEST-65EPT	OPAL 2.4
ACCESS 907 K-PT	CONQUEST-75UQ	OPAL 95SF
AMBER 546		
AMBER556B-125PT		
AMBER 748K	CONQUEST-87RDT	
AMBER 766MA	CONQUEST-87T	OPAL 547PT
AMBER 768	CONQUEST-562UQ	OPAL 647VH1
AMBER 988	CONQUEST-645	OPAL 648
BP-600R	CONQUEST-646K	OPAL 657
BCMT-100J	CONQUEST-653B	OPAL 657 MA
COBRA 34H	CONQUEST-755 CPS	OPAL657W-P25
COBRA 44ST	CONOUEST-856 EMBR	OPAT. 657W-P50
COBRA 45CAT	CONQUEST-985J CENTURION-28A	OPAL 656G
COBRA 45MST	CENTURION-28A	OPAL 665P
COBRA 45R-P30T	CENTUION-28A-10P	OPAL 757
COBRA 45R-P30T COBRA 47S-125PT	CENTURION-31	OPAL757N
COBRA 54ED	CENTURION-36	OPAL767
COBRA 56W3 COBRA 59SLT	CENTURION-95SF	OPAL SCT 867
COBRA 59SLT	CENTURION-442UQ	RECAP RFCC
COBRA 64CT COBRA 64S2 COBRA 66D COBRA 416D	CENTURION-771	RESOLVE 700T
COBRA 64S2	ECLIPSE-54	RFC1A
COBRA 66D	EM-2A	RUBY 425SLC
COBRA 416D	EMERALD 535	RUBY 655UQ
COBRA 434	EMERALD 637	RUBY 746W
COBRA 515A	EMERALD 647	SAPPHIRE 824
COBRA 524A	EMERALD 647J	SAPPHIRE 546
COBRA 525CP COBRA 525P COBRA 526H	EMERALD 655UQ	SAPPHIRE 646H
COBRA 525P	FOC-100SK	SAPPHIRE 646
COBRA 526H	HORIZON 57MF	SAPPHIRE 646 P50
	HORIZON 537	
		SAPPHIRE 824
COBRA 634H	HOR-460TLC	SK-SCS 556
COBRA 624 COBRA 634H COBRA 635R	HOR-597T	SMOOTH FLOW ADDITIVE
COBRA 644ED	HOR-810LM2	TOM CORAL 95SF
· · · - - · · · ·		

COBRA 644P50

HOR-810LM2Z

TOM FOC 90SF-HA3

HOR-810LM3

TOM FOC90SSF-LC

INSITUPRO CENTURION MAX 98 TOM FOC90FS-LC2

INSITUPRO VISIONS 534-7.5A TOM OPAL878L

50% CONQUEST 77HA/50% AMBER 426

THIS COVER LETTER IS PART OF THE MSDS AND MUST BE KEPT AS PART OF THE MSDS. IT SHOULD BE REPRODUCED WHENEVER THE MSDS IS COPIED.

SINCERELY,

C.E. TYLER SAFETY MANAGER

MATERIAL SAFETY DATA SHEET

AKZO NOBEL CHEMICALS INC.

DATE PRINTED: 5/31/1995

FLUID CATALYTIC CRACKING CATALYST

MSDS NO. 14-FCCMSDS

-----SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION -----

PRODUCT NAME: FLUID CATALYTIC CRACKING CATALYST

SYNONYM: FCC CATALYST

CHEMICAL NAME: ALUMINA SILICA MATRIX

CHEMICAL FORMULA: MIXTURE

CHEMICAL FAMILY: ALUMINA SILICA MATRIX

CAS #: MIXTURE

PRODUCT USE: HYDROCARBON PROCESSING

MANUFACTURERS NAME: ALBEMARLE CATALYSTS COMPANY, LP

ADDRESS: 2625 BAY AREA BLVD.

SUITE 250,

Houston, TEXAS, USA 77058

TEL. [PRODUCT& TECHNICAL INFORMATION]: 1-281-480-4747

EMERGENCY TELEPHONE NUMBERS:

TRANSPORTATION EMERGENCIES: 1-800-424-9300 (USA-CHEMTREC) 1-613-996-6666 (CANADA-CANUTEC)

MEDICAL / HANDLING EMERGENCIES: 1-914-693-6946 (AKZO NOBEL)

COUNTRY: U.S.A.

PRODUCT USE: HYDROCARBON PROCESSING

ISSUE DATE: 5/31/1995

REVISION DATE: 9/21/2004

REVISION NO.: 13.0

-----SECTION 2. HAZARDS INDENTIFICATION -----

EMERGENCY OVERVIEW

THIS MATERIAL IS NOT CONSIDERED HAZARDOUS BY THE OSHA HAZARD COMMUNICATION STANDARD

[29 CFR 1910.1200].

CAUTION!! INCIDENTAL CONTACT WITH DUST MATERIAL MAY CAUSE SKIN, EYE AND RESPIRATORY

TRACT IRRITATION.

APPEARANCE AND ODOR: ODORLESS, OFF-WHITE, FREE-FLOWING POWDER

FIRE AND EXPLOSION HAZARDS: THIS PRODUCT IS NOT DEFINED AS FLAMMABLE OR COMBUSTIBLE.

HOWEVER, UNDER FIRE CONDITIONS, IT MAY SUPPORT COMBUSTION AND DECOMPOSE TO GIVE OFF

SILICON OXIDES AND ALUMINUM OXIDES.

POTENTIAL HEALTH EFFECTS:

PRIMARY ROUTE OF EXPOSURE: SKIN CONTACT, EYE CONTACT AND INHALATION

INHALATION: EXPOSURE TO AN EXCESSIVE CONCENTRATION OF ANY NUISANCE DUST MAY CAUSE

RESPIRATORY TRACT DISCOMFORT.

SKIN CONTACT: CONTACT MAY CAUSE MILD IRRITATION.

INGESTION: THIS PRODUCT HAS A LOW ORDER OF TOXICITY AND IS CONSIDERED TO BE PRACTICALLY

HARMLESS BY INGESTION.

CARCINOGENICITY: THE CARCINOGENIC PROPERTIES OF THIS PRODUCT HAVE NOT BEEN DETERMINED.

THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) HAS CONCLUDED THAT THERE

INADEQUATE EVIDENCE FOR THE CARCINOGENICITY OF AMOPHOUS SILICA TO EXPERIMENTAL ANIMALS

AND HUMANS (UNCLASSIFIABLE - GROUP 3).

MEDICAL CONDITIONS AGGRAVATED: PERSONS WITH PRE-EXISTING LUNG DISEASE MAY BE AT AN

INCREASED RISK IF THIS MATERIAL IS INHALED.

---- SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENTS:	%w/w	CAS #
KAOLIN	10-80	1332-58-7
ZEOLITE	5-50	1318-02-1
SILICON DIOXIDE (AMORPHOUS)	2-30	7631-86-9
ALUMINUM OXIDE (AS A1,03)	.001-45	. 1344-28-1
ALUMINUM PHOSPHATE	.001-5.	7784-30-7

-----SECTION 4. FIRST AID MEASURES -----

INHALATION FIRST AID

REMOVE TO FRESH AIR. IF BREATHING BECOMES DIFFICULT, OXYGEN MAY BE GIVEN, PREFERABLY WITH A PHYSICIAN'S ADVICE. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. GET MEDICAL ATTENTION.

SKIN CONTACT - FIRST AID

WASH CONTAMINATED SKIN THOROUGHLY WITH SOAP AND PLENTY OF WATER. GET MEDICAL ATTENTION IF IRRITATION PERSISTS. REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE.

EYE CONTACT - FIRST AID

FLUSH EYES WITH LARGE QUANTITIES OF RUNNING WATER FOR A MINIMUM OF 15 MINUTES. IF THE VICTIM IS WEARING CONTACT LENSES, REMOVE THEM. HOLD THE EYELIDS APART DURING THE FLUSHING TO ENSURE RINSING OF THE ENTIRE SURFACE OF THE EYE AND LIDS WITH WATER. DO NOT LET VICTIM RUB EYE(S). DO NOT ATTEMPT TO NEUTRALIZE WITH CHEMICAL AGENTS. OILS OR OINTMENTS SHOULD NOT BE USED AT THIS TIME. GET MEDICAL ATTENTION IF EYE IRRITATION OCCURS.

INGESTION - FIRST AID

GIVE SEVERAL GLASSES OF WATER. IF VOMITING OCCURS KEEP HEAD BELOW HIPS TO REDUCE RISK OF ASPIRATION. GIVE FLUIDS AGAIN. SEEK MEDICAL ATTENTION IF HEALTH EFFECTS OCCUR.

MEDICAL CONDITIONS AGGRAVATED

PERSONS WITH PRE-EXISTING LUNG DISEASE MAY BE AT INCREASED RISK SHOULD THIS MATERIAL BE INHALED.

NOTE TO PHYSICIAN

NO SPECIFIC ANTIDOTE IS KNOWN. BASED ON THE INDIVIDUAL REACTIONS OF THE PATIENT, THE PHYSICIAN'S JUDGEMENT SHOULD BE USED TO CONTROL SYMPTOMS AND CLINICAL CONDITIONS.

-----SECTION 5. FIRE FIGHTING MEASURES -----

FLASH POINT: N/D F N/D C NOT APPLICABLE

FLASH METHOD: NOT APPLICABLE

AUTO IGNITION TEMPERATURE: N/D F N/D C

UPPER EXPLOSION LIMIT: N/D LOWER EXPLOSION LIMIT: N/D

EXTINGUISHING METHOD

THE UNUSED PRODUCT WILL NOT BURN. IF SPENT CATALYST IS INVOLVED IN A FIRE, USE WATER FOG, FOAM, DRY CHEMICAL OR CO2 TO EXTINGUISH.

FIRE FIGHTING PROCEDURES

AS IN ANY FIRE, PREVENT HUMAN EXPOSURE TO FIRE, SMOKE, FUMES OR PRODUCTS OF COMBUSTION. EVACUATE NON-ESSENTIAL PERSONNEL FROM THE FIRE AREA. FIREFIGHTERS SHOULD WEAR FULL-FACE, SELF-CONTAINED BREATHING APPARATUS AND IMPERVIOUS PROTECTIVE CLOTHING.

FIRES & EXPLOSION HAZARDS

POTENTIAL FOR DUST EXPLOSION MAY EXIST. THIS PRODUCT IS NOT DEFINED AS FLAMMABLE OR COMBUSTIBLE. DEPENDING UPON CONDITIONS, DUSTS MAY BE SENSITIVE TO STATIC DISCHARGE. AVOID POSSIBILITY OF DRY POWDER AND FRICTION CAUSING STATIC ELECTRICITY IN PRESENCE OF FLAMMABLES. (SEE NFPA-77, CHPT. 6)

OTHER FIRE + EXPLOSION HAZARDS

THE UNUSED PRODUCT WILL NOT BURN. HOWEVER, IN USE, THE CATALYST BECOMES REDUCED AND SULFIDED. THE REDUCED FORM, ESPECIALLY WHEN WARM, REACTS WITH OXYGEN ON CONTACT WITH AIR TO PRODUCE HEAT WHICH IN TURN CAN IGNITE COKE AND/OR RESIDUAL ORGANIC MATERIAL LEFT ON THE CATALYST. TO AVOID THIS, SPENT CATALYST SHOULD BE OXIDIZED AND COOLED BEFORE REMOVING FROM REACTOR. OTHER MEASURES SUCH AS COOLING AND BLANKETING WITH NITROGEN OR WETTING WITH WATER MAY BE USED.

HAZARDOUS PRODUCTS/COMBUSTION

THERMAL DECOMPOSITION PRODUCTS MAY RELEASE TOXIC AND/OR HAZARDOUS FUMES AND GASSES, INCLUDING METAL OXIDES.

NFPA HEALTH RATING

1*

NFPA FLAMMABILITY RATING

0

NFPA REACTIVITY RATING

0

NFPA OTHER

NA

*-CHRONIC HEALTH HAZARD (SEE SECTION 11)

-----SECTION 6. ACCIDENTAL RELEASE MEASURES -----

CLEAN-UP

STOP SOURCE OF SPILL. DEPENDING UPON THE SURFACE, SWEEP UP OR VACUUM SPILLED MATERIAL, BEING CAREFUL NOT TO GENERATE DUST. RETURN SWEEPINGS TO STOCK OR IF CONTAMINATED, PLACE INTO A CHEMICAL WASTE CONTAINER FOR

DISPOSAL.

-----SECTION 7. HANDLING AND STORAGE -----

HANDLING

AVOID PROLONGED AND/OR REPEATED SKIN AND EYE CONTACT AND INHALATION WHEN HANDLING THIS PRODUCT.

STORAGE

KEEP CONTAINER CLOSED AND DRY. SUITABLE FOR ANY GENERAL CHEMICAL STORAGE AREA. ISOLATE FROM INCOMPATIBLE MATERIALS.

MAXIMUM STORAGE TEMPERATURE

N/D F N/D C (NOT APPLICABLE)

GENERAL COMMENTS

THE GENERATION OF DUST SHOULD BE AVOIDED WHEN HANDLING THIS PRODUCT.

-----SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION -----

APPLICABLE EXPOSURE LIMITS: IN ADDITION TO ANY EXPOSURE LIMITS DISPLAYED BELOW, EXPOSURES TO THIS PRODUCT SHOULD BE CONTROLLED BELOW LIMITS ESTABLISHED FOR "PARTICULATES NOT OTHERWISE CLASSIFIED" (PNOC).

- ACGIH 10MG/M3
- OSHA 15MG/M3 (TOTAL DUST); 5MG/M3 (RESPIRABLE FRACTION) IN ADDITION TO THE LIMITS SHOWN BELOW, THE FOLLOWING DATA APPLIES TO THE VARIOUS COMPONENTS:
- ALUMINUM OXIDE (as Al): OSHA PEL = 5MG/M3 (RESPIRABLE FRACTION)

IDHL (Immediately Dangerous to Life and Health) concentrations:
- SILICON DIOXIDE (AMOUPHOUS) = 3,000MG/M3

EXPOSURE LIMITS / REGULATORY INFORMATION (in mg/m3)
THE OSHA PEL SHOWN FOR SILICON DIOXIDE (AMORPHOUS) IS CALCULATED USING THE
FORMULA [80 mg/m3] / [%sio2], WHERE THE PERCENT SILICA IS THE MAXIMUM RANGE
VALUE SHOWN IN SECTION 2.

RESPIRATORY PROTECTION

IF HANDLING OPERATIONS LEAD TO DUSTING, USE A NIOSH/APPROVED HALF-MASK, AIR-PURIFYING RESPIRATOR WITH DUST, MIST AND FUME FILTERS. WHEN USING RESPIRATOR CARTRIDGES OR CANISTERS, THEY MUST BE CHANGED FREQUENTLY (FOLLOWING EACH USE OR AT THE END OF THE WORKSHIFT) TO ASSURE BREAKTHROUGH EXPOSURE DOES NOT OCCUR.

CHEMICAL NAME:

SUBSTANCE DESCRIPTION	REG.AGCY	PEL	TLV	TWA	STEL	CEIL
KAOLIN	OSHA	15.0	N/D	N/D	N/D	N/D
	ACGIH	N/D	2.0	N/D	N/D	N/D
	NIOSH	N/D	N/D	10.0	N/D	N/D
•	SUPPLIER	N/D	N/D	N/D	N/D	N/D

ZEOLITE						
	OSHA	N/D	N/D	N/D	N/D	N/D
	ACGIH	N/D	N/D	N/D	N/D	N/D
	NIOSH	N/D	N/D	N/D	N/D	N/D
	SUPPLIER	N/D	N/D	N/D	N/D	N/D
SILICON DIOXIDE, AMORPHOU	JS					
	OSHA	2.67	N/D	N/D	N/D	N/D
	ACGIH	N/D	10.0	N/D	N/D	N/D
	NIOSH	N/D	N/D	6.0	N/D	N/D
	SUPPLIER	N/D	N/D	N/D	N/D	N/D
ALUMINUM OXIDE, AS A12 03	3					

OSHA ACGIH

NIOSH

SUPPLIER

LEGEND:

EXPOSURE LIMIT DESCRIPTIONS

CEIL: CEILING EXPOSURE LIMIT
PEL: PERMISSIBLE EXPOSURE LIMIT
STEL: SHOT TERM EXPOSURE LIMIT
TLV: THRESHOLD LIMIT VALUE
TWA: TIME WEIGHTED AVERAGE

N/D = NOT DETERMINED

ENGINEERING CONTROLS - VENTILATION: SPECIAL VENTILATION IS USUALLY NOT REQUIRED UNDER NORMAL USE CONDITIONS. ENSURE THAT EXISTING VENTILATION IS SUFFICIENT TO PREVENT THE CIRCULATION AND/OR ACCUMULATION OF DUST IN THE AIR.

15.0 N/D N/D N/D

N/D 10.0 N/D N/D

N/D N/D N/D N/D

N/D N/D N/D N/D

N/D

N/D

N/D

N/D

PERSONAL PROTECTIVE EQUIPMENT (PPE):

RESPIRATORY PROTECTION: IF HANDLING OPERATIONS LEAD TO DUSTING, USE A NIOSHAPPROVED

HALF-FACE AIR-PURIFYING RESPIRATOR WITH DUST, MUST AND FUME FILTERS TO REDUCE POTENTIAL FOR INHALATION EXPOSURE. WHEN USING RESPIRATION CARTIDGES OR CANISTERS,

THEY MUST BE CHANGED FREQUENTLY (FOLLOWING EACH USEOR AT THE END OF THE WORK SHIFT)

TO ASSURE BREAKTHROUGH EXPOSURE DOES NOT OCCUR.

SKIN PROTECTION

SKIN CONTACT WITH THIS PRODUCT SHOULD BE MINIMIZED THROUGH THE USE OF SUITABLE PROTECTIVE CLOTHING AND GLOVES SELECTED WITH REGARD FOR USE CONDITION EXPOSURE POTENTIAL.

EYE PROTECTION

INDIRECT VENTED, DUST-TIGHT GOGGLES ARE RECOMMENDED IF DUST IS GENERATED WHEN HANDLING THIS PRODUCT.

VENTILATION PROTECTION

PREVENT THE CIRCULATION OR ACCUMULATION OF DUST IN THE AIR WITH SUFFICIENT VENTILATION.

OTHER PROTECTION

ALL FOOD AND SMOKING MATERIALS SHOULD BE KEPT IN A SEPARATE AREA AWAY FROM THE STORAGE/USE LOCATION. EATING, DRINKING AND SMOKING SHOULD BE PROHIBITED IN AREAS WHERE THERE IS A POTENTIAL FOR SIGNIFICANT EXPOSURE TO THIS MATERIAL. BEFORE EATING, DRINKING OR SMOKING, HANDS AND FACE SHOULD BE THOROUGHLY WASHED.

-----SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES -----

PHYSICAL STATE/APPEARANCE/ODOR: ODORLESS, OFF-WHITE, FREE-FLOWING POWDER

VAPOR PRESSURE (MM HG): N/D NOT APPLICABLE

VAPOR DENSITY (AIR=1.0): N/D NOT APPLICABLE

EVAPORATION RATE: N/D NOT APPLICABLE

VOLATILE %: <17 @ 815 C.

BOILING POINT: N/D F N/D C

ODOR THRESHOLD (PPM): N/D

SPECIFIC GRAVITY: N/D

BULK DENSITY: N/D NOT DETERMINED

SOLUBILITY IN WATER: N/D NEGLIGIBLE

SOLUBILITY IN OTHER SOLVENTS: NOT DETERMINED

COEFFICIENT OF OIL/WATER: N/D

POUR POINT: N/D F N/D C NOT APPLICABLE

MELTING POINT: 2192.00 F 1200.00 C

PH FACTOR: N/D

CLOUD POINT: N/D F N/D C NOT APPLICABLE

FLASH POINT: N/D F N/D C NOT APPLICABLE

FLASH METHOD: NOT APPLICABLE

UPPER EXPLOSION LIMIT: N/D

LOWER EXPLOSION LIMIT: N/D

AUTO IGNITION TEMPERATURE: N/D F N/D C

OTHER: NO OTHER DATA AVAILABLE.

-----SECTION 10. STABILITY AND REACTIVITY -----

STABILITY:

THIS PRODUCT IS STABLE AT AMBIENT TEMPERATURES AND ATMOSPHERIC PRESSURES. IT IS NOT SELF-REACTIVE AND IS NOT SENSITIVE TO PHYSICAL IMPACT.

INCOMPATIBILITIES /CONDITIONS TO AVOID:

THIS PRODUCT IS INCOMPATIBLE WITH STRONG ACIDS AND SULFUR CONTAINING MATERIALS.

POLYMERIZATION:

HAZARDOUS POLYMERIZATION IS NOT EXPECTED TO OCCUR.

DECOMPOSITION:

THERMAL DECOMPOSITION PRODUCTS MAY INCLUDE TOXIC METAL OXIDE FUMES.

-----SECTION 11. TOXICOLOGICAL INFORMATION -----

TOXICOLOGICAL - INHALATION

INHALATION TOXICITY DATA ARE NOT AVAILABLE FOR THIS PRODUCT.

INHALATION CHRONIC EXPOSURE

PROLONGED AND/OR REPEATED INHALATION MAY CAUSE RESPIRATORY IRRITATION, COUGH AND CHEST DISCOMFORT.

TOXICOLOGICAL - DERMAL

DERMAL TOXICITY DATA IS NOT AVAILABLE FOR THIS PRODUCT.

SKIN CONTACT - CHRONIC

PROLONGED OR REPEATED EXPOSURE TO DUST MAY HAVE A DRYING EFFECT ON THE SKIN.

TOXICOLOGICAL - EYE

THE ACUTE EYE EFFECTS OF THIS PRODUCT HAVE NOT BEEN DETERMINED.

TOXICOLOGICAL - INGESTION

INGESTION TOXICITY DATA IS NOT AVAILABLE FOR THIS PRODUCT. HOWEVER, THE ACUTE ORAL LD50 IS EXPECTED TO BE GREATER THAN 5000 MG/KG. THE ORAL LD50 FOR SILICON DIOXIDE IS 3160 MG/KG IN RATS.

INGESTION - CHRONIC

HEALTH EFFECTS AS A RESULT OF CHRONIC INGESTION ARE NOT KNOWN.

CARCINOGENICITY/MUTAGENICITY

THE CARCINOGENIC/MUTAGENIC PROPERTIES OF THIS PRODUCT ARE NOT KNOWN. THE AMORPHOUS MINERAL COMPONENT OF THIS PRODUCT HAS BEEN CLASSIFIED AS A CLASS 3 CARCINOGEN BY IARC. IARC CLASS 3 CARCINOGENS MAY HAVE LIMITED SUPPORTING ANIMAL DATA BUT NO HUMAN DATA TO SUGGEST CARCINOGENICITY.

REPRODUCTIVE EFFECTS

THE REPRODUCTIVE TOXICITY OF THIS PRODUCT IS NOT KNOWN.

NEUROTOXICITY

THE NEUROTOXIC EFFECTS OF THIS PRODUCT ARE NOT KNOWN.

OTHER TOXICOLOGICAL EFFECTS

NO OTHER TOXIC EFFECTS FOR THIS PRODUCT ARE KNOWN.

TARGET ORGANS

OVEREXPOSURE TO THIS PRODUCT MAY AFFECT THE RESPIRATORY SYSTEM.

-----SECTION 12. ECOLOGICAL INFORMATION -----

ECOTOXICOLOGICAL INFORMATION

THE ECOLOGICAL TOXICITY OF THIS PRODUCT IS NOT KNOWN.

DISTRIBUTION

OTHER ECOLOGICAL INFORMATION ON THIS PRODUCT IS NOT KNOWN.

CHEMICAL FATE

THIS PRODUCT IS NOT READILY BIODEGRADABLE.

-----SECTION 13. DISPOSAL CONSIDERATIONS -----

WASTE DISPOSAL

MATERIAL THAT CANNOT BE USED OR CHEMICALLY REPROCESSED AND EMPTY CONTAINERS SHOULD BE DISPOSED OF AT AN APPROVED FACILITY IN ACCORDANCE WITH ANY APPLICABLE REGULATIONS.

SPENT UNREGENERATED CATALYST IS A WASTE MATERIAL AND COULD BE AN IGNITABLE HAZARDOUS WASTE (D001) PER RCRA. GENERATORS OF WASTE MATERIAL ARE REQUIRED TO EVALUATE ALL WASTE FOR COMPLIANCE WITH RCRA AND ANY APPLICABLE STATE AND LOCAL DISPOSAL PROCEDURES AND REGULATIONS.

NOTE! STATE AND LOCAL REGULATIONS MAY BE MORE STRINGENT THAN FEDERAL.

CONTAINER DISPOSAL

CONTAINERS SHOULD BE CLEANED OF RESIDUAL PRODUCT BEFORE DISPOSAL. EMPTY CONTAINERS SHOULD BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.

-----SECTION 14. TRANSPORT INFORMATION -----

SHIPPING DESCRIPTION

THIS PRODUCT IS NOT REGULATED FOR SHIPPING.

REQUIRED LABELS

NOT REGULATED FOR SHIPPING, NO TRANSPORT LABELS REQUIRED.

ENVIRON. HAZARDOUS SUBSTANCE

THIS PRODUCT DOES NOT CONTAIN AN ENVIRONMENTALLY HAZARDOUS SUBSTANCE PER 49 CFR 172.101, APPENDIX.

-----SECTION 15. REGULATORY INFORMATION -----

COMPONENT KAOLIN IS SUBJECT TO THE FOLLOWING:

ENVIRONMENTAL LIST:

DSL: DOMESTIC SUBSTANCE LIST-CANADA

PA. LIST: PENN. HAZARDOUS SUBSTANCE LIST TSCA: TOXIC SUBST. CONT. ACT - LISTED

COMPONENT ZEOLITE IS SUBJECT TO THE FOLLOWING:

ENVIRONMENTAL LIST:

DSL: DOMESTIC SUBSTANCE LIST-CANADA NJ R-T-K: NEW JERSEY R-T-K HAZARD. SUB. TOXIC SUBST. CONT. ACT - LISTED

COMPONENT SILICON DIOXIDE, AMORPHOUS IS SUBJECT TO THE FOLLOWING:

ENVIRONMENTAL LIST:

DSL: DOMESTIC SUBSTANCE LIST-CANADA MA, LIST: MASSACHUSETTS SUBSTANCE LIST NJ R-T-K: NEW JERSEY R-T-K HAZARD. SUB. PA. LIST: PENN. HAZARDOUS SUBSTANCE LIST TOXIC SUBST. CONT. ACT - LISTED TSCA:

COMPONENT ALUMINUM OXIDE, AS A12 03 IS SUBJECT TO THE FOLLOWING:

ENVIRONMENTAL LIST:

DSL: DOMESTIC SUBSTANCE LIST-CANAL MA, LIST: MASSACHUSETTS SUBSTANCE LIST DOMESTIC SUBSTANCE LIST-CANADA NJ R-T-K: NEW JERSEY R-T-K HAZARD. SUB. PA. LIST: PENN. HAZARDOUS SUBSTANCE LIST TSCA: TOXIC SUBST. CONT. ACT - LISTED

OTHER REGULATORY INFORMATION

THE COMPONENTS ARE SUBJECT TO THE FOLLOWING ENVIRONMENTAL REGULATORY

SUBSTANCE NAME: CAA CERCLA DSL NDSL USS STATE RIGHT-TO- PROP65 SARA TSCA

KNOW LIST KAOLIN X MA/MN/PA/RI ZEOLITE Х NJ SILICON DIOXIDE X CA/MN/MA/MN/JN Х (AMORPHOUS) /PA X ALUMINUM OXIDE MA/MN/NJ/PA/RI Χ X ALUMINUM PHOSPHATE NJ

X

Х

X

LEGEND

CA LIST CALIFORNIA-DIRCTIORS LIST OF HAZARDOUS SUBSTANCES
CAA CLEAN AIR ACT, SECTION 12
CERCLA CERCLA HAZARDOUS SUBSTANCES
DSL DOMESTIC SUBSTANCE LIST- CANADA

FL LIST FLORDIA-SUBSTANCE LIST

IARC INTERNATIONAL AGENCY FOR RESEARCH ON CANCER-CARCINOGENS

GROUPS 1,2A OR 2B

MA LIST MASSACHUSETTS-R-T-K SUBSTANCES LIST MN LIST MINNESOTA HAZARDOUS SUBSTANCES LIST NDSL NON-DOMESTIC SUBSTANCE LIST-CANADA

NJ R-T-K NEW JERSEY-R-T-K HAZARD LIST

PA LIST PENNSYLVANIA HAZARDOUS SUBSTANCE LIST

PROP 65

CALIFORNIA PROPOSITION 65

RI LIST

RHODE ISLAND- HAZARDOUS SUBSTANCE LIST

SARA TSCA SARA TITLE III, SECTION 302/313
TOXIC SUBSTANCES CONTROL ACT-USA

WHMIS HAZARD CLASS NOT CONTROLLED

HAZARD RATING SOURCE

HEALTH

1

REACTIVITY

0

FLAMMABILITY

0

OTHER

-----SECTION 16. OTHER INFORMATION -----

OTHER INFORMATION

THIS MSDS DESCRIBES THE FOLLOWING AKZO NOBEL INC. PRODUCTS: ADVANCE-503SB, ADVANCE-507A, ADVANCE-707AS, ADVANCE-709ED, ADVANCE-805, ADVANCE-807, ADVANCE-807A, ADVANCE-807WL, ADVANCE-817, ADVANCE-829, ADVANCE-829WL, ADVANCE-907, ADVANCE-907, ADVANCE-907S, ADVANCE-907S2, ADVANCE-907S3, ADVANCE-909, ADVANCE-916, KMC-207PLUSAG, OCTAVISION-505, OCTAVISION-507, OCTAVISION-507L, OCTAVISION-507B, OCTAVISION-508, OCTAVISION-509, OCTAVISION-509-ES7, OCTAVISION-ES3, OCTAVISION-ES3A, OCTAVISION-ES7, OCTAVISION-509SX, OCTAVISION-509X, OCTAVISION-518, OCTAVISION-630-2, OCTAVISION-635-2G1, OCTAVISION-637-2, OCTAVISION-637-2B, OCTAVISION-639-1, OCTAVISION-639-2, OCTAVISION-639-2A, OCTAVISION-639-2D, OCTAVISION-639-3, OCTAVISION-639-3A, OCTAVISION-639-A, OCTAVISION-643-A, OCTAVISION-651, OCTAVISION-715-2, OCTAVISION-719-1BT, OCTAVISION-725-2G, VISION-49A, VISION-55, VISION-56, VISION-56R, VISION-57, VISION-57ASH, VISION-57L, VISION-57PCX, VISION-57ST, VISION-57X, VISION-58S, VISION-59, VISION-59D, VISION-, VISION-516, VISION-, VISION-519, ECLIPSE-, VISION 57/KOB, 629-2SM, MRD-1000, MRD-1010, ACTION-507, ACTION-508, ACTION-509, FOC-90, FOC-91, FOC-93, FOC-94, FOC-95, HORIZON-54, HORIZON-54C, HORIZON-55, HORIZON-56, HORIZON-57, HORIZON-58, HORIZON-58L, HORIZON-58S, HORIZON-58SR, HORIZON-508, HRO-600, ACCESS-903, ACCESS-904, ACCESS-905, ACCESS-905T, ACCESS-906, ACCESS-906T, ACCESS-907, ACCESS-907TA, ACCESS-907T, ACCESS-908, ACCESS-909.

CREATED BY: PRODUCT SAFETY 914 674-5000

KEY TO ABBREVIATIONS: EQ=EQUAL LT=LESS THAN GT=GREATER THAN AP=APPROXIMATELY TR=TRACE ND-NO DATA AVAILABLE ALL INFORMATION CONCERNING THIS PRODUCT AND/OR ALL SUGGESTIONS FOR HANDLING AND USE CONTAINED HEREIN ARE OFFERED IN GOOD FAITH AND ARE BELIEVED TO BE RELIABLE. AKZO CHEMICALS INC., HOWEVER, MAKES NO WARRANTY AS TO THE ACCURACY AND OR SUFFICIENCY OF SUCH INFORMATION AND/OR SUGGESTIONS, AS TO THE PRODUCT'S MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, OR THAT ANY SUGGESTED USE WILL NOT INFRINGE ANY PATENT. NOTHING CONTAINED HEREIN SHALL BE CONSTRUED AS GRANTING OR EXTENDING ANY LICENSE UNDER ANY PATENT. BUYER MUST DETERMINE FOR HIMSELF, BY PRELIMINARY TESTS OR OTHERWISE, THE SUITABILITY OF THIS PRODUCT FOR HIS PURPOSES. THE INFORMATION CONTAINED HEREIN SUPERSEDES ALL PREVIOUSLY ISSUED BULLETINS ON THE SUBJECT MATTER COVERED.

100

Chavez, Carl J, EMNRD

From:

Chavez, Carl J. EMNRD

Sent:

Thursday, May 07, 2009 3:18 PM 'Hurtado, Cindy'; Pinkerton, Barbara

To: Cc:

Schmaltz, Randy, Krakow, Bob

Subject:

RE: Western Refining Southwest- Bloomfield Refinery (GW-001) Profile 06523B Used

Process Filters

Ladies and Gentlemen:

Re: New Mexico Oil Conservation Division (OCD) Discharge Permit (GW-001) for Western Refining Southwest-Bloomfield Refinery

By receipt of this e-mail, the New Mexico Oil Conservation Division (OCD) confirms that the existing permit (which has expired) is still valid until the OCD issues an updated discharge permit that will include all waste streams identified in the currently expired permit.

Under an OCD Discharge Permit, any renewal application received at least 120 days in advance of the expiration date, the OCD will allow the permittee to continue operating under the existing discharge permit until a renewal permit is reissued, modified and/or terminated.

The OCD hopes that this e-mail message will satisfy the request made by Ms. Barbara Pinkerton.

To review the existing permit, you may go to OCD Online http://ocdimage.emnrd.state.nm.us/imaging/AEOrderFileView.aspx?appNo=pENV000GW00001 (go to the "Permits" thumbnail) to review the permit and application with waste streams, etc.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/ index.htm (Pollution Prevention Guidance is under "Publications")

From: Hurtado, Cindy [mailto:Cindy.Hurtado@wnr.com]

Sent: Thursday, May 07, 2009 2:06 PM

To: Chavez, Carl J, EMNRD; Pinkerton, Barbara

Cc: Schmaltz, Randy; Krakow, Bob

Subject: RE: Profile 06523B Used Process Filters

Good Afternoon Carl,

Per our telephone conversation today, I am forwarding you the e-mail from Waste Management (WM) informing us of the expiration date for the profile for our used process filters. WM is requesting a review of our DMP (Discharge Permit) which also expires in June and also an approval letter from OCD.

Please find attached the most current analysis of the used process filters that we dispose of as special waste at the San Juan County Landfill.

Bloomfield Refinery is requesting an approval letter from OCD that can be transmitted to Barbara Pinkerton of Waste Management. Your prompt attention to this matter will be greatly appreciated.

Sincerely, Cindy Hurtado

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery
cindy.hurtado@wnr.com
505-632-4161

From: Pinkerton, Barbara [mailto:BPinkert@wm.com]

Sent: Tuesday, April 14, 2009 3:28 PM

To: Hurtado, Cindy

Subject: Profile 06523B Used Process Filters

Hi Cindy,

You have a profile that will be expiring 6-7-09. Would you like to recertify it? If so, we need to review the DMP as our last copy has expired. We can use the existing analytical from 5-18-06 and it would be good for one year. If you have new analytical then we can do a 3 year approval. We would also want to see the most recetn OCD approval.

Let me know.

<<Recertification_Form.pdf>>

Thanks, Barbara Pinkerton Technical Service Representative 2425 S 40th St, Phoenix, AZ 85034

ph: 602-454-2001

fax: 602-470-0692 or 713-286-7427

Visit our new website!

www.wmdisposal.com < <http://www.wmdisposal.com/>>

This inbound email has been scanned by the MessageLabs Email Security System.



COVER LETTER

Friday, April 24, 2009

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4161 FAX (505) 632-3911

RE: Process Filter Profile-2009

Dear Cindy Hurtado:

Order No.: 0904230

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 4/16/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682 ORELAP Lab # NM100001 Texas Lab# T104704424-08-TX



Date: 24-Apr-09

CLIENT:

Western Refining Southwest, Inc.

Project:

Process Filter Profile-2009

Lab Order:

0904230

CASE NARRATIVE

[&]quot;S" flags denote that the surrogate was not recoverable due to sample dilution or matrix interferences.

Date: 24-Apr-09

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0904230

Process Filter Profile-2009

Project: Lab ID:

0904230-01

Client Sample ID: C-203

Collection Date: 4/15/2009 10:50:00 AM

Date Received: 4/16/2009

Matrix: SOLID

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B; DIESEL RANGE	ORGANICS					Analyst: SCC
Diesel Range Organics (DRO)	14000	10000		mg/Kg	100	4/17/2009
Motor Oil Range Organics (MRO)	160000	50000		mg/Kg	100	4/17/2009
Surr: DNOP	0	61.7-135	Ś	%REC	100	4/17/2009
EPA METHOD 8015B: GASOLINE RAN	IGE				-	Analyst: DAM
Gasoline Range Organics (GRO)	ND	250		mg/Kg	5	4/22/2009 8:50:37 PM
Surr: BFB	87.1	58.8-123		%REC	5	4/22/2009 8:50:37 PM
EPA METHOD 8021B: VOLATILES		\			·	Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	5.0		mg/Kg	5	4/22/2009 8:50:37 PM
Benzene	3.0	2.5		mg/Kg	5	4/22/2009 8:50:37 PM
Toluene	4.6	2.5	Ú	mg/Kg	5	4/22/2009 8:50:37 PM
Ethylbenzene	ND	2.5		mg/Kg	5	4/22/2009 8:50:37 PM
Xylenes, Total	ND	5.0		mg/Kg	5	4/22/2009 8:50:37 PM
Surr: 4-Bromofluorobenzene	91.8	66.8-139		%REC	5	4/22/2009 8:50:37 PM
MERCURY, TCLP		•				Analyst: MMS
Mercury	ND	0.020		mg/L	1	4/21/2009 4:33:32 PM
EPA METHOD 6010B: TCLP METALS						Analyst: NMO
Arsenic	ND	5.0		mg/L	1	4/22/2009 8:21:27 AM
Barlum	ND	100		mg/L	1	4/22/2009 8:21:27 AM
Cadmlum	ND	1.0		mg/L	1	4/22/2009 8:21:27 AM
Chromium	ND	5.0		mg/L	1	4/22/2009 8:21:27 AM
Lead	ND	5.0		mg/L	1	4/22/2009 8:21:27 AM
Selenium	ND	1.0		mg/L	1	4/22/2009 8:21:27 AM
Silver	ND	5.0		mg/L	1	4/22/2009 8:21:27 AM

Value exceeds Maximum Contaminant Level

Page 1 of 4

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

RL Reporting Limit

Date: 24-Apr-09

CLIENT:

Western Refining Southwest, Inc.

Lab Order: Project: 0904230

0904230

Process Filter Profile-2009

Lab ID:

0904230-02

Client Sample ID: F-801-DSL

Collection Date: 4/15/2009 11:00:00 AM

Date Received: 4/16/2009

Matrix: SOLID

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE ORGANICS				`	Analyst: SCC
Diesel Range Organics (DRO)	270000	10000		mg/Kg	100	4/17/2009
Motor Oil Range Organics (MRO)	79000	50000		mg/Kg	100	4/17/2009
Surr: DNOP	0	61.7-135	S	%REC	100	4/17/2009
EPA METHOD 8015B: GASOLINE R	ANGÉ				,	Analyst: DAM
Gasoline Range Organics (GRO)	ND .	2500		mg/Kg	50	4/22/2009 2:22:16 AM
Surr: BFB	74.3	58.8-123		%REC	50	4/22/2009 2:22:16 AM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	50		mg/Kg	50	4/22/2009 2:22:16 AM
Benzene	ND	25		mg/Kg	50	4/22/2009 2:22:16 AM
Toluene	ND	25		mg/Kg	50	4/22/2009 2:22:16 AM
Ethylbenzene	ND	25		mg/Kg	50	4/22/2009 2:22:16 AM
Xylenes, Total	ND	50		mg/Kg	50	4/22/2009 2:22:16 AM
Surr: 4-Bromofluorobenzene	71.7	66.8-139		%REC	50	4/22/2009 2:22:16 AM
MERCURY, TCLP						Analyst: MMS
Mercury	ND	0.020		mg/L	1	4/21/2009 4:35:08 PM
EPA METHOD 6010B: TCLP METAL	.s					Analyst: NMO
Arsenic	ND	5.0		mg/L	1	4/22/2009 8:23:10 AM
Barium	ND	100		mg/L	1	4/22/2009 8:23:10 AM
Cadmium	ND	1.0		mg/L	1	4/22/2009 8:23:10 AM
Chromium	ND	5.0		mg/L	1	4/22/2009 8:23:10 AM
Lead	ND	5.0		mg/L	1	4/22/2009 8:23:10 AM
Selenium	ND	1.0		mg/L	1	4/22/2009 8:23:10 AM
Silver	ND	5.0		mg/L	1 '	4/22/2009 8:23:10.AM

Qualifiers

- Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
 - RL Reporting Limit

Page 2 of 4

Date: 24-Apr-09

CLIENT:

Western Refining Southwest, Inc.

0904230

Client Sample ID: F-403-Naphtha

Lab Order:

Collection Date: 4/15/2009 11:10:00 AM

Project:

Process Filter Profile-2009

Date Received: 4/16/2009

Lab ID:

0904230-03

Matrix: SOLID

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE ORGANICS	·				Analyst: SCC
Diesel Range Organics (DRO)	410000	10000		mg/Kg	100	4/17/2009
Motor Oil Range Organics (MRO)	ND	50000		mg/Kg	100	4/17/2009
Surr: DNOP	0	61.7-135	S	%REC	100	4/17/2009
EPA METHOD 8015B: GASOLINE R	ANGE			*		Analyst: DAM
Gasoline Range Organics (GRO)	ND	2500	•	mg/Kg	50	4/22/2009 3:23:18 AM
Surr: BFB	72.5	58.8-123		%REC	50	4/22/2009 3:23:18 AM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	50		mg/Kg	50	4/22/2009 3:23:18 AM
Benzene	ND	25		mg/Kg	50	4/22/2009 3:23:18 AM
Toluene	ND	25		mg/Kg	50	4/22/2009 3:23:18 AM
Ethylbenzene	ND	25		m g/Kg	50	4/22/2009 3:23:18 AM
Xylenes, Total	ND	50		mg/Kg	50	4/22/2009 3:23:18 AM
Surr: 4-Bromofluorobenzene	70.9	66.8-139		%REC	50	4/22/2009 3:23:18 AM
MERCURY, TCLP					_	Analyst: MMS
Mercury	ND	0.020		mg/L	1	4/21/2009 4:36:45 PM
EPA METHOD 6010B: TCLP METAL	S					Analyst: NMO
Arsenic	ND	5.0		mg/L	1	4/22/2009 8:26:31 AM
Barium	ND	100		mg/L	1	4/22/2009 8:26:31 AM
Cadmium	ND	1.0		mg/L	1	4/22/2009 8:26;31 AM
Chromium	. ND	5.0		mg/L	1	4/22/2009 8:26:31 AM
Lead	ND	5.0		mg/L	1	4/22/2009 8:26:31 AM
Selenium	ИD	1.0		mg/L	1	4/22/2009 8:26:31 AM
Silver	ND	5.0		mg/L	1	4/22/2009 8:26:31 AM

Qua	lifie	rs
Vun		

Value exceeds Maximum Contaminant Level

Spike recovery outside accepted recovery limits

Reporting Limit

Page 3 of 4

Estimated value E

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

В Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

Date: 24-Apr-09

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0904230

Process Filter Profile-2009

Project: Lab ID:

0904230-04

Client Sample ID: F-704-Gasoline

Collection Date: 4/15/2009 11:20:00 AM

Date Received: 4/16/2009

Matrix: SOLID

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E ORGANICS	**			······································	Analyst: SCC
Diesel Range Organics (DRO)	890	100		mg/Kg	1	4/22/2009
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	1 '	4/22/2009
Surr: DNOP	48.2	61.7-135	S	%REC	1	4/22/2009
EPA METHOD 8015B: GASOLINE RA	ANGE					Analyst: DAM
Gasoline Range Organics (GRO)	ND	100		mg/Kg	1	4/22/2009 9:21:13 PM
Surr: BFB	92.1	58.8-123		%REC	. 1	4/22/2009 9:21:13 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.0		mg/Kg	1	4/22/2009 9:21:13 PM
Benzene	1.1	1.0		mg/Kg	1	4/22/2009 9:21:13 PM
Toluene	3.5	1.0		mg/Kg	1.	4/22/2009 9:21:13 PM
Ethylbenzene	ND	1.0		mg/Kg	1	4/22/2009 9:21:13 PM
Xylenes, Total	ND	2.0		mg/Kg	1	4/22/2009 9:21:13 PM
Surr: 4-Bromofluorobenzene	101	66.8-139		%REC	1	4/22/2009 9:21:13 PM
MERCURY, TCLP		•				Analyst: MMS
Mercury	ND	0.020		mg/L	1	4/21/2009 4:38:22 PM
EPA METHOD 6010B: TCLP METAL	S					Analyst: NMO
Arsenic	ND	5.0		mg/L	1	4/22/2009 8:32:50 AM
Barium	ND	100		mg/L	1	4/22/2009 8:32:50 AM
Cadmium	ND	1.0		mg/L	1	4/22/2009 8:32:50 AM
Chromium	ND	5.0		mg/L	· 1	4/22/2009 8:32:50 AM
Lead	ND	5.0		mg/L	1	4/22/2009 8:32:50 AM
Selenium	ND	1.0		mg/L	1	4/22/2009 8:32:50 AM
Silver	ND	5.0		mg/L	1	4/22/2009 8:32:50 AM

Qu	a۱	lii	fi	e	re
VΨ	aı	ш		С	13

- Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Page 4 of 4

Date: 24-Apr-09

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

Process Filter Profile-2009

Work Order:

0904230

Analyte	Result	Units	PQL	%Rec	LowLimit HighLimit	%RPD RI	PDLimit Qual
Method: EPA Method 8016B: D	iesel Range	_		· · · · · · · · · · · · · · · · · · ·	Datab ID: 4000	. Analysis Data	447/000
Sample ID: MB-18863		MBLK			Batch ID: 1886	3 Analysis Date:	4/17/200
Diesel Range Organics (DRO)	ND	mg/Kg	10				•
Motor Oil Range Organics (MRO)	ND	mg/Kg	50		Datab ID: 4000	Analysia Data:	4/47/200
Sample ID: LCS-18863		LCS			Batch ID: 1886	3 Analysis Date:	4/17/2009
Diesel Range Organics (DRO)	45.31	mg/Kg	10	90.6	64.6 116		
Sample ID: LCSD-18863		LCSD			Batch ID: 1886	•	4/17/2009
Diesel Range Organics (DRO)	46.14	mg/Kg	10	92.3	64.6 116	1.81 1	7.4
Method: EPA Method 8015B: G	asoline Ran	ge					
Sample ID: MB-18858		MBLK			Batch ID: 1885	Analysis Date:	4/21/2009 10:47:22 PM
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0			,	
Sample ID: LCS-18858		LCS			Batch ID: 18866	Analysis Date:	4/21/2009 9:46:16 PM
Gasoline Range Organics (GRO)	24.69	mg/Kg	5.0	95.6	64.4 133		
	-1-411					· · · · · · · · · · · · · · · · · · ·	
Method: EPA Method 8021B: Vo Sample ID: MB-18858	olatiles	MBLK			Batch ID: 18858	Analysis Date:	4/21/2009 10:47:22 PM
•					Daten ID. 1880	Allalysis Date.	4/21/2005 10.4/.22 FW
Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.10		•		
Benzene Toluene	ND ND	mg/Kg	0.050 0.050				
Ethylbenzene	ND	mg/Kg mg/Kg	0.050				
Xylenes, Total	ND	mg/Kg	0.10				
Sample ID: LCS-18858	140	LCS	0.10		Batch ID: 18856	Analysis Date:	4/21/2009 10:16:46 PM
Methyl tert-butyl ether (MTBE)	1.066	mg/Kg	0.10	107	67.9 135	, manyone equation	WE 112000 (0.70.10 t 1)
Benzene	0.9286	mg/Kg	0.050	90.1	78.8 132	•	
Toluene	0.9200	mg/Kg	0.050	89.7	78.9 112		•
Ethylbenzene	0.9420	mg/Kg	0.050	94.2	69.3 125		
Xylenes, Total	2.834	mg/Kg	0.10	94.5	73 128		
							
Method: MERCURY, TCLP		MD2 14			D-1-h ID. 45004	Ameliada Deter	4/04/0000 4:0F: 40 FP
Sample ID: MB-18894		MBLK			Batch ID: 18894	Analysis Date:	4/21/2009 4:25:40 PM
Mercury	ND	mg/L	0.020				
Sample ID: LCS-18894		LCS			Batch ID: 18894	Analysis Date:	4/21/2009 4:27:14 PM
Mercury	ND	mg/L	0.020	99.5	80 120		

Qualifiers:

Page 1

E Estimated value

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

Date: 24-Apr-09

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

Process Filter Profile-2009

Work Order:

0904230

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD RI	DLimit Qual
Method: EPA Method 60)10B: TCLP Metals		<u> </u>					
Sample ID: MB-18893		MBLK			Batch	ID: 18893	Analysis Date:	4/22/2009 8:07:56 AN
Arsenic	ND	mg/L	5.0					
Barium	ND	mg/L	100					
Cadmium	ND	mg/L	1.0					
Chromium	ND .	mg/L	5.0					
Lead	ND	mg/L	5.0					
Selenium	ND	mg/L	1.0					
Silver	ND	. mg/L	5.0					
Sample ID: LCS-18893		LCS			Batch	ID: 18893	Analysis Date:	4/22/2009 8:09:41 AN
Arsenic	ND	mg/L	5.0	120	80	120		s
Barium	ND	mg/L	100	98.8	80	120		
Cadmium	ND	mg/L	1.0	107	80	120		
Ch romium	ND	mg/L	5.0	100	80	120		
Lead	ND	mg/L	5.0	99.0	80	120		
Selenium	ND	mg/L	1.0	109	80	120		
Silver	ND	mg/L	5.0	106	80	120		

Q	u	al	i	fi	eı	'S

E Estimated value

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

Page 2

Sample Receipt Checklist

Client Name WESTERN REFINING SOL	ıτ			Date Receive	d:	4/16/2009	
Work Order Number 0904230	·)			Received by	: TLS	by: A	A 5
Checklist completed by:			Date	116109		Initials	
Matrix:	Carrier name	<u>UPS</u>	<u> </u>				
Shipping container/cooler in good condition	?	Yes	V	No 🗌	Not Present		
Custody seals intact on shipping container/	cooler?	Yes	V	No 🗆	Not Present	☐ Not Shipp	ed 🗌
Custody seals intact on sample bottles?		Yes		No 🗔	N/A	V	
Chain of custody present?		Yes	V	No 🗆			•
Chain of custody signed when relinquished	and received?	Yes	\checkmark	No 🗌			
Chain of custody agrees with sample labels	97	Yes	\checkmark	No 🗌			
Samples in proper container/bottle?		Yes	V	No 🗌	•		
Sample containers intact?		Yes	V	No 🗌			
Sufficient sample volume for indicated test?	,	Yes	✓	No 🗌			
All samples received within holding time?		Yes	V	No 🗌			
Water - VOA vials have zero headspace?	No VOA vials subr	nilled	V	Yes 🗌	No □		
Water - Preservation labels on bottle and ca	ap match?	Yes		No 🗌	N/A		•
Water - pH acceptable upon receipt?		Yes		No 🗌	N/A 🗹		
Container/Temp Blank temperature?			1°	<6° C Acceptab			
COMMENTS:				If given sufficient	t time to cool.		
·	•						
Client contacted	Date contacted:			Pers	on contacted	·	
Contacted by:	Regarding:						
Somaciau by.							
Comments:							
							
Corrective Action						• • • • • • • • • • • • • • • • • • • •	
-							

Chain-of-Custody Record	Turn-Around Time:	HALL ENVIRONMENTAL
	Project Name:	www.hallenvironmental.com
Mailing Address: #50 CR 4990	Process Fiter Frot 16-2009	4901 Hawkins NE - Albuquerque, NM 87109
Bloomfield, NM 87413	Project #:	
Phone #: 525-6 72- 4/6/		Analysis
email or Fax#: 525-632-39//	Project Manager:	(/\subseteq (\lambda)
ide:		OS'*(
以 Standard □ Level 4 (Full Validation)		(Ge)
Accreditation	Sampler: (Ludy / Cab	108 (C
□ EDD (Type)	Sample apparatus	807 14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		thod thod thoo the tho tho tho tho tho tho tho tho tho tho
Date Time Matrix Sample Request ID	Container Preservative The Type and # Type	BTEX + BTEX + BTEX + BTEX + BY (PI BY
15-09 1050 1950 C-203	401-2010c	×
1 11AM 34 F - 801 - DSL	1-2 place yes	, X
1110AM HERT F-403-Naphha	Pipla ton	X
F-704	1-Ziobe toy	×
5040		
	A	
i i		
of App	Received by: A Date Time	Remarks:
Date: Relinquished by:	Received by Date Time	
If necessary, samples submitted to Hall Environmental may be subc	contracted to other accredited laboratories. This serves as notice of this	If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Thursday, July 18, 2013 2:10 PM

To:

'Krakow, Matt'

Subject:

RE: Request for Disposal Approval - Western Refining Bloomfield Terminal

Matt:

Good afternoon. The OCD just wanted to point out that reactivity reporting units should be in mg/L and not mg/kg. Therefore, the operator shall ensure that the refinery non-exempt oilfield waste is not hazardous based on the conversion stated above.

Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

Office: (505) 476-3490

E-mail: CarlJ.Chavez@State.NM.US

Website: http://www.emnrd.state.nm.us/ocd/

"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the

Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Krakow, Matt [mailto:Matt.Krakow@wnr.com]

Sent: Tuesday, July 16, 2013 4:33 PM

To: Chavez, Carl J, EMNRD

Subject: Request for Disposal Approval - Western Refining Bloomfield Terminal

Carl Chavez,

Western Refining Southwest Inc. – Bloomfield Terminal is requesting approval from Oil Conservation Division to dispose of Crude Tank Seal material and debris at the San Juan County Landfill . I have attached the analytical results for your review. This pursuant to Part 6.B of the facility's discharge permit (GW-001). Waste Management is requesting your approval before they will accept the waste.

THANKS,
MATTHEW KRAKOW
Environmental Coordinator

Western Refining Southwest Inc. 111 County Road 4990

Bloomfield, NM 87413

P: 505-632-4169 F: 505-632-4021

matt.krakow@wnr.com

www.wnr.com

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Thursday, July 18, 2013 2:01 PM

To:

'Krakow, Matt'

Cc:

VonGonten, Glenn, EMNRD

Subject:

RE: Request for Disposal "Crude Tank Seal Material" (Refinery Waste) Approval -

Western Refining Bloomfield Terminal (GW-001)

Mr. Krakow:

Good afternoon. In accordance with New Mexico Oil Conservation Division (OCD) Discharge Permit Section 6(B), and the supporting analytical data, the OCD hereby **approves** of the disposal with the condition that the operator meet the acceptance criteria of the receiving RCRA Solid Waste Disposal Facility with Special Waste Designation.

Applicable Permit (GW-001) Condition:

- **6.** Waste Disposal and Storage: The owner/operator shall dispose of all oil field exempt and non-exempt (non-hazardous) wastes at an OCD permitted or approved facility. Also, the owner/operator shall store waste at the facility in compliance with this section.
- **B.** OCD Part 35 Waste: Pursuant to OCD Part 35 (19.15.35 <u>et seq. NMAC</u>) disposal of certain non-domestic waste without notification to the OCD is allowed at NMED permitted solid waste facilities if the waste stream has been identified in the discharge permit and existing process knowledge of the waste stream does not change. Otherwise, notification and OCD approval are required in advance of disposal.

Please contact me if you have questions. Thank you.

Please be advised that OCD approval of this plan does not relieve the owner/operator of responsibility should their operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

Office: (505) 476-3490

E-mail: CarlJ.Chavez@State.NM.US

Website: http://www.emnrd.state.nm.us/ocd/

"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the

Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Krakow, Matt [mailto:Matt.Krakow@wnr.com]

Sent: Tuesday, July 16, 2013 4:33 PM

To: Chavez, Carl J, EMNRD

Subject: Request for Disposal Approval - Western Refining Bloomfield Terminal

Carl Chavez,

Western Refining Southwest Inc. – Bloomfield Terminal is requesting approval from Oil Conservation Division to dispose of Crude Tank Seal material and debris at the San Juan County Landfill . I have attached the analytical results for your review. This pursuant to Part 6.B of the facility's discharge permit (GW-001). Waste Management is requesting your approval before they will accept the waste.

THANKS, MATTHEW KRAKOW Environmental Coordinator

Western Refining Southwest Inc. 111 County Road 4990 Bloomfield, NM 87413

P: 505-632-4169 F: 505-632-4021

matt.krakow@wnr.com

www.wnr.com

Chavez, Carl J, EMNRD

From: Krakow, Matt <Matt.Krakow@wnr.com>

Sent: Tuesday, July 16, 2013 4:33 PM

To: Chavez, Carl J, EMNRD

Subject: Request for Disposal Approval - Western Refining Bloomfield Terminal

Attachments: TK-31 roof shoe cleaning.pdf

Carl Chavez,

Western Refining Southwest Inc. – Bloomfield Terminal is requesting approval from Oil Conservation Division to dispose of Crude Tank Seal material and debris at the San Juan County Landfill . I have attached the analytical results for your review. This pursuant to Part 6.B of the facility's discharge permit (GW-001). Waste Management is requesting your approval before they will accept the waste.

THANKS,
MATTHEW KRAKOW
Environmental Coordinator

Western Refining Southwest Inc. 111 County Road 4990

Bloomfield, NM 87413

P: 505-632-4169 F: 505-632-4021

matt.krakow@wnr.com

www.wnr.com



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

June 17, 2013

Kelly Robinson
Western Refining Southwest, Inc.
#50 CR 4990

Bloomfield, NM 87413 TEL: (505) 632-4135 FAX (505) 632-3911

RE: TK-31 Roof Shoe Cleaning OrderNo.: 1306082

Dear Kelly Robinson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 6/4/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1306082

Date Reported: 6/17/2013

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Southwest, Inc. Client Sample ID: TK-31 Roof Shoe Cleaning

Project: TK-31 Roof Shoe Cleaning

Collection Date: 6/3/2013 2:30:00 PM

Lab ID: 1306082-001

Matrix: SLUDGE

Received Date: 6/4/2013 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS					Analyst	JME
Diesel Range Organics (DRO)	140000	5000		mg/Kg	500	6/7/2013 3:35:37 PM	7765
Motor Oil Range Organics (MRO)	96000	25000		mg/Kg	500	6/7/2013 3:35:37 PM	7765
Surr: DNOP	0	63-147	s	%REC	500	6/7/2013 3:35:37 PM	7765
EPA METHOD 8015D: GASOLINE RA	NGE					Analyst	NSB
Gasoline Range Organics (GRO)	95	95		mg/Kg	20	6/6/2013 7:48:43 PM	7744
Surr: BFB	107	80-120		%REC	20	6/6/2013 7:48:43 PM	7744
MERCURY, TCLP						Analyst	JLF
Mercury	ND	0.020		mg/L	1	6/14/2013 9:54:41 AM	7903
EPA METHOD 6010B: TCLP METAL	s					Analyst	JLF
Arsenic	ND	5.0		mg/L	1	6/12/2013 4:10:33 PM	7877
Barium	ND	100		mg/L	1	6/12/2013 4:10:33 PM	7877
Cadmium	ND	1.0		mg/L	1	6/12/2013 4:10:33 PM	7877
Chromium	ND	5.0		mg/L	1	6/12/2013 4:10:33 PM	7877
Lead	ND	5.0		mg/L	1	6/12/2013 4:10:33 PM	7877
Selenium	ND	1.0		mg/L	1	6/12/2013 4:10:33 PM	7877
Silver	ND	5.0		mg/L	1	6/12/2013 4:10:33 PM	7877
EPA METHOD 8260B: VOLATILES S	HORT LIST					Analyst	DAM
Benzene	ND	2.4		mg/Kg	50	6/10/2013 8:48:20 PM	7744
Toluene	2.8	2.4		mg/Kg	50	6/10/2013 8:48:20 PM	7744
Ethylbenzene	ND	2.4		mg/Kg	50	6/10/2013 8:48:20 PM	7744
Xylenes, Total	12	4.7		mg/Kg	50	6/10/2013 8:48:20 PM	7744
Surr: 1,2-Dichloroethane-d4	84.7	70-130		%REC	50	6/10/2013 8:48:20 PM	7744
Surr: 4-Bromofluorobenzene	82.6	70-130		%REC	50	6/10/2013 8:48:20 PM	7744
Surr: Dibromofluoromethane	87.0	70-130		%REC	50	6/10/2013 8:48:20 PM	7744
Surr: Toluene-d8	91.7	70-130		%REC	50	6/10/2013 8:48:20 PM	7744

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com 504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:

HALL ENVIRONMENTAL ANALYSIS LAB

Batch #:

130605052

Address:

4901 HAWKINS NE SUITE D

Project Name:

1306082

ALBUQUERQUE, NM 87109 Attn: ANDY FREEMAN

Analytical Results Report

Sample Number

130605052-001

Sampling Date

6/3/2013 Date/Time Received 6/5/2013

12:00 PM

Client Sample ID

1306082-001B / TK-31 ROOF SHOE CLEANING

Sampling Time 2:30 PM

Matrix

Solid

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	0.3	6/11/2013	CRW	SW846 CH7	
Ignitability	Negative			6/11/2013	JWC	EPA 1030	
pΗ	6.21	ph Units		6/6/2013	TLA	EPA 9045	
Reactive sulfide	6.64	mg/kg	1	6/10/2013	AJT	SW846 CH7	
%moisture	10.8	Percent		6/7/2013	TLA	%moisture	

Authorized Signature

John Coddington, Lab Manager

MCL

EPA's Maximum Contaminant Level Not Detected

ND **PQL**

Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.

The results reported relate only to the samples indicated.

Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Lebs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

Thursday, June 13, 2013 Page 1 of 1

Hall Environmental Analysis Laboratory, Inc.

WO#:

1306082

17-Jun-13

Client:

Western Refining Southwest, Inc.

Project:

Surr: DNOP

TK-31 Roof Shoe Cleaning

5.0

3										
Sample ID MB-7765	SampT	ype: M	BLK	Tes	tCode: E	PA Method	8015D: Diese	el Range (Organics	
Client ID: PBS	Batch	h ID: 77	65	F	RunNo: 1	1119				
Prep Date: 6/5/2013	Analysis E)ate: 6	6/2013	8	SeqNo: 3	14628	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		101	63	147			
Sample ID LCS-7765	SampT	ype: LC	s	Tes	tCode: E	PA Method	8015D: Diese	el Range (Organics	
Client ID: LCSS	Batch	n ID: 77	65	F	RunNo: 1	1119				
Prep Date: 6/5/2013	Analysis D)ate: 6	/6/2013	8	SeqNo: 3	14629	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

99.4

63

147

5.000

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Page 2 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#:

1306082 17-Jun-13

Client: Western Refining Southwest, Inc. Project: TK-31 Roof Shoe Cleaning

TestCode: EPA Method 8015D: Gasoline Range Sample ID MB-7744 SampType: MBLK

RunNo: 11113 Client ID: PBS Batch ID: 7744

SeqNo: 314456 Units: mg/Kg Prep Date: Analysis Date: 6/5/2013 6/4/2013

%RPD **RPDLimit** Analyte Result SPK value SPK Ref Val %REC LowLimit HighLimit Qual

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 900 1000 90.4 80 120

Sample ID LCS-7744 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

RunNo: 11113 Client ID: LCSS Batch ID: 7744

SeqNo: 314457 Prep Date: 6/4/2013 Analysis Date: 6/5/2013 Units: mg/Kg

Result SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual Analyte **PQL** LowLimit

Gasoline Range Organics (GRO) 28 62.6 136 5.0 25.00 112 Surr: BFB 970 1000 96.9 80 120

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- RPD outside accepted recovery limits

- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Sample pH greater than 2 for VOA and TOC only.
- Reporting Detection Limit RL

Page 3 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#:

1306082

17-Jun-13

Client:

Western Refining Southwest, Inc.

Project:

TK-31 Roof Shoe Cleaning

Sample ID mb-7744		SampType: MBLK TestCode: EPA Method				8260B: Vola	iles Short	List		
Client ID: PBS	Batcl	h ID: 77	44	F	RunNo: 1	1087				
Prep Date: 6/4/2013	Analysis [Date: 6/	6/2013	\$	SeqNo: 3	14197	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		88.3	70	130			
Surr: 4-Bromofluorobenzene	0.42		0.5000		84.1	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		92.9	70	130			
Surr: Toluene-d8	0.50		0.5000		99.6	70	130			

Sample ID Ics-7744	SampT	ype: LC	S	Tes	tCode: El	PA Method	8260B: Volat	tiles Short	List	
Client ID: LCSS	Batch	n ID: 774	44	F	RunNo: 1	1087				
Prep Date: 6/4/2013	Analysis D	ate: 6/	6/2013	S	SeqNo: 3	14198	Units: mg/K	ζg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	104	70	130			
Toluene	1.1	0.050	1.000	0	115	80	120			
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		91.0	70	130			
Surr: 4-Bromofluorobenzene	0.41		0.5000		81.8	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		93.2	70	130			
Surr: Toluene-d8	0.48		0.5000		95.8	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Page 4 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#:

1306082

17-Jun-13

Client:

Western Refining Southwest, Inc.

Project:

TK-31 Roof Shoe Cleaning

Sample ID MB-7903

SampType: MBLK

TestCode: MERCURY, TCLP

Client ID:

Prep Date:

PBW

Batch ID: 7903

SPK value SPK Ref Val %REC LowLimit

0

RunNo: 11306

Analysis Date: 6/14/2013 6/13/2013

SeqNo: 319406

Units: mg/L

HighLimit

%RPD

%RPD

RPDLimit

RPDLimit Qual

Qual

Analyte Mercury

Mercury

Result **PQL** ND 0.020

ND

Sample ID LCS-7903 Client ID: LCSW

SampType: LCS Batch ID: 7903 TestCode: MERCURY, TCLP RunNo: 11306

99.6

80

Prep Date: 6/13/2013

Analysis Date: 6/14/2013

SeqNo: 319407

Units: mg/L HighLimit

120

Analyte Result SPK value SPK Ref Val %REC 0.020

0.005000

Qualifiers:

Value exceeds Maximum Contaminant Level

E Value above quantitation range

J Analyte detected below quantitation limits

O RSD is greater than RSDlimit

RPD outside accepted recovery limits

Analyte detected in the associated Method Blank В

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Sample pH greater than 2 for VOA and TOC only.

RLReporting Detection Limit Page 5 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#:

1306082

17-Jun-13

Client:

Western Refining Southwest, Inc.

Project:

TK-31 Roof Shoe Cleaning

Sample ID MB-7877	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	6010B: TCLF	Metals		
Client ID: PBW	•	n ID: 78		F	RunNo: 1	1257				
Prep Date: 6/12/2013	Analysis D	ate: 6/	12/2013	S	SeqNo: 3	18098	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								
Selenium	ND	1.0								
Silver	ND	5.0								

Sample ID LCS-7877	Samp1	ype: LC	s	Tes	tCode: El	PA Method	6010B: TCLF	Metals		
Client ID: LCSW	Batcl	h ID: 78	77	F	RunNo: 1	1257				
Prep Date: 6/12/2013	Analysis [Date: 6/	12/2013	8	SeqNo: 3	18099	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	108	80	120			
Barium	ND	100	0.5000	0	95.8	80	120			
Cadmium	ND	1.0	0.5000	0	99.3	80	120			
Chromium	ND	5.0	0.5000	0	95.1	80	120			
Lead	ND	5.0	0.5000	0	93.1	80	120			
Selenium	ND	1.0	0.5000	0	92.0	80	120			
Silver	ND	5.0	0.1000	0	107	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
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- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Page 6 of 6



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87105 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Southw	Work Order Number	: 1306	082			RcptNo:	1
Received by/date:	16/04/13						
Logged By: Michelie Garcia	6/4/2013 9:45:00 AM			Michel	ь Ga	we	
Completed By: Michelle Garcia	5/4/2013 11:43:02 AM	l		Michael	ιCpo	ui.	
Reviewed By:	710/174/13	ζ		•	,		
Chain of Custody	24(21)13						
1. Custody seals intact on sample bottles?		Yes	✓	No		Not Present	
2. Is Chain of Custody complete?		Yes	✓	No [Not Present	
3. How was the sample delivered?		UPS					
<u>Log In</u>							
4. Was an attempt made to cool the samples?		Yes	\checkmark	No		NA 🗆	
5. Were all samples received at a temperature of	of >0° C to 6.0°C	Yes	✓	N o [na 🗆	
6. Sample(s) in proper container(s)?		Yes	\checkmark	No			
7. Sufficient sample volume for indicated test(s)	?	Yes	V	No [
8. Are samples (except VOA and ONG) properly	preserved?	Yes	¥	No {			
9. Was preservative added to bottles?		Yes		No [V	NA 🗆	
10.VOA vials have zero headspace?		Yes		No [No VOA Vials 🗹	
11. Were any sample containers received broker	?	Yes		No		# of preserved	
				[_	bottles checked	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes	$ lap{}$	No [_	for pH: (<2 o	r >12 unless noted)
13. Are matrices correctly identified on Chain of C	ustody?	Yes	V	No [コー	Adjusted?	
14. Is it clear what analyses were requested?		Yes	\checkmark	No [
15. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes	\checkmark	No [Checked by:	
(ii no, nony customer for authorization.)							
<u>Special Handling (if applicable)</u>							
16. Was client notified of all discrepancies with th	is order?	Yes		No [NA 🗹	
Person Notified:	Date:				_] .
By Whom:	Via:	eMa	ii 🔲	Phone 🔲 F	ax	☐ In Person	
Regarding:	and the state of the second state of the second state of the second state of the second secon	2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		tan make the first of the second of			İ
Client Instructions:	The second secon		r heterior des				
17. Additional remarks:							
18. Cooler Information Cooler No Temp °C Condition Sea 1 2.9 Good Yes	Intact Seal No :	Seal Da	te	Signed By			

C	hain-	of-Cu	stody Record	Turn-Around	Γime:			,		_	1 A I		E	NV	/T E	20	a ia	A E	NT	ΑI	
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Mailing	Address	#50	CR 4990	TK-31	Roof Shi	oe Cleaning		490)1 H	awki	ns N	NE -	Alb	uqu	erqu	e, Ni	M 87	109			
Bla	onfie	Id, N	1M 87413 2-4135	Project #:		•		Te	l. 50	5-34	5-39						4107	,			
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Accredi □ NEL		□ Othe	Γ	Sampler: M	AN A-B	Sold Market Street	+ TMB's (8021)	+ TPH (Gas only)	80/1	18.1)	04.1)	8270	ير	O3,NC	s / 80	院	€				o S
	(Type)			Sample de ma			E	띪	<u>o</u>	8	8	0 0	etals	ž	ide	A) E	2	19			اچ
Date	Time	Matrix	Sample Request ID	, spe and "	1,750	A PHEAL NO.	BTEX + MTBE	BTEX + MTBE	TPH 8015B (GRO	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals [C[D	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA) BIEK, only	8270 (Semi-VOA)	RC			Air Bubbles (Y or N)
1-3-13	2:30	Judge	TK-31 Roof Shor Cleaning	1-8000		-001			X				X			X	_	X			
<u> </u>			IF 37 CONT SHOE CLOSING	0															\neg		
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Date: Date:	Time:	Relinquish Relinquish	ent Kralion o	Received by:	2 04	pate Time Date Time	Rer S	nark	s:												

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD

Sent: Tuesday, September 03, 2013 8:20 AM

To: 'Robinson, Kelly'

Subject: RE: Request for Approval - Sandblast Media Waste Disposal

Kelly:

Approved.

Thank you. Have a nice day!

Please be advised that NMOCD approval of this waste disposal request does not relieve Western Refining Southwest, Inc.- Bloomfield Refinery of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Western Refining Southwest, Inc.- Bloomfield Refinery of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

Office: (505) 476-3490

E-mail: CarlJ.Chavez@State.NM.US

Website: http://www.emnrd.state.nm.us/ocd/

"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the

Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Friday, August 30, 2013 11:06 AM

To: Chavez, Carl J, EMNRD

Subject: Request for Approval - Sandblast Media Waste Disposal

Good Morning Sir,

Pursuant to Condition 6.A. of the Bloomfield Terminals Discharge Permit (GW-001) and NMAC 19.15.35.8.C. (n), Western Refining Southwest, Inc. (Western) respectfully requests OCD approval to dispose of sandblast media at the San Juan Regional Landfill. This sandblast waste material was generated as part of preparation for installing a new el Segundo floor in one of the crude tanks at the Bloomfield facility. A copy of the analytical waste characterization results for this waste stream is attached for your review. The analytical results how that the material is non-hazardous and thus meets the criteria stated in NMAC 19.15.35.8.C as sandblast sand.

If you have any questions, please do not hesitate to contact me at your convenience.

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990

1

Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616 (f) 505-632-4024
- (e) kelly.robinson@wnr.com



Report Summary

Client: Western Refining

Chain of Custody Number: 15036

Samples Received: 12-20-12

Job Number: 96012-0115

Sample Number(s): 64027

Project Name/Location: Sand Blast Profile TK #35

Entire Report Reviewed By:

Date: _//3//3

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.



SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:

Western Refining

Project #:

96012-0115

Sample ID:

TK #35

Date Reported:

01-03-13

Lab ID#: Sample Matrix: 64027 Soil Date Sampled:

12-20-12

Preservative:

Cool

Date Received: Date Analyzed: 12-20-12 01-03-13

Condition:

Intact

Chain of Custody:

15036

Parameter

Result

Flash Point

> 95 °C

pН

7.39

Reactivity

Negative

RCRA Hazardous Waste Criteria

Parameter

Hazardous Waste Criterion

IGNITABILITY:

Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. (i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)

CORROSIVITY:

Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22.

(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)

REACTIVITY:

Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. (i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)

Reference:

40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments:

Sand Blast Profile TK #35



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Western Refining	Project #:	96012-0115
Sample ID:	TK #35	Date Reported:	01-03-13
Laboratory Number:	64027	Date Sampled:	12-20-12
Chain of Custody:	15036	Date Received:	12-20-12
Sample Matrix:	Soil	Date Analyzed:	01-02-13
Preservative:	Cool	Date Extracted:	01-02-13
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

		Det.	
	Concentration	Limit	
Parameter	(ug/Kg)	(ug/Kg)	
Benzene	70.4	10.0	
Toluene	143	10.0	
Ethylbenzene	43.4	10.0	
p,m-Xylene	327	10.0	
o-Xylene	77.2	10.0	
Total BTFX	661		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	113 %
	1,4-difluorobenzene	101 %
	Bromochlorobenzene	98.3 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846.

USEPA, December 1996.

Comments: Sand Blast Profile TK #35



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	0102BCA2 QA/QC	Date Reported:	01-03-13
Laboratory Number:	64028	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-02-13
Condition:	N/A	Analysis:	BTEX
		Dilution:	50

Calibration and	I-Cal RF:	C-Cal RF:	%Diff.	Blank	Detect.
Detection Limits (ug/L)	Accept. Range 0-15%			Conc	Limit
Benzene	7.2139E-06	7.2139E-06	0.00	ND	0.2
Toluene	1.4218E-06	1.4218E-06	0.00	ND	0.2
Ethylbenzene	1.9393E-06	1.9393E-06	0.00	ND	0.2
p,m-Xylene	1.9296E-06	1.9296E-06	0.00	ND	0.2
o-Xylene	2.0841E-06	2.0841E-06	0.00	ND	0.2

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit	
Benzene	ND	ND	0.00	0 - 30%	10	
Toluene	ND	ND	0.00	0 - 30%	10	
Ethylbenzene	ND	ND	0.00	0 - 30%	10	
p,m-Xylene	ND	ND	0.00	0 - 30%	10	
o-Xylene	ND	ND	0.00	0 - 30%	10	

Spike Conc. (ug/Kg)	Sample Amo	unt Spiked Spik	ed Sample % F	Recovery	Accept Range
Benzene	ND	2500	2730	109	39 - 150
Toluene	ND	2500	2380	95.2	46 - 148
Ethylbenzene	ND	2500	2250	90.0	32 - 160
p,m-Xylene	ND	5000	4570	91.4	46 - 148
o-Xylene	ND	2500	2340	93.6	46 - 148

ND - Parameter not detected at the stated detection limit.

Dilution: Spike and spiked sample concentration represent a dilution proportional to sample dilution.

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using

Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

QA/QC for Samples 64027-64029



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Western Refining	Project #:	96012-0115
Sample ID:	TK #35	Date Reported:	01-03-13
Laboratory Number:	64027	Date Sampled:	12-20-12
Chain of Custody No:	15036	Date Received:	12-20-12
Sample Matrix:	Soil	Date Extracted:	01-02-13
Preservative:	Cool	Date Analyzed:	01-02-13
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	2.3	0.2
Diesel Range (C10 - C28)	751	0.1
Total Petroleum Hydrocarbons	753	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating

Solid Waste, SW-846, USEPA, December 1996.

Comments: Sand Blast Profile TK #35



EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

N/A **QA/QC** Project #: Client: 01-03-13 0102TCAL QA/QC Date Reported: Sample ID: Date Sampled: N/A Laboratory Number: 64027 Date Received: Sample Matrix: Methylene Chloride N/A

Preservative: N/A Date Analyzed: 01-02-13
Condition: N/A Analysis Requested: TPH

I-Cal Date I-Cal RF: C-Cal RF: % Difference Accept. Range 0 - 15% Gasoline Range C5 - C10 01-02-13 1.0173E+03 1.0177E+03 0.04% 0 - 15% 01-02-13 1.0201E+03 1.0205E+03 0.04% Diesel Range C10 - C28

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	2.3	2.5	8.7%	0 - 30%
Diesel Range C10 - C28	751	809	7.7%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	2.3	250	251	100%	75 - 125%
Diesel Range C10 - C28	751	250	1,040	104%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating

Solid Waste, SW-846, USEPA, December 1996.

Comments:

QA/QC for Samples 64027-64029



EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client:	Western Refining	Project #:	96012-0115
Sample ID:	TK #35	Date Reported:	01-03-13
Laboratory Number:	64027	Date Sampled:	12-20-12
Chain of Custody:	15036	Date Received:	12-20-12
Sample Matrix:	TCLP Extract	Date Analyzed:	01-02-13
Preservative:	Cool	Date Extracted:	01-02-13
Condition:	Intact	Analysis Needed:	TCLP Metals

		Det.	Regulatory
	Concentration	Limit	Level
Parameter	(mg/L)	(mg/L)	(mg/L)
Arsenic	ND	0.001	5.0
Barium	0.847	0.001	100
Cadmium	ND	0.001	1.0
Chromium	ND	0.001	5.0
Lead	0.005	0.001	5.0
Mercury	ND	0.001	0.2
Selenium	ND	0.001	1.0
Silver	ND	0.001	5.0

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA,

December 1996.

Method 3010 Acid Digestion of Aqueous Samples and Extracts for Total

Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission

SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C

section 261.24, August 24, 1998.

Comments: Sand Blast Profile TK #35



EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS Quality Assurance Report

Conc. (mg/L)	Blank	Blank	Limit	.	·	Difference	Range 0% - 30%		
Blank & Duplicate	Instrument	Method	Detection	Dilution Sample	Duplicate		Acceptance		
Condition:		N/A		Date Extrac	cted:	C)1-02-13		
Analysis Requested	d:	TCLP Metals		Date Analy:	zed:	C	01-02-13		
Sample Matrix:		TCLP Extract		Date Recei	ved:	١	N/A		
Laboratory Number	r:	64008		Date Samp	led:	N	I/A		
Sample ID:		01-02 TCM C	QA/QC	Date Repor	ted:	0	01-03-13		
Client:		N/A		Project #:	N	1/A			

Arconio		2.50	0.047	2 20	00 20/		200/ 1200/
Conc. (mg/L)		Added		Sample	Recovery		Range
Spike		Spike	Sample	Spiked	Percent		Acceptance
Silver	ND	ND	0.001	0.004	0.005	23.3%	0% - 30%
Selenium	ND	ND	0.001	ND	ND	0.00%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.00%	0% - 30%
Lead	ND	ND	0.001	ND	ND	0.00%	0% - 30%
Chromium	ND	ND	0.001	0.182	0.180	0.990%	0% - 30%
Cadmium	ND	ND	0.001	0.003	0.004	16.1%	0% - 30%
Dariam	110	110	01001	0.2	0.2.	.01070	070 0070

Conc. (mg/L)	Added	Jampie	Sample	Recovery	Range
Arsenic	2.50	0.047	2.30	90.3%	80% - 120%
Barium	50.0	0.241	42.4	84.4%	80% - 120%
Cadmium	2.50	0.003	2.16	86.3%	80% - 120%
Chromium	5.00	0.182	4.50	86.8%	80% - 120%
Lead	5.00	ND	4.10	81.9%	80% - 120%
Mercury	1.00	ND	0.906	90.6%	80% - 120%
Selenium	1.00	ND	0.887	88.7%	80% - 120%
Silver	1.00	0.004	0.853	84.9%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Method 3010 Acid Digestion of Aqueous Samples and Extracts for Total Metals,

SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission,

SW-846, USEPA, December 1996.

Comments: QA/QC for Sample 64008-64011, 64015, 64027-64028, and 63943

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Chavez, Carl J. EMNRD

From:

Chavez, Carl J, EMNRD.

Sent:

Wednesday, September 12, 2012 2:11 PM

To:

'Robinson, Kelly'

Subject:

RE: Request for Disposal Approval - Western Refining Southwest, Inc. - Sandblast Grit

Kelly:

Approved.

Thank you. Have a nice day!

Please be advised that NMOCD approval of this waste disposal request does not relieve Western Refining Southwest, Inc.-Bloomfield Refinery of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Western Refining Southwest, Inc.-Bloomfield Refinery of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

Office: (505) 476-3490

E-mail: CarlJ.Chavez@State.NM.US

Website: http://www.emnrd.state.nm.us/ocd/

"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the

Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Wednesday, September 12, 2012 11:07 AM

To: Chavez, Carl J, EMNRD

Subject: Request for Disposal Approval - Western Refining Southwest, Inc. - Sandblast Grit

Importance: High

Good Morning Carl,

Western Refining Southwest, Inc.- Bloomfield Refinery (Western) is requesting approval from the Oil Conservation Division (OCD) to dispose of sandblast grit material at the San Juan County Landfill located in Aztec, NM. This request is pursuant to Part 6.B of the facility's Discharge Permit(GW-001). A copy of the waste characterization analytical is attached.

If you have any questions, please feel free to contact me at your convenience.

Thank you for your time, and I hope you have a great week.

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616 (f) 505-632-4024
- (e) kelly.robinson@wnr.com



Report Summary

Client: Western Refining

Chain of Custody Number: 14279

Samples Received: 08-17-12

Job Number: 96012-0115

Sample Number(s): 63018

Project Name/Location: TK 23

Entire Report Reviewed By:

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.



_ Date: _8/28/12



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Western Refining	Project #:	96012-0115
Sample ID:	TK23 Scale	Date Reported:	08-21-12
Laboratory Number:	63018	Date Sampled:	08-16-12
Chain of Custody No:	14279	Date Received:	08-17-12
Sample Matrix:	Soil	Date Extracted:	08-20-12
Preservative:	Cool	Date Analyzed:	08-21-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)	
Gasoline Range (C5 - C10)	ND	0.2	
Diesel Range (C10 - C28)	39.4	0.1	
Total Petroleum Hydrocarbons	39.4		

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, December 1996.

Comments:

TK 23





EPA Method 8015 Modified Nonhalogenated Volatile Organics **Total Petroleum Hydrocarbons**

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	0821TCAL QA/QC	Date Reported:	08-21-12
Laboratory Number:	63034	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-21-12
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date 👈	I-Cal RF:	C-Cal RF: %	Difference)	Accept: Range
Gasoline Range C5 - C10	08-21-12	9.9960E+02	1.0000E+03	0.04%	0 - 15%
Diesel Range C10 - C28	08-21-12	9.9960E+02	1.0000E+03	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept: Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	271	108%	75 - 125%
Diesel Range C10 - C28	ND	250	294	118%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Was

SW-846, USEPA, December 1996.

Comments:

QA/QC for Samples 63013-63014, 63018 and 63033-63038





EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Western Refining	Project #:	96012-0115
Sample ID:	TK23 Scale	Date Reported:	08-21-12
Laboratory Number:	63018	Date Sampled:	08-16-12
Chain of Custody:	14279	Date Received:	08-17-12
Sample Matrix:	Soil	Date Analyzed:	08-21-12
Preservative:	Cool	Date Extracted:	08-20-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

		Det.	
	Concentration	Limit	
Parameter	(ug/Kg)	(ug/Kg)	
	,		
Benzene	ND	10.0	
Toluene	ND	10.0	
Ethylbenzene	. ND	10.0	
p,m-Xylene	ND	10.0	
o-Xylene	ND	10.0	
Total BTEX	ND		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	79.8 %
	1,4-difluorobenzene	88.8 %
	Bromochlorobenzene	100 %

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846.

USEPA, December 1996.

Comments:

TK 23





EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	0821BCAL QA/QC	Date Reported:	08-21-12
Laboratory Number:	63036	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-21-12
Condition:	N/A	Analysis:	BTEX
		Dilution:	50

Calibration and Detection Limits (ug/L	I-Cal RF:	C-Cal RF: Accept Range 0-15%	%Diff.	Blank Conc	Detect:
When the control of t		Accept Range U-15%		est Conicytation	LIIIII
Benzene	7.6729E-06	7.6729E-06	0.000	ND	0.2
Toluene	7.5087E-06	7.5087E-06	0.000	ND	0.2
Ethylbenzene	8.3529E-06	8.3529E-06	0.000	ND	0.2
p,m-Xylene	5.9938E-06	5,9938E-06	0.000	ND	0.2
o-Xylene	8.7761E-06	8.7761E-06	0.000	ND	0.2

Duplicate Conc. (ug/Kg)	Sample : Du	plicate	%Diff.	Accept Range	Detect: Limit
Benzene	ND	ND	0.00	0 - 30%	10
Toluene	ND	ND	0.00	0 - 30%	10
Ethylbenzene	ND	ND	0.00	0 - 30%	10
p,m-Xylene	ND	ND	0.00	0 - 30%	10
o-Xylene	ND	ND	0.00	0 - 30%	10

Spike Conc. (ug/Kg)	Sample Amo	ount Spiked Spik	ked Sample %	Recovery	Accept Range
Benzene	ND	2500	2560	102	39 - 150
Toluene	ND	2500	2480	99.2	46 - 148
Ethylbenzene	ND	2500	2490	100	32 - 160
p,m-Xylene	ND	5000	4850	97.0	46 - 148
o-Xylene	ND	2500	2470	98.8	46 - 148

ND - Parameter not detected at the stated detection limit.

Dilution: Spike and spiked sample concentration represent a dilution proportional to sample dilution.

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using

Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

QA/QC for Samples 63013-63014, 63018 and 63033-63038

Ph (505) 632-0615 Fx (505) 632-1865

5796 US Highway 64, Farmington, NM 87401

Ph (970) 259-0615 Fr (800) 362-1879



EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client:	Western Refining	Project #:	96012-0115
Sample ID:	TK23 Scale	Date Reported:	08-21-12
Laboratory Number:	63018	Date Sampled:	08-16-12
Chain of Custody:	14279	Date Received:	08-17-12
Sample Matrix:	TCLP Extract	Date Analyzed:	08-20-12
Preservative:	Cool	Date Extracted:	08-17-12
Condition:	Intact	Analysis Needed:	TCLP Metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	ND	0.001	5.0
Barium	0.092	0.001	100
Cadmium	ND	0.001	1.0
Chromium	ND	0001	5.0
Lead	ND	0.001	5.0
Mercury	ND	0.001	0.2
Selenium	0.002	0.001	1.0
Silver	ND	0.001	5.0

ND - Parameter not detected at the stated detection limit.

References:

Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA.

December 1996.

Method 3010 Acid Digestion of Aqueous Samples and Extracts for Total

Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission

SW-846, USEPA. December 1996.

Note:

Regulatory Limits based on 40 CFR part 261 subpart C

section 261.24, August 24, 1998.

Comments:

TK23





EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS **Quality Assurance Report**

Client:		N/A		Project #:			N/A		
Sample ID:		08-20 TCM	QA/QC	Date Repo	orted:		08-21-12		
Laboratory Number:		63016		Date Sam	Date Sampled:		N/A		
Sample Matrix:		TCLP Extra	et	Date Rece	eived:		N/A		
Analysis Requested:		TCLP Metal	s	Date Analy	yzed:		08-20-12		
Condition:		N/A		Date Extra			08-17-12		
Blank & Duplicate In Conc. (mg/L)	istrument Blank	Method Blank	Detection Limit	Sample		% Difference	Acceptance Range		
Arsenic	ND	ND	0.001	ND	ND	0.00%	0% - 30%		
Barium	ND	ND	0.001	0.213	0.218	2.49%	0% - 30%		
Cadmium	ND	ND	0.001	ND	ND	0.00%	0% - 30%		
Chromium	ND	ND	0.001	ND	ND	0.00%	0% - 30%		
Lead	ND	ND	0.001	ND	ND	0.00%	0% - 30%		
Mercury	ND	ND	0.001	ND	ND	0.00%	0% - 30%		
Selenium	ND	ND	0.001	ND	ND	0.00%	0% - 30%		
Silver	ND	ND	0.001	ND	ND	0.00%	0% - 30%		
Spike		Spike	Sample .	Spiked			Acceptance		
Conc. (mg/L)		Added		Sample	NOTES OF THE PROPERTY OF THE PROPERTY OF A PARTY OF THE PROPERTY OF THE PARTY OF TH		Range		
Arsenic		0.250	ND	0.256	102%		80% - 120%		
Barium		0.500	0.213	0.640	89.7%		80% - 120%		
Cadmium		0.250	ND	0.251	100%		80% - 120%		
Chromium		0.500	ND	0.477	95.4%		80% - 120%		
Lead		0.500	ND	0.491	98.1%		80% - 120%		
Mercury		0.100	ND	0.086	86.3%		80% - 120%		
Selenium		0.100	ND	0.100	100%		80% - 120%		

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

ND

Method 3010 Acid Digestion of Aqueous Samples and Extracts for Total Metals,

SW-846, USEPA, December 1996.

0.100

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission,

0.093

SW-846, USEPA, December 1996.

Comments: QA/QC for Sample 63016-63018, 62992, and 62985

Silver

92.7%

80% - 120%



SUSPECTED HAZARDOUS **WASTE ANALYSIS**

Client:

Western Refining

96012-0115

Sample ID:

TK23 Scale

Project #:

Lab ID#:

63018

08-27-12

Sample Matrix:

Soil

Date Sampled: 08-16-12

Preservative:

Cool

Date Received:

Date Reported:

08-24-12

Condition:

Intact

Date Analyzed: Chain of Custody: 08-24-12 14279

Parameter

Result

IGNITABILITY:

Negative

CORROSIVITY:

Negative

pH = 7.39

REACTIVITY:

Negative

RCRA Hazardous Waste Criteria

Parameter

Hazardous Waste Criterion

IGNITABILITY:

Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21.

(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)

CORROSIVITY:

Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22.

(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)

REACTIVITY:

Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. (i.e. Violent reaction with water, strong base, strong acid, or the generation

of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)

Reference:

40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments:

TK 23

14279

CHAIN OF CUSTODY RECORD

Client: Western Refi Email results to:	ww	Pro	ject Name / Locat	ion:									A	NAL	YSIS	/ PAI	RAM	ETEF	द्ध			
Email results to:	zwnr.				n				8015)	1 8021)	8260)	S				-			Netal, -			
Client Phone No.: - 505 - 63み - L			ent No.: 96012 -						TPH (Method 8015)	BTEX (Method 8021)	VQC (Method 8260)	RCRA 8 Metals	Cation / Anion		TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE	A8 N		Sample Cool	Sample Intact
Sample No./ Identification	Sample Date	Sample Time	Lab No.		Volume ontainers	Pi HgCl ₂	reserva:	tive	TPH (BTEX	VOC.	RCRA	Cation	RĊI	TCLP	CO Ta	ТРН (CHLO	. RCEAS		Samp	Samp
TK23 Scale	8/16/12	945	430181	4)-	loz Jas				X	X				X					*		7	X
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Relinquished by: (Signature)				<i>Y - 71</i>		Recei	ved b	y: (Si	gnatu	ire)				4								
Sample Matrix Soil Solid Sludge	Aqueous 🗌	Other 🗆																				
☐ Sample(s) dropped off after	hours to sec	ure drop off			en vi	/tica	ıl Lai	bora	tory	•							_			-	1	
5795 US Highway 64	• Farmingto	n, NM 87401	• 505-632-0615 • T	hree Spri	ngs • 65 M	ercad	lo Stre	et, Su	ite 11	15, Dυ	range	o, CC	8130	01 • I	abord	atory	@env	iroted	ch-inc.	com		

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Thursday, August 30, 2012 8:54 AM

To: Cc: 'Robinson, Kelly' Schmaltz, Randy

Subject:

RE: Request for Disposal Approval - Western Refining, Bloomfield Refinery - Sandblast

Grit

Ms. Robinson:

Good morning.

Approved.

We should handle future sandblast material disposal requests similarly. Please contact me if you have questions. Thank you.

Please be advised that OCD approval of this plan does not relieve Western Refining Southwest, Inc. of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Western Refining Southwest, Inc. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

Office: (505) 476-3490

E-mail: CarlJ.Chavez@State.NM.US

Website: http://www.emnrd.state.nm.us/ocd/

"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the

Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Wednesday, August 29, 2012 2:27 PM

To: Chavez, Carl J, EMNRD **Cc:** Schmaltz, Randy

Subject: Request for Disposal Approval - Western Refining, Bloomfield Refinery - Sandblast Grit

Good Afternoon Sir,

As a follow-up to your phone discussion earlier this afternoon, Western Refining Southwest, Inc. – Bloomfield Refinery (Western) is requesting the Oil Conservation Division's approval to dispose of sandblast grit material at the San Juan County Landfill located in Aztec, NM. The waste characterization analytical results for this material is attached for your review. This request is pursuant to Part 6.B of the facility's Discharge Permit (GW-001).

If you have any questions regarding this material, please do not hesitate to contact me at your convenience.

Thank you so much for your time, and I appreciate you taking the time to talk with me earlier today.

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com



Report Summary

Client: Western Refining

Chain of Custody Number: 14089

Samples Received: 08-16-12

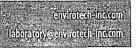
Job Number: 96012-0115

Sample Number(s): 62985

Project Name/Location: Sand Blast Media TK #35

Entire Report Reviewed By:

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.



Date: _8/23/12



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics **Total Petroleum Hydrocarbons**

Client:	Western Refining	Project #:	96012-0115
Sample ID:	TK #35 Scale	Date Reported:	08-17-12
Laboratory Number:	62985	Date Sampled:	08-16-12
Chain of Custody No:	14089	Date Received:	08-16-12
Sample Matrix:	Soil	Date Extracted:	08-16-12
Preservative:	Cool	Date Analyzed:	08-17-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)		
Gasoline Range (C5 - C10)	ND	0.2		
Diesel Range (C10 - C28)	ND	0.1		
Total Petroleum Hydrocarbons	ND			

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, December 1996.

Comments:

Sand Blast Media TK #35





Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	0817TCAL QA/QC	Date Reported:	08-17-12
Laboratory Number:	62977	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-17-12
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	- I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	08-17-12	9.9960E+02	1.0000E+03	0.04%	0 - 15%
Diesel Range C10 - C28	08-17-12	9.9960E+02	1.0000E+03	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1 .
Total Petroleum Hydrocarbons	ND	

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	197	78.7%	75 - 125%
Diesel Range C10 - C28	ND ³	250	213	85.3%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Was

SW-846, USEPA, December 1996.

Comments:

QA/QC for Samples 62985-62987, 62977 and 62992

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS



Client:	Western Refining	Project #:	96012-0115
Sample ID:	TK #35 Scale	Date Reported:	08-17-12
Laboratory Number:	62985	Date Sampled:	08-16-12
Chain of Custody:	14089	Date Received:	08-16-12
Sample Matrix:	Soil	Date Analyzed:	08-17-12
Preservative:	Cool	Date Extracted:	08-16-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

	Dilation.	50
		Det.
	Concentration	Limit
Parameter	(ug/Kg)	(ug/Kg)
Benzene	17.6	10.0
Toluene	69.7	10.0
Ethylbenzene	17.9	10.0
p,m-Xylene	90.3	10.0
o-Xylene	40.9	10.0
Total BTEX	236	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
,	Fluorobenzene	84.0 %
	1,4-difluorobenzene	90.9 %
	Bromochlorobenzene	93.8 %

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846.

USEPA, December 1996.

Comments:

Sand Blast Media TK #35

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS



- Andly	rtical Laborat	orv —							
Glient:	N/A	•			/A				
Sample ID:	0817BCAL QA/Q0		Date Reported:		08-17-12				
Laboratory Number:	62977		Date Sampled:	N/A					
Sample Matrix:	Soil		Date Received:	N/A					
Preservative:	N/A		Date Analyzed:	08-17-12					
Condition:	N/A		Analysis:		TEX				
			Dilution:	50					
Calibration and	I-Cal RF:	C-Cal RF:	%Diff:	Blank	Detect.				
Detection Limits (ug/L	[1] [1] : [1] [2] [2] [4] [4] [4] [4] [4] [4] [4] [4] [4] [4		电影图 家庭医院自己感觉		The rest of the contract of th				
Detection Limits (ug/L		Accept. Range 0-15%		Conc	Limit				
Benzene	1.2207E-05	1.2207E-05	0.000	ND	0.2				
Toluene	8.0323E-06	8.0323E-06	0.000	ND	0.2				
Ethylbenzene	7.6267E-06	7.6267E-06	0.000	ND	0.2				
p,m-Xylene	5.5308E-06	5.5308E-06	0.000	ND	0.2				
o-Xylene	7.7118E-06	7.7118E-06	0.000	ND	0.2				
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit				
Benzene	ND	, ND	0.00	0 - 30%	10				
Toluene	ND	ND	0.00	0 - 30%	10				
Ethylbenzene	ND	ND	0.00	0 - 30%	10				
p,m-Xylene	ND	ND	0.00	0 - 30%	10				
o-Xylene	ND	ND	0.00	0 - 30%	10				
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range				
Benzene	ND	2500	2400	96.0	39 - 150				
Toluene	ND	2500	2450	98.0	46 - 148				
Ethylbenzene	ND	2500	2460	98.4	32 - 160				
.	,,,,	~500		JU. 4	JZ - 100				

ND - Parameter not detected at the stated detection limit.

Dilution: Spike and spiked sample concentration represent a dilution proportional to sample dilution.

ND

ND

References:

p,m-Xylene

o-Xylene

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

5000

2500

4870

2440

97.4

97.6

46 - 148

46 - 148

December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using

Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

QA/QC for Samples 62985-62987, 62977 and 62992



SUSPECTED HAZARDOUS **WASTE ANALYSIS**

Client:

Western Refining

Project #:

96012-0115

Sample ID:

TK #35 Scale

Date Reported:

08-23-12

Lab ID#:

62985

Date Sampled:

08-16-12

Sample Matrix:

Soil

Date Received:

08-16-12

Preservative:

Cool

Date Analyzed:

08-23-12

Condition:

Intact

Chain of Custody:

14089

Parameter

Result

IGNITABILITY:

Negative

CORROSIVITY:

Negative

pH = 4.48

REACTIVITY:

Negative

RCRA Hazardous Waste Criteria

Parameter

Hazardous Waste Criterion

IGNITABILITY:

Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21.

(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)

CORROSIVITY:

Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22.

(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)

REACTIVITY:

Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. (i.e. Violent reaction with water, strong base, strong acid, or the generation

of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)

Reference:

40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments:

Sand Blast Media TK #35



EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client:	Western Refining	Project #:	96012-0115
Sample ID:	TK#35 Scale	Date Reported:	08-21-12
Laboratory Number:	62985	Date Sampled:	08-16-12
Chain of Custody:	14089	Date Received:	08-16-12
Sample Matrix:	TCLP Extract	Date Analyzed:	08-20-12
Preservative:	Cool	Date Extracted:	08-17-12
Condition:	Intact	Analysis Needed:	TCLP Metals

		Det.	Regulatory
	Concentration	Limit	· Level
Parameter	(mg/L)	(mg/L)	(mg/L)
Arsenic	0.005	0.001	5.0
Barium	0.010	0.001	100
Cadmium	0.008	0.001	1.0
Chromium	0.734	0.001	5.0
Lead	0.001	0.001	5.0
Mercury	ND	0.001	0.2
Selenium	ND	0.001	1.0
Silver	ND	0.001	5.0

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA,

December 1996.

Method 3010 Acid Digestion of Aqueous Samples and Extracts for Total

Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission

SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C

section 261.24, August 24, 1998.

Comments: Sand Blast Media TK#35



EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS **Quality Assurance Report**

" . 											
Client:		N/A		Project #:		N/A					
Sample ID:		08-20 TCM	QA/QC	Date Report	ed:	0	08-21-12				
Laboratory Number:		63016		Date Sampl	ed:	N	N/A				
Sample Matrix:		TCLP Extrac	:t	Date Receiv	red:	N	N/A				
Analysis Requested:		TCLP Metals	3	Date Analyz	ed:	08-20-12					
Condition:		N/A		Date Extrac	ted:	0	8-17-12				
Blank & Duplicate In		Method	Detection	Sample	Duplicate		Acceptance				
Conc. (mg/L)	Blank	Blank	Limit			Difference	Range				
Arsenic	ND	ND	0.001	ND	ND	0.00%	0% - 30%				
Barium	ND	ND	0.001	0.213	0.218	2.49%	0% - 30%				
Cadmium	ND	ND	0.001	ND	ND	0.00%	0% - 30%				
Chromium	ND	ND	0.001	ND	ND	0.00%	0% - 30%				
Lead	ND	ND	0.001	ND	ND	0.00%	0% - 30%				
Mercury	ND	ND	0.001	ND	ND	0.00%	0% - 30%				
Selenium	ND	ND	0.001	ND	ND	0.00%	0% - 30%				
Silver	ND	ND	0.001	ND	ND	0.00%	0% - 30%				
Spike Conc. (mg/L)		Spike Added	Sample	Spiked Sample	Percent Recovery		Acceptance Range				
Arsenic		0.250	ND	0.256	102%		80% - 120%				
Barium		0.500	0.213	0.640	89.7%		80% - 120%				
Cadmium		0.250	ND	0.251	100%		80% - 120%				
Chromium		0.500	ND	0.477	95.4%		80% - 120%				
Lead		0.500	ND	0.491	98.1%		80% - 120%				
Mercury		0.100	ND	0.086	86.3%		80% - 120%				
Selenium		0.100	ND	0.100	100%		80% - 120%				
Silver		0.100	ND	0.093	92.7%		80% - 120%				

ND - Parameter not detected at the stated detection limit.

References:

Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Method 3010 Acid Digestion of Aqueous Samples and Extracts for Total Metals,

SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission,

SW-846, USEPA, December 1996.

Comments:

QA/QC for Sample 63016-63018, 62992, and 62985

Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301

14089

CHAIN OF CUSTODY RECORD

Client: Preject Name / Location Western Refining Email results to: Sampler Name: Project Name / Location Kelly Robinson Burr Corn SAND BLAST					MION: Surple Nine ANALYSIS / PARAMETERS																	
Email results to:	1101709	· Sa	Bob Krakow ampler Name: Project Name						£		F	7			T	T				T	T	
Kelly Robinson @wv	m.con	<u>- \ </u>	PAND BLAST	BLAST Media TK#35					3015	802	8260	s TC			_	-						
Client Phone No:				012-0115				TPH (Method 8015)	BTEX (Method 8021)	Method	RCRA 8 Metals TC	/ Anion		TCLP with H/P	CO Table 910-1	118.1)	RIDE			e Cool	Sample Intact	
Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers		-	eservat HCI	ive	ТРН (Л	втех	voc (RCRA	Cation	RCI	TCLP	со Та	TPH (418.1)	CHLORIDE			Sample	Sampl
TK#35 scale	8-16-12	430	62985	2-80	JARS				X	X		X		X							Y	у
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Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD

Sent: Tuesday, August 21, 2012 2:52 PM

To: Robinson, Kelly (Kelly.Robinson@wnr.com)

Subject: FW: Request for Disposal Approval - Crude solids from Bloomfield Refinery

Kelly:

Re: Bloomfield Refinery is scheduled to clean-out the on-site heater treator vessel. This vessel uses steam to knock-out excess water from unrefined crude that is brought into the facility via tanker trucks. There are no chemicals introduced into this process. Over time, it is possible that grit and/or heavy crude solids have collected in the bottom of the heater treater. Western would like permission to dispose of this crude material off-site at an OCD Permitted facility in New Mexico. Since the waste material generated from a heater treater clean-out is crude, Western believes that this waste would qualify as a RCRA exempt material.

Good afternoon. The waste stream described above appears to be a liquid waste for disposal and not land treatment, and is defined under the exempt oilfield waste categories as: Accumulated material, i.e., hydrocarbon, solids and emulsion from product separator, fluid treating vessels and product impoundments; and/or liquid hydrocarbon removed from production water before injection or disposal.

While the waste generated is an "oilfield exempt waste" that was not listed in the discharge permit as a certain waste stream type, but it is liquid and still must be tested for disposal under Rule 35.8(D)(3). Therefore, it would seem that land treatment cannot be applied with testing under Rule 35.8(D)(2) (see regulation below). Rule 35.8(B)(1) still requires testing for disposal at a Solid Waste Facility. OCD would consider the test results and approval of a disposal facility at that time.

The OCD has land treatment regulations for treatment facilities like EnviroTech with minimum acceptance criteria, which would likely require additional testing, i.e., chlorides, to determine if the waste liquid stream could be accepted by EnviroTech. I would consult with EnviroTech on the practice of mixing liquid wastes that exceed the above specified testing criteria with clean soils to land treat at their facility.

Please contact me to discuss further or if you have questions.

19.15.35.8 DISPOSAL OF CERTAIN NON-DOMESTIC WASTE AT SOLID WASTE FACILITIES:

- A. A person may dispose of certain non-domestic waste arising from the exploration, development, production or storage of oil or gas; certain non-domestic waste arising from the oil field service industry; and certain non-domestic waste arising from oil or gas' transportation, treatment or refinement at a solid waste facility in accordance with 19.15.35.8 NMAC.
 - B. Procedure.
- (1) A person may dispose of waste listed in Paragraph (1) of Subsection D of 19:15:35.8 NMAC at a solid waste facility without the division's prior written authorization.
- (2) A person may dispose of waste listed in Paragraph (2) of Subsection D of 19.15.35.8 NMAC at a solid waste facility after testing and the division's prior written authorization. Before the division grants authorization, the applicant for the authorization shall provide copies of test results to the division and to the solid waste facility where the applicant will dispose of the waste. In appropriate cases and so long as a representative sample is tested, the division may authorize disposal of a waste stream listed in Paragraph (2) of Subsection D of 19.15.35.8 NMAC without individual testing of each delivery.
- (3) A person may dispose of waste listed in Paragraph (3) of Subsection D of 19.15.35.8 NMAC at a solid waste facility on a case- by-case basis after testing the division may require and the division's prior written authorization. Before the division grants authorization, the applicant for the authorization shall provide copies of test results to the division and to the solid waste facility where it will dispose of the waste.
- (4) Simplified procedure for holders of discharge plans. Holders of an approved discharge plan may amend the discharge plan to provide for disposal of waste listed in Paragraph (2) of Subsection D of 19.15.35.8 NMAC and, as applicable, Paragraph (3) of Subsection D of

19.15.35.8 NMAC. If the division approves the amendment to the discharge plan, the holder may dispose of wastes listed in Paragraphs (2) and (3)

of Subsection D of 19.15.35.8 NMAC at a solid waste facility without obtaining the division's prior written authorization.

- **C.** The following provisions apply to the types of waste described below as specified.
 - (1) The person disposing of the waste does not have to test the following waste before disposal:
 - (a) barrels, drums, five-gallon buckets or one-gallon containers so long as they are empty and EPA-clean;
 - (b) uncontaminated brush and vegetation arising from clearing operations;
 - (c) uncontaminated concrete:
 - (d) uncontaminated construction debris:
- (e) non-friable asbestos and asbestos contaminated waste material, so long as the disposal complies with applicable federal regulations and state rules for non-friable asbestos materials and so long as the facility operator removes the asbestos from steel pipes and boilers and, if applicable, recycles the steel;
 - (f) detergent buckets, so long as the buckets are completely empty;
 - (g) fiberglass tanks so long as the tank is empty, cut up or shredded and EPA clean;
 - (h) grease buckets, so long as empty and EPA clean;
 - (i) uncontaminated ferrous sulfate or elemental sulfur so long as recovery and sale as a raw material is not possible;
 - (j) metal plate and metal cable;
 - (k) office trash;
 - (I) paper and paper bags, so long as the paper bags are empty;
 - (m) plastic pit liners, so long as the person cleans them well;
 - (n) soiled rags or gloves, which if wet pass the paint filter test prior to disposal; or
 - (o) uncontaminated wood pallets.
 - (2) The person disposing of the waste shall test the following wastes for the substances indicated prior to disposal:
 - (a) activated alumina for TPH and BTEX;
 - (b) activated carbon for TPH and BTEX;
 - (c) amine filters, which the facility operator air-dries for at least 48 hours before testing, for BTEX;
 - (d) friable asbestos and asbestos-contaminated waste material, which the facility operator removes asbestos from steel pipes

and boilers and, if applicable, recycles the steel before disposal, where the disposal otherwise complies with applicable federal regulations and state rules for friable asbestos materials pursuant to NESHAP;

(e) cooling tower filters, which the facility operator drains and then air-dries for at least 48 hours before testing, for

TCLP/chromium;

- (f) dehydration filter media, which the facility operator drains and then air-dries for at least 48 hours before testing, for TPH and BTEX:
- (g) gas condensate filters, which the facility operator drains and then air-dries for at least 48 hours before testing, for BTEX;
- (h) glycol filters, which the facility operator drains and then air-dries for at least 48 hours before testing, for BTEX;
- (i) iron sponge, which the facility operator oxidizes completely, for ignitability testing;
- (j) junked pipes, valves and metal pipe for NORM;
- (k) molecular sieves, which the facility operator cools in a non-hydrocarbon inert atmosphere and hydrates in ambient air for at

least 24 hours before testing, for TPH and BTEX;

- (I) pipe scale and other deposits removed from pipeline and equipment for TPH, TCLP/metals and NORM;
- (m) produced water filters, which the facility operator drains and then air-dries for at least 48 hours before testing, for corrosivity;
- (n) sandblasting sand for TCLP/metals or, if the division requires, TCLP/total metals; or
- (o) waste oil filters, which the facility operator drains thoroughly of oil at least 24 hours before testing and recycles the oil and metal parts, for TCLP/metals.
- (3) A person may dispose of the following wastes on a case-by-case basis with the division's approval:
 - (a) sulfur

contaminated

soil;

- (b) catalysts;
- (c) contaminated soil other than petroleum contaminated soil;
- (d) petroleum contaminated soil in the event of a director-declared emergency;
- (e) contaminated concrete;

- (f) demolition debris not otherwise specified in 19.15.35.8 NMAC;
- (g) unused dry chemicals; in addition to testing the division requires, the person applying for division approval shall forward a copy of the material safety data sheet to the division and the solid waste facility on each chemical proposed for disposal;
- (h) contaminated ferrous sulfate or elemental sulfur;
- (i) unused pipe dope;
- (j) support balls;
- (k) tower packing materials;
- (I) contaminated wood pallets;
- (m) partial sacks of unused drilling mud; in addition to testing the division requires, the person applying for division approval shall forward a copy of the material safety data sheet to division and the solid waste facility at which the it will dispose of the partial sacks; or
- (n) other wastes as applicable.
- **D.** Testing.

(1) The person applying for division approval to dispose of waste in a solid waste facility shall conduct testing required by

NMAC according to the Test Methods for Evaluating Solid Waste, EPA No. SW-846 and shall direct questions concerning the standards or a particular testing facility to the division.

- (2) The testing facility shall conduct testing according to the test method listed:
 - (a) TPH: EPA method 418.1 or 8015 (DRO and GRO only) or an alternative, division-approved hydrocarbon analysis;
 - (b) TCLP: EPA Method 1311 or an alternative hazardous constituent analysis approved by the division;
 - (c) paint filter test: EPA

Method 9095A;

(d) ignitability test: EPA

Method 1030;

(e) corrosivity: EPA Method

1110;

- (f) reactivity: test procedures and standards the division establishes on a case-by-case basis; and
- (g) NORM. 20.3.14 NMAC.
- (3) To be eligible for disposal pursuant to 19:15:35.8 NMAC; the concentration of substances the testing facility identifies during testing shall not exceed the following limits:
 - (a) benzene: 9.99 mg/kg;
 - (b) BTEX: 499.99 mg/kg (sum of all);
 - (c) TPH: 1000 mg/kg;
 - (d) hazardous air pollutants: the standards set forth in NESHAP; and
 - (e) TCLP:
 - (i) arsenic: 5 mg/l,
 - (ii) barium:

100 mg/l,

- (iii) cadmiu
- m: 1 mg/l,
- (iv) chromiu
- m: 5 mg/l,
- (v) lead: 5

mg/l,

- (vi) mercury: 0.2 mg/l,
- (vii) selenium: 1 mg/l, and
- (viii) silver: 5 mg/l.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

Office: (505) 476-3490

E-mail: CarlJ.Chavez@State.NM.US

Website: http://www.emnrd.state.nm.us/ocd/

"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Tuesday, August 21, 2012 1:40 PM

To: Chavez, Carl J, EMNRD **Cc:** Schmaltz, Randy

Subject: Request for Disposal Approval - Crude solids from Bloomfield Refinery

Good Morning Sir,

Over the course of the next couple weeks, Western Refining Southwest, Inc. – Bloomfield Refinery is scheduled to clean-out the on-site heater treater vessel. This vessel uses steam to knock-out excess water from unrefined crude that is brought into the facility via tanker trucks. There are no chemicals introduced into this process. Over time, it is possible that grit and/or heavy crude solids have collected in the bottom of the heater treater. Western would like permission to dispose of this crude material off-site at an OCD Permitted facility in New Mexico. Since the waste material generated from a heater treater clean-out is crude, Western believes that this waste would qualify as a RCRA exempt material.

Since this type of waste stream is not generated routinely at the Bloomfield Facility, it was not included in the current Discharge Permit Application and therefore is not one of the OCD pre-approved waste streams. Therefore, off-site disposal of the anticipated crude waste from the heater treater turnaround requires OCD approval.

If you have any questions, please let me know at your convenience.

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Tuesday, August 21, 2012 7:00 AM

To: Cc: 'Robinson, Kelly' Schmaltz, Randy

Subject:

RE: Western Refining Southwest, Inc. - Bloomfield Refinery - Request for Disposal

(GW-001)

Kelly:

The New Mexico Oil Conservation Division hereby approved the disposal of sandblast media at the nearby NMED Solid Waste Disposal Facility.

Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

Office: (505) 476-3490

E-mail: CarlJ.Chavez@State.NM.US

Website: http://www.emnrd.state.nm.us/ocd/

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Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Friday, August 17, 2012 9:59 AM

To: Chavez, Carl J, EMNRD **Cc:** Schmaltz, Randy

Subject: RE: Western Refining Southwest, Inc. - Bloomfield Refinery - Request for Disposal

Importance: High

Good Morning Sir,

I left you a message on your voice-mail, but thought that it may be easier for I better explained myself on "paper."

The waste facility for the sandblast media is an NMED Permitted facility through the Solid Waste Bureau Department. The facility has provided me preliminary approval for acceptance on the waste; however that approval is contingent on Western providing Waste Management documentation that OCD also approves of disposal of this material at their landfill. Waste Management cites that their need for OCD approval is to ensure that they would not be accepting any type of waste that would be considered unacceptable by OCD. They site regulation 19.15.35.8 NMAC within which it does identify sandblasting sand as an acceptable non-domestic waste pending specific analytical (which was provided earlier). In addition, Waste Management did state that their DMP for their facility indicates sand blast grit as a NM Special Waste and therefore they manage it as such.

With this said, if the disposal facility does not have any reservation in accepting of this material based on the analytical earlier provided, would OCD have any objection of Western disposing of this material at the Waste Management facility?

Sir, I apologize for taking up so much of your time, and I promise to do what I can to make any future requests less complicated for everyone involved.

Sincerely,

Kelly R. Robinson
Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

(o) 505-632-4166

(c) 505-801-5616

(f) 505-632-4024

(e) kelly.robinson@wnr.com

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Thursday, August 16, 2012 4:51 PM

To: Robinson, Kelly **Cc:** Schmaltz, Randy

Subject: RE: Western Refining Southwest, Inc. - Bloomfield Refinery - Request for Disposal

Kelly:

Good afternoon.

I think the dilemma we face has to do with the regulated facility receiving the waste.

If the waste is in the OCD Discharge Permit, no permission is needed from the OCD for waste going to an OCD permitted treatment/disposal facility. However, when the waste is to go to a non-OCD permitted facility, the operator must contact that facility for permission and any criteria required for treatment or disposal. To my knowledge, RCRA facilities will only accept OCD type "Special Waste" if it has that certification and typically only chloride and/or petroleum hydrocarbon contaminated oilfield "special waste".

Consequently, your waste is not even "special waste" to the RCRA facility. Please contact the RCRA facility to check to see if they will accept the waste. Sandblast waste may be a RCRA waste they will accept.

Call me tomorrow if you have questions or for further communication on this. Thanks.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

Office: (505) 476-3490

E-mail: CarlJ.Chavez@State.NM.US

Website: http://www.emnrd.state.nm.us/ocd/

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Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Thursday, August 16, 2012 3:24 PM

To: Chavez, Carl J, EMNRD **Cc:** Schmaltz, Randy

Subject: Western Refining Southwest, Inc. - Bloomfield Refinery - Request for Disposal

Importance: High

Good Afternoon Sir,

Western Refining Southwest, Inc. – Bloomfield Refinery (Western) recently completed sandblasting activities that were conducted on Tank 12 in preparation for conducting an internal tank inspection. Following completion of sandblasting activities on Tank 12, approximately 20 cubic yards of sandblast waste material was generated. This waste is very similar to the waste OCD approved on January 10, 2012 with the exception that the media in January of this year was generated from sandblasting the inside shell of a different tank although the service of the tank was the same.

Please find attached the analytical results of a composite sample collected of the sandblast waste material.

- TPH-DRO and GRO
- Total Benzene, Toluene, Ethlylbenzene, and Xylenes
- TCLP RCRA 8 Metals
- Reactivity, Corrosively, and Ignitability

The analytical results indicate that the sandblast media is <u>non-hazardous</u>. Since this type of waste stream was not included in the facility's approved Discharge Plan, Western respectfully requests approval from the New Mexico Oil Conservation Division (OCD) to dispose of the sandblast media waste at the San Juan County Landfill located at #78 Road 3140 in Aztec, New Mexico. This landfill is operated by Waste Management.

If there are any questions on this topic, please feel free to contact me at your convenience. As always, I very much appreciate your time and consideration in this matter.

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com

Chavez, Carl J. EMNRD

From:

Chavez, Carl J. EMNRD

Sent:

Wednesday, August 15, 2012 7:42 AM

To:

'Robinson, Kelly'

Cc:

Schmaltz, Randy; VanHorn, Kristen, NMENV

Subject:

RE: Western Refining Southwest, Inc. - Bloomfield Refinery - Request for Disposal

Approval

Kelly:

Good morning.

The OCD notices that this is a small volume of RCRA derived waste from a RCRA investigation, which is not a listed OCD waste stream under the OCD discharge permit and likely reason you are contacting the OCD for approval. OCD recommends that you contact a RCRA Landfill for disposal criteria and acceptance of the RCRA derived waste.

Since the analytical data has not identified petroleum hydrocarbon contaminated soils or cuttings are present, the request for land treatment at an OCD permitted land treatment facility does not appear to be applicable. The elevated reactive sulfide may require disposal at a RCRA disposal facility.

OCD General Comments on the Analytical Data Submittal:

- 1) BTEX is not present and TPH (DRO/GRO) is negligible to dispose at an OCD permitted landfarm. OCD landfarms have Chloride limits based on the depth to water table at the land treatment facility and Chlorides were not analyzed.
- 2) Hall Environmental Laboratory QA/QC: LCS spikes for Mercury do not appear to meet QA/QC because the PQL and ND are much higher than the spiked sample concentration with percent recovery that does not appear to be accurate. The same for metals QA/QC.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

Office: (505) 476-3490

E-mail: CarlJ.Chavez@State.NM.US

Website: http://www.emnrd.state.nm.us/ocd/

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Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Tuesday, August 14, 2012 3:56 PM

To: Chavez, Carl J, EMNRD

Cc: Schmaltz, Randy

Subject: Western Refining Southwest, Inc. - Bloomfield Refinery - Request for Disposal Approval

Good Afternoon Sir!

Western Refining Southwest, Inc. – Bloomfield Refinery respectfully requests OCD's consideration and approval to dispose of approximately one cubic yard of soil cutting generated during recent RCRA Investigation activities conducted at the Bloomfield Refinery. One composite waste characterization sample was collected and submitted to the laboratory for analysis. The sample was analyzed for the following:

- BTEX by EPA Method 8021B
- TCLP RCRA 8 Metals by EPA Method 6010B
- Reactivity, Ignitability, Corrosivity
- TPH-DRO and GRO

Pending OCD approval, Western will be requesting Envirotech's acceptance of this waste at their land farm in Hill Top, New Mexico.

If you have any questions or need any additional information, please feel free to contact me at your convenience. Thank you so much for your time, and I hope you have a wonderful evening!

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com

Chavez, Carl J, EMNRD

From:

Robinson, Kelly < Kelly. Robinson@wnr.com>

Sent:

Tuesday, August 14, 2012 3:56 PM

To:

Chavez, Carl J, EMNRD

Cc:

Schmaltz, Randy

Subject:

Western Refining Southwest, Inc. - Bloomfield Refinery - Request for Disposal Approval

Attachments:

Rpt_1205797_v1.pdf; Western Refining Southwest- Bloomfield Refinery.pdf

Good Afternoon Sir!

Western Refining Southwest, Inc. – Bloomfield Refinery respectfully requests OCD's consideration and approval to dispose of approximately one cubic yard of soil cutting generated during recent RCRA Investigation activities conducted at the Bloomfield Refinery. One composite waste characterization sample was collected and submitted to the laboratory for analysis. The sample was analyzed for the following:

- BTEX by EPA Method 8021B
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- Reactivity, Ignitability, Corrosivity
- TPH-DRO and GRO

Pending OCD approval, Western will be requesting Envirotech's acceptance of this waste at their land farm in Hill Top, New Mexico.

If you have any questions or need any additional information, please feel free to contact me at your convenience. Thank you so much for your time, and I hope you have a wonderful evening!

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (0) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

June 05, 2012

Bob Krakow

Western Refining Southwest, Inc.

#50 CR 4990

Bloomfield, NM 87413

TEL: (505) 632-4135

FAX (505) 632-3911

RE: Drill Cuttings 5-16-12

OrderNo.: 1205797

Dear Bob Krakow:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/17/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1205797

Date Reported: 6/5/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Matrix: SOIL

Client Sample ID: Group 6+8

Project: Lab ID: Drill Cuttings 5-16-12

1205797-001

Collection Date: 5/16/2012 1:15:00 PM

Received Date: 5/17/2012 10:15:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.049	mg/Kg	1	5/23/2012 2:59:18 AM
Toluene	ND	0.049	mg/Kg	1	5/23/2012 2:59:18 AM
Ethylbenzene	ND	0.049	mg/Kg	1	5/23/2012 2:59:18 AM
Xylenes, Total	ND	0.098	mg/Kg	1	5/23/2012 2:59:18 AM
Surr: 4-Bromofluorobenzene	84.1	80-120	%REC	1	5/23/2012 2:59:18 AM
MERCURY, TCLP					Analyst: IDC
Mercury	ND	0.020	mg/L	1	5/22/2012 3:32:25 PM
EPA METHOD 6010B: TCLP METALS					Analyst: JLF
Arsenic	ND	5.0	mg/L	1	5/23/2012 11:12:54 AM
Barium	ND	100	mg/L	1	5/23/2012 11:12:54 AM
Cadmium	ND	1.0	mg/L	1	5/23/2012 11:12:54 AM
Chromium	ND	5.0	mg/L	1	5/23/2012 11:12:54 AM
Lead	ND	5.0	mg/L	1	5/23/2012 11:12:54 AM
Selenium	ND	1.0	mg/L	1	5/23/2012 11:12:54 AM
Silver	ND	5.0	mg/L	1	5/23/2012 11:12:54 AM

Qualifiers:

*/X Value exceeds Maximum Contaminant Level.

Е Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

Spike Recovery outside accepted recovery limits

В Analyte detected in the associated Method Blank

Η Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Reporting Detection Limit

Page 1 of 4

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com 504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:

HALL ENVIRONMENTAL ANALYSIS LAB

Batch #:

120522049

Address:

4901 HAWKINS NE SUITE D

Project Name:

1205797

ALBUQUERQUE, NM 87109

Attn:

ANDY FREEMAN

Analytical Results Report

Sample Number

120522049-001

Sampling Date

5/16/2012

Date/Time Received 5/

5/22/2012 1:00 PM

Client Sample ID

1205797-001B / GROUP 6+8

Sampling Time

1:15 PM

Matrix

Soil

Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	6/4/2012	CRW	SW846 CH7	
Ignitability	Negative			5/24/2012	JWC	EPA 1030	
pН	7.55	ph Units		5/30/2012	ETL	EPA 9045	
Reactive sulfide	524	mg/kg	200	6/4/2012	JTT	SW846 CH7	
%moisture	8.5	Percent		5/31/2012	CRW	%moisture	

Authorized Signature

John Coddington, Lab Manager

MCL

EPA's Maximum Contaminant Level

ND PQL Not Detected Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.

The results reported relate only to the samples indicated.

Soil/solid results are reported on a dry-weight basis unless otherwise noted.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1205797

05-Jun-12

Client:

Western Refining Southwest, Inc.

Project:

Drill Cuttings 5-16-12

Sample ID MB-2011	BLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batc	n ID: 20	11	F	RunNo: 2	921	•			
Prep Date: 5/18/2012	Analysis E)ate: 5/	21/2012	S	SeqNo: 8	1658	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050							,	
Toluene	ND	0.050								
Ethylbenzene	· ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.85		1.000		84.9	80	120			

Sample ID LCS-2011	s	TestCode: EPA Method 8021B: Volatiles									
Client ID: LCSS	Batcl	h-ID: 20	11	RunNo: 2921							
Prep Date: 5/18/2012	Analysis Date: 5/22/2012			S	SeqNo: 81659			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.83	0.050	1.000	0	82.6	83.3	107			S	
Toluene	0.87	0.050	1.000	0	86.6	74.3	115				
Ethylbenzene	0.85	0.050	1.000	0	85.2	80.9	122				
Xylenes, Total	2.6	0.10	3.000	0	85.4	85.2	123				
Surr: 4-Bromofluorobenzene	0.88		1.000		88.0	80	120				

Qualifiers:

R RPD outside accepted recovery limits

RL Reporting Detection Limit

Page 2 of 4

^{*/}X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

I Analyte detected below quantitation limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1205797

05-Jun-12

Client:

Western Refining Southwest, Inc.

Project:

Drill Cuttings 5-16-12

Sample ID MB-2065

SampType: mblk

TestCode: MERCURY, TCLP

TestCode: MERCURY, TCLP

Client ID: **PBW**

Batch ID: 2065

RunNo: 2954

Prep Date: 5/22/2012

Analysis Date: 5/22/2012

Result

SeqNo: 82002

Units: mg/L HighLimit

%RPD **RPDLimit**

Qual

Analyte Mercury

Result PQL SPK value SPK Ref Val %REC LowLimit ND 0.020

Client ID:

LCSW

SampType: Ics Batch ID: 2065

RunNo: 2954

Prep Date: 5/22/2012

Sample ID LCS-2065

Analysis Date: 5/22/2012

SeqNo: 82003

Units: mg/L HighLimit

%RPD **RPDLimit**

Analyte Mercury

Qual

PQL SPK value SPK Ref Val %REC 0.020

120

ND 0.005000 101

Qualifiers:

Value exceeds Maximum Contaminant Level.

Value above quantitation range E

J Analyte detected below quantitation limits

RPD outside accepted recovery limits R

Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit Reporting Detection Limit

Page 3 of 4

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1205797 *05-Jun-12*

Client:

Western Refining Southwest, Inc.

Project:

Drill Cuttings 5-16-12

Sample ID MB-2061 SampType: MBLK Client ID: PBW Batch ID: 2061				TestCode: EPA Method 6010B; TCLP Metals RunNo: 2973						
Prep Date: 5/22/2012	Analysis D				SeqNo: 8		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								
Selenium	ND	1.0								
Silver	ND	5.0								

Sample ID LCS-2061	SampT	ype: LC	s	Tes	tCode: El	PA Method	6010B: TCL	P Metals		
Client ID: LCSW	Batch	Batch ID: 2061 Analysis Date: 5/23/2012			RunNo: 2	973				
Prep Date: 5/22/2012	Analysis D				SeqNo: 82597			•		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	96.0	80	120			
Barium	ND	100	0.5000	0	83.9	80	120			
Cadmium	ND	1.0	0.5000	0	87.2	80	120			
Chromium	ND	5.0	0.5000	0.001050	84.9	80	120			
Lead	ND	5.0	0.5000	0.002200	82.4	80	120			
Selenium	ND	1.0	0.5000	0	81.6	80	120			
Silver	ND	5.0	0.1000	0.0004000	88.0	80	120			

Qualifiers:

RL Reporting Detection Limit

^{*/}X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

Analyte detected below quantitation limits

R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87105

TEL: 505-345-3975 FAX: 505-345-410; Website: www.hallenvironmental.com

Sample Log-In Check List

Client N	lame:	Western Re	efining Southwes	st, Inc Bloomfield	Work On	der Nur	nber: 1	1205797		
Receive	ed by/date:	:		05/17/12						,
Logged	Ву:	Lindsay Ma	angin	5/17/2012 10:15:0	00 AM		0	y Hlygo		
Complet	eted By:	Lindsay Ma	ingin	5/18/2012 9:26:23	AM		4	ymys yllygo		
Reviewe	ed By: .	1728		05/18/12			V			
Chain e	of Custo	ody								
1. We	ere seals ir	ntact?			Yes	□ N	。	Not Present		
2. Is C	Chain of C	ustody comp	lete?		Yes	☑ N	• 	Not Present		
3. Hov	w was the	sample deliv	/ered?		<u>UPS</u>					•
Log In			•	•						•
4. Co	olers are p	oresent? (see	19. for cooler s	pecific information)	Yes	✓ N	o 🗆	na 🗆		•
5. Wa	ıs an atten	npt made to	cool the samples	s?	Yes	☑ N	• 	na 🗆	•	
6. We	ere all sam	ples receive	d at a temperatu	re of >0° C to 6.0°C	Yes	✓ N	• 	na 🗆		
7. Sar	mple(s) in	proper conta	niner(s)?		Yes	✓ N	o 🗆			
8. Suf	fficient sar	nple volume	for indicated tes	t(s)?	Yes	☑ N	o 🗆			
9. Are	samples	(except VOA	and ONG) prop	erly preserved?	Yes	✓ N	• 🗆			
10. Wa	is preserva	ative added t	o bottles?		Yes	□ N	o 🗹	NA \square		
11. VO	A vials ha	ve zero head	Ispace?		Yes	□ N	o 🗆	No VOA Vials 🗹		
12. We	ere any sai	mple contain	ers received bro	ken?	Yes		• 🔽	[
		ork match bo ancies on ch	ottle labels? ain of custody)	•	Yes	✓ N	o	# of present bottles check for pH:		
14. Are	matrices	correctly ide	ntified on Chain	of Custody?	Yes	✓ N	• 		(<2 or >1:	2 unless noted)
15. Is it	t clear wha	at analyses w	vere requested?			✓ N		Adjus	ted?	
		-	le to be met? authorization.)		Yes	☑ N	o 🗆	Check	ed by:	
Special	l Handli	ing (if app	licable)							
17. Wa	s client no	otified of all d	iscrepancies wit	n this order?	Yes	□ N	□	NA 🗹		
	By Who Regardi	ng:		Da Via	te: eMa	i 🗀 i	Phone	☐ Fax ☐ In Pe	rson	
L_		estructions:	-							_
18. Add	ditional rer	marks:								
	oler Infori Cooler No		Condition S	Seal Intact Seal No	Seal Da	te	Signo	ed By		

			istody Record	Turn-Arouno	round lime:			HALL ENVIRONMENTAL 3													
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				Project Name			7 1									al.con			UN	·	-17
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Rh	nfire	1 L	IM 874/3	Project #:	- Miley J		4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107														
Phone :	# 50		32-4135				Analysis Request						10:16								
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JA/QC	Package:		-				021	S or	Die				_	ŧΙ	8						
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□ EDĐ	(Type)		· · · · · · · · · · · · · · · · · · ·	Onstee Sample (12)	ant.	T. No.	對子	1 + 1	801	418	8	A I	<u>s</u>	ဖွံ့ ြ	93 /		€			2	STE
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Date	Time	Matrix	Sample Request ID	Container	Preservative	THEALAND C	7	+	Met	Met	Met	S.	18	S (F)	Pes	ا ج	Sec	Ţ	1 1	hhie	
00.0	,		Ozmpio requoerio	Type and #	Туре		BTEX +	BTEX + MTBE	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals TC	Anions (F,CI,NO3,NO2,PO	8081 Pesticides / 8082 PCB	8260B (VOA)	8270 (Semi-VOA)	<u> </u>		Air Bubbles (Y or N)	
5-16-12	1:15	Sil	Grove lo + 8	1-600 Tax		1205797-001		"		╌┤	-	" 	-	8 ·	8	~ -	" ├	+	\Box	+₹	WESTERN REFBLOOMFIELD
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If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Report Summary

Client: Western Refining Southwest, Inc.

Chain of Custody Number: 14088.

Samples Received: 07-18-12

Job Number: 96012-0115

Sample Number(s): 62630

Project Name/Location: Bloomfield Refinery

Entire Report Reviewed By:

Date: 7/24/12

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Western Refining Southwest, Inc	Project #:	96012-0115
Sample ID:	Grp 6/8 Soil Cuttings	Date Reported:	07-20-12
Laboratory Number:	62630	Date Sampled:	07-17-12
Chain of Custody No:	14088	Date Received:	07-18-12
Sample Matrix:	Soil	Date Extracted:	07-18-12
Preservative:	Cool	Date Analyzed:	07-19-12
Condition:	Intact	Analysis Requested:	8015 TPH

		Det.
	Concentration	Limit
Parameter	(mg/Kg)	(mg/Kg)

Gasoline Range (C5 - C10)

ND

0.2

ND - Parameter not detected at the stated detection limit.

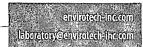
References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating

Solid Waste, SW-846, USEPA, December 1996.

Comments:

Bloomfield Refinery





EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	0719TCAL QA/QC	Date Reported:	07-20-12
Laboratory Number:	62630	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-19-12
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF: %	Difference	Accept. Range
Gasoline Range C5 - C10	07-19-12	9.9960E+02	1.0000E+03	0.04%	0 - 15%
Diesel Range C10 - C28	07-19-12	9.9960E+02	1.0000E+03	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	296	118%,	75 - 125%
Diesel Range C10 - C28	ND	250	305	122%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Was

SW-846, USEPA, December 1996.

Comments:

QA/QC for Samples 62630, 62632-62633, 62636-62638 and 62640





12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62+0814289

Est. 1970

Lynn Berry EnviroTech- NM 5796 US. Highway 64 Farmington, NM 87401

Report Summary

Thursday July 26, 2012

Report Number: L586026 Samples Received: 07/20/12 Client Project: 96012-0115

Description: Bloomfield Refinery

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Daphne Richards , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704/BI0041, ND - R-140. NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1, TX - T104704245-11-3, OK - 9915, PA - 68-02979

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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YOUR LAB OF CHOICE

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

ESC Sample # : L586026-01

REPORT OF ANALYSIS

July 26,2012

Site ID :

Lynn Berry EnviroTech- NM 5796 US. Highway 64 Farmington, NM 87401

Date Received : July 20, 2012 Description : Bloomfield Refinery

Sample ID : GRP 6/8 SOIL CUTTINGS-62630

Collected By : K. Robinson Collection Date : 07/17/12 15:00

Project # : 96012-0115

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	92.5	0.100	g.	2540G	07/26/12	1
Diesel and Oil Ranges C10-C28 Diesel Range C28-C40 Oil Range Surrogate Recovery	6.0 BDL	4.3 4.3	mg/kg mg/kg	8015 8015	07/24/12 07/24/12	1
o-Terphenyl	94.3		% Rec.	8015	07/24/12	1

Results listed are dry weight basis.

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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This report shall not be reproduced, except in full, without the written approval from ESC. The reported analytical results relate only to the sample submitted Reported: 07/26/12 13:05 Printed: 07/26/12 13:05

Summary of Remarks For Samples Printed 07/26/12 at 13:05:37

TSR Signing Reports: 288 R5 - Desired TAT

Auto QC on all reports Full TCLP also requires RCI Dry wt PO NUMBERS ON ALL PROJECTS Glycols-sub outs \$225

Sample: L586026-01 Account: ENVIROFNM Received: 07/20/12 09:00 Due Date: 07/27/12 00:00 RPT Date: 07/26/12 13:05

7



YOUR LAB OF CHOICE EnviroTech- NM

Lynn Berry 5796 Us. Highway 64

Farmington, NM 87401

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5659 Fax (615) 758-5859

Tam I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L586026

July 26, 2012

		Labo	ratory Blank				
Analyte	Result	Uni	3 % F	ec	Limit	Batch	Date Analyzed
C10-C28 Diesel Range	< 4	mg/l	kg			WG603731	07/23/12 21:0
C28-C40 Oil Range	< 4	mg/1	kg			WG603731	07/23/12 21:0
o-Terphenyl		% Re	ec. 90	0.94	50-150	WG603731	07/23/12 21:0
Total Solids	< .1					. WG604447	07/26/12 09:3
		I	Duplicate				
Analyte	Units	Result	Duplicate	RPD	Limit	Ref Sam	p Batch
Total Solids	\$	83.0	81.0	2.89	5	L586630	-03 WG 60 4 4 4
		Laborato	ry Control Sa	mple			
Analyte	Units	Known V		Result	% Rec	Limit	Batch
Total Solids	8	50	50	n	100.	85-115	WG 60444

Batch number /Run number / Sample number cross reference

WG603731: R2269096: L586026-01 WG604447: R2273454: L586026-01

^{* *} Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



YOUR LAB OF CHOICE

EnviroTech- NM Lynn Berry 5796 US. Highway 64

Farmington, NM 87401

Quality Assurance Report

L586026

July 26, 2012

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859 Tax I.D. 62-0814289

Est. 1970

The data package includes a summary of the analytic results of the quality control samples required by the SW-646 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

Company Name/Address:		Alt	ernate billin	g information:			A	nalysis/Co	ntainer/P	reservative	G153	ain of Custody
EnviroTech- NM											Prepared by:	1ge
5706 HC Hisham 64	٠										₩ ENVIRO	ONMENTAL
5796 US. Highway 64 Farmington.NM 87401											SCIENC	CE CORP.
											12065 Let	oanon Road
Report to: Lynn Berry		Ema	il to: lipecr	y@ enviro	tech line	CO					Mt. Juliet,	IN 37122
Project	г· .		City/Sate Collected	The Chialito	icer inte	COMI					Phone (6	15) 758-5858
Description: Bloowfield Re- Phone: (505) 632-0615	Client Project #	<u> </u>	ESC Key	/:		<u></u>	ا ما					00) 767-5859
FAX:	9405 941		1				(A)				FAX (6	15) 758-5859
Collected by: K. Robinson	Site/Facility ID		P.O.#:	20174	^		ORL,					DHEW YES
Collected by (signature):	Rush? (Lal	b MUST Be N	lotified)		Its Needed:		8				CoCode: ENVIRO	FNN (lab use only
		me Day xt Day		Email?	No Yes	No.					Template/Prelogin	
Immediately Packed on Ice N Y Y	Tw	o Day	. 50%	FAX?		of	80				Shipped Via:	
Sample ID	Comp/Grab	ree Day Matrix*	. 25% Depth	Date	Time	Cntrs	MR				Remarks/Contaminant	Sample # (lab only
		SS		7.17.12	1500	1	X					L586026.
Grp6/8 Scil Cuttings - 102430				1.7.1.7.2	1900							
,			•						10.0			
									37.			
•												
								1100				
*Matrix: SS - Soil/Solid GW - Groun	idwater WW -	WasteWater	DW - Drini	king Water (OT - Other					pН	Ten	np
Remarks:								4341	9823	054710w	Oth	er
Relinquished by: (Signature)	Date:	Time:	Receiv	red by: (Signa				Sample	es returned Ex	via: Tups	Condition:	(lab use ent))
relinquished by; (Signative)	7.19. Date:	12 10:00 Time:		ed by: (Signa	tu re)					Bottles Receiv	edi	T /
					50° /		Sec	NO YEAR THE CHARLES AND ADDRESS.	3.18	1-40	L Coc Seas Intact	
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CHAIN OF CUSTODY RECORD

1408

Client: Western Refining Scuthward, luc	Project Name / Locat	Ely Robinson (G108 poly poly poly poly poly poly poly poly														
Email results to: Kelly. Robinson Cienro conn	Sampler Name:	Robinso	~ <u> </u>	8015)	1 8021)	8260)			0				TPH-DRO, MRO, CARD			
Client Phone No.: 505 - 632 - 41 しゅ	Client No.:	- 9401a	-0115	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260) RCBA 8 Metals	Cation / Anion		TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE	DRO N		Sample Cool	Sample Intact
Sample No./ Identification Sample Sam Date Tin	Lab No.	No./Volume of Containers	Preservative HgCl2 HCI	TPH (втех	VOC RCB/	Cation	E E	TCLP	CO T ₈	TPH (CHLC	Нал		Samp	Samp
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☐ Sample(s) dropped off after hours to secure dro	p off area.	含 envi	rote o	h												
5795 US Highway 64 • Farmington, NM 8	37401 • 505-632-0615 • Ti				5, Durc	ıngo, C	O 813	01 • le	aborc	atory@	@env	irotec	:h-inc.	com		

Chavez, Carl J, EMNRD

From:

Robinson, Kelly < Kelly.Robinson@wnr.com>

Sent:

Thursday, May 31, 2012 7:07 AM

To:

Chavez, Carl J, EMNRD

Subject:

RE: Request for Disposal Approval - Broken Concrete at the Bloomfield Refinery Facility

(GW-001) OCD Discharge Permit Condition 6(B)

I apologize sir! I said Crouch Mesa because the landfill is up in that area. The actual address of the facility is in Aztec, NM and called out on your list as the San Juan County Landfill which is operated by Waste Management. I have had preliminary discussions with Waste Management regarding this material in order to determine whether they would consider accepting this much concrete. They did say it should be fine pending (1) OCD approval due to their permit requirements, and (2) review of the analytical and acceptance of the profile.

As you requested, I will work with the Solid Waste Bureau for final disposal of the material. I just wanted to make sure you were in approval of this process since it is not a normal "waste stream" for the Bloomfield facility. As always, I appreciate your time and help in this matter!

I hope you have a great day!

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

(o) 505-632-4166

(c) 505-801-5616

(f) 505-632-4024

(e) kelly.robinson@wnr.com

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Thursday, May 31, 2012 6:56 AM

To: Robinson, Kelly

Subject: RE: Request for Disposal Approval - Broken Concrete at the Bloomfield Refinery Facility (GW-001) OCD

Discharge Permit Condition 6(B)

Kelly:

Please find attached the last listing for RCRA Solid Waste Disposal Facilities in NM. I don't see "Crouch Mesa" listed. You may want to confirm that the facility is an NMED- Solid Waste Bureau permitted facility.

Since I do not regard the waste debris that you specified to be oilfield exempt/non-exempt waste, it should be handled as RCRA Solid Waste and NMED deals with this type of waste.

Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

Office: (505) 476-3490

E-mail: CarlJ.Chavez@State.NM.US

Website: http://www.emnrd.state.nm.us/ocd/

"Why Not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward With the Rest of the Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Wednesday, May 30, 2012 5:08 PM

To: Chavez, Carl J, EMNRD

Subject: RE: Request for Disposal Approval - Broken Concrete at the Bloomfield Refinery Facility (GW-001) OCD

Discharge Permit Condition 6(B)

Thank you sir!

I appreciate the quick response. We will make sure to follow the conditions of your approval. Thank you for your time.

Have a great evening!

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Wednesday, May 30, 2012 4:18 PM

To: Robinson, Kelly

Subject: RE: Request for Disposal Approval - Broken Concrete at the Bloomfield Refinery Facility (GW-001) OCD

Discharge Permit Condition 6(B)

Kelly:

Good afternoon. In accordance with New Mexico Oil Conservation Division (OCD) Discharge Permit Section 6(B), and the supporting analytical data, the OCD hereby **approves** of the disposal with the condition that the operator meet the acceptance criteria of the receiving RCRA Solid Waste Disposal Facility.

- 6. Waste Disposal and Storage: The owner/operator shall dispose of all oil field exempt and non-exempt (non-hazardous) wastes at an OCD permitted or approved facility. Also, the owner/operator shall store waste at the facility in compliance with this section.
- B. OCD Part 35 Waste: Pursuant to OCD Part 35 (19.15.35 et seq. NMAC) disposal of certain non-domestic waste without notification to the OCD is allowed at NMED permitted solid waste facilities if the waste stream has been identified in the discharge permit and existing process knowledge of the waste stream does not change. Otherwise, notification and OCD approval are required in advance of disposal.

Please contact me if you have questions. Thank you.

Please be advised that OCD approval of this plan does not relieve the owner/operator of responsibility should their operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

Office: (505) 476-3490

E-mail: CarlJ.Chavez@State.NM.US

Website: http://www.emnrd.state.nm.us/ocd/

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http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Wednesday, May 30, 2012 2:52 PM

To: Chavez, Carl J, EMNRD

Subject: Request for Disposal Approval - Broken Concrete at the Bloomfield Refinery Facility

Good Afternoon Sir.

Western Refining Southwest, Inc. – Bloomfield Refinery (Western) respectfully requests OCD's consideration and approval to dispose of approximately 23 cubic yards of broken concrete at the Waste Management OCD permitted landfill near Crouch Mesa, New Mexico.

As you may know, several of the process units at the Bloomfield Refinery facility have been sold to Holly Refining. One of those units sold is the Poly Gas Unit. The majority of the equipment from this unit is skid-mounted. Originally when Giant installed the unit, the skid-mounted equipment was set and concrete was poured over the skid bases for stability. In preparation for re-locating the skid-mounted equipment, concrete from around the skids has been removed using a jackhammer. The concrete shows no visible signs of impacts. To ensure the condition of the concrete, we collected a composite sample of the concrete chips and submitted it to Envirotech for the following analysis:

- TPH-GRO, TPH-DRO, and Total TPH
- Total VOCs (Benzene, Toluene, Ethylbenzene, and Xylenes)
- TCLP RCRA 8 Metals

The analytical results from these test are attached. Upon approval from OCD to dispose of this material, Western will contact Waste Management to develop an approved profile of the material. If there are any questions on this or anything else, please feel free to contact me at your convenience.

Thank you for your time, sir! I hope you had a wonderful holiday weekend.

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com

Chavez, Carl J, EMNRD

From:

Chavez, Carl J. EMNRD

Sent:

Wednesday, May 30, 2012 4:18 PM

To:

'Robinson, Kelly'

Subject:

RE: Request for Disposal Approval - Broken Concrete at the Bloomfield Refinery Facility

(GW-001) OCD Discharge Permit Condition 6(B)

Kelly:

Good afternoon. In accordance with New Mexico Oil Conservation Division (OCD) Discharge Permit Section 6(B), and the supporting analytical data, the OCD hereby **approves** of the disposal with the condition that the operator meet the acceptance criteria of the receiving RCRA Solid Waste Disposal Facility.

- 6. Waste Disposal and Storage: The owner/operator shall dispose of all oil field exempt and non-exempt (non-hazardous) wastes at an OCD permitted or approved facility. Also, the owner/operator shall store waste at the facility in compliance with this section.
- B. OCD Part 35 Waste: Pursuant to OCD Part 35 (19.15.35 et seq. NMAC) disposal of certain non-domestic waste without notification to the OCD is allowed at NMED permitted solid waste facilities if the waste stream has been identified in the discharge permit and existing process knowledge of the waste stream does not change. Otherwise, notification and OCD approval are required in advance of disposal.

Please contact me if you have questions. Thank you.

Please be advised that OCD approval of this plan does not relieve the owner/operator of responsibility should their operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Department

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

Office: (505) 476-3490

E-mail: CarlJ.Chavez@State.NM.US

Website: http://www.emnrd.state.nm.us/ocd/

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Nation?" To see how, please go to: "Pollution Prevention & Waste Minimization" at

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Wednesday, May 30, 2012 2:52 PM

To: Chavez, Carl J, EMNRD

Subject: Request for Disposal Approval - Broken Concrete at the Bloomfield Refinery Facility

Good Afternoon Sir,

Western Refining Southwest, Inc. – Bloomfield Refinery (Western) respectfully requests OCD's consideration and approval to dispose of approximately 23 cubic yards of broken concrete at the Waste Management OCD permitted landfill near Crouch Mesa, New Mexico.

As you may know, several of the process units at the Bloomfield Refinery facility have been sold to Holly Refining. One of those units sold is the Poly Gas Unit. The majority of the equipment from this unit is skid-mounted. Originally when Giant installed the unit, the skid-mounted equipment was set and concrete was poured over the skid bases for stability. In preparation for re-locating the skid-mounted equipment, concrete from around the skids has been removed using a jackhammer. The concrete shows no visible signs of impacts. To ensure the condition of the concrete, we collected a composite sample of the concrete chips and submitted it to Envirotech for the following analysis:

- TPH-GRO, TPH-DRO, and Total TPH
- Total VOCs (Benzene, Toluene, Ethylbenzene, and Xylenes)
- TCLP RCRA 8 Metals

The analytical results from these test are attached. Upon approval from OCD to dispose of this material, Western will contact Waste Management to develop an approved profile of the material. If there are any questions on this or anything else, please feel free to contact me at your convenience.

Thank you for your time, sir! I hope you had a wonderful holiday weekend.

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc. 111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com

Chavez, Carl J, EMNRD

From:

Robinson, Kelly < Kelly.Robinson@wnr.com>

Sent:

Wednesday, May 30, 2012 2:52 PM

To:

Chavez, Carl J, EMNRD

Subject:

Request for Disposal Approval - Broken Concrete at the Bloomfield Refinery Facility

Attachments:

Western Refining- Mics. Broken Concrete.pdf

Good Afternoon Sir.

Western Refining Southwest, Inc. – Bloomfield Refinery (Western) respectfully requests OCD's consideration and approval to dispose of approximately 23 cubic yards of broken concrete at the Waste Management OCD permitted landfill near Crouch Mesa, New Mexico.

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- Total VOCs (Benzene, Toluene, Ethylbenzene, and Xylenes)
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Thank you for your time, sir! I hope you had a wonderful holiday weekend.

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Western Refining	Project #:	96012-0115
Sample ID:	Broken Concrete	Date Reported:	03-29-12
Laboratory Number:	61530	Date Sampled:	03-26-12
Chain of Custody No:	13645	Date Received:	03-27-12
Sample Matrix:	Soil	Date Extracted:	03-28-12
Preservative:	Cool	Date Analyzed:	03-28-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	23.7	0.1
Total Petroleum Hydrocarbons	23.7	·

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, December 1996.

Comments:

Mics. Broken Concrete

Analyst

Ph (505) 632-0615 Fx (505) 632-1865

Ph (970) 259-0615 Fr (800) 362-1879

5796 US Highway 64, Farmington, NM 87401

Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301

oratory@envirotech=inc-cor



EPA Method 8015 Modified Nonhalogenated Volatile Organics **Total Petroleum Hydrocarbons**

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	0328TCAL QA/QC	Date Reported:	03-29-12
Laboratory Number:	61528	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-28-12
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF: 🤇	% Difference	Accept: Range
Gasoline Range C5 - C10	03-28-12	9.9960E+02	1.0000E+03	0.04%	0 - 15%
Diesel Range C10 - C28	03-28-12	9.9960E+02	1.0000E+03	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	291	116%	75 - 125%
Diesel Range C10 - C28	ND	250	289	116%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Was

SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 61491-61492, 61510-61518, 61528-61530 and 61533-61534

5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (970) 259-0615 Fr (800) 362-1879



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Western Refining	Project #:	96012-0115
Sample ID:	Broken Concrete	Date Reported:	04-03-12
Laboratory Number:	61530	Date Sampled:	03-26-12
Chain of Custody:	13645	Date Received:	03-27-12
Sample Matrix:	Soil	Date Analyzed:	04-02-12
Preservative:	Cool	Date Extracted:	03-28-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

	Diadion.					
		Det.				
	Concentration	Limit				
Parameter	(ug/Kg)	(ug/Kg)				
Benzene	ND	10.0				
Toluene	ND	10.0				
Ethylbenzene	ND	10.0				
p,m-Xylene	ND	10.0				
o-Xylene	ND	10.0				
Total BTEX	ND					

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	94.9 %
	1,4-difluorobenzene	104 %
	Bromochlorobenzene	108 %

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846.

USEPA, December 1996.

Comments:

Mics. Broken Concrete

Ph (505) 632-0615 Fx (505) 632-1865

Ph (970) 259-0615 Fr (800) 362-1879

5796 US Highway 64, Farmington, NM 87401

Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301

laboratory@envirotech-inc.co



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	P	roject #:	N/A					
Sample ID:	0402BCAL QA/QC		ate Reported:	04-03-12					
Laboratory Number:	61536		ate Sampled:		N/A				
Sample Matrix:	Soil		ate Received:	N/	A				
Preservative:	N/A		ate Analyzed:	04	-02-12				
Condition:	N/A	A	nalysis:	ВТ	ΈX				
		D	ilution:						
Calibration and	I-Cal RF:	C-Cal RF:	%Diff.	Blank	Detect.				
Detection Limits (ug/L)	ccept. Range 0-15%		Conc	Limit				
Benzene	5.5928E-06	5.6442E-06	0.009	ND	0.2				
Toluene	5.1378E-06	5.1231E-06	0.003	ND	0.2				
Ethylbenzene	5.8070E-06	5.7083E-06	0.017	ND	0.2				
p,m-Xylene	4.3584E-06	4.3584E-06	0.000	ND	0.2				
o-Xylene	6.3618E-06	6.3618E-06	0.000	ND	0.2				
Duplicate Conc. (ug/Kg) Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene	Sample ND 23.3 ND 27.3 ND	Duplicate ND 23.1 ND 26.5 ND	%Diff. A 0.00 0.01 0.00 0.03 0.00	0 - 30% 0 - 30% 0 - 30% 0 - 30% 0 - 30% 0 - 30%	10 10 10 10 10 10				
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range				
Benzene	ND	2500	2810	112	39 - 150				
Toluene	23.3	2500	2800	111	46 - 148				
Ethylbenzene	ND	2500	2770	111	32 - 160				
p,m-Xylene	27.3	5000	5650	112					
• •					46 - 148				
o-Xylene	ND	2500	2870	115	46 - 148				

ND - Parameter not detected at the stated detection limit.

Dilution: Spike and spiked sample concentration represent a dilution proportional to sample dilution.

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

QA/QC for Samples 61528-61530, 61536-61539 and 61581-61589

Analyst 5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

Review

Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (970) 259-0615 Fr (800) 362-1879

boratory@envirotech+inc.com



EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client:	Western Refining	Project #:	96012-0115
Sample ID:	Broken Concrete	Date Reported:	03/28/12
Laboratory Number:	61530	Date Sampled:	03/26/12
Chain of Custody:	13645	Date Received:	03/27/12
Sample Matrix:	TCLP Extract	Date Analyzed:	03/28/12
Preservative:	Cool	Date Extracted:	03/27/12
Condition:	Intact	Analysis Needed:	TCLP Metals

		Det.	Regulatory	1
	Concentration	Limit	Level	
Parameter (mg/L)		(mg/L)	(mg/L)	_
Arsenic	0.002	0.001	5.0	
Barium	0.327	0.001	100	
Cadmium	ND	0.001	1.0	
Chromium	0.015	0.001	5.0	
Lead	ND	0.001	5.0	
Mercury	ND	0.001	0.2	
Selenium	0.003	0.001	1.0	
Silver	0.010	0.001	5.0	

ND - Parameter not detected at the stated detection limit.

References:

Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA,

December 1996.

Method 3010 Acid Digestion of Aqueous Samples and Extracts for Total

Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission

SW-846, USEPA. December 1996.

Note:

Regulatory Limits based on 40 CFR part 261 subpart C

section 261.24, August 24, 1998.

Comments:

Mics. Broken Concrete

Analysť

Review∕

laboratory@envirotech-inccom

Ph (505) 632-0615 Fx (505) 632-1865

5796 US Highway 64, Farmington, NM 87401

Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (970) 259-0615 Fr (800) 362-1879



EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS Quality Assurance Report

	Project #:		N	1//			
			N/A				
TCM QA/QC	Date Repo	rted:	C	03/28/12			
	Date Samp	oled:	1	N/A			
Extract	Date Recei	ived:	1	N/A			
Metals	Date Analy	zed:	(03/28/12			
u pietra programa de la programa de				03/27/12			
Abras la Cliff is Turk w. Divers a succession contract	Sample		% Difference	Acceptance Range			
STANDER STORM OF STANDARD AND AND AND AND AND AND AND AND AND AN	0.002	0.001	TO A COMPANY OF THE PROPERTY OF THE PARTY OF	0% - 30%			
D 0.001	0.327	0.362	10.9%	0% - 30%			
D 0.001	ND	ND	0.00%	0% - 30%			
D 0.001	0.015	0.015	0.00%	0% - 30%			
D 0.001	ND	ND	0.00%	0% - 30%			
D 0.001	ND ·	ND	0.00%	0% - 30%			
D 0.001	0.003	0.002	24.0%	0% - 30%			
D 0.001	0.010	0.010	2.04%	0% - 30%			
(e. Sample	Spiked	Percent		Acceptance			
				Range			
0.002	0.240	95.2%		80% - 120%			
0.327	0.755	91.3%		80% - 120%			
ND	0.226	90.0%		80% - 120%			
0.015	0.437	84.9%		80% - 120%			
ND	0.446	89.3%		80% - 120%			
ND ND	0.137	137%	*	80% - 120%			
0.003	0.095	92.8%		80% - 120%			
0.010	0.093	84.5%		80% - 120%			
	D 0.001 D 0.001 D 0.001 D 0.001 D 0.001 D 0.001 D 0.001 D 0.001 Ce Sample ed 0.002 0 0.327 0 ND 0.015 0 ND 0.003	Extract Date Rece Metals Date Analy	Metals Date Analyzed: Date Extracted: Duplicate Incomplete ink Detection Sample Sample Duplicate D 0.001 0.002 0.001 D 0.001 0.327 0.362 D 0.001 ND ND D 0.001 ND ND D 0.001 ND ND D 0.001 ND ND D 0.001 0.003 0.002 D 0.001 0.010 0.010 Resolution Recovery 0.002 0.240 95.2% D 0.002 0.240 95.2% D 0.015 0.437 84.9% D 0.015 0.437 84.9% D 0.003 0.095 92.8%	Extract Date Received: Metals Date Analyzed: Date Extracted: Incompleted of the processing of the pr			

ND - Parameter not detected at the stated detection limit.

References:

Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Method 3010 Acid Digestion of Aqueous Samples and Extracts for Total Metals,

SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission,

SW-846, USEPA, December 1996.

Comments:

QA/QC for Sample 61530 and 61532.

Analyst

5796 US Highway 64, Farmington, NM 87401

Review

Ph (505) 632-0615 Fx (505) 632-1865

Three Springs • 65 Mercado Street, Sulte 115, Durango, CO 81301

Ph (970) 259-0615 Fr (800) 362-1879

envioted+inccon

ry@envirotech-inc.com

^{*} Note: The identification of the analyte is acceptable; the reported value may be biased high.

13645

CHAIN OF CUSTODY RECORD

Client: Western Ref	n Will G	,	Project Name / Location: Mics. Broken Concrete				ANALYSIS / PARAMETERS															
Email results to:			Sampler Name:	n conc	me/me				(015)	8021)	3260)	,			1-65	_						
Client Phone No.:			Client No.:						ethod 8	Method	lethod 8	Metals	Anion		4	le 910-	18.1)	IDE			Cool	Intact
Sample No./ Identification	Sample Date	Sampl Time	e Lab No.	No./Vol of Conta		Pr HgCl ₂	eservat HCI	tive	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP ******	CO Table 910-1	TPH (418.1)	CHLORIDE			Sample (Sample Intact
Broken Coverate	3-26-12	4:00	<u></u> ω(530	1-80.	Jar				×	X					×						V	1
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Relinquished by: (Signature)					R	lecei	ved b	y: (Si	gnatu	írey												
Sample Matrix Soil X Solid □ Sludge □	Aqueous 🗌	Other [_								
Sample(s) dropped off after	hours to sec	cure drop	off area.	多 ei	n v i Analy	r C) † (e C	: h											,		
5795 US Highway 64	• Farmingto	on, NM 87	401 • 505-632-0615 •	Three Springs	s • 65 Me	ercâd	lo Stre	et, Su	ite 11	5, Du	ırang	o, C(S 8130)1 • I	abor	atory(@env	iroted	:h-inc.	com		

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Tuesday, January 17, 2012 12:19 PM

To:

'Robinson, Kelly' Schmaltz, Randy

Cc: Subject:

RE: Request for Disposal Approval

Approved with the conditions provided below:

1) 19.15.36.15 SPECIFIC REQUIREMENTS APPLICABLE TO LANDFARMS:

A. Oil field waste acceptance criteria. Only soils and drill cuttings predominantly contaminated by petroleum hydrocarbons shall be placed in a landfarm. The division may approve placement of tank bottoms in a landfarm if the operator demonstrates that the tank bottoms do not contain economically recoverable petroleum hydrocarbons. Soils and drill cuttings placed in a landfarm shall be sufficiently free of liquid content to pass the paint filter test, and shall not have a chloride concentration exceeding 500 mg/kg if the landfarm is located where ground water is less than 100 feet but at least 50 feet below the lowest elevation at which the operator will place oil field waste or exceeding 1000 mg/kg if the landfarm is located where ground water is 100 feet or more below the lowest elevation at which the operator will place oil field waste. The person tendering oil field waste for treatment at a landfarm shall certify, on form C-138, that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content, and that the samples have been found to conform to these requirements. The landfarm's operator shall not accept oil field waste for landfarm treatment unless accompanied by this certification.

2) Provide a final C-141 with verification of soil remediation and accompanying C-138s from the waste treatment accepting facilities and supporting documentation that verifies the release was cleaned up, i.e., bottom hole analytical data, photos, etc.

Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/

"Why not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward with the Rest of the

Nation?" To see how, go to "Pollution Prevention & Waste Minimization" at:

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental)

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Tuesday, January 17, 2012 11:36 AM

To: Chavez, Carl J, EMNRD **Cc:** Schmaltz, Randy

Subject: Request for Disposal Approval

Good Morning Sir,

I apologize. I meant to send this to you earlier today. As a follow-up to the voice mail I left for you yesterday, Western Refining Southwest, Inc. – Bloomfield Refinery (Western) had an incident over the weekend that resulted in a release of crude oil within the containment dike of the Bloomfield Refinery Tank Farm. The majority of the crude oil released was recovered using the on-site vacuum truck. Western contracted with Envirotech who has completed stock-piling of the crude-impacted soil (i.e. exempt waste) on secondary containment until such time that Western receives OCD approval for disposal of the material.

With this said, Western is requesting OCD's approval to dispose of approximately 300 cubic yards of crude impacted soil at either of the following two OCD permitted land farms in the Bloomfield area:

- Waste Management Land Farm located in Aztec, NM; or
- Envirotech Land Farm located south of Bloomfield, NM.

If you have any questions or need any additional information, please do not hesitate to contact me at your convenience.

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Tuesday, January 10, 2012 8:01 AM

To: Cc: 'Robinson, Kelly' Schmaltz, Randy

Subject:

RE: Request for Disposal at RCRA Solid Waste Facility

Kelly:

Approved. Also, contingent upon the receiving facility approval to dispose of waste.

Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/

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From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Monday, January 09, 2012 3:13 PM

To: Chavez, Carl J, EMNRD

Cc: Schmaltz, Randy

Subject: RE: Request for Disposal

Good Afternoon Sir,

Once again, I appreciate your time in review of our request for disposal of the sandblast media generated at the Bloomfield Refinery. As a follow-up to your earlier request for additional analytical, we have sampled and received the analytical results for the TPH-DRO analysis on the media. For convenience of your review, you will find attached both analytical reports that should together provide the necessary analytical information for waste characterization verification. I have been in-contact with Waste Management regarding consideration of acceptance of this material. Pending OCD approval, they have indicated that this material will qualify for disposal at their non-hazardous landfill located in Aztec, NM.

If you have any questions on this topic, please don't hesitate to contact me at your convenience.

Thank you, Sir, for your time.
I hope you have a great evening!

Sincerely,

Kelly R. Robinson
Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Friday, January 06, 2012 7:14 AM

To: Robinson, Kelly

Subject: RE: Request for Disposal

Kelly:

I understand your rationale for not running DRO. Thanks.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/

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From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Thursday, January 05, 2012 5:07 PM

To: Chavez, Carl J, EMNRD

Subject: Re: Request for Disposal

No sir, you do not need to send me the regulation, but I appreciate the offer. We will sample for TPH-DRO tomorrow and I will resend to you all the analytical once those results are know for your full review.

Thank you for your time, and I hope you have a good evening!

Sincerely,

Kelly Robinson Western Refining -Kelly

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Thursday, January 05, 2012 05:02 PM

To: Robinson, Kelly

Subject: RE: Request for Disposal

Kelly:

Yes, because this is stipulated in Rule 35 for approval of non-household oilfield wastes to the receiving facility. Let me know if you want me to send you the provision. Thank you.

Carl J. Chavez, CHMM New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/

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From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Thursday, January 05, 2012 5:00 PM

To: Chavez, Carl J, EMNRD

Subject: Re: Request for Disposal

Sir.

We did not run DRO solely because sine the tank that was sand blasted served as a premium gasoline finished product tank, we did not think the analysis of TPH-DRO was an issue. Sir, do we still need to analysis for DRO for waste acceptance?

Sincerely,

Kelly Robinson Western Refining -Kelly

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Thursday, January 05, 2012 04:26 PM

To: Robinson, Kelly

Subject: RE: Request for Disposal

Kelly:

One item for TPH that I don't see a value for is DRO. Is there any reason why DRO is not analyzed for? For TPH under 8015M, OCD requires GRO + DRO to satisfy TPH. Why is DRO missing? Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/

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http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental)

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Thursday, January 05, 2012 2:46 PM

To: Chavez, Carl J, EMNRD

Cc: Schmaltz, Randy

Subject: RE: Request for Disposal

Sir,

Thank you so much for the quick response.

As you requested, I have reviewed our most recent OCD Discharge Permit application for the Bloomfield Refinery and confirmed that we did not include sandblast media as a routine waste stream generated at the Bloomfield Refinery. Therefore, pursuant to the regulations you state below, we respectfully request OCD's consideration for disposal approval of this material.

If you have any questions, please don't hesitate to let me know. Thank you so much for your time, and I hope you have a great day!

Sincerely,

Kelly R. Robinson
Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Thursday, January 05, 2012 1:43 PM

To: Robinson, Kelly **Cc:** Schmaltz, Randy

Subject: RE: Request for Disposal

Kelly:

Good afternoon. I will reply today. Generally, if the sandblast media (a non-exempt oilfield waste) is identified as a waste stream in your previous OCD Discharge Permit application(s), it has already been approved for disposal. If you can confirm that it is already included in the approved discharge permit, you do not need OCD approval.

Please let me know if this material is already in the discharge permit approval (see permit requirements below- highlighted text)?

6. Waste Disposal and Storage: The owner/operator shall dispose of all oil field exempt and non-exempt (non-hazardous) wastes at an OCD permitted or approved facility. Also, the owner/operator shall store waste at the facility in compliance with this section.

A. Oilfield Exempt or Non-exempt (non-hazardous) Wastes: Oilfield wastes regulated by the OCD may be disposed of at an OCD approved facility upon proper waste determination pursuant to 40 CFR Part 261 Any waste stream that is not listed in the discharge permit application must be approved for disposal by the OCD on a case-by-case basis.

- B. OCD Part 35 Waste: Pursuant to OCD Part 35 (19.15.35 et seq. NMAC) disposal of certain non-domestic waste without notification to the OCD is allowed at NMED permitted solid waste facilities if the waste stream has been identified in the discharge permit and existing process knowledge of the waste stream does not change. Otherwise, notification and OCD approval are required in advance of disposal.
- C. Waste Storage: The owner/operator shall store all waste in an impermeable bermed area, except waste generated during emergency response operations for up to 72 hours. All waste storage areas shall be identified in the discharge permit application. Any waste storage area not identified in the permit shall be approved on a case-by-case basis only. The owner/operator shall not store oil field waste on-site for more than 180 days unless approved by the OCD.

Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/

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http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental)

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Tuesday, January 03, 2012 5:02 PM

To: Chavez, Carl J, EMNRD **Cc:** Schmaltz, Randy

Subject: Request for Disposal

Good Afternoon Sir and Happy New Year,

Western Refining Southwest, Inc. – Bloomfield Refinery recently completed sandblasting activities that were conducted on Tank 11 in preparation for conducting an internal tank inspection. Following completion of sandblasting activities on Tank 11, approximately 8 cubic yards of sandblast waste material was generated. As such, Western Refining Southwest, Inc. – Bloomfield Refinery respectfully requests the New Mexico Oil Conservation Division's (OCD's) approval to dispose of the sandblast media waste at the San Juan County Landfill located at #78 Road 3140 in Aztec, New Mexico.

Please find attached the analytical results of a composite sample collected of the sandblast waste material. Tank 11 previously operated in gasoline service; therefore the composite sample was analyzed for the following constituents:

- Total Petroleum Hydrocarbons Gasoline Range Organics (TPH-GRO)
- Total Benzene, Toluene, Ethlylbenzene, and Xylenes
- TCLP RCRA 8 Metals
- Reactivity, Corrosively, and Ignitability

The analytical results indicate that the sandblast media is non-hazardous.

Upon receipt of OCD's approval, a profile of the material will be established with Waste Management and arrangements will be made to transport the material to the San Juan Regional Landfill. If you have any questions, please do not hesitate to contact me at your convenience.

I appreciate your time and I hope you had a wonderful holiday season.

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com



EPA METHOD 8015 Modified Nonhalogenated Volatile Total Petroleum Hydrocarbons

96012-0115
01-09-12
01-06-12
01-06-12
01-06-12
01-06-12
8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid

Waste, SW-846, USEPA, December 1996.

Comments:

Tank 11

Analyst

Review



Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	01-06-12 QA/QC	Date Reported:	01-09-12
Laboratory Number:	60734	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-06-12
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	(I-Cal ⁱ RF)	C-Cal RF::// %	6 Difference	, Accept. Range
Gasoline Range C5 - C10	40914	9.996E+02	1.000E+03	0.04%	0 - 15%
Diesel Range C10 - C28	40914	9.996E+02	1.000E+03	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	0.7	0.2
Diesel Range C10 - C28	0.7	0.1

Duplicate Conc. (mg/Kg)	Sample	Duplicate	>% Difference	Range
Gasoline Range C5 - C10	ИD	ND	0.00%	0 - 30%
Diesel Range C10 - C28	ИD	ND	0.00%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	273	109%	75 - 125%
Diesel Range C10 - C28	ND	250	247	98.9%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid

Waste,

SW-846, USEPA, December 1996.

Comments:

QA/QC for Samples 60731-60734 and 60742-60749

Analyst

13142

CHAIN OF CUSTODY RECORD

	mc	115, Durango, CO 81301 • laboratory@envirotech-inc.com	nvirotec	tory@e	abora	01 -	0813	ngo, C	, Dura		et, Suit	lo Stre	hercac	ngs • 65 N	Three Spri	• 505-632-0615 •	n, NM 87401	Farmingto	5795 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • Three Springs • 65 Mercado Street, Suite
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								١]								



COVER LETTER

Tuesday, November 01, 2011

Kelly Robinson Western Refining Southwest, Inc. PO Box 159 Bloomfield, NM 87413

TEL: (505) 632-4166 FAX (505) 632-3911

RE: Tank #11 10-24-11

Dear Kelly Robinson:

Order No.: 1110B27

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 10/25/2011 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901

AZ license # AZ0682

Hall Environmental Analysis Laboratory, Inc.

Date: 01-Nov-11
Analytical Report

CLIENT: Lab Order: Western Refining Southwest, Inc.

1110B27

1110027

Tank #11 10-24-11

Project: Lab ID:

1110B27-01

Client Sample ID: TK#11

Collection Date: 10/24/2011 10:00:00 AM

Date Received: 10/25/2011

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE		······································		Analyst: RAA
Gasoline Range Organics (GRO)	8.4	4.9	mg/Kg	1	10/27/2011 11:59:07 PM
Surr: BFB	99.6	75.2-136	%REC	1	10/27/2011 11:59:07 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.049	mg/Kg	1	10/27/2011 11:59:07 PM
Toluene	0.20	0.049	mg/Kg	1	10/27/2011 11:59:07 PM
Ethylbenzene	0.12	0.049	mg/Kg	1	10/27/2011 11:59:07 PM
Xylenes, Total	0.69	0.097	mg/Kg	1	10/27/2011 11:59:07 PM
Surr: 4-Bromofluorobenzene	107	80-120	%REC	1	10/27/2011 11:59:07 PM
MERCURY, TCLP					Analyst: ELS
Mercury	ND	0.020	mg/L	1	10/27/2011 12:59:29 PM
EPA METHOD 6010B: TCLP METALS	S				Analyst: RAGS
Arsenic	ND	5.0	mg/L	1	10/27/2011 3:04:31 PM
Barium	ND	100	mg/L	5	10/27/2011 3:06:19 PM
Cadmium	ND	1.0	mg/L	1	10/27/2011 3:04:31 PM
Chromium	ND	5.0	mg/L	1	10/27/2011 3:04:31 PM
Lead	ND	5.0	mg/L	1	10/27/2011 3:04:31 PM
Selenium	· ND	1.0	mg/L	1	10/27/2011 3:04:31 PM
Silver	ND	5,0	mg/L	1	10/27/2011 3:04:31 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com 504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:

HALL ENVIRONMENTAL ANALYSIS LAB

Batch #:

10:00 AM

111026013

Address:

4901 HAWKINS NE SUITE D

Project Name:

1110B27

ALBUQUERQUE, NM 87109

Attn:

ANDY FREEMAN

Analytical Results Report

Sample Number

111026013-001

Sampling Date

10/24/2011 **Date/Time Received** 10/26/2011 11:00 AM

Client Sample ID Matrix

1110B27-01B / TK#11 Soll

Sampling Time

Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifler
Cyanide (reactive)	ND	mg/Kg	10	10/27/2011	CRW	SW846 CH7	
Ignitability	Negative			10/26/2011	JWC	EPA 1030	
pH	4.68	ph Units		10/26/2011	KFG	EPA 9045	
Reactive sulfide	ND	mg/kg	15	10/27/2011	JTT	SW846 CH7	
%moisture	0	Percent		10/26/2011	KFG	%moisture	

Authorized Signature

MCL

EPA's Maximum Contaminant Level

ND

Not Detected

PQL

Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory. The results reported relate only to the samples indicated.

Soll/solid results are reported on a dry-weight basis unless otherwise noted.

Date: 01-Nov-11

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

Tank #11 10-24-11

Work Order:

1110B27

	·								
Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec Lo	owLimit Hig	ghLimit %RF	PD RPDLimit Qual
Method: EPA Method 8015B: G	Sasoline Rai	nge							
Sample ID: 1110B27-01AMSD		MSD				Batch ID:	29064	Analysis Date	: 10/28/2011 3:20:41 AM
Gasoline Range Organics (GRO)	38.33	mg/Kg	5.0	24.78	8.363	121	72.4	149 0.69	91 19.2
Sample ID: MB-29064		MBLK				Batch ID:	29064	Analysis Date	: 10/27/2011 11:30:15 PM
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0			1	•		
Sample ID: LCS-29064	,,,,	LCS	0.0			Batch ID:	29064	Analysis Date	: 10/27/2011 9:35:07 PM
Gasoline Range Organics (GRO)	29.98	mg/Kg	5.0	25	0	120	86.4	132	
Sample ID: 1110B27-01AMS	25.50	MS	5.0	2.5	v	Batch ID:	29064	Analysis Date	: 10/28/2011 2:51:55 AM
Gasoline Range Organics (GRO)	38.06	mg/Kg	4.9	24.73	8.363	120	72.4	149	
		1119/119	7.0	24.70	0.000	ILO	1 84.7	1.10	
Method: EPA Method 8021B: V	olatiles/								
Sample ID: 1110B27-01AMSD		MSD				Batch ID:	29064	Analysis Date	: 10/28/2011 2:23:08 AM
3enzene	1.042	mg/Kg	0.050	0.991	0.0202	103	67.2	113 7.8	8 14.3
Foluene	1.257	mg/Kg	0.050	0.991	0.2003	107	62.1	116 2.7	4 15.9
Ethylbenzene	1.190	mg/Kg	0.050	0.991	0.116	108	67.9	127 0.8	39 14.4
Kylenes, Total	3.925	mg/Kg	0.099	2.973	0.6912	109	60.6	134 2.1	1 12.6
Sample ID: MB-29064		MBLK				Batch ID:	29064	Analysis Date	: 10/27/2011 11:30:15 PM
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Kylenes, Total	ND	mg/Kg	0.10						
Sample ID: LCS-29064		LCS				Batch ID:	29064	Analysis Date	: 10/28/2011 5:44:44 AM
Benzene	1.027	mg/Kg	0.050	1	0	103	83.3	107	
Toluene	1.036	mg/Kg	0.050	1	0	104	74.3	115	
Ethylbenzene	1.049	mg/Kg	0.050	1	0	105	80.9	122	
Kylenes, Total	3.161	mg/Kg	0.10	3	0	105	85.2	123	
Sample ID: 1110B27-01AMS		MS				Batch ID:	29064	Analysis Date	: 10/28/2011 1:54:25 AM
Benzene	0.9633	mg/Kg	0.049	0.989	0.0202	95.4	67.2	113	•
Toluene	1.223	mg/Kg	0.049		0.2003	103	62.1	116	
Ethylbenzene	1.180	mg/Kg	0.049	0.989	0.116	108	67.9	127	
Kylenes, Total	3.843	mg/Kg	0.099	2.967	0.6912	106	60.6	134	
Method: MERCURY, TCLP									
Sample ID: 1110B27-01AMSD		MSD				Batch ID:	29106	Analysis Date	: 10/27/2011 1:03:05 PM
Mercury	ND	mg/L	0.020	0.005	0	102	75	125 0	20
Sample ID: MB-29106	,,,,	MBLK	0.0.0	0.000	J	Batch ID:	29106		: 10/27/2011 12:32:53 PM
Mercury	ND	mg/L	0.020						
Sample ID: LCS-29106	מאו	LCS	0.020			Batch ID:	29106	Analysis Data	: 10/27/2011 12:34:40 PM
	4.199				_			•	. 10/2//2011 12.04.40 PW
Mercury	ND	mg/L	0.020	0.005	0	105	80	120	10.00 max 1 . 2 . 10 . 2 . 1
Sample ID: 1110B27-01AMS		MS				Batch ID:	29106	Analysis Date	: 10/27/2011 1:01:17 PM
Mercury	ND	mg/L	0.020	0.005	0	105	75	125	

O	ral	ifi	er	8
~.			vı	

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Date: 01-Nov-11

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

Tank #11 10-24-11

Work Order:

1110B27

Analyte	Result	Units	PQL	SPK V	a SPK ref	%Rec Lo	owLimit Hi	ghLimit %RPD	RPDLimit	Qual
Method: EPA Method 6010B:	TCLP Metals		•							
Sample ID: MB-29105		MBLK				Batch ID:	29105	Analysis Date:	10/27/2011 2	:49:15 PN
Arsenic	ND	mg/L	5.0							
Barium	ND	mg/L	100							
Cadmium	ND	mg/L	1.0							
Chromium	ND	mg/L	5.0							
Lead	ND	mg/L	5.0							
Selenium	ND	mg/L	1.0							
Silver	NO	mg/L	5.0							
Sample ID: SPLP FLUID		MBLK				Batch ID:	29105	Analysis Date:	10/27/2011 2	:53:09 PN
Arsenic	ND	mg/L	5.0							
Barlum	ND	mg/L	100							
Cadmium	ND	mg/L	1.0							
Chromium	ND	mg/L	5.0							
Lead	ND	mg/L	5.0							
Selenium	ND	mg/L	1.0							
Silver	ND	mg/L	5.0							
Sample ID: LCS-29105		LCS				Batch ID:	29105	Analysis Date:	10/27/2011 2	:51:13 PM
Arsenic ·	ND	mg/L	5.0	0.5	0	120	80	120		s
Barium	ND	mg/L	100	0.5	0	105	80	120		
Cadmium	ND	mg/L	1.0	0.5	0	11 1	80	120		
Chromium	ND	mg/L	5.0	0.5	0	105	80	120		
Lead	ND	mg/L	5.0	0.5	0	103	80	120		
Selenium	ND	mg/L	1.0	0.5	0	121	80	120		S
Silver	ND	mg/L	5.0	0.1	0.0006	109	80	120		

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT			Date Receive	d:	10/25/2011
Work Order Number 1110B27	/ ///		Received by	: AMG	
Checklist completed by:	Many) /0/ZB	Sample ID I	abels checked by:	Initials
Matrix:	Carrier name:	<u>UPS</u>	·		
Shipping container/cooler in good condition?		Yes 🗹	No 🔲	Not Present	
Custody seals intact on shipping container/cook	er?	Yes 🗹	No 🗌	Not Present	Not Shipped
Custody seals intact on sample bottles?		Yes 🗹	No 🗀	N/A	
Chain of custody present?		Yes 🗹	No 🗆		
Chain of custody signed when relinquished and	received?	Yes 🗹	No 🗌		
Chain of custody agrees with sample labels?		Yes 🗹	No 🗌		
Samples in proper container/bottle?		Yes 🗹	No 🗀		
Sample containers intact?		Yes 🗹	No 🗀	•	
Sufficient sample volume for indicated test?		Yes 🗹	No 🗌		
All samples received within holding time?		Yes 🗹	No 🗀		Number of preserved
Water - VOA vials have zero headspace?	No VOA vials subn	nitted 🗹	Yes 🗌	No 🗌	bottles checked for pH:
Water - Preservation labels on bottle and cap m	atch?	Yes 🗌	No 🗆	N/A 🗹	
Water - pH acceptable upon receipt?		Yes 🗌	No 🗀	N/A 🗹	<2 >12 unless noted below.
Container/Temp Blank temperature?		10.1°	<6° C Acceptab		<i>50.</i> 000.
COMMENTS:			If given sufficien	t time to cool.	,
		_			
		•			
Client contacted	Date contacted:		Pers	son contacted	
Contacted by:	Regarding:				
Comments:					

			· · · · · · · · · · · · · · · · · · ·		
Corrective Action	***************************************				
,					

4	Air Bubbles (Y or N)						
HALL ENVIRONMENTAL ANALYSIS LABORATORN www.hallenvironmental.com kins NE - Albuquerque, NM 87109 345-3975 Fax 505-345-4107 Analysis Request	Corresivity	X	<u> </u>				report.
	KeacTiviTy	X					alytical
7 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	(AOV-ime2) 07S8			11			the and
AE AE al.co e, NN 345-	(AOV) 808S8						lo pa
FIRONNS LABO S LABO mental.com erque, NM 87 505-345-4107 Request	8081 Pesticides / 8082 PCB's						The state of the s
HALL ENVIRONME LNALYSIS LABOR/ www.hallenvironmental.com ins NE - Albuquerque, NM 87109 15-3975 Fax 505-345-4107 Analysis Request	Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)						e clear
L E Sallen allen - All	RCRA 8 Metals TCLP	X					will by
HALL ANAL www.hall kins NE - 345-3975	(HA9 to AN9) 0168						ed dat
HAAN www.kkins	EDB (Method 504.1)						ontract
######################################	TPH Method 8015B (Gas/Method 418.1)		-				
1901 Tel.	BTEX + MTBE + TPH (Gas only)	_			+		- Any
		X	++	++		 	Remarks:
10-24-11	TO C THENSION TO THE WAY OF THE CASE OF TH	5					Date Time Remarks: D 25 M 10:00 Date Time Remarks: D 25 M 10:00 Date Time Remarks:
d X Rush 10 of the 10 of t	FRAUK TRAUK TRAUK Type	\$					10
Turn-Around Standar Project Nam AUK Project #:	Project Manager: Sampler: FRAN On Kee * Makes Sample Temperature Container Preserv Type and # Typ	2-80 JAN					Received by: Received by: and a second of the second of th
Client: Western Refining Address: 50 CR #998 Phone #: 545-632-44644135	DS-633-39// □ Level 4 (Full Validation) □ Other □ Matrix Sample Request ID	D TK#I					Time: Refinquished by: Received by: Received by: Received by: Received by: Received by: Received by:
Client: Wester	Watt	8 // S					Time: Refinquisi Time: Refinquisi necessary, samples sut
# G Ad K	VQC Packs Standard creditation NELAP EDD (Typ	8					Time:
Client: Kaling A Mailing A Phone #:	email or Fax#: OA/OC Package: X Standard Accreditation □ NELAP □ EDD (Type) Date Time	0-24-11 10:00					Date: Date:

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Friday, January 06, 2012 7:14 AM

To:

'Robinson, Kelly'

Subject:

RE: Request for Disposal

Kelly:

I understand your rationale for not running DRO. Thanks.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/

"Why not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward with the Rest of the

Nation?" To see how, go to "Pollution Prevention & Waste Minimization" at: http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental)

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Thursday, January 05, 2012 5:07 PM

To: Chavez, Carl J, EMNRD

Subject: Re: Request for Disposal

No sir, you do not need to send me the regulation, but I appreciate the offer. We will sample for TPH-DRO tomorrow and I will resend to you all the analytical once those results are know for your full review.

Thank you for your time, and I hope you have a good evening!

Sincerely,

Kelly Robinson Western Refining

-Kelly

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Thursday, January 05, 2012 05:02 PM

To: Robinson, Kelly

Subject: RE: Request for Disposal

Kelly:

Yes, because this is stipulated in Rule 35 for approval of non-household oilfield wastes to the receiving facility. Let me know if you want me to send you the provision. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490

Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/

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From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Thursday, January 05, 2012 5:00 PM

To: Chavez, Carl J, EMNRD

Subject: Re: Request for Disposal

Sir.

We did not run DRO solely because sine the tank that was sand blasted served as a premium gasoline finished product tank, we did not think the analysis of TPH-DRO was an issue. Sir, do we still need to analysis for DRO for waste acceptance?

Sincerely,

Kelly Robinson Western Refining -Kelly

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Thursday, January 05, 2012 04:26 PM

To: Robinson, Kelly

Subject: RE: Request for Disposal

Kelly:

One item for TPH that I don't see a value for is DRO. Is there any reason why DRO is not analyzed for? For TPH under 8015M, OCD requires GRO + DRO to satisfy TPH. Why is DRO missing? Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/

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Nation?" To see how, go to "Pollution Prevention & Waste Minimization" at:

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental)

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Thursday, January 05, 2012 2:46 PM

To: Chavez, Carl J, EMNRD

Cc: Schmaltz, Randy

Subject: RE: Request for Disposal

Sir.

Thank you so much for the quick response.

As you requested, I have reviewed our most recent OCD Discharge Permit application for the Bloomfield Refinery and confirmed that we did not include sandblast media as a routine waste stream generated at the Bloomfield Refinery. Therefore, pursuant to the regulations you state below, we respectfully request OCD's consideration for disposal approval of this material.

If you have any questions, please don't hesitate to let me know. Thank you so much for your time, and I hope you have a great day!

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

(o) 505-632-4166

(c) 505-801-5616

(f) 505-632-4024

(e) kelly.robinson@wnr.com

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]

Sent: Thursday, January 05, 2012 1:43 PM

To: Robinson, Kelly **Cc:** Schmaltz, Randy

Subject: RE: Request for Disposal

Kelly:

Good afternoon. I will reply today. Generally, if the sandblast media (a non-exempt oilfield waste) is identified as a waste stream in your previous OCD Discharge Permit application(s), it has already been approved for disposal. If you can confirm that it is already included in the approved discharge permit, you do not need OCD approval.

Please let me know if this material is already in the discharge permit approval (see permit requirements below- highlighted text)?

6. Waste Disposal and Storage: The owner/operator shall dispose of all oil field exempt and non-exempt (non-hazardous) wastes at an OCD permitted or approved facility. Also, the owner/operator shall store waste at the facility in compliance with this section.

A. Oilfield Exempt or Non-exempt (non-hazardous) Wastes: Oilfield wastes regulated by the OCD may be disposed of at an OCD approved facility upon proper waste determination pursuant to 40 CFR Part 261 Any waste stream that is not listed in the discharge permit application must be approved for disposal by the OCD on a case-by-case basis.

- B. OCD Part 35 Waste: Pursuant to OCD Part 35 (19.15.35 et seq. NMAC) disposal of certain non-domestic waste without notification to the OCD is allowed at NMED permitted solid waste facilities if the waste stream has been identified in the discharge permit and existing process knowledge of the waste stream does not change. Otherwise, notification and OCD approval are required in advance of disposal..
- C. Waste Storage: The owner/operator shall store all waste in an impermeable bermed area, except waste generated during emergency response operations for up to 72 hours. All waste storage areas shall be identified in the discharge permit application. Any waste storage area not identified in the permit shall be approved on a case-by-case basis only. The owner/operator shall not store oil field waste on-site for more than 180 days unless approved by the OCD.

Thank you.

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/

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Nation?" To see how, go to "Pollution Prevention & Waste Minimization" at:

http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental)

From: Robinson, Kelly [mailto:Kelly.Robinson@wnr.com]

Sent: Tuesday, January 03, 2012 5:02 PM

To: Chavez, Carl J, EMNRD **Cc:** Schmaltz, Randy

Subject: Request for Disposal

Good Afternoon Sir and Happy New Year,

Western Refining Southwest, Inc. – Bloomfield Refinery recently completed sandblasting activities that were conducted on Tank 11 in preparation for conducting an internal tank inspection. Following completion of sandblasting activities on Tank 11, approximately 8 cubic yards of sandblast waste material was generated. As such, Western Refining Southwest, Inc. – Bloomfield Refinery respectfully requests the New Mexico Oil Conservation Division's (OCD's) approval to dispose of the sandblast media waste at the San Juan County Landfill located at #78 Road 3140 in Aztec, New Mexico.

Please find attached the analytical results of a composite sample collected of the sandblast waste material. Tank 11 previously operated in gasoline service; therefore the composite sample was analyzed for the following constituents:

- Total Petroleum Hydrocarbons Gasoline Range Organics (TPH-GRO)
- Total Benzene, Toluene, Ethlylbenzene, and Xylenes
- TCLP RCRA 8 Metals
- Reactivity, Corrosively, and Ignitability

The analytical results indicate that the sandblast media is non-hazardous.

Upon receipt of OCD's approval, a profile of the material will be established with Waste Management and arrangements will be made to transport the material to the San Juan Regional Landfill. If you have any questions, please do not hesitate to contact me at your convenience.

I appreciate your time and I hope you had a wonderful holiday season.

Sincerely,

Kelly R. Robinson Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (o) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com

Chavez, Carl J, EMNRD

From:

Robinson, Kelly [Kelly.Robinson@wnr.com]

Sent:

Tuesday, January 03, 2012 5:02 PM

To: Cc: Chavez, Carl J, EMNRD

Subject:

Schmaltz, Randy Request for Disposal

Attachments:

Tank 11 Sandblast Media_1110B27.pdf

Good Afternoon Sir and Happy New Year,

Western Refining Southwest, Inc. – Bloomfield Refinery recently completed sandblasting activities that were conducted on Tank 11 in preparation for conducting an internal tank inspection. Following completion of sandblasting activities on Tank 11, approximately 8 cubic yards of sandblast waste material was generated. As such, Western Refining Southwest, Inc. – Bloomfield Refinery respectfully requests the New Mexico Oil Conservation Division's (OCD's) approval to dispose of the sandblast media waste at the San Juan County Landfill located at #78 Road 3140 in Aztec, New Mexico.

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- Total Petroleum Hydrocarbons Gasoline Range Organics (TPH-GRO)
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Upon receipt of OCD's approval, a profile of the material will be established with Waste Management and arrangements will be made to transport the material to the San Juan Regional Landfill. If you have any questions, please do not hesitate to contact me at your convenience.

I appreciate your time and I hope you had a wonderful holiday season.

Sincerely,

Kelly R. Robinson
Environmental Supervisor

Western Refining Southwest, Inc.

111 County Road 4990 Bloomfield, NM87413

- (0) 505-632-4166
- (c) 505-801-5616
- (f) 505-632-4024
- (e) kelly.robinson@wnr.com



COVER LETTER

Tuesday, November 01, 2011

Kelly Robinson Western Refining Southwest, Inc. PO Box 159 Bloomfield, NM 87413

TEL: (505) 632-4166 FAX (505) 632-3911

RE: Tank #11 10-24-11

Dear Kelly Robinson:

Order No.: 1110B27

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 10/25/2011 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901

AZ license # AZ0682

Hall Environmental Analysis Laboratory, Inc.

Date: 01-Nov-11 Analytical Report

CLIENT:

Western Refining Southwest, Inc.

Client Sample ID: TK#11

Lab Order:

1110B27

Collection Date: 10/24/2011 10:00:00 AM

Project: Tank #11 10-24-11 Date Received: 10/25/2011 Matrix: SOIL

Lab ID: 1110B27-01

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RA	NGE		***			Analyst: RAA
Gasoline Range Organics (GRO)	8.4	4.9		mg/Kg	1	10/27/2011 11:59:07 PM
Surr: BFB	99.6	75.2-136		%REC	1	10/27/2011 11:59:07 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.049		mg/Kg	1	10/27/2011 11:59:07 PM
Toluene	0.20	0.049		mg/Kg	1	10/27/2011 11:59:07 PM
Ethylbenzene	0.12	0.049		mg/Kg	1	10/27/2011 11:59:07 PM
Xylenes, Total	0.69	0.097		mg/Kg	. 1	10/27/2011 11:59:07 PM
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	10/27/2011 11:59:07 PM
MERCURY, TCLP						Analyst: ELS
Mercury	DN	0.020		mg/L	1	10/27/2011 12:59:29 PM
EPA METHOD 6010B: TCLP METALS	;					Analyst: RAGS
Arsenic	ND	5.0		mg/L	1	10/27/2011 3:04:31 PM
Barium	ND	100		mg/L	5	10/27/2011 3:06:19 PM
Cadmium	ND	1.0		mg/L	1	10/27/2011 3:04:31 PM
Chromium	ND	5.0		mg/L	1	10/27/2011 3:04:31 PM
Lead	ND	5.0		mg/L	1	10/27/2011 3:04:31 PM
Selenium	ND	1.0		mg/L	1	10/27/2011 3:04:31 PM
Silver	ND	5,0	•	mg/L	1	10/27/2011 3:04:31 PM

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Е Estimated value
- Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits

Date: 01-Nov-11

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

Tank #11 10-24-11

Work Order:

1110B27

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec Lo	owLimit Hi	ghLimit %RPD	RPDLimit	Qual
Method: EPA Method 6010B:	TCLP Metals		•							_
Sample ID: MB-29105		MBLK				Batch ID:	29105	Analysis Date:	10/27/2011	2:49:15 PN
Arsenic	ND	mg/L	- 5.0			ş	•			
Barium	ND	mg/L	100							
Cadmium	ND	mg/L	1.0							
Chromium	ND	mg/L	5.0							
Lead	ND	mg/L	5.0		-					
Selenium	ND	mg/L	1.0			•		_		
Silver	ND	mg/L	5.0					,		
Sample ID: SPLP FLUID		MBLK				Batch ID:	29105	Analysis Date:	10/27/2011	2:53:09 PN
Arsenic	ND	mg/L	5:0	•						
Barium	ND	mg/L	100							
Cadmium	ND	mg/L	1.0							
Chromium	ND ·	mg/L	5.0							
Lead	ND	mg/L	5.0							
Selenium	ND	mg/L	1.0							
Silver	ND	mg/L	5.0							
Sample ID: LCS-29105		LCS				Batch ID:	29105	Analysis Date:	10/27/2011	2:51:13 PM
Arsenic	ND	mg/L	5.0	0.5	0	120	80	120		s
Barium	ND	mg/L	100	0.5	0	105	80	120		
Cadmium	ND	mg/L	1.0	0.5	0	111	80	120		ı
Chromium	ND	mg/L	5.0	0.5	0	105	80	120		
Lead	ND	mg/L	5.0	0.5	0	103	80	120		-
Selenium	ND	mg/L	1.0	0.5	0	121	80	120		S
Silver	ND	m g/L	5.0		0.0006	109	80	120		

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT			Date Received	:	10/25/2011
Work Order Number 1110B27	111		Received by:	AMG	_
Checklist completed by:	Many	/0/25/ Date	// Sample ID lab	pels checked by:	Initials
Matrix:	Carrier name: <u>UF</u>	<u> </u>	•		
Shipping container/cooler in good condition?	Ye	s 🗹	No 🗆	Not Present \square	
Custody seals intact on shipping container/coole	er? Ye	s 🗹	No 🗆	Not Present \Box	Not Shipped
Custody seals intact on sample bottles?	Ye	s 🗹	No 🗀	N/A	
Chain of custody present?	Ye	s 🗹	No 🗆		
Chain of custody signed when relinquished and	received? Ye	s 🗹	No 🗆		
Chain of custody agrees with sample labels?	Ye	s 🗹	No 🗆		
Samples in proper container/bottle?	Ye	s 🗹	No 🗆		
Sample containers intact?	Ye	s 🔽	No 🗌	•	
Sufficient sample volume for indicated test?	Ye	s 🗹	No 🗌	•	
All samples received within holding time?	Ye	s 🗹	No 🗌		Number of preserved
Water - VOA vials have zero headspace?	No VOA vials submitte	d 🗹	Yes 🗌	No 🗆	bottles checked for pH:
Water - Preservation labels on bottle and cap m	atch? Ye	s 🗌	No 🗆	N/A 🗹	
Water - pH acceptable upon receipt?	Ye	s 🗌	No 🗆	N/A 🗹	<2 >12 unless noted below.
Container/Temp Blank temperature?	1		<6° C Acceptable		Delow.
COMMENTS:		I	if given sufficient	time to cool.	
			,		
Client contacted	Date contacted:		Perso	on contacted	,
Contacted by:	Regarding:				
Comments:					
	_				
			······································		
			·	· · · · · · · · · · · · · · · · · · ·	4//
Corrective Action					
	/ 50 / 100	3030			
	.,,				

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com 504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Cllent:

HALL ENVIRONMENTAL ANALYSIS LAB

Batch #:

111026013

Address:

4901 HAWKINS NE SUITE D

Project Name:

1110B27

ALBUQUERQUE, NM 87109

Attn:

ANDY FREEMAN

Analytical Results Report

Sample Number

111026013-001

Sampling Date

10/24/2011

Date/Time Received

10/26/2011 11:00 AM

Client Sample ID

1110B27-01B / TK#11

Soil

Sampling Time

10:00 AM Sample Location

Matrix Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifler
Cyanide (reactive)	ND	mg/Kg	10	10/27/2011	CRW	SW846 CH7	
Ignitability	Negative			10/26/2011	JWC	EPA 1030	
pH	4.68	ph Units		10/26/2011	KFG	EPA 9045	
Reactive sulfide	, ND	mg/kg	15	10/27/2011	JTT	SW846 CH7	
%moisture	0	Percent		10/26/2011	KFG	%moisture	

Authorized Signature

MCL

EPA's Maximum Contaminant Level

NO

Not Detected

PQL

Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory. The results reported relate only to the samples indicated.

Soll/solid results are reported on a dry-weight basis unless otherwise noted.

Date: 01-Nov-11

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

Tank #11 10-24-11

Work Order:

1110B27

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec L	owLimit Hig	ghLimit %RPE	RPDLimit Qual
Method: EPA Method 8015B: C	Sasoline Rai	nge							
Sample ID: 1110B27-01AMSD		MSD				Batch ID:	29064	Analysis Date:	10/28/2011 3:20:41 AM
Gasoline Range Organics (GRO)	38.33	mg/Kg	5.0	24.78	8.363	121	72.4	149 0.691	19.2
Sample ID: MB-29064		MBLK				Batch ID:	29064	Analysis Date:	10/27/2011 11:30:15 PM
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: LCS-29064		LCS				Batch ID:	29064	Analysis Date:	10/27/2011 9:35:07 PM
Gasoline Range Organics (GRO)	29.98	mg/Kg	5.0	25	. 0	120	86.4	132	
Sample ID: 1110B27-01AMS	20.00	MS	0.0	20	ŭ	Batch ID:	29064	Analysis Date:	10/28/2011 2:51:55 AN
Gasoline Range Organics (GRO)	38.06	mg/Kg	4.9	24.73	8.363	120	72.4	149	
Marked FDA Marked 0004Da									
Method: EPA Method 8021B: \ Sample ID: 1110B27-01AMSD	ojatiles	MSD				Batch ID:	29064	Analysis Date:	10/28/2011 2:23:08 AM
·	4.040		0.050	0.004	0.0000			•	4
Benzene	1.042	mg/Kg	0.050		0.0202	103	67.2	113 7.88	14.3
Toluene	1.257	mg/Kg	0.050		0.2003	107	62.1	116 2.74	15.9
Ethylbenzene	1.190	mg/Kg	0.050	0.991	0.116	108	67.9	127 0.839	
Xylenes, Total	3.925	mg/Kg	0.099	2.973	0.6912	109	60.6	134 2.11	12.6
Sample ID: MB-29064		MBLK	•			Batch ID:	29064	Analysis Date:	10/27/2011 11:30:15 PM
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: LCS-29064		LCS				Batch ID:	29064	Analysis Date:	10/28/2011 5:44:44 AM
Benzene	1.027	mg/Kg	0.050	1	0	103	83.3	107	
Toluene	1.036	mg/Kg	0.050	1	0	104	74.3	115	
Ethylbenzene	1.049	mg/Kg	0.050	1	0	105	80.9	122	•
Xylenes, Total	3.161	mg/Kg	0.10	3	0	. 105	85.2	123	
Sample ID: 1110B27-01AMS		MS				Batch ID:	29064	Analysis Date:	10/28/2011 1:54:25 AM
Benzene	0.9633	mg/Kg	0.049	0.989	0.0202	95.4	67.2	113	•
Toluene	1.223	mg/Kg	0.049	0.989	0.2003	103	62.1	116	
Ethylbenzene	1.180	mg/Kg	0.049	0.989	0.116	108	67.9	127	
Xylenes, Total	3.843	mg/Kg	0.099	2.967	0.6912	106	60.6	134	
Method: MERCURY, TCLP									
Sample ID: 1110B27-01AMSD		MSD				Batch ID:	29106	Analysis Date:	10/27/2011 1:03:05 PM
Mercury	ND	mg/L	0.020	0.005	0	102	75	125 0	20
Sample ID: MB-29106		MBLK				Batch ID:	29106		10/27/2011 12:32:53 PM
Mercury	ND	mg/L	0.020						
Sample ID: LCS-29106	.,_	LCS	5.525			Batch ID:	29106	Analysis Date:	10/27/2011 12:34:40 PM
Mercury	ND	mg/L	0.020	0.005	0	105	80	120	
Sample ID: 1110B27-01AMS		MS	5.020	2,000	•	Batch ID:	29106	Analysis Date:	10/27/2011 1:01:17 PM
·			0.020	0.005	0			•	
Mercury	ND	mg/L	0.020	0.005	0	105	75	125	•

O	ua	ifi	e	rs	•

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Tum-Around Time:			AVK 井 // 10-24-// 4901 Hawki	Project #:	H/35	Project Manager:	OS'*	8)************************************	FRANK (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	molecature 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Container Preservative Tippe T	2-80-14m						Received by: Date Time Remarks:	Received by: State Time
Chain-of-Custody Record Tum-Around	Slient: WesterNSRefiving Standard	Project Name	Wailing Address: 50 CR 4990 MUK	Bloom Field, NN 874/3 Project#	632 - 4161	-633-39// Project Mar	OA/QC Package:	Standard			□ EDD (Type)	Date Time Matrix Sample Request ID Container	24-1 10.00 May 1 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						Thelan	Time: Refinquished by:

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Thursday, November 04, 2010 2:15 PM

To:

'Hurtado, Cindy'

Subject:

RE: Bloomfield Refinery - South Evaporation Pond

Cindy:

The OCD has completed its review of your waste disposal submittal and hereby **deny** the request to dispose of the waste in a solid waste landfill (see comments, and/or recomendations below).

have the following comments and/or recommendations:

- 1) OCD notices on the sample receipt checklist, the container temperature was 12.9 °C, but should have been delivered less than 6 °C; thus, compromising the QA/QC of the volatile analyses, i.e., BTEX and TPH. Also, TPH was not analyzed per the testing requirements below.
- 2) Reactive sulfide busted for characteristically hazardous waste.

§ 261.23 Characteristic of reactivity.

- (a) A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has any of the following properties:
- (1) It is normally unstable and readily undergoes violent change without detonating.
- (2) It reacts violently with water.
- (3) It forms potentially explosive mixtures with water.
- (4) When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.
- (5) It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.
- (6) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.
- (7) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.
- (8) It is a forbidden explosive as defined in 49 CFR 173.54, or is a Division 1.1, 1.2 or 1.3 explosive as defined in 49 CFR 173.50 and 173.53.
- (b) A solid waste that exhibits the characteristic of reactivity has the EPA Hazardous Waste Number of D003.
- [45 FR 33119, May 19, 1980, as amended at 55 FR 22684, June 1, 1990; 75 FR 13002, Mar. 18, 2010]
- 3) No pH was provided to show negative results and the method of analysis is in question (see required method of analysis below)?

§ 261.22 Characteristic of corrosivity.

- (a) A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:
- (1) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using Method 9040C in 'Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in §260.11 of this chapter.
- (2) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55 °C (130 °F) as determined by Method 1110A in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW–846, and as incorporated by reference in §260.11 of this chapter.
- [45 FR 33119, May 19, 1980, as amended at 46 FR 35247, July 7, 1981; 55 FR 22684, June 1, 1990; 58 FR 46049, Aug. 31, 1993; 70 FR 34561, June 14, 2005]
- 4) The Ignitability method is in question.

§ 261.21 Characteristic of ignitability.

- (a) A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:
- (1) It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume and has flash point less than 60 °C (140 °F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D 93–79 or D 93–80 (incorporated by reference, see §260.11), or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D 3278–78 (incorporated by reference, see §260.11).
- (2) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.
- 5) The reactivity w
- 5) No TPH analysis was provided to satisfy the testing requirements provided below.

19.15.35.8 DISPOSAL OF CERTAIN NON-DOMESTIC WASTE AT SOLID WASTE FACILITIES:

B Procedure

(2) A person may dispose of waste listed in Paragraph (2) of Subsection D of 19.15.35.8 NMAC at a solid waste facility after testing

and the division's prior written authorization. Before the division grants authorization, the applicant for the authorization shall provide copies of

test results to the division and to the solid waste facility where the applicant will dispose of the waste. In appropriate cases and so long as a

representative sample is tested, the division may authorize disposal of a waste stream listed in Paragraph (2) of Subsection D of 19.15.35.8 NMAC

without individual testing of each delivery.

(3) A person may dispose of waste listed in Paragraph (3) of Subsection D of 19.15.35.8 NMAC at a solid waste facility on a casebycase basis after testing the division may require and the division's prior written authorization. Before the division grants authorization, the

applicant for the authorization shall provide copies of test results to the division and to the solid waste facility where it will dispose of the waste.

(4) Simplified procedure for holders of discharge plans. Holders of an approved discharge plan may amend the discharge plan to provide for disposal of waste listed in Paragraph (2) of Subsection D of 19.15.35.8 NMAC and, as applicable, Paragraph (3) of Subsection D of

19.15.35.8 NMAC. If the division approves the amendment to the discharge plan, the holder may dispose of wastes listed in Paragraphs (2) and (3)

of Subsection D of 19.15.35.8 NMAC at a solid waste facility without obtaining the division's prior written authorization.

D. Testing.

19.15.35 NMAC

http://www.nmcpr.state.nm.us/nmac/parts/title19/19.015.0035.htm[1/16/2009 4:33:09 PM]

The person applying for division approval to dispose of waste in a solid waste facility shall conduct testing required by 19.15.35.8 NMAC according to the Test Methods for Evaluating Solid Waste, EPA No. SW-846 and shall direct questions concerning the standards or a

particular testing facility to the division.

(2) The testing facility shall conduct testing according to the test method listed:

(a) TPH: EPA method 418.1 or 8015 (DRO and GRO only) or an alternative, division-approved hydrocarbon analysis;

(b) TCLP: EPA Method 1311 or an alternative hazardous constituent analysis approved by the division;

(c) paint filter test: EPA Method 9095A;

(d) ignitability test: EPA Method 1030;

(e) corrosivity: EPA Method 1110;

(f) reactivity: test procedures and standards the division establishes on a case-by-case basis; and

(g) NORM. 20.3.14 NMAC.

(3) To be eligible for disposal pursuant to 19.15.35.8 NMAC, the concentration of substances the testing facility identifies during testing shall not exceed the following limits:

(a) benzene: 9.99 mg/kg;

(b) BTEX: 499.99 mg/kg (sum of all);

(c) TPH: 1000 mg/kg;

(d) hazardous air pollutants: the standards set forth in NESHAP; and

(e) TCLP:

(i) arsenic: 5 mg/l, (ii) barium: 100 mg/l, (iii) cadmium: 1 mg/l, (iv) chromium: 5 mg/l,

(v) lead: 5 mg/l,

(vi) mercury: 0.2 mg/l, (vii) selenium: 1 mg/l, and

(viii) silver: 5 mg/l.

[19.15.35.8 NMAC - Rp, 19.15.9.712 NMAC, 12/1/08]

Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/index.htm

(Pollution Prevention Guidance is under "Publications")

From: Hurtado, Cindy [mailto:Cindy.Hurtado@wnr.com]

Sent: Thursday, November 04, 2010 10:11 AM

To: Chavez, Carl J, EMNRD

Cc: Schmaltz, Randy; Robinson, Kelly; Krakow, Bob **Subject:** Bloomfield Refinery - South Evaporation Pond

Good Morning Carl,

Western Refining Southwest, Inc. – Bloomfield Refinery (WRSI-BR) personnel are planning to clean out the sediment in the South Evaporation Pond in preparation of inspection of the pond liner. WRSI-BR requests permission to dispose of the sediment (estimated at 100 yards spread over the 5 acre pond) at the San Juan County Landfill located at #73 Road 3140 Aztec, New Mexico. Please find attached analytical data from a composite sample of the sediment that was collected on July 27, 2010. Analysis consists of Reactivity (SW 846), Corrosivity (1110A), Ignitability (1030), BTEX (5021B), and RCRA 8 Metals (6010B – TCLP).

As soon as Bloomfield Refinery receives direction or approval from OCD, a profile will be established with Waste Management for disposal.

Sincerely, Cindy

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery cindy.hurtado@wnr.com
505-632-4161

Chavez, Carl J, EMNRD

From: Hurtado, Cindy [Cindy.Hurtado@wnr.com]
Sent: Thursday, November 04, 2010 10:11 AM

To: Chavez, Carl J, EMNRD

Cc:Schmaltz, Randy; Robinson, Kelly; Krakow, BobSubject:Bloomfield Refinery - South Evaporation Pond

Attachments: Sediment Analytical 7-2010.pdf

Good Morning Carl,

Western Refining Southwest, Inc. – Bloomfield Refinery (WRSI-BR) personnel are planning to clean out the sediment in the South Evaporation Pond in preparation of inspection of the pond liner. WRSI-BR requests permission to dispose of the sediment (estimated at 100 yards spread over the 5 acre pond) at the San Juan County Landfill located at #73 Road 3140 Aztec, New Mexico. Please find attached analytical data from a composite sample of the sediment that was collected on July 27, 2010. Analysis consists of Reactivity (SW 846), Corrosivity (1110A), Ignitability (1030), BTEX (5021B), and RCRA 8 Metals (6010B – TCLP).

As soon as Bloomfield Refinery receives direction or approval from OCD, a profile will be established with Waste Management for disposal.

Sincerely, Cindy

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery
cindy.hurtado@wnr.com
505-632-4161



COVER LETTER

Thursday, August 19, 2010

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4161 FAX (505) 632-3911

RE: South Evap. Pond 7-27-10

Dear Cindy Hurtado:

Order No.: 1007979

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 7/28/2010 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901 AZ license # AZ0682 ORELAP Lab # NM100001

Texas Lab# T104704424-08-TX



Hall Environmental Analysis Laboratory, Inc.

Date: 19-Aug-10

CLIENT:

Western Refining Southwest, Inc.

Project:

South Evap. Pond 7-27-10

Lab Order:

1007979

CASE NARRATIVE

Analytical Comments for METHOD 8021BTEX_S, SAMPLE 1007979-01A: Necessary dilution for foamy matrix.

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Aug-10

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

1007979

South Evap. Pond 7-27-10

Project: Lab ID:

1007979-01

Client Sample ID: South Evap. Pond

Collection Date: 7/27/2010 12:30:00 PM

Date Received: 7/28/2010

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.50	mg/Kg	10	7/31/2010 12:30:54 PM
Toluene	ND	0.50	mg/Kg	10	7/31/2010 12:30:54 PM
Ethylbenzene	ND	0.50	mg/Kg	10	7/31/2010 12:30:54 PM
Xylenes, Total	ND	1.0	mg/Kg	10	7/31/2010 12:30:54 PM
Surr: 4-Bromofluorobenzene	118	64.7-120	%REC	10	7/31/2010 12:30:54 PM
MERCURY, TCLP				é	Analyst: IC
Mercury	ND	0.020	mg/L	1	8/10/2010 7:33:08 PM
EPA METHOD 6010B: TCLP METALS					Analyst: SNV
Arsenic	ND	5.0	mg/L	1	8/11/2010 10:49:15 AM
Barium	ND	100	mg/L	5	8/11/2010 10:51:38 AM
Cadmium	ND	1.0	mg/L	1	8/11/2010 10:49:15 AM
Chromium	ND	5.0	mg/L	1	8/11/2010 10:49:15 AM
Lead	ND	5.0	mg/L	1	8/11/2010 10:49:15 AM
Selenium	ND	1.0	mg/L	1	8/11/2010 10:49:15 AM
Silver	ND	5.0	mg/L	1	8/11/2010 10:49:15 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Page 1 of 1

Anatek Labs, Inc.

1282 Alturas Drive · Moscow, ID 83843 · (208) 883-2839 · Fax (208) 882-9246 · email moscow@anateklabs.com 504 E Sprague Ste. D · Spokane WA 99202 · (509) 838-3999 · Fax (509) 838-4433 · email.spokane@anateklabs.com

Client:

HALL ENVIRONMENTAL ANALYSIS LAB

Batch #:

100812024

Address:

4901 HAWKINS NE SUITE D

Project Name:

1007979

ALBUQUERQUE, NM 87109

Attn:

ANDY FREEMAN

Analytical Results Report

Sample Number

100812024-001

Sampling Date

7/27/2010

Date/Time Received

8/12/2010 10:50 AM

Client Sample ID

1007979-01B / SOUTH EVAP.

Sampling Time

12:30 PM

POND

Solid

Matrix Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/kg	1	8/19/2010	MAS	SW846 CH7	
Ignitability	Negative			8/18/2010	JWC	EPA 1030	
Reactive sulfide	413	mg/kg	50	8/18/2010	JTT	SW846 CH7	
%moisture	3.3	Percent	:	8/19/2010	CRW	%moisture	

Authorized Signature

John Coddington, Lab Manager

MCL

EPA's Maximum Contaminant Level

ND Not Detected

PQL

Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory. The results reported relate only to the samples indicated. Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Analek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87693; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Analek Labs WA: EPA:WA00169; CA:Cert2632; ID:WA00169; WA:C595; MT:Cert0095

Analytical Data

Client: Hall Environmental Analysis Laboratory

Job Number: 560-21690-1

Sdg Number: 1007979/July 27, 2010

Client Sample ID:

1007979-01B South Evap Pond

Lab Sample ID:

560-21690-1

Client Matrix:

Solid

Date Sampled: 07/27/2010 1230

Date Received: 08/13/2010 0955

1110A Corrosivity Toward Steel

Method:

Analyte

1110A

Analysis Batch: 560-50589

Instrument ID:

NOEQUIP

Preparation:

N/A

Lab File ID:

1.0

N/A

Dilution: Date Analyzed:

08/17/2010 1505

Initial Weight/Volume: Final Weight/Volume: 1.0 g 1.0 g -

Date Prepared:

DryWt Corrected: N

Result (mm/year)

Qualifier

RL

Corrosivity toward Steel

<0.10

0.10

Date: 19-Aug-10

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

South Evap. Pond 7-27-10

Work Order:

1007979

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec Lo	owLimit Hig	ghLimit %RPC	RPDLimit Qual
Method: EPA Method 8021B:	Volatiles				,				
Sample ID: MB-23193		MBLK			1	Batch ID:	23193	Analysis Date:	7/29/2010 11:46:09 AM
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: LCS-23193		LCS				Batch ID:	23193	Analysis Date:	7/29/2010 1:44:07 PM
Benzene	0.9838	mg/Kg	0.050	1	0	98.4	78.8	132	
Toluene	0.9823	mg/Kg	0.050	1	٥	98.2	78.9	112	
Ethylbenzene	1.073	mg/Kg	0.050	1	0	107	69.3	125	
Xylenes, Total	3.204	mg/Kg	0.10	3	0	107	73	128	
Method: MERCURY, TCLP									
Sample ID: MB-23326		MBLK				Batch ID:	23326	Analysis Date:	8/10/2010 7:28:01 PM
Mercury	ND	mg/L	0.020		•			·	
Sample ID: LCS-23326	(12)	LCS	0.020			Batch ID:	23326	Analysis Date:	8/10/2010 7:29:43 PM
Mercury	ND	mg/L	0.020	0.005	. 0	102	80	120	
			0.020	0.000				120	
Method: EPA Method 6010B:	TCLP Metals					Datah ID:	22220	Analysis Data	9/44/2040 40:24:27 88/
Sample ID: MB-23330		MBLK				Batch ID:	23330	Analysis Date:	8/11/2010 10:34:37 AM
Arsenic	ND	mg/L	5.0						
Barium	ND	mg/L	100						
Cadmium	ND	mg/L	1.0						
Chromium	ND	mg/L	5.0						
Lead	ND	mg/L	5.0						
Selenium Sil	ND	mg/L	1.0						
Silver	ND	mg/L	5.0			Detek ID.	22222	A lusta Data	0/44/0040 40:44:00 48
Sample ID: FLUID 2		MBLK				Batch ID:	23330	· Analysis Date:	8/11/2010 10:41:06 AM
Arsenic	ND	mg/L	5.0						
Barium	ND	mg/L	100		;				
Cadmium	ND	mg/L	1.0						
Chromium	ND	mg/L	5.0						
Lead	ND	mg/L	5.0						
Selenium	ND	mg/L	1.0					•	
Silver	ND	mg/L	5.0						
Sample ID: LCS-23330		LCS				Batch ID:	23330	Analysis Date:	8/11/2010 10:45:14 AM
Arsenic	ND	mg/L	5.0	0.5	0	119	80	120	
3arium	ND	mg/L	100	0.5	0	104	80	120	
Cadmium	ND	mg/L	1.0	0.5	. 0	112	80	120	
Chromium	ND	mg/L	5.0		0.0013	103	80	120	
Lead	ND	mg/L	5.0	0.5	0	101	80	120	
Selenium	ND	mg/L	1.0	0.5	0	118	80	120	
	ND	mg/L	5.0	0.5	: 0	112	80	120	

Ona	lifiers

E Estimated value

Page 1

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Quality Control Results

Client: Hall Environmental Analysis Laboratory

Job Number: 560-21690-1

Sdg Number: 1007979/July 27, 2010

Method Blank - Batch: 560-50589

Method: 1110A Preparation: N/A

Client Matrix:

Lab Sample ID: MB 560-50589/1

Solid

Dilution:

Date Analyzed: 08/17/2010 1505

Date Prepared:

Analysis Batch: 560-50589

Prep Batch: N/A

Units: mm/year

Instrument ID: No Equipment Assigned

Lab File ID:

Initial Weight/Volume:

Final Weight/Volume:

1.0 g 1.0 g

N/A

Corrosivity toward Steel

Analyte

Result

Qual

RL.

< 0.10

0.10

Duplicate - Batch: 560-50589

560-21690-1

Lab Sample ID: Client Matrix: Dilution:

Salid 1.0

Date Analyzed:

08/17/2010 1505

Date Prepared:

Analysis Batch: 560-50589

Prep Batch: N/A

Units: mm/year

Method: 1110A Preparation: N/A

Instrument ID: No Equipment Assigned

Lab File ID: N/A

Initial Weight/Volume:

1.0 g

Final Weight/Volume: 1.0 g

Result RPD Limit Qual Analyte Sample Result/Qual Corrosivity toward Steel < 0.10 NC 20 < 0.10

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT			Date Receive	d:	7/28/2010
Work Order Number 1007979			Received by	: TLS	-4:
				bels checked by:	_()
Checklist completed by:	Malle	C5 DE	3-10-28-	10	Initials
	,				
Matrix:	Carrier name: <u>U</u>	<u>PS</u>			
Shipping container/cooler in good condition?	Y	es 🗹	No 🗀	Not Present	
Custody seals intact on shipping container/cooler?	Ye	es 🗌	No 🗌	Not Present 🗹	Not Shipped
Custody seals intact on sample bottles?	Y	es 🗌	No 🗆	N/A ✓	
Chain of custody present?	Y	es 🗹	No 🗀	•	
Chain of custody signed when relinquished and rec	eived? Ye	es 🗹	No 🗆		
Chain of custody agrees with sample labels?	Y	es 🗹	No 🗆		
Samples in proper container/bottle?	Ye	es 🗹	No 🗆		
Sample containers intact?	Yo	es 🔽	No 🗆		
Sufficient sample volume for indicated test?	Ye	es 🗹	No 🗀		
All samples received within holding time?	Ye	es 🗹	No 🗌		Number of preserved
•	No VOA vials submitte	ed 🗹	Yes 🗌	No 🗌	bottles checked for pH:
Water - Preservation labels on bottle and cap mate	h? Ye	es 🗌	No 🗌	N/A 🗹	
Water - pH acceptable upon receipt?	. Y e	es 🔲	No 🗔	N/A 🗹	<2 >12 unless noted
Container/Temp Blank temperature?	1	2.9°	<6° C Acceptab	le	below.
COMMENTS:			If given sufficient	time to cool.	
				•	
Client contacted Da	ate contacted:		Pers	on contacted	
Contacted by:	garding:				
Comments:					
A				· 	
	·				
Corrective Action					

Date: Time: Relinquished by:							727-1012:30 Studge South EVAP, POUD	Date Time Matrix Sample Request ID	□ EDD (Type)	Accreditation ☐ NELAP ☐ Other	Standard Level 4 (Full Validation)			-633-	5/20mfield, NM 97413	Mailing Address#50 CR4990		CHEIL WESTERN KETINING	Chain-of-Custody Record
Received by: 7/26 S MS(4) Received by: Date Time						Q	-1	Container Preservative ##EAL No Type and # Type	Temperature	Sampler: Bob On Ice: Wes - Fine			Project Manager:		Project #:	South Euro, DOND 7-27-10	rioject name:	Standard Rush	Turn-Around Time:
Remarks:							*	BTEX + MT TPH Method TPH (Method 8310 (PNA d RCRA 8 Me Anions (F,C) 8081 Pestici 8260B (VOA 8270 (Semi-	BE 80 d 4 d d 5 or F tals	+ TPH 15B (0 18.1) 04.1) PAH) TC D ₃ ,NO ₂ 5 / 808	(Ga Gas/	Dies	nly) sel)	Ana	Oi	4901 Hawkins NE - Albuquerque, NM 87109	www.hallenvironmental.com	ANALYSIS LABORATORY	HALL ENVIRONMENTAL

Air Bubbles (Y or N)

Turn-Around Time:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Thursday, April 29, 2010 1:48 PM

To:

'Hurtado, Cindy'

Cc:

Powell, Brandon, EMNRD

Subject:

RE: Bloomfield Refinery

Cindy:

Denied. Please find below the highlighted limits that form the basis for OCD's denial.

19.15.35.8(D)(3) Testing

- (2) The testing facility shall conduct testing according to the test method listed:
- (a) TPH: EPA method 418.1 or 8015 (DRO and GRO only) or an alternative, division-approved hydrocarbon analysis;
- (b) TCLP: EPA Method 1311 or an alternative hazardous constituent analysis approved by the division;
- (c) paint filter test: EPA Method 9095A;
- (d) ignitability test: EPA Method 1030;
- (e) corrosivity: EPA Method 1110;
- (f) reactivity: test procedures and standards the division establishes on a case-by-case basis; and
- (g) NORM. 20.3.14 NMAC.
- (3) To be eligible for disposal pursuant to 19.15.35.8 NMAC, the concentration of substances the testing facility identifies during testing shall not exceed the following limits:
- (a) benzene: 9.99 mg/kg;
- (b) BTEX: 499.99 mg/kg (sum of all);
- (c) TPH: 1000 mg/kg;
- (d) hazardous air pollutants: the standards set forth in NESHAP; and (Waste Management Form indicates presence of NESHAP)
- (e) TCLP:
- (i) arsenic: 5 mg/l, (ii) barium: 100 mg/l, (iii) cadmium: 1 mg/l,
- (iv) chromium: 5 mg/l,
- (v) lead: 5 mg/l,
- (vi) mercury: 0.2 mg/l,(vii) selenium: 1 mg/l, and
- (viii) silver: 5 mg/l.

[19.15.35.8 NMAC - Rp, 19.15.9.712 NMAC, 12/1/08]

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/ index.htm (Pollution Prevention Guidance is under "Publications")

From: Hurtado, Cindy [mailto:Cindy.Hurtado@wnr.com]

Sent: Wednesday, April 28, 2010 3:41 PM

To: Chavez, Carl J, EMNRD **Cc:** Schmaltz, Randy

Subject: Bloomfield Refinery

Good Afternoon Carl,

Bloomfield Refinery personnel have cleaned out the Merox Sand Filter and Diesel Salt Dryers within the facility. Salt Dryer Vessels contained salt that was used to remove water (condensed steam) from diesel product when the refinery was operational. The Merox Sand Filter contained sand/gravel that was used to remove water and caustic from LPG product while the refinery was operational.

Bloomfield Refinery requests permission to dispose of the Salt Dryer Media and the Merox Sand Filter Media at San Juan County Landfill. Waste Management personnel assure me that the TPH levels are within their permit.

Thank you for your prompt attention to this matter, Cindy

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery
cindy.hurtado@wnr.com
505-632-4161

Chavez, Carl J, EMNRD

From: Hurtado, Cindy [Cindy.Hurtado@wnr.com]
Sent: Wednesday, April 28, 2010 3:41 PM

Sent: Wednesday, April 28, 2010 3:41 PM Chavez, Carl J, EMNRD

Cc: Schmaltz, Randy
Subject: Bloomfield Refinery

Attachments: Salt Dryer WM Profile.pdf; Sand Filter WM Profile.pdf; Composite Salt and Sand Filter Media

Analysis.pdf

Good Afternoon Carl,

Bloomfield Refinery personnel have cleaned out the Merox Sand Filter and Diesel Salt Dryers within the facility. Salt Dryer Vessels contained salt that was used to remove water (condensed steam) from diesel product when the refinery was operational. The Merox Sand Filter contained sand/gravel that was used to remove water and caustic from LPG product while the refinery was operational.

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Thank you for your prompt attention to this matter, Cindy

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery cindy.hurtado@wnr.com
505-632-4161

Cenerator's Ronnazardous waste frome differen

Requested Disposal Facility Renewal for Profile Number				
A. Waste Generator Facility Information (n				
1. Generator Name: Western Refining Southwest, Inc BI				
2. Site Address: #50 Road 4990		dress: <u>cindy.hurtado</u>		
3. City/ZIP: Bloomfield 87413		505-632-4161		
4. State: New Mexico		ode: or USEPA ID #: NMD		
5. County: San Juan				
6. Contact Name/Title: <u>Cindy Hurtado - Environmental Co</u> B. Customer Information same as above	ELA	# (if applicable):		
1. Customer Name:				
2. Billing Address:				
3. City, State and ZIP:				
4. Contact Name:				
5. Contact Email:	10. City, State	and ZTP:	kin managanin Peristendan da o ng na naturen dan bendangang managaninan debad	a transcription of the section principles and the section of the s
C.Waste Stream Information				
1. DESCRIPTION				
a. Common Waste Name: Salt Dryer Media	/ and dispersion to the attention to separate the contract of	no pro-tra dale e and i communication de la self-tribit designations and self-tribits.	talis canality grant of defending to a second second second second second second second second second second se	
State Waste Code(s):	•			
b. Describe Process Generating Waste or Source of Con				
Salt Dryer Vessels contain salt that was used		•	•	•
the refinery was operational. The refinery ha	s shut down and t	he salt has been	removed from	the salt dryer
vessels.				
c. Typical Color(s): white to gray	remarks and hard to be a sufficient to be defined the first property of the supply of the	may surpass space and the state of the state	Later and account of the supplemental state	and the second s
d. Strong Odor? 🗖 Yes 🇹 No Describe:			· · · · · · · · · · · · · · · · · · ·	
e. Physical State at 70°F: 🗹 Solid 🗀 Liquid 🕻	🗅 Powder 🗀 Semi	-Solid or Sludge 🛛	Other:	A CONTRACTOR OF THE PARTY OF TH
f. Layers? 🗹 Single layer 🗀 Multi- layer 🗀	I NA			
g. Water Reactive? 🔲 Yes 🗹 No 🛮 If Yes, Desc	ribe:	14- B		n had hadan as = 10 \$10 MH MHA Anny
h. Free Liquid Range (%):to				
i. pH Range: ☐ ≤2 ☐ 2.1-12.4 ☐ ≥12.5 ☑		tual:		
j, Liquid Flash Point: □ < 140°F □ ≥ 140°				
k. Flammable Solid: 🔾 Yes 🖼 No	()	effection to 193 1144	THE LAST OF STATE OF	
l. Physical Constituents: List all constituents of waste	stream - (e.g. Soil 0-			ed)
Constituents (Total Composition Must be > 100%)	Lower Range	Unit of Measure	Upper Range	Unit of Measure
1. salt 2. dint/gravel/sand	95	<u>%</u>	100 5	%
3.				
4.			_	
5. 6.				
2. ESTIMATED QUANTITY OF WASTE AND SHIPPING INFORM				
	.ATTON			
a. 🗹 One Time Event 🗀 Base 🗀 Repeat Event	Marin Comment		finite out of	
b. Estimated Annual Quantity: 12			,	,
c. Shipping Frequency: Ur			,	
d. Is this a U.S. Department of Transportation (USDOT	'			
e. USDOT Shipping Description (if applicable):				MARKET THE STATE OF THE STATE O
SAFETY REQUIREMENTS (Handling, PPE, etc.):				



©2008 Waste Management, Inc.

Generator's Nonhazardous Waste Profile Sheet

	D. Regulatory Status (Please check appropriate res	ponses)	***************************************				
1.	Is this a USEPA (40 CFR Part 261)/State hazardous waste? If yes, contact	t your sales r	epresentative.			Yes	☑ No
2.	Is this waste included in one or more of categories below (Check all that	t apply)? If y	es, attach sup	porting document	ation.	🗀 Yes	🗹 No
	☐ Delisted Hazardous Waste ☐ Exclude	ed Wastes Und	der 40 CFR 261	.4			
	☐ Treated Hazardous Waste Debris ☐ Treated	l Characterist	ic Hazardous W	/aste			,
3.	Is the waste from a Federal (40 CFR 300, Appendix B) or state mandated	d clean-up? If	yes, see instr	uctions.		Yes	☑ No
4.	Does the waste represented by this waste profile sheet contain radioacti	ive material?				Yes	☑ No
	a. If yes, is disposal regulated by the Nuclear Regulatory Commission?			☐ Yes ☐ No)		
	b. If yes, is disposal regulated by a State Agency for radioactive waste/N			☐ Yes ☐ No			,
5.	Does the waste represented by this waste profile sheet contain concentr	rations of reg	ulated Polychlo			☐ Yes	☑ No
	a. If yes, is disposal regulated under TSCA?			☐ Yes ☐ No)		
	Does the waste contain untreated, regulated, medical or infectious wast	te?			_	Yes	☑ No
7.	Does the waste contain asbestos?			If Yes, □	1 Friable	☐ Nor	n Friable
8.	Is this profile for remediation waste from a facility that is a major	source of Ha	zardous Air P	ollutants (Site Re	emediatio	n NESHA	Ρ,
	40 CFR 63 subpart GGGGG)?				🗹 Yes	□ No	0
	If yes, does the waste contain <500 ppmw VOHAPs at the poin	nt of determ	ination?		✓ Yes	☐ No)
	E. Generator Certification (Please read and certify)			· · · · · · · · · · · · · · · · · · ·			
By	signing this Generator's Waste Profile Sheet, I hereby certify that all:						
-	Information submitted in this profile and all attached documents contain	in true and a	rcurate descrin	itions of the waste	material		
	Relevant information within the possession of the Generator regarding k		•				
۷.	·	anown or sust	iected nazarus	percanning to tins	s waste iid	is been	
	disclosed to WM/the Contractor;				•••		
3.	Analytical data attached pertaining to the profiled waste was derived from	om testing a	representative	sample in accorda	ance with		
	40 CFR 261.20(c) or equivalent rules; and						
4.	Changes that occur in the character of the waste (i.e. changes in the pr					ator	
	and disclosed to WM (and the Contractor if applicable) prior to providin	g the waste t	to WM (and the	e Contractor if app	licable).		
5.	Check all that apply:						÷
	🖄 Attached analytical pertains to the waste. Identify laboratory & sam	iple ID #'s and	d parameters t	ested:			
	Hall Environmental Analysis Lab - RCI, TCLP RCRA 8 Metals, M	lethod 8260	3, Method 827	'0, Method 8015B	3# Pa	ges: <u>15</u>	
	Only the analyses identified on the attachment pertain to the waste	(identify by	laboratory & s	ample ID #'s and p	oarameter	s tested).	
	Attachment #:		_				
	☐ Additional information necessary to characterize the profiled waste	has been atta	ched (other t	nan analytical).			
	Indicate the number of attached pages:		(-2	,			
	☐ I am an agent signing on behalf of the Generator, and the delegation	on of authorit	v to me from t	he Generator for t	his sionat	ure is	
	available upon request.	or doctroric	y 20 me 110m 2	ine deficitation for the	ms signat		
	☐ By Generator process knowledge, the following waste is not a listed	waste and is	helow all TCLE	regulatory limits			
c .				dinator			
					····		
Co	mpany Name: Bloomfield Refinery	Name (Print	t): <u>Cindy Hur</u>	tado			
Da	te: 4-27-2010						
	FOR WI	M USE ONI	.Y		·		
М	anagement Method: 🚨 Landfill 🚨 Bioremediation	Approvat De	ecision:	☐ Approved	☐ Not	Approved	i
	Non-hazardous solidification 🚨 Other:	Waste Appro	oval Expiration	n Date:			-
M	anagement Facility Precautions, Special Handling Procedures or L	imitation	☐ Shall not	contain free liqu	iid		
	approval:			must be schedul		lienneal f	acility
-	· • • • • • • • • • • • • • • • • • • •		,				-
	1		• •	Number must acc	' -	•	ment
				nifest must accor			
W	M Authorization Name / Title:			Date:	,		
St	ate Authorization (if Required):			Date:			

May 2008



COVER LETTER

Thursday, April 22, 2010

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4161 FAX (505) 632-3911

RE: Composite-Merox Filter Media/Salt Dryer

Dear Cindy Hurtado:

Order No.: 1004180

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 4/9/2010 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901 AZ license # AZ0682 ORELAP Lab # NM100001 Texas Lab# T104704424-08-TX



Date: 22-Apr-10

CLIENT:

Western Refining Southwest, Inc.

Project:

Composite-Merox Filter Media/Salt Dryer

Lab Order:

1004180

CASE NARRATIVE

"S" flags denote that the surrogate was not recoverable or elevated due to sample dilution or matrix interferences.

Date: 22-Apr-10

CLIENT: Lab Order: Western Refining Southwest, Inc.

1004180

Composite-Merox Filter Media/Salt Dryer

Project: Lab ID:

1004180-01

Client Sample ID: Composite/Merox/Salt Dryer

Collection Date: 4/8/2010 8:30:00 AM

Date Received: 4/9/2010

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E ORGANICS					Analyst: JB
Diesel Range Organics (DRO)	3700	200		mg/Kg	20	4/13/2010 8:32:09 AM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	4/13/2010 8:32:09 AM
Surr: DNOP	0	61.7-135	s	%REC	20	4/13/2010 8:32:09 AM
EPA METHOD 8015B: GASOLINE RA	NGE					Analyst: NSB
Gasoline Range Organics (GRO)	110	100		mg/Kg	20	4/17/2010 2:20:44 AM
Surr: BFB	146	65.9-118	s	%REC	20	4/17/2010 2:20:44 AM
MERCURY, TCLP			`			Analyst: IC
Mercury	ND	0.020		mg/L	1	4/19/2010 4:58:03 PM
EPA METHOD 6010B: TCLP METALS	3					Analyst: RAGS
Arsenic	ND	5.0		mg/L	1	4/20/2010 6:53:02 PM
Barium	ND	100		mg/L	1	4/20/2010 6:53:02 PM
Cadmium	ND	1.0		mg/L	1	4/20/2010 6:53:02 PM
Chromium	ND	5.0		mg/L	1	4/20/2010 6:53:02 PM
Lead	ND	5.0		mg/L	1	4/20/2010 6:53:02 PM
Selenium	ND	1.0		mg/L	1	4/20/2010 6:53:02 PM
Silver	ND	5.0		mg/L	1	4/20/2010 6:53:02 PM
EPA METHOD 8270C: SEMIVOLATILE	S					Analyst: JDC
Acenaphthene	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Acenaphthylene	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Aniline	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Anthracene	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Azobenzene	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Benzoic acid	ND	0.50		mg/Kg	1	4/15/2010 7:14:04 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	4/15/2010 7:14:04 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
Carbazole	ND	0.20		mg/Kg	1	4/15/2010 7:14:04 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	4/15/2010 7:14:04 PM

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Ε Estimated value
- Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits

Page 1 of 5

Date: 22-Apr-10

CLIENT:

Western Refining Southwest, Inc.

Client Sample ID: Composite/Merox/Salt Dryer

Lab Order:

1004180

Project:

Composite-Merox Filter Media/Salt Dryer

Collection Date: 4/8/2010 8:30:00 AM

Lab ID:

1004180-01

Date Received: 4/9/2010

Matrix: SOIL

Analyses	Result	PQL	Qual U	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILI	ES				****	Analyst: JDC
4-Chloroaniline	ND	0.50	n	ng/Kg	1	4/15/2010 7:14:04 PM
2-Chloronaphthalene	ND	0.25		ng/Kg	1	4/15/2010 7:14:04 PM
2-Chlorophenol	ND	0.20		ng/Kg	1	4/15/2010 7:14:04 PM
4-Chlorophenyl phenyl ether	ND	0.20	n	ng/Kg	1	4/15/2010 7:14:04 PM
Chrysene	ND	0.20	n	ng/Kg	1	4/15/2010 7:14:04 PM
Di-n-butyl phthalate	ND	0.50	n	ng/Kg	1	4/15/2010 7:14:04 PM
Di-n-octyl phthalate	ND	0.25	n	ng/Kg	1	4/15/2010 7:14:04 PM
Dibenz(a,h)anthracene	ND	0.20	n	ng/Kg	1	4/15/2010 7:14:04 PM
Dibenzofuran	ND	0.20	n	ng/Kg	· 1	4/15/2010 7:14:04 PM
1,2-Dichlorobenzene	ND	0.20	n	ng/Kg	1	4/15/2010 7:14:04 PM
1,3-Dichlorobenzene	ND	0.20	n	ng/Kg	1	4/15/2010 7:14:04 PM
1,4-Dichlorobenzene	ND	0.20	n	ng/Kg	1	4/15/2010 7:14:04 PM
3,3'-Dichlorobenzidine	ND	0.25	n	ng/Kg	1	4/15/2010 7:14:04 PM
Diethyl phthalate	ND	0.20	n	ng/Kg	1	4/15/2010 7:14:04 PM
Dimethyl phthalate	ND	0.20	n	ng/Kg	1	4/15/2010 7:14:04 PM
2,4-Dichlorophenol	ND	0.40		ng/Kg	1	4/15/2010 7:14:04 PM
2,4-Dimethylphenol	ND	0.30		ng/Kg	1	4/15/2010 7:14:04 PM
4,6-Dinitro-2-methylphenol	ND	0.50	n	ng/Kg	1	4/15/2010 7:14:04 PM
2,4-Dinitrophenol	ND	0.40	n	ng/Kg	1	4/15/2010 7:14:04 PM
2,4-Dinitrotoluene	ND	0.50	n	ng/Kg	1	4/15/2010 7:14:04 PM
2,6-Dinitrotoluene	ND	0.50	n	ng/Kg	1	4/15/2010 7:14:04 PM
Fluoranthene	ND	0.20	n	ng/Kg	1	4/15/2010 7:14:04 PM
Fluorene	ND	0.20	n	ng/Kg	1	4/15/2010 7:14:04 PM
Hexachlorobenzene	ND	0.20	n	ng/Kg	1	4/15/2010 7:14:04 PM
Hexachlorobutadiene	ND	0.20	n	ng/Kg	1	4/15/2010 7:14:04 PM
Hexachlorocyclopentadiene	ND	0.20	n	ng/Kg	1	4/15/2010 7:14:04 PM
Hexachloroethane	ND	0.20	n	ng/Kg	1	4/15/2010 7:14:04 PM
Indeno(1,2,3-cd)pyrene	. ND	0.20	m	ng/Kg	1	4/15/2010 7:14:04 PM
Isophorone	ND	0.50	n	ng/Kg	1	4/15/2010 7:14:04 PM
2-Methylnaphthalene	2.6	0.20	n	ng/Kg	1	4/15/2010 7:14:04 PM
2-Methylphenol	ND	0.50	n	ng/Kg	· 1	4/15/2010 7:14:04 PM
3+4-Methylphenol	ND	0.20	m	ng/Kg	1	4/15/2010 7:14:04 PM
N-Nitrosodi-n-propylamine	ND	0.20	n	ng/Kg	1	4/15/2010 7:14:04 PM
N-Nitrosodiphenylamine	ND	0.20	n	ng/Kg	1	4/15/2010 7:14:04 PM
Naphthalene	ND	0.20	n	ng/Kg	1	4/15/2010 7:14:04 PM
2-Nitroaniline	ND	0.20	r	ng/Kg	1	4/15/2010 7:14:04 PM
3-Nitroaniline	ND	0.20		ng/Kg	1	4/15/2010 7:14:04 PM
4-Nitroaniline	ND	0.25	m	ng/Kg	1	4/15/2010 7:14:04 PM
Nitrobenzene	ND	0.50	m	ng/Kg	1	4/15/2010 7:14:04 PM
2-Nitrophenol	ND	0.20		ng/Kg	1	4/15/2010 7:14:04 PM
4-Nitrophenol	ND	0.20	m	ng/Kg	1	4/15/2010 7:14:04 PM

Qualiflers:

- Value exceeds Maximum Contaminant Level
- Estimated value
- Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Η
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits

Page 2 of 5

Date: 22-Apr-10

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

1004180

Client Sample ID: Composite/Merox/Salt Dryer

Collection Date: 4/8/2010 8:30:00 AM

Pi

Project:	Composite-Merox Filter Media/Salt Dryer	Date Received:	4/9/2010
Lab ID:	1004180-01	Matrix:	SOIL

Analyses	Result	. PQL	Qual Unit	s DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES					Analyst: JDC
Pentachlorophenol	ND	0.40	mg/K	g 1	4/15/2010 7:14:04 PM
Phenanthrene	0.41	0.20	mg/K	g 1	4/15/2010 7:14:04 PM
Phenol	ND	0.20	mg/K	g 1	4/15/2010 7:14:04 PM
Pyrene	ND	0.20	mg/K	g 1	4/15/2010 7:14:04 PM
Pyridine	ND	0.50	mg/K	g 1	4/15/2010 7:14:04 PM
1,2,4-Trichlorobenzene	ND	0.20	mg/K	g 1	4/15/2010 7:14:04 PM
2,4,5-Trichlorophenol	ND	0.20	mg/K	g 1	4/15/2010 7:14:04 PM
2,4,6-Trichlorophenol	ND	0.20	mg/K	g 1	4/15/2010 7:14:04 PM
Surr: 2,4,6-Tribromophenol	33.2	28.4-132	%RE	C 1	4/15/2010 7:14:04 PM
Surr: 2-Fluorobiphenyl	45.7	37.4-123	%RE	1	4/15/2010 7:14:04 PM
Surr: 2-Fluorophenol	62.1	28.6-110	%RE	3 1	4/15/2010 7:14:04 PM
Surr: 4-Terphenyl-d14	69.5	29.2-111	%RE	3 1	4/15/2010 7:14:04 PM
Surr: Nitrobenzene-d5	49.9	33.8-126	%RE	1	4/15/2010 7:14:04 PM
Surr: Phenol-d5	65. 8	35.3-110	%RE	1	4/15/2010 7:14:04 PM
EPA METHOD 8260B: VOLATILES					Analyst: DAM
Benzene	ND	0.50	mg/K	10	4/13/2010 4:34:50 PM
Toluene	ND	0.50	mg/K	g 10	4/13/2010 4:34:50 PM
Ethylbenzene	ND	0.50	mg/K	10	4/13/2010 4:34:50 PM
Methyl tert-butyl ether (MTBE)	ND	0.50	mg/K	10	4/13/2010 4:34:50 PM
1,2,4-Trimethylbenzene	7.2	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,3,5-Trimethylbenzene	2.4	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,2-Dichloroethane (EDC)	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,2-Dibromoethane (EDB)	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Naphthalene	ND	1.0	mg/Kg	10	.4/13/2010 4:34:50 PM
1-Methylnaphthalene	ND	2.0	mg/Kg	10	4/13/2010 4:34:50 PM
2-Methylnaphthalene	2.1	2.0	mg/Kg	10	4/13/2010 4:34:50 PM
Acetone	ND	7.5	mg/Kg	10	4/13/2010 4:34:50 PM
Bromobenzene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Bromodichloromethane	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Bromoform	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Bromomethane	ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
2-Butanone	ND	5.0	mg/Kg		4/13/2010 4:34:50 PM
Carbon disulfide	ND	5.0	mg/Kg	10	4/13/2010 4:34:50 PM
Carbon tetrachloride	ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
Chlorobenzene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Chloroethane	ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
Chloroform	ND	0.50	mg/Kg		4/13/2010 4:34:50 PM
Chloromethane	ND	0.50	mg/Kg		4/13/2010 4:34:50 PM
2-Chlorotoluene	ND	0.50	mg/Kg		4/13/2010 4:34:50 PM
4-Chlorotoluene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM

Qualifiers:

- Value exceeds Maximum Contaminant Level
- Ε Estimated value
- Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Н
- MCL Maximum Contaminant Level
- Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits

Page 3 of 5

Date: 22-Apr-10

CLIENT:

Western Refining Southwest, Inc.

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Lab Order:

1004180

Composite-Merox Filter Media/Salt Dryer

Project: Lab ID:

1004180-01

Client Sample ID: Composite/Merox/Salt Dryer

Collection Date: 4/8/2010 8:30:00 AM

Date Received: 4/9/2010

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES					Analyst: DAM
cis-1,2-DCE	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
cis-1,3-Dichloropropene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,2-Dibromo-3-chloropropane	. ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
Dibromochloromethane	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Dibromomethane	ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
1,2-Dichlorobenzene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,3-Dichlorobenzene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,4-Dichlorobenzene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Dichlorodifluoromethane	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,1-Dichloroethane	ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
1,1-Dichloroethene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,2-Dichloropropane	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,3-Dichloropropane	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
2,2-Dichloropropane	ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
1,1-Dichloropropene	ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
Hexachlorobutadiene	ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
2-Hexanone	ND	5.0	mg/Kg	10	4/13/2010 4:34:50 PM
Isopropylbenzene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
4-Isopropyltoluene	1.1	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
4-Methyl-2-pentanone	ND	5.0	mg/Kg	10	4/13/2010 4:34:50 PM
Methylene chloride	ND	1.5	mg/Kg	10	4/13/2010 4:34:50 PM
n-Butylbenzene	1.8	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
n-Propylbenzene	0.50	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
sec-Butylbenzene	0.60	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Styrene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
tert-Butylbenzene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,1,1,2-Tetrachloroethane	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,1,2,2-Tetrachloroethane	ND	0.50	. mg/Kg	10	4/13/2010 4:34:50 PM
Tetrachloroethene (PCE)	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
trans-1,2-DCE	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
trans-1,3-Dichloropropene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,2,3-Trichlorobenzene	ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
1,2,4-Trichlorobenzene	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,1,1-Trichloroethane	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,1,2-Trichloroethane	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Trichloroethene (TCE)	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Trichlorofluoromethane	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
1,2,3-Trichloropropane	ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
Vinyl chloride	ND	0.50	mg/Kg	10	4/13/2010 4:34:50 PM
Xylenes, Total	ND	1.0	mg/Kg	10	4/13/2010 4:34:50 PM
Surr: 1,2-Dichloroethane-d4	88.3	74-108	%REC	10	4/13/2010 4:34:50 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
 - S Spike recovery outside accepted recovery limits

Page 4 of 5

Date: 22-Apr-10

CLIENT:

Western Refining Southwest, Inc.

Western Kerning Southwe

Client Sample ID: Composite/Merox/Salt Dryer

Lab Order:

1004180

Collection Date: 4/8/2010 8:30:00 AM

Project:

Composite-Merox Filter Media/Salt Dryer

Date Received: 4/9/2010

Lab ID:

1004180-01

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Surr: 4-Bromofluorobenzene	. 138	71.5-127	S	%REC	10	4/13/2010 4:34:50 PM
Surr: Dibromofluoromethane	115	78.1-106	S	%REC	10	4/13/2010 4:34:50 PM
Surr: Toluene-d8	82.0	77.9-109		%REC	10	4/13/2010 4:34:50 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Page 5 of 5



YOU'F LINE OFFICHOUCE

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REPORT OF ANALYSIS

Anne Thorne Hall Environmental Analysis Laborat 4901 Hawkins NE Albuquerque, NM 87109

April 20, 2010

ESC Sample # : L453743-01

Date Received Description

April 1004180

13, 2010

Site ID :

Sample ID

COMPOSITE/MEROX/SALT DRYER

Project # : 1004180

Collected By : Collection Date :

04/08/10 08:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9040C	04/16/10	1
Ignitability	See Footnote		Deg. F	D93/1010A	04/20/10	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	04/16/10	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	04/16/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL) Note: The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC. Reported: 04/20/10 17:08 Printed: 04/20/10 17:09 L453743-01 (IGNITABILITY) - Did Not Ignite @ 170F

Date: 22-Apr-10

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

Composite-Merox Filter Media/Salt Dryer

Work Order:

1004180

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec L	owLimit Hi	ghLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8016B: D	iesel Range	o Organics									
Sample ID: MB-21898		MBLK				Batch ID:	21898	Analysis	Date:	4/11/2010	1:09:56 AM
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						•		
Sample ID: LCS-21898		LCS				Batch ID:	21898	Analysis	Date:	4/11/2010	1:46:11 AM
Diesel Range Organics (DRO)	43.22	mg/Kg	10	50	0	86.4	64.6	116			
Sample ID: LCSD-21898		LCSD				Batch ID:	21898	Analysis	Date:	4/11/2010	2:22:23 AM
Diesel Range Organics (DRO)	45.58	mg/Kg	10	50	0	91.2	64.6	116	5.30	17.4	
Method: EPA Method 8015B: G	asoline Rar	nge									
Sample ID: MB-21900		MBLK				Batch ID:	21900	Analysis	Date:	4/15/2010	8:35:07 PM
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-21900		LCS				Batch ID:	21900	Analysis	Date:	4/16/2010	4:40:18 AM
Gasoline Range Organics (GRO)	25.11	mg/Kg	5.0	25	1.66	93.8	77.7	1.35			

O	ual	ifi	ers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Date: 22-Apr-10

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

Composite-Merox Filter Media/Salt Dryer

Work Order:

1004180

Analyte	Result	Units	PQL	SPK Va S	SPK ref	%Rec L	owLimit Hig	ghLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C;	Semivolatiles	1				· 					
Sample ID: 1004180-01Bmsd		MSD				Batch ID:	21907	Analys	is Date:	4/15/2010 8	3:14:38 PM
Acenaphthene	0.8210	mg/Kg	0.20	1.67	0	49.2	24	125	4.68	30	
4-Chloro-3-methylphenol	1.283	mg/Kg	0.50	3.33	0	38.5	14.6	154	3.20	30	
2-Chlorophenol	1.761	mg/Kg	0.20	3.33	0	52.9	13.3	149	31.3	30	R
1,4-Dichlorobenzene	0.7377	mg/Kg	0.20	1,67	0	44.2	23.6	118	17.7	30	
2,4-Dinitrotoluene	0.6323	mg/Kg	0.50	1.67	0	37.9	28	136	10.7	30	
N-Nitrosodi-n-propylamine	1.209	mg/Kg	0.20	1.67	0	72.4	28	114	5.44	30	
4-Nitrophenol	ND	mg/Kg	0.20	3.33	0	0	13.1	150	0	0	\$
Pentachlorophenol	0.7910	mg/Kg	0.40	3.33	0	23.8	20.1	139	8.25	30	
Phenol	1.440	mg/Kg	0.20	3.33	0	43.2	17.3	141	27.7	30	
Ругеле	0.9810	mg/Kg	0.20	1.67	0	58.7	29	131	21.7	30	
1,2,4-Trichlorobenzene	0.5583	mg/Kg	0.20	1.67	0	33.4	17.9	126	2.60	30	
Sample ID: mb-21907		MBLK				Batch ID:	21907	Analys	is Date:	4/15/2010 4	I;41:23 PM
Acenaphthene	ND	mg/Kg	0.20							•	
Acenaphthylene	ND	mg/Kg	0.20								
Aniline	ND	mg/Kg	0.20								
Anthracene	ND	mg/Kg	0.20						•		
Azobenzene	ND	mg/Kg	0.20								
Benz(a)anthracene	ND	mg/Kg	0.20								
Benzo(a)pyrene	ND	mg/Kg	0.20								
Benzo(b)fluoranthene	ND	mg/Kg	0.20								
Benzo(g,h,i)perylene	ND	mg/Kg	0.20								
Benzo(k)fluoranthene	ND	mg/Kg	0.20								
Benzoic acid	ND	mg/Kg	0.50								
Benzyl alcohol	ND	mg/Kg	0.20								
Bis(2-chloroethoxy)methane	ND	mg/Kg	0.20								
Bis(2-chloroethyl)ether	ND	mg/Kg	0.20								
Bis(2-chloroisopropyl)ether	ND	mg/Kg	0.20								
Bis(2-ethylnexyl)phthalate	ND	mg/Kg	0.50				•				
4-Bromophenyl phenyl ether	ND	mg/Kg	0.20								
Butyl benzyl phthalate	ND	mg/Kg	0.20								
Carbazole	ND	mg/Kg	0.20								
4-Chloro-3-methylphenol	ND	mg/Kg	0.50								
4-Chloroaniline	ND	mg/Kg	0.50								
2-Chloronaphthalene	ND	mg/Kg	0.25								
2-Chlorophenol	ND	mg/Kg	0.20								
4-Chlorophenyl phenyl ether	ND	mg/Kg	0.20			•					
Chrysene	ND	mg/Kg	0.20								
DI-n-butyl phthalate	ND	mg/Kg	0.50								
Di-n-octyl phthalate	ND	mg/Kg	0.25								
Dibenz(a,h)anthracene	ND	mg/Kg	0.20								
Dibenzofuran	ND	mg/Kg	0.20								
1,2-Dichlorobenzene	ND	mg/Kg	0.20								
1,3-Dichlorobenzene	ND	mg/Kg	0.20								
1,4-Dichlorobenzene	ND	mg/Kg	0.20								

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

Composite-Merox Filter Media/Salt Dryer

Work Order:

1004180

Analyte	Result	Units	PQL	SPK Va SPK ref	%Rec	LowLimit F	lighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C	: Semivolatile									
Sample ID: mb-21907		MBLK			Batch ID:	21907	Analysis	Date:	4/15/2010	4:41:23 PI
3,3 -Dichlorobenzidine	ND	mg/Kg	0.25							
Diethyl phthalate	ND	mg/Kg	0.20							
Dimethyl phthalate	ND	mg/Kg	0.20							
2,4-Dichlorophenol	ND	mg/Kg	0.40							
2,4-Dimethylphenol	ND	mg/Kg	0.30							
4,6-Dinitro-2-methylphenol	ND	mg/Kg	0.50							
2,4-Dinitrophenol	ND	mg/Kg	0.40							
2,4-Dinitrotoluene	ND	mg/Kg	0.50							
2,6-Dinitrotoluene	ND	mg/Kg	0.50							
Fluoranthene	ND	mg/Kg	0.20							
Fluorene	ND	mg/Kg	0.20							
Hexachlorobenzene	ND	mg/Kg	0.20							
Hexachlorobutadiene	ND	mg/Kg	0.20							
Hexachlorocyclopentadiene	ND	mg/Kg	0.20							
Hexachloroethane	ND	mg/Kg	0.20							
Indeno(1,2,3-cd)pyrene	ND	mg/Kg	0.20							
Isophorone	ND	mg/Kg	0.50							
2-Methylnaphthalene	ND	mg/Kg	0.20							
2-Methylphenol	МÐ	mg/Kg	0.50							
3+4-Methylphenol	ND	mg/Kg	0.20							
N-Nitrosodi-n-propylamine	ND	mg/Kg	0.20							
N-Nitrosodiphenylamine	ND	mg/Kg	0.20							
Naphthalene	ND	mg/Kg	0.20							
2-Nitroaniline	ND	mg/Kg	0.20							
3-Nitroaniline	ND	mg/Kg	0.20							
4-Nitroaniline	ND	mg/Kg	0.25							
Nitrobenzene	ND	mg/Kg	0.50							
2-Nitrophenol	ND	mg/Kg	0.20							
4-Nitrophenol	ND	mg/Kg	0.20							
Pentachlorophenol	ND	mg/Kg	0.40							
Phenanthrene	ND	mg/Kg	0.20							
Phenol	ND	mg/Kg	0.20						•	
Pyrene	ND	mg/Kg	0.20							
Pyridine	ND	mg/Kg	0.50							
1,2,4-Trichlorobenzene	ND	mg/Kg	0.20							
2,4,5-Trichlorophenol	ND	mg/Kg	0.20							
2,4,6-Trichlorophenol	ND	mg/Kg	0.20							
Sample ID: Ics-21907		LCS			Batch ID:	21907	Analysis I	Date:	4/15/2010 5	:12:09 PM
Acenaphthene	1.200	mg/Kg	0.20	1.67 0	71.8	39.4	101			
I-Chloro-3-methylphenol	1.955	mg/Kg	0.50	3.33 0	58.7	40.1	96.6			
2-Chlorophenol	2.211	mg/Kg	0.20	3.33 0	66.4	32.2	94.6			
,4-Dichlorobenzene	1.107	mg/Kg	0.20	1.67 0	66.3	32.2	96.7			
2.4-Dinitrotoluene	1.099	mg/Kg	0.50	1.67 0	65.8	39.4	111			
N-Nitrosodi-n-propylamine	1.010	mg/Kg	0.20	1.67 0	60.5	41.1	89.8			

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Date: 22-Apr-10

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

Composite-Merox Filter Media/Salt Dryer

Work Order:

1004180

Analyte	Result	Units	PQL	SPK Va S	SPK ref	%Rec L	owLimit Hi	ghLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C:	Semivolatile						*****				
Sample ID: Ics-21907		LCS				Batch ID:	21907	Analys	is Date:	4/15/2010	5:12:09 PM
4-Nitrophenol	2.199	mg/Kg	0.20	3.33	0	66.0	18.1	122			
Pentachlorophenol	2.322	mg/Kg	0.40	3.33	0	69.7	37.5	98.8		,	
Phenol	1.974	mg/Kg	0.20	3.33	0	59.3	.29	96			
Pyrene	1.139	mg/Kg	0.20	1.67	0	68,2	37.7	94.4			
1,2,4-Trichlorobenzene	1.210	mg/Kg	0.20	1.67	0	72.4	35.6	101			
Sample ID: lcsd-21907		LCSD				Batch ID:	21907	Analys	s Date:	4/15/2010	5:42:39 PN
Acenaphthene	1.210	mg/Kg	0.20	1.67	0	72.5	39.4	101	0.858	25	
4-Chloro-3-methylphenol	2.297	mg/Kg	0.50	3.33	0	69.0	40.1	96.6	16.1	25	
2-Chlorophenol	2.350	mg/Kg	0.20	3.33	0	70.6	32.2	94.6	6.11	25	
1,4-Dichlorobenzene	1,118	mg/Kg	0.20	1.67	0	66.9	32.2	96.7	0.929	25	
2,4-Dinitrotoluene	1.216	mg/Kg	0.50	1.67	0	72.8	39.4	111	10.1	25	
N-Nitrosodi-n-propylamine	1.134	mg/Kg	0.20	1.67	0	67.9	41.1	89.8	11.6	25	
4-Nitrophenol	2.546	mg/Kg	0.20	3.33	0	76.5	18.1	122	14.6	25	
Pentachlorophenol	2.294	mg/Kg	0.40	3.33	0	68.9	37.5	98.8	1.21	25	
Phenol	2.075	mg/Kg	0.20	3.33	0	62.3	29	96	5.00	25	
Pyrene	1.108	mg/Kg	0.20	1.67	0	66.3	37.7	94.4	2.76	25	
1,2,4-Trichlorobenzene	1.176	mg/Kg	0.20	1.67	0	70.4	35.6	101	2.79	25	
Sample ID: 1004180-01Bms		MS				Batch ID:	21907	Analys	is Date:	4/15/2010	7:44:22 PM
Acenaphthene	0.8603	mg/Kg	0.20	1.67	0	51.5	24	125		,	
4-Chloro-3-methylphenol	1.324	mg/Kg	0.50	3.33	0	39.8	14.6	154			
2-Chlorophenol	1.284	mg/Kg	0.20	3.33	0	38.6	13.3	149			
1,4-Dichlorobenzene	0.6180	mg/Kg	0.20	1.67	0	37.0	23.6	118			
2,4-Dinitrotoluene	0.5680	mg/Kg	0.50	1.67	0	34.0	28	136			
N-Nitrosodi-n-propylamine	1.145	mg/Kg	0.20	1.67	0	68.6	28	114			•
4-Nitrophenol	ND	mg/Kg	0.20	3.33	0	0	13.1	150			s
Pentachlorophenol	0.7283	mg/Kg	0.40	3.33	0	21.9	20.1	139			
Phenol	1.089	mg/Kg	0.20	3.33	0	32.7	17.3	141			
Pyrene	0.7893	mg/Kg	0.20	1.67	0	47.3	29	131			
1,2,4-Trichlorobenzene	0.5440	mg/Kg	0.20	1.67	0	32.6	17.9	126	<u> </u>		
Method: MERCURY, TCLP											
Sample ID: MB-21980 (#3306)		MBLK				Batch ID:	21980	Analys	is Date:	4/19/2010 4	1:23:44 PM
Mercury	ND	mg/L	0.020								
Sample ID: LCS-21980	·	LCS				Batch ID:	21980	Analys	is Date:	4/19/2010 4	1:25:28 PM
Mercury	МD	mg/L	0.020	0.005	0	103	80	120			
,					-						

Qua	lifia	-
Vua	eer ic	

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project: Composite-Merox Filter Media/Salt Dryer

Work Order:

1004180

Analyte	Result	Units	PQL	SPK V	a SPK ref	%Rec L	owLimit Hi	ghLimit	%RPD	RPDLimit	Qual
Method: EPA Method 6010B:	TCLP Metals										
Sample ID: MB-21983		MBLK				Batch ID:	21983	Analysis	Date:	4/20/2010	5:34:10 PN
Arsenic	ND	mg/L	5.0								
Barlum	ND	mg/L	100								
Cadmium	ND	mg/L	1.0								
Chromium	ND	mg/L	5.0								
-ead	ND	mg/L	5.0								
Selenium	ND	mg/L	1.0					•			
Silver	ND	mg/L	5.0								
Sample ID: MB-21983		MBLK				Batch ID:	21983	Analysis	Date:	4/21/2010 6	5:02:14 PM
-ead	ND	mg/L	5.0								
Sample ID: LCS-21983		LCS				Batch ID:	21983	Analysis	Date:	4/20/2010 5	5:37:13 PN
Arsenic	ND	mg/L	5.0	0.5	0	108	80	120			
Barium	ND	mg/L	100	0.5	0	94.2	80	120			
Cadmium	ND	mg/L	1.0	0.5	0	101	80	120			
Chromium	ND	mg/L	5.0	0.5	0	97.3	80	120			
ead	ND	mg/L	5.0	0.5	0.0018	94.6	80	120			
Selenium	ND	mg/L	1.0	0.5	0	108	80	120			
Bilver	ND	mg/L	5.0	0.5	0.0009	108	80	120			
Sample ID: LCS-21983		LCS				Batch ID:	21983	Analysis	Date:	4/21/2010 6	:04:39 PM
ead	ND	mg/L	5.0	0.5	0	97.3	80	120			

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT		Date Received	t:	4/9/2010	
Work Order Number 1004180			Received by	TLS	Λ
Checklist completed by:		4 Q	Sample ID la	bels checked b	y: (L) Initials
Matrix:	Carrier name:	<u>UPS</u>			
Shipping container/cooler in good condition?		Yes 🗹	No 🗌	Not Present	
Custody seals intact on shipping container/coole	er?	Yes 🗹	No 🗆	Not Present	Not Shipped
Custody seals intact on sample bottles?		Yes 🗹	No 🗀	N/A	
Chain of custody present?	,	Yes 🗹	No 🗀		
Chain of custody signed when relinquished and	received?	Yes 🗹	No 🗌		
Chain of custody agrees with sample labels?		Yes 🗹	No 🗆		
Samples in proper container/bottle?		Yes 🗹	No 🗌		
Sample containers intact?		Yes 🗹	No 🗀		
Sufficient sample volume for indicated test?		Yes 🗹	No 🗌		
All samples received within holding time?		Yes 🗹	No 🗆		Number of preserved bottles checked for
Water - VOA vials have zero headspace?	No VOA vials subm	nitted 🗹	Yes 🗌	No 🗌	pH:
Water - Preservation labels on bottle and cap m	atch?	Yes 🔲	No 🗌	N/A ☑	:
Water - pH acceptable upon receipt?		Yes 🗌	No 🗌	N/A 🗹	<2 >12 unless noted below.
Container/Temp Blank temperature?		1.3°	<6° C Acceptable		2
COMMENTS:			If given sufficient	time to cool.	
					•
•					
Client contacted	Date contacted:		Pers	on contacted	
Contacted by:	Regarding:				
Comments:					
·					
Corrective Action			······································		
CONTORION					
					

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Wednesday, March 31, 2010 2:33 PM

To:

'Hurtado, Cindy'

Cc:

Schmaltz, Randy, Pinkerton, Barbara

Subject:

Western Refining Southwest, Inc.- Bloomfield Refinery FCC fines updated report (GW-001)

Approved.

Please be advised that NMOCD approval of this plan does not relieve Western Refining Southwest, Inc. of responsibility should their operations pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Western Refining Southwest, Inc. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/ index.htm (Pollution Prevention Guidance is under "Publications")

From: Hurtado, Cindy [mailto:Cindy.Hurtado@wnr.com]

Sent: Wednesday, March 31, 2010 2:25 PM

To: Chavez, Carl J, EMNRD

Cc: Schmaltz, Randy; Pinkerton, Barbara **Subject:** FW: FCC fines updated report

Good Afternoon Carl,

Please find attached the updated FCC Fines 8-04-09 & 8-05-09 lab report. Also, read below for the laboratory manager's explanation. Previous analysis of the fines had always been ND with a PQL of 1.0. I guess my eye was trained to see that decimal whether it was there or not. Please contact me if you need more information.

Thanks, Cindy

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery
<u>cindy.hurtado@wnr.com</u>
505-632-4161

From: andy [mailto:andy@hallenvironmental.com]

Sent: Wednesday, March 31, 2010 1:36 PM

To: Hurtado, Cindy

Subject: FCC fines updated report

Cindy,

I have attached the updated report for the FCC Fines sample. The selenium PQL should have been at 1.0mg/L on the original report. I have attached the updated report with the selenium PQL listed at 1.0mg/L. Selenium is ND at this PQL.

Thank you,

Andy Freeman
Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
505-345-3975
505-345-4107 fax
andy@hallenvironmental.com
www.hallenvironmental.com

Cindy:

The OCD DQOs for Selenium were not met in the submittal. For example, the lab ND for Selenium was 5 mg/L; however, the hazardous limit is 1 mg/L. Please have the lab determine if this was typo or whether the FCC waste busted for Selenium, which would make characteristically hazardous waste.

Thank you.

Carl J. Chavez, CHMM New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/index.htm (Pollution Prevention Guidance is under "Publications")

From: Hurtado, Cindy [mailto:Cindy.Hurtado@wnr.com]

Sent: Tuesday, March 30, 2010 9:09 AM

To: Chavez, Carl J, EMNRD

Cc: Schmaltz, Randy; Pinkerton, Barbara

Subject: Request for Landfill Disposal of FCC Spent Catalyst Fines

Good Morning Carl,

OCD approved disposal of Bloomfield Refinery's Spent Fluid Catalytic Cracker Waste (alumina-based) to the San Juan County Landfill on 1-12-2010. Waste Management is requesting that Bloomfield Refinery obtain OCD approval to amend the existing profile for FCC Spent Catalyst to include FCC Fines. In that regard, the only changes made on the profile are to include a reddish color and to attach TCLP and RCI analysis of the fines. Please find attached to this e-mail the amended Waste Management Profile (100272NM) for Spent FCC Catalyst and the TCLP and RCI analysis for the FCC Fines.

The fines are produced at the end of the catalytic cracking process and the very fine particles of spent catalyst are caught in the filter mechanism in the Precipitator. Rappers then knock the fine dust into the hopper carts. FCC Fines had previously been approved for disposal on Bloomfield Refinery's on-site landfill that is no longer active.

Please contact Randy Schmaltz if you have questions.

Thank you for your prompt attention to this matter,

Cindy

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery
cindy.hurtado@wnr.com
505-632-4161

Chavez, Carl J, EMNRD

From:

Hurtado, Cindy [Cindy.Hurtado@wnr.com] Wednesday, March 31, 2010 2:25 PM

Sent: To:

Chavez, Carl J, EMNRD

Cc:

Schmaltz, Randy; Pinkerton, Barbara

Subject:

FW: FCC fines updated report

Attachments:

DOC033110.pdf

Good Afternoon Carl,

Please find attached the updated FCC Fines 8-04-09 & 8-05-09 lab report. Also, read below for the laboratory manager's explanation. Previous analysis of the fines had always been ND with a PQL of 1.0. I guess my eye was trained to see that decimal whether it was there or not. Please contact me if you need more information.

Thanks, Cindy

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery
cindy.hurtado@wnr.com
505-632-4161

From: andy [mailto:andy@hallenvironmental.com]

Sent: Wednesday, March 31, 2010 1:36 PM

To: Hurtado, Cindy

Subject: FCC fines updated report

Cindy,

I have attached the updated report for the FCC Fines sample. The selenium PQL should have been at 1.0mg/L on the original report. I have attached the updated report with the selenium PQL listed at 1.0mg/L. Selenium is ND at this PQL.

Thank you,

Andy Freeman
Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
505-345-3975
505-345-4107 fax
andy@hallenvironmental.com
www.hallenvironmental.com

This message has been scanned for viruses and dangerous content by <u>MailScanner</u>, and is believed to be clean.

Date: 31-Mar-10

CLIENT:

Western Refining Southwest, Inc.

Client Sample ID: FCC Fines

Lab Order:

0908058

Tag Number:

Project:

FCC Fines 8-4-09 & 8-5-09

Collection Date: 8/5/2009 3:40:00 PM

Lab ID:

0908058-02A

Date Received: 8/5/2009

Matrix: SOLID

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
MERCURY, TCLP					Analyst: MMS
Mercury	ND	0.020	mg/L	1	8/11/2009 4:37:25 PM
EPA METHOD 6010B: TCLP METALS					Analyst: IC
Arsenic	ND -	5.0	mg/L	10	8/14/2009 3:20:36 PM
Barium	ND	100	mg/L	10	8/14/2009 12:55:01 PM
Cadmium	ND	1.0	mg/L	10	8/14/2009 12:55:01 PM
Chromium	ND	5.0	mg/L	10	8/14/2009 12:55:01 PM
Lead	ND	5.0	mg/L	10	8/14/2009 12:55:01 PM
Selenium	ND	1.0	mg/L	10	8/14/2009 6:22:57 PM
Silver	ND	5.0	mg/L	10	8/14/2009 12:55:01 PM

Spike recovery outside accepted recovery limits

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

RL Reporting Limit

Value exceeds Maximum Contaminant Level

E Estimated value

Analyte detected below quantitation limits

Not Detected at the Reporting Limit ND



COVER LETTER

Wednesday, March 31, 2010

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990

Bloomfield, NM 87413

TEL: (505) 632-4161 FAX (505) 632-3911

RE: FCC Fines 8-4-09 & 8-5-09

Dear Cindy Hurtado:

Order No.: 0908058

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 8/5/2009 for the analyses presented in the following report.

This report is an addendum to the report dated August 19, 2009. This is an updated report. The selenium PQL has been updated.

No determination of compounds below these (denoted by the ND or < sign) has been made.

Reporting limits are determined by EPA methodology.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682 ORELAP Lab # NM100001 Texas Lab# T104704424-08-TX





LABORATORY ANALYTICAL REPORT

Clienti.

Hall Environmental

Project: Lab ID

0908088

B09080684-001

Client Sample ID: 0908058-01A FCC Fines

Report Date: 08/17/09

Collection Date: 08/04/09 14:35

DateReceived: 08/06/09

Matrix: Soll

Analyses:	Result Units	Mick Qualifiers RL QCL	Method	Analysis Date/18y
IGNITABILITY Fleen Point (Ignited) (V)	:≥200° - '*F	Ø.039	SW1010M	08/17/09/11/04/Lings
CORROSIVITY pHiof Solliand Waste	3.94 8.07	0 <u>.10</u> .	BW9046D	.08/14/08 13:00 %oir
REACTIVITY Gyanida, Reactive Sunney, Reactive	NO marka	0.05 250 20 600	SWB46:Ch.7 SWB46:Ch.7	08/14/08:18/40 / kjp 08/12/08:08/00 / pwo

Report Definitions:

RL - Analyte reporting limit:

QCL - Quality control limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Glient: Hall Environmental

Project: 0908058

Report Date: 08/17/09 Work Orden B09080584.

Analyte	Result Units	ŖĿ	%REC	Low Limit	High Limit	RPD	RPbLImit	Qual.
Method: SW1010M		,			 		Batch	:R]0444
sample ID;: (LOS-18134142 Flash-Point (ID)(((3))((V))	Laboratory Control Sample 49.5 "F	30	100	Run: Misc 98	HZW_090817© 102		ØB/17	700 11:04
Method: 6W848 Ch'7	,, 			,			Pet	čn: 40885
Sample ID: MB-40685 Cyanide, Reactive	Mathod Blank: ND mg/kg	0.05	**	Run! AUTO	AN201.B_09081	4B	09/14	/09 15:07
Mathod: SW848 Ch 7	, , , , , , , , , , , , , , , , , , , 						Balch	R134228
Sample 10; MB-R134228 Suilide, Reactive	Mathod Blank NO mg/kg	10		RunsMi6C	H2W_0808120		-68/12	/00 08:00
Sample:IDt LGS-R/194229 Guilde: Readlive	Lubbratory Control Sample 22 mg/kg	20	7,6	Rún: MISC 50	HZW_0908120 150		08/12	/08 08 :00
Sample ID: Brapardo Volc bur Sulide, Reactive	Sample Duplicale 180 malka	20 -	٠,	Fun Misc-	fizw. 090812D	1 4	50 50445	<i>Ŋ</i> ġŌ <i>ġ</i>)ႳႳ
Method: SW9035D						****	Balch;	R134317
Sample lor Bosobozse odtadup:	Sample Dupitoate 9:20: \$:01.	0.10		Run: 产作列i	STER_080818A	۴,0.	08/13 10	/09 13:00

Qualiflors:

RL - Analyte reporting limit.

ND:- Not detected at the reporting limit:

Date: 31-Mar-10

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Fines 8-4-09 & 8-5-09

Work Order:

0908058

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec Lo	wLimit Hi	ghLimit %RPD	RPDLimit Qual
Method: MERCURY, TCLP Sample ID: 0908058-02AMSD		MSD				Batch ID:	19811	Analysis Date:	8/11/2009 4:40:59 PM
Mercury Sample ID: MB-19811	ND	mg/L <i>MBLK</i>	0.020	0.005	0	101 Batch ID:	75 19811	125 0 Analysis Date:	20 8/11/2009 4:26:55 PM
Mercury Sample ID: LCS-19811	ND	mg/L LCS	0.020			Batch ID:	19811	Analysis Date:	8/11/2009 4:28:38 PM
Mercury Sample ID: 0908058-02AMS	ND	mg/L MS	0.020	0.005	0	99.7 Batch.ID:	80 . 19811	120 .Analysis Date:	8/11/2009 4:39:12 PM
Mercury	ND	mg/L	0.020	0.005	0	99.7	75	125	•

Qualifiers:

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

E Estimated value

J Analyte detected below quantitation limits

Date: 31-Mar-10

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Fines 8-4-09 & 8-5-09

Work Order:

0908058

Analyte		Resuit	Units	PQL	SPK Va	SPK ref	%Rec Lo	wLimit Hig	ghLimit	%RPD	RPDLimit	Qual
Method:	EPA Method 6010B:	TCLP Metals										
Sample ID:	0908058-02AMSD		MSD				Batch ID:	19867	Analysi	s Date:	8/14/2009	1:13:33 PM
Barium		ND	mg/L	100	0.5	0.1619	120	75	125	0	20	
Cadmium		ND	mg/L	1.0	0.5	0	124	75	125	0	20	
Chromium		ND	mg/L	5.0	0.5	0.1071	115	75	125	0	20	
Lead		ND .	mg/L	5.0	0.5	0.0345	120	75	125	0	20	
Silver		ND	mg/L	5.0	0.5	0	90.7	75	125	0	20	
Sample ID:	0908058-02AMSD		MSD				Batch ID:	19867	Analysi	s Date:	8/14/2009	3:35:46 PM
Arsenic		ND	mg/L	5.0	0.5	1.887	170	75	125	0	20	\$
	0908058-02AMSD		MSD	0.0			Batch ID:	19867	Analysi		8/14/2009	
•		ND		10	0.5	0	0	75	125	0	20	s
Selenium Semela ID:	84D 40040	ND	mg/L <i>MBLK</i>	10	0.5	U	Batch ID:	19840	Analysi		8/11/2009	
Sample ID:	MB-1984U						Daton ID.	15040	Allalysi	S Date.	0/11/2009	1.00.00 FIY
Barium	*	ND	mg/L	100								
Cadmium		ND	mg/L	1.0								
Chromium		ND	mg/L	5.0								
Silver		ND	mg/L	5.0								
Sample ID:	MB-19867		MBLK				Batch ID:	19867	Analysi	s Date:	8/14/2009 1	0:57:40 AM
Arsenic		ND	mg/L	5.0								
Barium		ND	mg/L	100								
Cadmium		ND	mg/L	1.0								
Chromium		ND	mg/L	5.0								
Lead		ND	mg/L	5.0								
Selenium		ND	mg/L	1.0								
Silver		ND	mg/L	5.0						•		
Sample ID:	LCS-19840		LCS				Batch ID:	19840	Analysi	s Date:	8/11/2009	4:55:39 PN
Barium		ND	mg/L	100	0.5	0.0012	108	80	120			
Cadmium		ND	mg/L	1.0	0.5	0	116	80	120			
Chromium		ND	mg/L	5.0	0.5	0	95.6	80	120			
Silver		ND	mg/L	5.0	0.5	0	84.4	80	120			
	LCS-19867	,	LCS				Batch ID:	19867	Analysi	is Date:	8/14/2009 1	1:00:55 AN
Arsenic		ND	mg/L	5.0	0.5	0	110	80	120			
Barium		ND	mg/L	100		0.0015	98.0	80	120			
Cadmium		ND	mg/L	1.0		0.0008	106	80	120			
Chromium		ND	mg/L	5.0	0.5	0	99.6	80	120			
Lead		ND	mg/L	5.0		0.0069	98.3	80	120			
Selenium		ND	mg/L	1.0	0.5	0	119	80	120			
Silver		ND	mg/L	5.0	0.5	0.006	104	80	120	•		
=	0908058-02AMS		MS				Batch (D:	19867		is Date:	8/14/2009 1	2:57:46 PN
- Barium		ND	mg/L	100	0.5	0.1619	121	75	125			
Cadmium		ND	mg/L	1.0	0.5	0	127	75	125			s
Chromium		ND	mg/L	5.0		0.1071	118	75	125			-
Lead		ND	mg/L	5.0		0.0345	129	75	125		-	S
Silver		ND	mg/L	5.0	0.5	0.0545	89.0	75	125			•
		140	mgr ⊑	5.0	0.5	v	Batch ID:					

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

Date: 31-Mar-10

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Fines 8-4-09 & 8-5-09

Work Order:

0908058

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec Lo	owLimit Hi	ghLimit %RPD	RPDLimit Qual
Method: EPA Method 6010B: Sample ID: 0908068-02AMS	TCLP Metals	MS		,		Batch ID:	19867	Analysis Date:	8/14/2009 3:31:31 PM
Arsenic Sample ID: 0908058-02AMS	ND	mg/L <i>MS</i>	5.0	0.5	1.887	128 Batch ID:	75 19867	125 Analysis Date:	8/14/2009 6:25:27 PM
Selenium	ND	mg/L	10	0.5	0	0	75	125	s

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT				Date Receive	ed:	8	3/5/2009
Work Order Number 0908058	Λ			Received b	y: TLS		
Checklist completed by:	H			Sample ID	labels checked	by:	4-7
Signature	- C		Dai		•		•
Matrix:	Carrier name	UPS	<u> </u>				
Shipping container/cooler in good condition?		Yes	V	No 🗆	Not Present		
Custody seals intact on shipping container/cooler	?	Yes		No 🗀	Not Present		ot Shipped
Custody seals intact on sample bottles?		Yes	`	No 🗔	N/A	V	
Chain of custody present?		Yes	\checkmark	No 🗆			
Chain of custody signed when relinquished and re	eceived?	Yes	V	No 🗆			-
Chain of custody agrees with sample labels?		Yes		No 🗔	,		
Samples in proper container/bottle?		Yes	V	No 🗌			
Sample containers intact?		Yes	Ø	No 🗆			
Sufficient sample volume for indicated test?		Yes	¥	No 🗔			
All samples received within holding time?	·	Yes	V	No 🗔			Number of preserved
Water - VOA vials have zero headepace?	No VOA vials subm	ritted	\mathbf{Z}	Yes 🔲	No 🗌		bottles checked for pH:
Water - Preservation labels on bottle and cap mat	lch?	Yes		No 🗆	N/A ☑		
Water - pH acceptable upon receipt?		Yes		No 🗆	N/A 🗹		<2 >12 unless noted
Container/Temp Blank temperature?		6.	9°	<6° C Acceptab	ıle	•	below.
COMMENTS:				if given sufficien	t time to cool.		
				•			•
		====					
•							
Client contactedD	ete contacted:			Pers	on contacted		
Contacted by:	legarding:						
			``				
Comments:			******				
		 -		~,			
				, , , , , , , , , , , , , , , , , , ,			
					The second secon	 	
Corrective Action			<u></u>				
Corrective Action	**************************************						
	4	 , -			·		

HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109	Tel	(8021) (Valuese) (leseiDiese)	+ TPH (G) 159 (G) 169 (G) 169 (G) 169 (G) 17 (G) 169 (BTEX + MTBE BTEX + MTBE TPH (Method 8 BTEX + Method 8 BTEX + Method 8 BTEX + MTBE BTEX + M	XXX							Remarks:	Date Time
Tum-Around Time:		Project Manager.	Sampler: Fab	Container Preservative Type and # Type	. 1		·					Kecewed by: Date CUID SISION SISIO	
dy Record	Phone #: 525 - 632 - 4/6/	email or Fax#: COS — 653 ~ 41/6/ OA/OG-Package: □ Level 4 (Full Validation)	□ Other	Date Time Matrix Sample Request ID	8-4-9 2:35 pooder FCC Fines						- 1	8-4-042150 (Coto Kaller)	Date: Time: Refinquished by: Received by:

	MALL ENVIRONMENTAL ANALYSIS LABORATORY	Manual Parameter Charles	www.italie.itylioliilleliidi. 4901 Hawkins:NE - Albuquerque, NM 87109		Analysis	(PG	Die	/88;	108 (C) 108 (C) 109 (C	08 14 14 15 000, 000, 15 26 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	TPH Method EDB (Method 8310 (PNA of RCRA 8 Method Anions (F,Cl. 8081 Pestick 8250 (Semi- 8270 (Semi- 6270 (Semi- 6270 (Semi- 6270 (Semi-	XXX						· · · · · · · · · · · · · · · · · · ·	Am or in-constructed data will be deadly indicated on the analytical renort
库			49	¥		 _					TM + X3T8 TM + X3T8							 Remarks	wesibility
Tum-Around Time:	□ Standard □ Rush	Project Name:	FCC Fines 805-09	Project #:	DI COLO	Project Manager:			Sampler:		Container Preservative Type and # Type	1-800 Jac						Received by Date Time Received by: Dillo 8 6 0 9	contracted to other accordited laboratories. This serves as notice of this
Chain-of-Custody Record	Client Western Refinery		Mailing Address: #50 CR 4990	- Bloomfield, N.M. 874/3	Phone # 505 -6.33 - 4/6/	1	QA/QC Package:	☐ Standard ☐ Level 4 (Full Validation)	Accreditation	□ EDD (Type)	Date Time Matrix Sample Request ID	Stoseof 344 Stid Fee Fines						Sinkie Reinquished by. Sinkie Reinquished by. Date: Time.	if necessary, samples submitted to Hall Environmental may be subcontracted to

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Wednesday, March 31, 2010 10:26 AM

To:

'Hurtado, Cindy'

Cc:

Schmaltz, Randy; Pinkerton, Barbara

Subject:

RE: Request for Landfill Disposal of FCC Spent Catalyst Fines

Cindy:

The OCD DQOs for Selenium were not met in the submittal. For example, the lab ND for Selenium was 5 mg/L; however, the hazardous limit is 1 mg/L. Please have the lab determine if this was typo or whether the FCC waste busted for Selenium, which would make characteristically hazardous waste.

Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/index.htm (Pollution Prevention Guidance is under "Publications")

From: Hurtado, Cindy [mailto:Cindy.Hurtado@wnr.com]

Sent: Tuesday, March 30, 2010 9:09 AM

To: Chavez, Carl J, EMNRD

Cc: Schmaltz, Randy; Pinkerton, Barbara

Subject: Request for Landfill Disposal of FCC Spent Catalyst Fines

Good Morning Carl,

OCD approved disposal of Bloomfield Refinery's Spent Fluid Catalytic Cracker Waste (alumina-based) to the San Juan County Landfill on 1-12-2010. Waste Management is requesting that Bloomfield Refinery obtain OCD approval to amend the existing profile for FCC Spent Catalyst to include FCC Fines. In that regard, the only changes made on the profile are to include a reddish color and to attach TCLP and RCI analysis of the fines. Please find attached to this e-mail the amended Waste Management Profile (100272NM) for Spent FCC Catalyst and the TCLP and RCI analysis for the FCC Fines.

The fines are produced at the end of the catalytic cracking process and the very fine particles of spent catalyst are caught in the filter mechanism in the Precipitator. Rappers then knock the fine dust into the hopper carts. FCC Fines had previously been approved for disposal on Bloomfield Refinery's on-site landfill that is no longer active.

Please contact Randy Schmaltz if you have questions.

Thank you for your prompt attention to this matter,

Cindy

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery
cindy.hurtado@wnr.com
505-632-4161

Generator's Nonnazardous waste frome aneer

	Requested Disposal Facility					
WASTE MANAGEMENT	☐ Renewal for Profile Number					
	erator Facility Information (mu					
	Western Refining Southwest, Inc Bloo					
	0 Road 4990					
	field 87413				9. FAX: <u>505</u> -	
	ico				2000110110	
	an .				0089416416	
	itle: <u>Cindy Hurtado - Environmental Coor</u>	dine			1000	
B. Customer	nformation 🗹 same as above		P. O. Number:			delication of the second secon
Customer Name:		б.	Phone:		FAX:	
Billing Address:		7.	Transporter Na	me:	Manager Manage	TOTAL TOTAL CONTRACTOR OF THE PROPERTY CONTRACTOR OF THE PROPERTY OF THE PROPE
City, State and Z	IP:	8.	Transporter ID	# (if appl.):		
Contact Name: _		9.	Transporter Ad	dress:		
Contact Email:		10	. City, State an			
C. Waste Strea	m Information					
DESCRIPTION						
a. Common Was	te Name: Spent FCC Catalyst				Parks and the same of the same	
	Code(s):					
	cess Generating Waste or Source of Conta					
1	ised in a catalytic cracking proc	ess	of neavy hyd	rocarbons. C	over time the ca	ataiyst activity
degrades a	nd becomes spent.					
	(s): off-white to reddish color					
	☐ Yes ☑ No Describe:					
_	e at 70°F: 🖸 Solid 🖸 Liquid 🗹		er 🔾 Semi-So	olid or Sludge C	Other:	and a paper time and a page and a summanish data data and dataset and the entire the purple of the second section of the purple of the second section of the purple of the second section of the section of th
•	🛘 Single layer 🔲 Multi- layer 🗀 🗎					
	ve? 🗖 Yes 🗹 No If Yes, Describ					P. 1. 2. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
		NA(sol				
i. pH Range:	☐ ≤2 ☐ 2.1-12.4 ☐ ≥12.5 ☐ I			al: <u>4-8</u>	n-	
j. Liquid Flash I			▼ NA(solid)	☐ Actual:		
k. Flammable So			/ C. 1 0 00	N Maria 0 20/4)	. [] /C Att	
	tituents: List all constituents of waste st	ream -	Lower Range	Unit of Measure	: U (See Attache	Unit of Measure
L. Alumina Silica	Matrix		99	%	1	%
Petroleum Hyd	drocarbons		0	%		%
						-
ō						
),				and the second s		
ESTIMATED QUAN	ITITY OF WASTE AND SHIPPING INFORMAT	ION				
a. 🗹 One Time E	vent 🗖 Base 📮 Repeat Event					
b. Estimated Ar	nual Quantity: 100 💆 Tons	Cu Cu	bic Yards 🚨 [rums 🚨 Gallor	ns 🗀 Other (specif	y):
	quency:Unit:				. , ,	• ,
	Department of Transportation (USDOT) F					
	ing Description (if applicable):					
	MENTS (Handling, PPE, etc.):					



Generator's Nonhazardous Waste Profile Sheet

D. Regulatory Status (Please check appropriate resp	onses)
1. Is this a USEPA (40 CFR Part 261)/State hazardous waste? If yes, contact	your sales representative.
2. Is this waste included in one or more of categories below (Check all that ☐ Delisted Hazardous Waste ☐ Excluded	apply)? If yes, attach supporting documentation. ☐ Yes No
☐ Treated Hazardous Waste Debris ☐ Treated	Characteristic Hazardous Waste
3. Is the waste from a Federal (40 CFR 300, Appendix B) or state mandated	
4. Does the waste represented by this waste profile sheet contain radioactiv	e material?
a. If yes, is disposal regulated by the Nuclear Regulatory Commission?	Yes No
b. If yes, is disposal regulated by a State Agency for radioactive waste/NC	/
5. Does the waste represented by this waste profile sheet contain concentra a. If yes, is disposal regulated under TSCA?	tions of regulated Polychlorinated Biphenyls (PCBs)? Yes No Yes No
Does the waste contain untreated, regulated, medical or infectious waste	,
7. Does the waste contain asbestos?	If Yes, Triable Non Friable
8. Is this profile for remediation waste from a facility that is a major so	
40 CFR 63 subpart GGGGG)?	☐ Yes ☐ No
If yes, does the waste contain <500 ppmw VOHAPs at the point	
E. Generator Certification (Please read and certify b	
By signing this Generator's Waste Profile Sheet, I hereby certify that all:	y signature below)
1. Information submitted in this profile and all attached documents contain	true and accurate descriptions of the waste materials
 Relevant information within the possession of the Generator regarding kn 	
disclosed to WM/the Contractor;	own or suspected integrals perturning to this waste has been
3. Analytical data attached pertaining to the profiled waste was derived from	n testing a representative sample in accordance with
40 CFR 261.20(c) or equivalent rules; and	
4. Changes that occur in the character of the waste (i.e. changes in the prod	ess or new analytical) will be identified by the Generator
and disclosed to WM (and the Contractor if applicable) prior to providing	the waste to WM (and the Contractor if applicable).
5. Check all that apply:	
🗹 Attached analytical pertains to the waste. Identify laboratory & samp	le ID #'s and parameters tested:
Hall Environmental Laboratory - FCC Fines 8-04-09 / 8-5-09 - TCL	· ·
\square Only the analyses identified on the attachment pertain to the waste (identify by laboratory & sample ID #'s and parameters tested).
Attachment #:	
Additional information necessary to characterize the profiled waste had	as been attached (other than analytical).
Indicate the number of attached pages:	
I am an agent signing on behalf of the Generator, and the delegation	of authority to me from the Generator for this signature is
available upon request. By Generator process knowledge, the following waste is not a listed w	acts and is holowall TCLP regulatory limits
	itle: Environmental Coordinator
/ '	
	lame (Print): Cindy Hurtado
Date: 3-29-2010	
	USE ONLY
•	pproval Decision:
☐ Non-hazardous solidification ☐ Other: W	
Management Facility Precautions, Special Handling Procedures or Lin	·
on approval:	Shipment must be scheduled into disposal facility
Taylory - American Residents as American Assertan	Approval Number must accompany each shipment
Addressed Proper Commissional State Control	☐ Waste Manifest must accompany load
WM Authorization Name / Title:	Date:
State Authorization (if Required):	Date:



COVER LETTER

Wednesday, August 19, 2009

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4161 FAX (505) 632-3911

RE: FCC Fines 8-4-09 & 8-5-09

Dear Cindy Hurtado:

Order No.: 0908058

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 8/5/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Exerman, Business Manager Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682 ORELAP Lab # NM100001 Texas Lab# T104704424-08-TX



Date: 19-Aug-09

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0908058

0908058

FCC Fines 8-4-09 & 8-5-09

Project: Lab ID:

0908058-02

Client Sample ID: FCC Fines

Collection Date: 8/5/2009 3:40:00 PM

Date Received: 8/5/2009

Matrix: SOLID

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
MERCURY, TCLP	* A ***	· · · · · · · · · · · · · · · · · · ·			Analyst: MMS
Mercury	ND	0.020	mg/L	1	8/11/2009 4:37:25 PM
EPA METHOD 6010B: TCLP METALS					Analyst: IC
Arsenic	ND	5.0	mg/L	10	8/14/2009 3:20:36 PM
Barium	ND	100	mg/L	10	8/14/2009 12:55:01 PM
Cadmium	ND	1.0	mg/L	10	8/14/2009 12:55:01 PM
Chromium	ND	5.0	mg/L	10	8/14/2009 12:55:01 PM
Lead	ND	5.0	mg/L	10	8/14/2009 12:55:01 PM
Selenium	ND	10	mg/L	10	8/14/2009 6:22:57 PM
Silver	ND	5.0	mg/L	10	8/14/2009 12:55:01 PM

Se 1 mg/L

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Page 1 of 1



LABORATORY ANALYTICAL REPORT

Clienti,

Hall Environmental

Project:

0908058

Lab ID:

B09080584-001

Client Sample ID: 0908058-01A FCC Fines

Report Date: 08/17/09

Collection Date: 08/04/09 14:35

DateReceived: 08/06/09

Matrix: Soil

Analyses	Result Units	MCL/ Qualifiers RL QCL	Method	Analysis Date / By
IGNITABILITY Flash Point (Ignitability)	:>200 °F	80.0	SW1010M	08/17/09/11/04 / mgs
CORROSIVITY pH of Soll and Waste	3(94) (8(0)	0.10	8W9045D	08/13/09 13:00 / elr
REACTIVITY Cyanide, Reactive Sunder, Reactive	ND mg/kg	0.05. 250 20 600	SW846 Ch 7 SW846 Ch 7	.08/14/09:15:40 / kjp 08/12/09:08:00 / pwc

Report Definitions: RL - Analyte reporting limit:

QCL - Quality control limit.

MCL - Maximum contaminant level,

ND - Not detected at the reporting limit.



QA/QC Summary Report

Cilent: Hall Environmental

Project: 0908058

Report Date: 08/17/09

Work Order: B09080584

Analyte	Result Units	RL	%REC	Low Limit	High Limit	ŔPD	RPDLImit	Qual
Method: SW1010M							Batch	R134442
Sample ID: LOS-R134442 Flash Point (Ignilability)	Laboratory Control Sample 89.5 "F	30	100	Run: MISC 98	HZW_0908176 102		98/13	7/09 11:04
Method: SW846 Ch 7		 		······································			Bat	ch: 40685
Sample ID; MB-40685 Cyanide, Reactive	Method Blank ND mg/kg	0.05		Run: AUTO	AN201-B_0908	14B	08/14	/09 15:07
Method; SW846 Gh 7	the state of the s	 			:	· · · · · · · · · · · · · · · · · · ·	Batch:	R134229
Sample 1D; MB-R134229 Suffide, Reactive	Method Blank ND mg/kg	10		Run:MISC	HZW_090812D		√08/12	/09 08:00
Sample ID; LCS-R134229 Sulfide, Reactive	Laboratory Control Sampte 22 mg/kg	20	76	Run: MISC- 50	HZW_090812D 150	:	08/12	/09 0 8:00
Sample ID: B09080500-001C DUP Sulfide, Reactive	Sample Duplicate 180 mg/kg	20	-,	Run: MISC-	HZW_090812D	11	08/12 20	/09.08:00
Method: SW9045D					<u></u>		Batch:	R134317
Sample ID: B09080256-001ADUP	Sample Dupilloate 9.20 ś.ü.	0.10		Run: PA ME	STER_090813A	0,1	08/13 10	/09 13:00

Qualiflers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit:

Date: 19-Aug-09

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Fines 8-4-09 & 8-5-09

Work Order:

0908058

Analyte	Result	Units	PQL	SPK Va S	PK ref	%Rec Lo	wLimit Hi	ghLimit	%RPD	RPDLimit	Qual
Method: MERCURY, TCLP Sample ID: 0908058-02AMSD		MSD		•		Batch ID:	19811	Analysia	s Date:	8/11/2009	4:40:59 PM
Mercury Sample ID: MB-19811	ND	mg/L <i>MBLK</i>	0.020	0.005	0	101 Batch ID:	75 19811	125 Analysis	0 s Date:	20 8/11/2009	4:26:55 PM
Mercury Sample ID: LCS-19811	ND	mg/L LCS	0.020			Batch ID:	19811	Analysis	B Date:	8/11/2009	4:28:38 PM
Mercury Sample ID: 0908058-02AMS	ΝD	mg/L <i>MS</i>	0.020	0.005	0	99.7 Batch ID:	80 1 9811	120 Analysis	s Date:	8/11/2009	4:39:12 PM
Mercury	ND	mg/L	0.020	0.005	0	99.7	75	125			

Qualifiers:

R RPD outside accepted recovery limits

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

E Estimated value

J Analyte detected below quantitation limits

H Holding times for preparation or analysis exceeded

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project: FCC Fines 8-4-09 & 8-5-09

Work Order:

0908058

Analyte		Result	Units	PQL	SPK V	SPK ref	%Rec Lo	owLimit Hig	ghLimit	%RPD	RPDLimit	Qual
Method:	EPA Method 8010B:	TCLP Metals										
Sample ID:	0908058-02AMSD		MSD				Batch ID:	19867	Analysi	s Date:	8/14/2009	1:13:33 PM
Barium		ND	mg/L	100	0.5	0.1619	120	75	125	0	20	
Cadmium		ND	mg/L	1.0	0.5	0	124	75	125	٥	20	
Chromium		ND	mg/L	5.0	0.5	0.1071	115	75	125	· 0	20	
Lead		ND	mg/L	5.0	0.5	0.0345	120	75	125	O	20	
Silver		ND	mg/L	5.0	0.5	0	90.7	75	125	0	20	
Sample ID:	0908058-02AMSD		MSD				Batch ID:	19867	Analysi	s Date:	8/14/2009	3:35:46 PM
Arsenic		ND	mg/L	5.0	0.5	1.887	170	75	125	0	20	s
Sample ID:	0908058-02AMSD		MSD				Batch ID:	19867	Analysi	s Date:	8/14/2009	6:27:56 PM
Selenium		ND	mg/L	10	0.5	0	0	75	125	0	20	s
Sample ID:	MD 40840	ND	MBLK	10	0.0	Ū	Batch ID:	19840	Analysi		8/11/2009	
•	MD-18040						baton ib.	10040	, maryon	o Date.	0///2005	7. 00 .00 T N
Barium		ND	mg/L	100								
Cadmium		ND	mg/L	1.0								
Chromium		ND	mg/L	5.0								
Silver		ND	mg/L	5.0								
Sample ID:	MB-19867		MBLK				Batch ID:	19867	Analysi	s Date:	8/14/2009 10	0:57:40 AM
Arsenic		ND	mg/L	5.0			**					
Bariu m		ND	mg/L	100								
Cadmium		ND	mg/L	1.0								
Chromium		ND	mg/L	5.0				•				
Lead		ND	mg/L	5.0								
Selenium		ND	mg/L	1.0								
Silver		ND	mg/L	5.0								
Sample ID:	LCS-19840		LCS				Batch ID:	19840	Analysi	s Date:	8/11/2009 4	4:55:39 PM
Barium		ND	mg/L	100	0.5	0.0012	108	80	120			
Cadmium		ND	mg/L	1.0	0.5	0	116	80	120			
Chromium		ND	mg/L	5.0	0.5	0	95.6	80	120			
Silver		ND	mg/L	5.0	0.5	0	84.4	80	120			
Sample ID:	LCS-19867		LCS.				Batch ID:	19867	Analysi	s Date:	8/14/2009 1	1:00:55 AM
Arsenic		ND	mg/L	5.0	0,5	0	110	80	120			
Barium		ND	mg/L	100	0.5	0.0015	98.0	80	120			
Cadmium		ND	mg/L	1.0	0.5	0.0008	106	80	120			
Chromium		ND	mg/L	5.0	0.5	0	99.6	80	120			
Lead		ND	mg/L	5.0	0.5	0.0069	98.3	80	120			
Selenium		ND	mg/L	1.0	0.5	0	119	80	120			
Silver		ND	mg/L	5.0	0.5	0.006	104	80	120			
	0908058-02AMS		MS				Batch ID:	19867	Analysi	s Date:	8/14/2009 12	2:57:46 PM
Barium		ND	mg/L	100	0.5	0.1619	121	75	125			
Cadmium		ND	mg/L	1.0	0.5	0	127	75	125			s
Chromium		ND	mg/L	5.0		0.1071	118	75	125			
Lead		ND	mg/L	5.0		0.0345	129	75	125	-		s
Silver		ND	mg/L	5.0	0.5	0	89.0	75	125			-
	0908058-02AMS	.,	MS		2.0	-	Batch ID:	19867	Analysi		.	3:31:31 PM

Ons	lifters:

E Estimated value

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

Date: 19-Aug-09

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Fines 8-4-09 & 8-5-09

Work Order:

0908058

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec Lo	owLimit Hig	ghLimit %RPD	RPDLimit Qual
Method: EPA Method 6010B: Sample ID: 0908058-02AMS	TCLP Metals	MS				Batch ID:	19867	Analysis Date:	8/14/2009 3:31:31 PM
Arsenic Sample ID: 0908058-02AMS	ND	mg/L <i>MS</i>	5.0	0.5	1.887	128 Batch (D:	75 19867	125 Analysis Date:	S 8/14/2009 6:25:27 PM
Selenium	ND	mg/L	10	0.5	0	0	75	125	S

Qualifiers:

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

E Estimated value

J Analyte detected below quantitation limits

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT			Date Red	ceived:		8/5/2009
Work Order Number 0908058			Receive	ed by: TLS	;	
Checklist completed by:	•		8 IS 09	ID labels check	ed by:	Initials
Signature		C	Pate			
Matrix: Car	rrier name <u>UPS</u>	è				
Shipping container/cooler in good condition?	Yes	V	No 🗆	Not Prese	nt 🗀	
Custody seals intact on shipping container/cooler?	Yes	\checkmark	No 🗀	Not Prese	nt 🗆	Not Shipped
Custody seals intact on sample bottles?	Yes		No 🗆	N/A	V	
Chain of custody present?	Yes	\checkmark	No 🗆			
Chain of custody signed when relinquished and received?	Yes	\checkmark	No 🗆			
Chain of custody agrees with sample labels?	Yes	V	No 🗀			
Samples in proper container/bottle?	Yes	V	No 🗆			
Sample containers intact?	Yes	\checkmark	No 🗌	,		
Sufficient sample volume for indicated test?	Yes	V	No 🗌			
All samples received within holding time?	Yes	V	No 🗆			Number of preserved
Water - VOA vials have zero headspace? No VOA	A vials submitted	\checkmark	Yes 🗌	No		battles checked for pH:
Water - Preservation labels on bottle and cap match?	Yes		No 🗌	N/A	Y	
Water - pH acceptable upon receipt?	Yes		No 🗌	N/A	V	<2 >12 unless noted
Container/Temp Blank temperature?	6	.9°	<6° C Acce	ptable		below.
COMMENTS:			if given suff	icient time to coo	l.	
Client contacted Date cont	acted:			Person contacte	d	
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Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Tuesday, January 12, 2010 3:37 PM

To:

'Hurtado, Cindy' 'Schmaltz, Randy'

Cc: Subject:

RE: Request for Landfill Waste Disposal Spent FCC Alumina-based Waste

Cindy:

Based upon the laboratory analytical results provided, OCD hereby approves of your request pursuant to 19.15.35.8 NMAC for disposal of the proposed non-domestic waste at a solid waste facility. The following waste is approved:

Bloomfield Refinery (GW-001) – Spent Fluid Catalytic Cracker Waste (alumina-based) (based upon review of TCLP Metals, BTEX, SVOC, PAH, Ignitability, Reactivity, and Corrosivity results)

Waste Management is responsible for the review of any additional testing that they request beyond the testing parameters specified under the provisions of Subsection C of Section 8 of 19.15.35 NMAC. Please confirm with the San Juan Regional County Landfill (SJRCL) of any additional testing they might require and their willingness to accept such waste prior to delivery.

Please be advised that approval of this request does not relieve Western Refining Southwest (WRSW) of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve WRSW of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If you have any questions regarding this matter, please do not hesitate to contact me. Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/index.htm (Pollution Prevention Guidance is under "Publications")

From: Hurtado, Cindy [mailto:Cindy.Hurtado@wnr.com]

Sent: Monday, January 11, 2010 4:21 PM **To:** Chavez, Carl J, EMNRD; Schmaltz, Randy

Subject: Request for Disposal

Good Afternoon Carl,

Western Refining Southwest, Inc personnel are in the planning stages of mothballing the Fluidized Catalytic Cracking Unit at the Bloomfield Refinery and requests permission to dispose of approximately 100 tons of spent FCC Catalyst at the San Juan County Landfill located at #78 Road 3140 Aztec, New Mexico. Please find attached the MSDS for fresh FCC Catalyst. Also attached is analytical data for both fresh and spent catalyst that was sampled on December 4, 2009. Both samples were analyzed for Reactivity, Corrosivity, Ignitability, RCRA 8 Metals – TCLP, Total TAB Metals, Total BTEX, Total PAHs, and Total Semi-Volatiles (8270). The results indicate that the spent FCC catalyst does not leach out contaminants and is non-hazardous. Fresh FCC catalyst will be transferred to WRSI's Gallup Refinery.

As soon as Bloomfield Refinery receives direction or approval from OCD, a profile will be established with Waste Management and contractors contacted to complete the mothballing project.

Sincerely, Cindy Hurtado

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery
cindy.hurtado@wnr.com
505-632-4161

This inbound email has been scanned for malicious software and transmitted safely to you using Webroot Email Security.

Discharge Plan Renewal Application

February 2009.

Bloomfield Refinery utilizes 15 active recovery wells within the process area as well as the Hammond Ditch French Drain Recovery System to pump and treat hydrocarbon impacted groundwater. The groundwater recovered with these systems is transferred to the API Separator for treatment.

This discharge typically ranges from 9,000 to11,000 gallons per day.

Spent Caustic

Section 7.0

20-25 Baume caustic is used in the Merox Treater to remove H2S (Hydrogen sulfide) from the LPG stream coming into the unit. After the caustic is spent it is stored in Tank #10 until it can be transported and disposed of in an off-site hazardous waste treatment facility.

This discharge typically ranges from 3,800 to 4,000 gallons per month.

Diesel/Kerosene Salt Dryers

Four salt wash vessels are used to remove impurities from diesel and kerosene product streams. Occasionally, the salt must be replaced and, at that time, the vessels are drained. Wastewater containing dissolved solids and trace hydrocarbons are discharged to the process sewer.

This discharge typically ranges from 800 to 1,000 gallons per event when replacing salt. This event occurs 2 –3 times per year.

Sources of solid waste include the following. Most of the wastes are generated intermittently and then removed, collected, containerized, and stored until shipped off-site for recycling or disposal.

Fluid Catalytic Cracking Unit (FCCU) Catalyst

A metallic (alumina) catalyst is used within the FCCU to convert hydrocarbon molecules. The material is a dry, metallic solid and is non hazardous. This catalyst is periodically replaced and the spent catalyst and fines are deposited in the on-site landfill and covered with soil.

Approximately 200 to 300 tons of spent FCCU catalyst is generated every year.

Naphtha Hydrotreating Unit (NHT) and Sulfur Guard Catalyst

There are two reactors that contain metallic catalyst in this unit. One reactor is used to convert hydrocarbon molecules and the other is used to adsorb sulfur molecules. The

Western Refining Southwest, Inc. Bloomfield Refinery

Chavez, Carl J, EMNRD

From:

Hurtado, Cindy [Cindy.Hurtado@wnr.com]

Sent:

Monday, January 11, 2010 4:21 PM

To:

Chavez, Carl J, EMNRD; Schmaltz, Randy

Subject:

Request for Disposal

Attachments:

FCC Catalyst 12-2009.pdf; MSDS FCC Catalyst.doc

Good Afternoon Carl.

Western Refining Southwest, Inc personnel are in the planning stages of mothballing the Fluidized Catalytic Cracking Unit at the Bloomfield Refinery and requests permission to dispose of approximately 100 tons of spent FCC Catalyst at the San Juan County Landfill located at #78 Road 3140 Aztec, New Mexico. Please find attached the MSDS for fresh FCC Catalyst. Also attached is analytical data for both fresh and spent catalyst that was sampled on December 4, 2009. Both samples were analyzed for Reactivity, Corrosivity, Ignitability, RCRA 8 Metals – TCLP, Total TAB Metals, Total BTEX, Total PAHs, and Total Semi-Volatiles (8270). The results indicate that the spent FCC catalyst does not leach out contaminants and is non-hazardous. Fresh FCC catalyst will be transferred to WRSI's Gallup Refinery.

As soon as Bloomfield Refinery receives direction or approval from OCD, a profile will be established with Waste Management and contractors contacted to complete the mothballing project.

Sincerely, Cindy Hurtado

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery
cindy.hurtado@wnr.com
505-632-4161

This inbound email has been scanned for malicious software and transmitted safely to you using Webroot Email Security.



COVER LETTER

Thursday, December 10, 2009

Kelly Robinson Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (602) 908-6617 FAX (505) 632-3911

RE: FCC Catalyst

Dear Kelly Robinson:

Order No.: 0912074

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 12/4/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901 AZ license # AZ0682 ORELAP Lab # NM100001

Texas Lab# T104704424-08-TX



Date: 11-Dec-09

CLIENT:

Western Refining Southwest, Inc.

Project:

FCC Catalyst

Lab Order:

0912074

CASE NARRATIVE

[&]quot;S" flags denote that the surrogate recovery was poor due to matrix interferences.

Date: 11-Dec-09

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0912074

Client Sample 1D: FCC Spent Catalyst

Collection Date: 12/3/2009 11:00:00 AM

Project:

FCC Catalyst

Date Received: 12/4/2009

Lab ID:

0912074-01

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES		······································			Analyst: NSB
Benzene	ND	0.050	mg/Kg	1	12/8/2009 12:33:20 AM
Toluene	ND	0.050	mg/Kg	1	12/8/2009 12:33:20 AM
Ethylbenzene	ND	0.050	mg/Kg	1	12/8/2009 12:33:20 AM
Xylenes, Total	ND	0.10	mg/Kg	1	12/8/2009 12:33:20 AM
Surr: 4-Bromofluorobenzene	106	64.7-120	%REC	1	12/8/2009 12:33:20 AM
EPA METHOD 8310: PAHS					Analyst: JAT
Naphthalene	ND	0.25	mg/Kg	. 1	12/10/2009 12:30:41 PM
1-Methylnaphthalene	ND	0.25	mg/Kg	1	12/10/2009 12:30:41 PM
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/10/2009 12:30:41 PM
Acenaphthylene	ND	0.25	mg/Kg	1	12/10/2009 12:30:41 PM
Acenaphthene	ND	0.25	mg/Kg	1	12/10/2009 12:30:41 PM
Fluorene	ND	0.030	mg/Kg	1	12/10/2009 12:30:41 PM
Phenanthrene	ND	0.015	mg/Kg	1	12/10/2009 12:30:41 PM
Anthracene	ND	0.015	mg/Kg	1	12/10/2009 12:30:41 PM
Fluoranthene	ND	0.020	mg/Kg	1	12/10/2009 12:30:41 PM
Pyrene	ND	0.025	mg/Kg	1	12/10/2009 12:30:41 PM
Benz(a)anthracene	ND	0.010	mg/Kg	1	12/10/2009 12:30:41 PM
Chrysene	ND	0.011	mg/Kg	1	12/10/2009 12:30:41 PM
Benzo(b)fluoranthene	ND	0.010	mg/Kg	1	12/10/2009 12:30:41 PM
Benzo(k)fluoranthene	ND	0.010	mg/Kg	1	12/10/2009 12:30:41 PM
Benzo(a)pyrene	ND	0.010	mg/Kg	1	12/10/2009 12:30:41 PM
Dibenz(a,h)anthracene	ND	0.010	mg/Kg	1 .	12/10/2009 12:30:41 PM
Benzo(g,h,i)perylene	ND	0.010	mg/Kg	1	12/10/2009 12:30:41 PM
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	1	12/10/2009 12:30:41 PM
Surr: Benzo(e)pyrene	65.4	25.6-129	%REC	11	12/10/2009 12:30:41 PM
EPA METHOD 7471: MERCURY		•			Analyst: TES
Mercury	ND	0.033	mg/Kg	1	12/8/2009 4:51:13 PM
MERCURY, TCLP					Analyst: IC
Mercury	ND	0.020	mg/L	1	12/10/2009 2:21:19 PM
EPA METHOD 6010B: SOIL METALS					Analyst: RAGS
Aluminum	110000	15000	mg/Kg	5000	12/11/2009 1:50:29 PM
Antimony	NĐ	12	mg/Kg	5	12/9/2009 5:33:56 PM
Arsenic	230	12	mg/Kg	5	12/9/2009 5:33:56 PM
Barium	410	1.9	mg/Kg	20	12/10/2009 1:08:53 PM
Beryllium	ND	0.73	mg/Kg	5	12/9/2009 5:33:56 PM
Cadmium	ND	0.49	mg/Kg	5	12/9/2009 5:33:56 PM
Calcium	1700	120	mg/Kg	5	12/9/2009 5:33:56 PM
Chromium	29	1.5	mg/Kg	5	12/9/2009 5:33:56 PM

- Value exceeds Maximum Contaminant Level
- Estimated value E
- Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

Date: 11-Dec-09

CLIENT:

Western Refining Southwest, Inc.

0912074

Lab Order:

FCC Catalyst.

Project: Lab ID:

0912074-01

Client Sample ID: FCC Spent Catalyst

Collection Date: 12/3/2009 11:00:00 AM

Date Received: 12/4/2009

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 6010B: SOIL METALS					Analyst: RAG
Cobalt	2.2	1.5	mg/Kg	5	12/9/2009 5:33:56 PM
Copper	70	1.5	mg/Kg	5	12/9/2009 5:33:56 PM
Iron	13000	490	mg/Kg	500	12/10/2009 2:07:01 PM
Lead	49	1.2	mg/Kg	5	12/9/2009 5:33:56 PM
Magnesium	8000	120	mg/Kg	. 5	12/9/2009 5:33:56 PM
Manganese	80	0.49	mg/Kg	. 5	12/9/2009 5:33:56 PM
Nickel	120	2.4	mg/Kg	5	12/9/2009 5:33:56 PM
Potassium	650	240	mg/Kg	5	12/9/2009 5:33:56 PM
Selenium	ND	24	mg/Kg	10	12/10/2009 1:05:17 PM
Silver	ND	1.2	mg/Kg	5	12/9/2009 5:33:56 PM
Sodium	3600	120	mg/Kg	5	12/9/2009 5:33:56 PM
Thallium	ND	12	mg/Kg	5	12/9/2009 5:33:56 PM
Vanadium	640	49	mg/Kg	20	12/10/2009 1:08:53 PM
Zinc	1200	240	mg/Kg	100	12/10/2009 1:12:26 PM
EPA METHOD 6010B: TCLP METALS					Analyst: SNV
Arsenic	ND	5.0	mg/L	1	12/9/2009 6:01:24 PM
Barium	ND	100	mg/L	1	12/9/2009 6:01:24 PM
Cadmium	ND	1.0	mg/∟	1	12/9/2009 6:01:24 PM
Chromium	ND	5.0	m g/L	1	12/9/2009 6:01:24 PM
Lead	ND	5.0	mg/L	1	12/9/2009 6:01:24 PM
Selenium	ND	1.0	mg/L	1	12/10/2009 1:23:41 PM
Silver	ND	5.0	mg/L	1	12/9/2009 6:01:24 PM
EPA METHOD 8270C: SEMIVOLATILES					Analyst: LBJ
Acenaphthene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Acenaphthylene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Aniline	ND	0.20	mg/Kg	· 1	12/8/2009 12:35:52 PM
Anthracene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Azobenzene	ND	0.20	mg/Kg	. 1	12/8/2009 12:35:52 PM
Benz(a)anthracene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Benzo(a)pyrene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Benzo(b)fluoranthene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Benzo(g,h,i)perylene	ND	0.50	mg/Kg	· 1	12/8/2009 12:35:52 PM
Benzo(k)fluoranthene	ND	0.20	mg/Kg	1.	12/8/2009 12:35:52 PM
Benzoic acid	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
Benzyl alcohol	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Bis(2-chloroethoxy)methane	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Bis(2-chloroethyl)ether	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Bis(2-chloroisopropyl)ether	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Bis(2-ethylhexyl)phthalate	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
4-Bromophenyl phenyl ether	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM

- Value exceeds Maximum Contaminant Level
- E Estimated value
- Analyte detected below quantitation limits
- Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Date: 11-Dec-09

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0912074

Client Sample ID: FCC Spent Catalyst

Project:

FCC Catalyst

Date Received: 12/4/2009

Collection Date: 12/3/2009 11:00:00 AM

Lab ID:

0912074-01

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLAT	TILES			····	Analyst: LBJ
Butyl benzyl phthalate	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Carbazole	ND	0.20	mg/Kg	. 1	12/8/2009 12:35:52 PM
4-Chloro-3-methylphenol	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
4-Chloroaniline	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
2-Chloronaphthalene	ND	0.25	mg/Kg	1	12/8/2009 12:35:52 PM
2-Chlorophenol	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
4-Chlorophenyl phenyl ether	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Chrysene	ND	0.20	mg/Kg	. 1	12/8/2009 12:35:52 PM
Di-n-butyl phthalate	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
Di-n-octyl phthalate	. ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Dibenz(a,h)anthracene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Dibenzofuran	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
1,2-Dichlorobenzene	ND	0.20	. mg/Kg	1	12/8/2009 12;35:52 PM
1,3-Dichlorobenzene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
1,4-Dichlorobenzene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
3,3'-Dichlorobenzidine	ND	0.25	mg/Kg	1	12/8/2009 12:35:52 PM
Diethyl phthalate	ND	0.20	mg/Kg⊦	·1	12/8/2009 12:35:52 PM
Dimethyl phthalate	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
2,4-Dichlorophenol	ND	0.40	. mg/Kg	1	12/8/2009 12:35:52 PM
2,4-Dimethylphenol	ND	0.30	mg/Kg	1	12/8/2009 12:35:52 PM
4,6-Dinitro-2-methylphenol	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
2,4-Dinitrophenol	ND	0.40	mg/Kg	1	12/8/2009 12:35:52 PM
2,4-Dinitrotoluene	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
2,6-Dinitrotoluene	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
Fluoranthene	ND	0.25	mg/Kg	1	12/8/2009 12:35:52 PM
Fluorene	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
Hexachlorobenzene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Hexachlorobutadiene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Hexachlorocyclopentadiene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Hexachloroethane	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/8/2009 12:35:52 PM
Isophorone	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/8/2009 12:35:52 PM
2-Methylphenol	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
3+4-Methylphenol	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
N-Nitrosodi-n-propylamine	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
N-Nitrosodiphenylamine	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Naphthalene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
2-Nitroaniline	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
3-Nitroaniline	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
4-Nitroaniline	ND	0.25	mg/Kg	1	12/8/2009 12:35:52 PM
Nitrobenzene	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM

- Value exceeds Maximum Contaminant Level
- Е Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

Date: 11-Dec-09

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0912074

FCC Catalyst

Project: Lab ID:

0912074-01

Client Sample ID: FCC Spent Catalyst

Collection Date: 12/3/2009 11:00:00 AM

Date Received: 12/4/2009

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES	3	· · · · · · · · · · · · · · · · · · ·			Analyst: LBJ
2-Nitrophenol	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
4-Nitrophenol	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Pentachlorophenol	ND	0.40	mg/Kg	1	12/8/2009 12:35:52 PM
Phenanthrene _	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Phenol	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Pyrene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Pyridine	ND	0.50	mg/Kg	1	12/8/2009 12:35:52 PM
1,2,4-Trichlorobenzene	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
2,4,5-Trichlorophenol	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
2,4,6-Trichlorophenol	ND	0.20	mg/Kg	1	12/8/2009 12:35:52 PM
Surr: 2,4,6-Tribromophenol	66.6	35.5-141	%REC	1	12/8/2009 12:35:52 PM
Surr: 2-Fluorobiphenyl	62.1	30.4-128	%REC	<u>,</u> 1	12/8/2009 12:35:52 PM
Surr: 2-Fluorophenol	57.8	28.1-129	%REC	1	12/8/2009 12:35:52 PM
Surr: 4-Terphenyl-d14	56.5	34.6-151	%REC	1	12/8/2009 12:35:52 PM
Surr; Nitrobenzene-d5	60.1	26.5-122	%REC	1	12/8/2009 12:35:52 PM
Surr: Phenol-d5	60.3	37.6-118	%REC	1	12/8/2009 12:35:52 PM

Qualifiers:

S Spike recovery outside accepted recovery limits

RL Reporting Limit

Value exceeds Maximum Containinant Level

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

Date: 11-Dec-09

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0912074

FCC Catalyst

Project: Lab ID:

0912074-02

Client Sample ID: FCC Fresh Catalyst

Collection Date: 12/3/2009 11:30:00 AM

Date Received: 12/4/2009

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.050	mg/Kg	1	12/8/2009 1:03:37 AM
Toluene	ND	0.050	mg/Kg	1	12/8/2009 1:03:37 AM
Ethylbenzene ·	ND	0.050	mg/Kg	1	12/8/2009 1:03:37 AM
Xylenes, Total	ND	0.10	mg/Kg	1	12/8/2009 1:03:37 AM
Surr: 4-Bromofluorobenzene	97.9	64.7-120	%REC	1	12/8/2009 1:03:37 AM
EPA METHOD 8310: PAHS					Analyst: JAT
Naphthalene	ND	0.25	mg/Kg	1	12/10/2009 12:50:52 PM
1-Methylnaphthalene	ND	0.25	mg/Kg	1	12/10/2009 12:50:52 PM
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/10/2009 12:50:52 PM
Acenaphthylene	ND	0.25	mg/Kg	1	12/10/2009 12:50:52 PM
Acenaphthene	ND	0.25	mg/Kg	1	12/10/2009 12:50:52 PM
Fluorene	ND	0.030	mg/Kg	1	12/10/2009 12:50:52 PM
Phenanthrene	ND	0.015	mg/Kg	1	12/10/2009 12:50:52 PM
Anthracene	ND	0.015	mg/Kg	1	12/10/2009 12:50:52 PM
Fluoranthene	ND	0.020	mg/Kg	1	12/10/2009 12:50:52 PM
Pyrene	ND	0.025	mg/Kg	1	12/10/2009 12:50:52 PM
Benz(a)anthracene	- ND	0.010	mg/Kg.	1	12/10/2009 12:50:52 PM
Chrysene	ND	0.011	mg/Kg	1	12/10/2009 12:50:52 PM
Benzo(b)fluoranthene	ND	0.010	mg/Kg	1	12/10/2009 12:50:52 PM
Benzo(k)fluoranthene	ND	0.010	mg/Kg	1	12/10/2009 12:50:52 PM
Benzo(a)pyrene	ND	0.010	mg/Kg	1	12/10/2009 12:50:52 PM
Dibenz(a,h)anthracene	ND	0.010	mg/Kg	1	12/10/2009 12:50:52 PM
Benzo(g,h,i)perylene	ND	0.010	mg/Kg	1	12/10/2009 12:50:52 PM
Indeno(1,2,3-cd)pyrene	ND	0.10	mg/Kg	1	12/10/2009 12:50:52 PM
Surr: Benzo(e)pyrene	63.2	25.6-129	%REC	1	12/10/2009 12:50:52 PM
EPA METHOD 7471: MERCURY					Analyst: TES
Mercury	0.073	0.033	mg/Kg	1	12/8/2009 4:52:58 PM
MERCURY, TCLP					Analyst: IC
Mercury	ND	0.020	mg/L	1	12/10/2009 2:23:06 PM
EPA METHOD 6010B: SOIL METALS					Analyst: RAGS
Aluminum	130000	15000	mg/Kg	5000	12/10/2009 2:09:56 PM
Antimony	ND	12	mg/Kg	5	12/10/2009 12:38:51 PM
Arsenic	180	12	mg/Kg	5	12/10/2009 12:38:51 PM
Barium	9.2	0.48	mg/Kg	5	12/10/2009 12:38:51 PM
Beryllium	ND	0.72	mg/Kg	5	12/10/2009 12:38:51 PM
Cadmium	ND	0.48	mg/Kg	5	12/10/2009 12:38:51 PM
Calcium	ND	120	mg/Kg	5	12/10/2009 12:38:51 PM
Chromium	12	1.4	mg/Kg	5	12/10/2009 12:38:51 PM

- Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
 - RL Reporting Limit

Date: 11-Dec-09

CLIENT:

Western Refining Southwest, Inc.

0912074 Lab Order:

Project: Lab ID:

0912074-02

FCC Catalyst

Date Received: 12/4/2009

Client Sample ID: FCC Fresh Catalyst

Collection Date: 12/3/2009 11:30:00 AM

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 6010B: SOIL METALS	3				Analyst: RAGS
Cobalt	ND	1.4	mg/Kg	5	12/10/2009 12:38:51 PM
Copper	2.2	1.4	mg/Kg	5	12/10/2009 12:38:51 PM
Iron	570	19	mg/Kg	20	12/10/2009 1:15:10 PM
Lead	ND	1.2	mg/Kg	5	12/10/2009 12:38:51 PM
Magnesium	[®] ND	120	mg/Kg	5	12/10/2009 12:38:51 PM
Manganese	3.3	0.48	mg/Kg	5	12/10/2009 12:38:51 PM
Nickel	2.6	2.4	mg/Kg	5	12/10/2009 12:38:51 PM
Potassium	ND	240	mg/Kg	5	12/10/2009 12:38:51 PM
Selenium	ND	12	mg/Kg	5	12/10/2009 12:38:51 PM
Silver	ND	1.2	mg/Kg	5	12/10/2009 12:38:51 PM
Sodium	2400	120	mg/Kg	· 5	12/10/2009 12:38:51 PM
Thallium	ND	12	mg/Kg	5	12/10/2009 12:38:51 PM
Vanadium	.18	12	mg/Kg	5	12/10/2009 12:38:51 PM
Zinc	12	12	. mg/Kg	5	12/10/2009 12:38:51 PM
EPA METHOD 6010B: TCLP METAL	_S ·	•			Analyst: SNV
Arsenic	ND	5.0	mg/L	1	12/9/2009 6:14:04 PM
Barium	ND	100	mg/L	1	12/9/2009 6:14:04 PM
Cadmium	ND	1.0	mg/L	1	12/9/2009 6:14:04 PM
Chromium	ND	5.0	mg/L	1	12/9/2009 6:14:04 PM
Lead	ND	5.0	mg/L	1	12/9/2009 6:14:04 PM
Selenium	ND	1.0	mg/L	1	12/10/2009 1:29:22 PM
Silver	ND	5.0	mg/L	1	12/9/2009 6:14:04 PM
EPA METHOD 8270C: SEMIVOLATII	LES				Analyst: LBJ
Acenaphthene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Acenaphthylene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Aniline	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Anthracene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Azobenzene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Benz(a)anthracene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Benzo(a)pyrene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Benzo(b)fluoranthene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Benzo(g,h,i)perylene	ND	0.50	mg/Kg	1	12/8/2009 2:35:36 PM
Benzo(k)fluoranthene	ND	0.20	mg/K g	1	12/8/2009 2:35:36 PM
Benzoic acid	ND	0.50	mg/Kg	1	12/8/2009 2:35:36 PM
Benzyl alcohol	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Bis(2-chloroethoxy)methane	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Bis(2-chloroethyl)ether	· ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Bis(2-chloroisopropyl)ether	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Bis(2-ethylhexyl)phthalate	ND	0.50	mg/Kg	1	12/8/2009 2:35:36 PM
4-Bromophenyl phenyl ether	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM

- Value exceeds Maximum Contaminant Level
- Estimated value E
- Analyte detected below quantitation limits J
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- Reporting Limit

Date: 11-Dec-09

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0912074

Project:

FCC Catalyst

Lab ID:

0912074-02

Client Sample ID: FCC Fresh Catalyst

Collection Date: 12/3/2009 11:30:00 AM

Date Received: 12/4/2009

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
PA METHOD 8270C: SEMIVOLA	TILES				Analyst: LB.
Butyl benzyl phthalate	ND	0.20	mg/Kg	.1	12/8/2009 2:35:36 PM
Carbazole	ND	0.20	mg/Kg	<u>,</u> 1	12/8/2009 2:35:36 PM
4-Chloro-3-methylphenol	ND	0.50	mg/Kg	1 .	12/8/2009 2:35:36 PM
4-Chloroaniline	ND	0.50	mg/Kg	1	12/8/2009 2:35:36 PM
2-Chloronaphthalene	ND	0.25	mg/ Kg	1	12/8/2009 2:35:36 PM
2-Chlorophenol	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
4-Chlorophenyl phenyl ether	ND	0.20	mg/Kg	· 1	12/8/2009 2:35:36 PM
Chrysene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Di-n-butyl phthalate	ND	0.50	mg/Kg	, 1	12/8/2009 2:35:36 PM
Di-n-octyl phthalate	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Dibenz(a,h)anthracene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Dibenzofuran	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
1,2-Dichlorobenzene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
1,3-Dichlorobenzene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
1,4-Dichlorobenzene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
3,3'-Dichlorobenzidine	ND	0.25	mg/Kg	1	12/8/2009 2:35:36 PM
Diethyl phthalate	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Dimethyl phthalate	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
2,4-Dichlorophenol	ND	0.40	mg/Kg	1	12/8/2009 2:35:36 PM
2,4-Dimethylphenol	ND	0.30	mg/Kg	1	12/8/2009 2:35:36 PM
4,6-Dinitro-2-methylphenol	ND	0.50	mg/Kg	1	12/8/2009 2:35:36 PM
2,4-Dinitrophenol	ND	0.40	mg/Kg	1	12/8/2009 2:35:36 PM
2,4-Dinitrotoluene	ND	0.50	mg/Kg	1	12/8/2009 2:35:36 PM
2,6-Dinitrotoluene	ND	0.50	mg/Kg	1	12/8/2009 2:35:36 PM
Fluoranthene	ND	0.25	mg/Kg	1	12/8/2009 2:35:36 PM
Fluorene	ND	0.50	mg/Kg	1	12/8/2009 2:35:36 PM
Hexachlorobenzene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Hexachlorobutadiene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Hexachlorocyclopentadiene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Hexachloroethane	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/8/2009 2:35:36 PM
Isophorone	ND	0.50	mg/Kg	1	12/8/2009 2:35:36 PM
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/8/2009 2:35:36 PM
2-Methylphenol	ND	0.50	mg/Kg	1	12/8/2009 2:35:36 PM
3+4-Methylphenol	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
N-Nitrosodi-n-propylamine	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
N-Nitrosodiphenylamine	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
Naphthalene	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
2-Nitroaniline	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
3-Nitroaniline	ND	0.20	mg/Kg	1	12/8/2009 2:35:36 PM
4-Nitroaniline	ND	0.25	mg/Kg	1	12/8/2009 2:35:36 PM
Nitrobenzene	ND	0.50	mg/Kg	1	12/8/2009 2:35:36 PM

- Value exceeds Maximum Contaminant Level
- E Estimated value
- Analyte detected below quantitation limits j
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Date: 11-Dec-09

CLIENT:

Western Refining Southwest, Inc.

Client Sample ID: FCC Fresh Catalyst

Lab Order:

0912074

Collection Date: 12/3/2009 11:30:00 AM

Project:

FCC Catalyst

Date Received: 12/4/2009

Lab ID:

0912074-02

Matrix: SOIL

. 1	T) 14	DOL	01	TI-st4	75.77	The day A . New A . I
Analyses	Result	PQL	Quai	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES			_			Analyst: LBJ
2-Nitrophenol	ND	0.20		mg/Kg	1	12/8/2009 2:35:36 PM
4-Nitrophenol	ND	0.20		mg/Kg	1	12/8/2009 2:35:36 PM
Pentachlorophenol	ND	0.40	•	mg/Kg	1	12/8/2009 2:35:36 PM
Phenanthrene	ND	0.20		mg/Kg	1	12/8/2009 2:35:36 PM
Phenol	ND	0.20		mg/Kg	1 .	12/8/2009 2:35:36 PM
Pyrene	ND	0.20		mg/Kg	1	12/8/2009 2:35:36 PM
Pyridine	ND	0.50		mg/Kg	1	12/8/2009 2:35:36 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	12/8/2009 2:35:36 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	12/8/2009 2:35:36 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	12/8/2009 2:35:36 PM
Surr: 2,4,6-Tribromophenol	44.5	35.5-141		%REC	1	12/8/2009 2:35:36 PM
Surr: 2-Fluorobiphenyl	61.8	30.4-128		%REC	1	12/8/2009 2:35:36 PM
Surr: 2-Fluorophenol	26.7	28.1-129	S	%REC	1	12/8/2009 2:35:36 PM
Surr: 4-Terphenyl-d14	52.3	34.6-151		%REC	1	12/8/2009 2:35:36 PM
Surr: Nitrobenzene-d5	57.5	26.5-122		%REC	1	12/8/2009 2:35:36 PM
Surr: Phenol-d5	29.4	37.6-118	S	%REC	1	12/8/2009 2:35:36 PM

Value exceeds Maximum Contaminant Level

E Estimated value

Analyte detected below quantitation limits J

ND Not Detected at the Reporting Limit

Spike recovery outside accepted recovery limits

Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

Reporting Limit



YOUR LAB OF CHOICE

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758~5859

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Est. 1970

REPORT OF ANALYSIS

December 10, 2009

Anne Thorne Hall Environmental Analysis Laborat 4901 Hawkins NE Albuquerque, NM 87109

December 05, 2009

ESC Sample # : L435261-01

Date Received : Description :

Site ID :

Sample ID

FCC SPENT CATALYST

Project # : 0912074

Collected By : Collection Date :

12/03/09 11:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9040C	12/06/09	1
Ignitability	See Footnote		Deg. F	D93/1010A	12/09/09	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012в	12/10/09	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	12/10/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL) Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

. Reported: 12/10/09 17:03 Printed: 12/10/09 17:03 L435261-01 (IGNITABILITY) - Did Not Ignite @ 170 F



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Est. 1970

YOUR LAB OF CHOICE

REPORT OF ANALYSIS

December 10, 2009

Anne Thorne Hall Environmental Analysis Laborat 4901 Hawkins NE Albuquerque, NM 87109

ESC Sample # :

L435261-02

Date Received Description

December: 05, 2009

Site ID :

Sample ID

FCC FRESH CATALYST

Project # :

0912074

Collected By : Collection Date :

12/03/09 11:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9040C	12/06/09	1
Ignitability	See Footnote		Deg. F	D93/1010A	12/09/09	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	12/10/09	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030в	12/10/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL) The reported analytical results relate only to the sample submitted. This report shall not be reproduced, except in full, without the written approval from ESC. . Reported: 12/10/09 17:03 Printed: 12/10/09 17:03 L435261-02 (IGNITABILITY) - Did Not Ignite @ 170 F

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Catalyst

Work Order:

0912074

Analyte	Result	Units	PQL	SPK Va	a SPK ref	%Rec L	owLimit Hi	ghLimit %RPD	RPDLimit Qual
Method: EPA Method 8021B	: Volatiles								
Sample ID: MB-20785	•	MBLK				Batch ID:	20785	Analysis Date:	12/8/2009 3:06:27 AM
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050					•	
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: LCS-20785		LCS				Batch ID:	20785	Analysis Date:	12/8/2009 2:36:06 AM
Benzene	0.9195	mg/Kg	0.050	1	0.0166	90.3	78.8	132	
Toluene	0.9017	mg/Kg	0.050	1	0.0065	89.5	78.9	112	
Ethylbenzene	1.007	mg/Kg	0.050	1	0	101	69.3	125	
Xylenes, Total	3.083	mg/Kg	0.10	3	0	103	73	128	

Qualifiers:

R RPD outside accepted recovery limits

S Spike recovery outside accepted recovery limits

E Estimated value

J Analyte detected below quantitation limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Catalyst

Work Order:

0912074

Analyte	Result	Units	PQL	SPK Va SPK ref	%Rec LowLimit HighLimit			%RPD	RPDLimit	RPDLimit Qual	
Method: EPA Method 82700	: Semivolatiles	3									
Sample ID: mb-20802		MBLK		-	Batch ID:	20802	Analys	is Date:	12/8/2009 1	1:11:27 A	
Acenaphthene	ND	mg/Kg	0.20								
Acenaphthylene	ND	mg/Kg	0.20								
Aniline	. ND	mg/Kg	0.20								
Anthracene	ND	mg/Kg	0.20								
Azobenzene	ND	mg/Kg	0.20	•							
Benz(a)anthracene	ND	mg/Kg	0.20								
Benzo(a)pyrene	ND	mg/Kg	0.20								
Benzo(b)fluoranthene	ND	mg/Kg	0.20								
Benzo(g,h,i)perylene	ND	mg/Kg	0.50								
Benzo(k)fluoranthene	ND	mg/Kg	0.20								
Benzoic acid	ND	mg/Kg	0.50								
Benzyl alcohol	ND	mg/Kg	0.20								
Bis(2-chloroethoxy)methane	ND	mg/Kg	0.20								
Bis(2-chloroethyl)ether	ND	mg/Kg	0.20								
Bis(2-chloroisopropyl)ether	ND	mg/Kg	0.20								
Bis(2-ethylhexyl)phthalate	ND	mg/Kg	0.50					•			
4-Bromophenyl phenyl ether	ND	mg/Kg	0.20								
Butyl benzyl phthalate	ND	mg/Kg	0.20								
Carbazole	ND	mg/Kg	0.20								
4-Chloro-3-methylphenol	ND	mg/Kg	0.50								
4-Chloroaniline	ND	mg/Kg	0.50								
2-Chloronaphthalene	ND	mg/Kg	0.25								
2-Chlorophenol	ND	mg/Kg	0.20								
4-Chlorophenyl phenyl ether	ND	mg/Kg	0.20								
Chrysene	ND	mg/Kg	0.20								
Di-n-butyl phthalate	ND	mg/Kg	0.50								
Di-n-octyl phthalate	ND	mg/Kg	0.20						:		
Dibenz(a,h)anthracene	ND	mg/Kg	0.20								
Dibenzofuran	ND	mg/Kg	0.20								
1,2-Dichlorobenzene	ND	mg/Kg	0.20								
1,3-Dichlorobenzene	ND	mg/Kg	0.20								
1,4-Dichlorobenzene	ND	mg/Kg	0.20								
3,3'-Dichlorobenzidine	ND	mg/Kg	0.25								
Diethyl phthalate	ND	mg/Kg	0.20								
Dimethyl phthalate	ND	mg/Kg	0.20			•					
2,4-Dichlorophenol	ND .	mg/Kg	0.40								
2,4-Dimethylphenol	· ND	mg/Kg	0.30								
4,6-Dinitro-2-methylphenol	ND ND	mg/Kg	0.50								
2,4-Dinitrophenol	ND	mg/Kg	0.40								
2,4-Dinitrotoluene	ND	mg/Kg	0.50								
2,6-Dinitrotoluene	ND ND	mg/Kg	0.50								
Fluoranthene	ND ND	mg/Kg	0.25								
Fluorene	ND	mg/Kg	0.50								
Hexachlorobenzene	ND	mg/Kg	0.20								

E Estimated value

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Catalyst

Work Order:

0912074

Analyte	Result	Units	PQL	SPK Va SPK re	of %Rec L	.owLimit Hi	ghLimit %RPD	RPDLimit Qual
Method: EPA Method 82700	: Semivolatile	5						
Sample ID: mb-20802		MBLK			Batch ID:	20802	Analysis Date:	12/8/2009 11:11:27
Hexachlorobutadiene	ND	mg/Kg	0.20					·
Hexachlorocyclopentadiene	ND	mg/Kg	0.20					
Hexachloroethane	ND	mg/Kg	0.20					
Indeno(1,2,3-cd)pyrene	ND	mg/Kg	0.25					
Isophorone	ND	mg/Kg	0.50					•
2-Methylnaphthalene	, ND	mg/Kg	0.25					
2-Methylphenol	ND	mg/Kg	0.50		•			
3+4-Methylphenol	ND	mg/Kg	0.20					
N-Nitrosodi-n-propylamine	ND	mg/Kg	0.20					
N-Nitrosodiphenylamine	ND	mg/Kg	0.20					
Naphthalene	ND	mg/Kg	0.20					
2-Nitroaniline	ND	mg/Kg	0.20					
3-Nitroaniline	ND	mg/Kg	0.20					
4-Nitroaniline	ND	mg/Kg	0.25					
Nitrobenzene	ND	mg/Kg	0.50					
2-Nitrophenol	ND	mg/Kg	0.20					
4-Nitrophenol	ND	mg/Kg	0.20					
Pentachlorophenol	ND	mg/Kg	0.40					
Phenanthrene	ND	mg/Kg	0.20					
Phenol	ND	mg/Kg	0.20					
Pyrene	ND	mg/Kg	0.20					
Pyridine	ND	mg/Kg	0.50					•
1,2,4-Trichlorobenzene	ND	mg/Kg	0.20					
2,4,5-Trichlorophenol	ND	mg/Kg	0.20					
2,4,6-Trichlorophenol	ND	mg/Kg	0.20					
Sample ID: 1cs-20802		LCS			Batch ID:	20802	Analysis Date:	12/8/2009 11:41:14
Acenaphthene	1.437	mg/Kg	0.20	1.67 0	86.0	42.5	90	
4-Chloro-3-methylphenol	2.668	mg/Kg	0.50	3.33 0	80.1	39.6	101	
2-Chlorophenol	2.470	mg/Kg	0.20	3.33 0	74.2	40.1	96.7	
1,4-Dichlorobenzene	1.306	mg/Kg	0.20	1.67 0	78.2	34.6	95.3	
2,4-Dinitrotoluene	1.514	mg/Kg	0.50	1.67 0	90.7	37.1	101	•
N-Nitrosodi-n-propylamine	1.265	mg/Kg	0.20	1.67 0	75.7	33.3	103	
4-Nitrophenol	1.645	mg/Kg	0.20	3.33 0	49.4	32.7	125	
Pentachlorophenol	2.324	mg/Kg	0.40	3.33 0	69.8	35.5	99.3	
Phenol	2.710	mg/Kg	0.20	3.33 0	81.4	35.5	104	
Pyrene	1.180	mg/Kg	0.20	1.67 0	70.6	34.4	90.6	
1,2,4-Trichlorobenzene	1.292	mg/Kg	0.20	1.67 0	77.4	38.5	95	

Qual	lifiers
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E Estimated value

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Catalyst

Work Order:

0912074

Analyte	Result	Units	PQL	SPK Va S	SPK ref	%Rec Lo	owLimit Hig	ghLimit %RPD	RPDLimit Qual
Method: EPA Method 8310	: PAHs						· ·		
Sample ID: MB-20803		MBLK		•		Batch ID:	20803	Analysis Date:	12/10/2009 11:50:18 AM
Naphthalene	ND	mg/Kg	0.25						
I-Methylnaphthalene	ND	mg/Kg	0.25						
2-Methylnaphthalene	ND	mg/Kg	0.25						
Acenaphthylene	ND	mg/Kg	0.25					•	
Acenaphthene	ND	mg/Kg	0.25						
Fluorene	ND	m g/K g	0.030						
Phenanthrene	ND	mg/Kg	0.015						
Anthracene	ND	mg/Kg	0.015						
Fluoranthene	ND	mg/Kg	0.020						
Pyrene	ND	mg/Kg	0.025						
Benz(a)anthracene	ND	mg/Kg	0.010						
Chrysene	ND	mg/Kg	0.011						
Benzo(b)fluoranthene	ND	mg/Kg	0.010						
Benzo(k)fluoranthene	ND	mg/Kg	0.010						
Benzo(a)pyrene	ND	mg/Kg	0.010						
Dibenz(a,h)anthracene	ND	mg/Kg	0.010						
Benzo(g,h,i)perylene	ND	mg/Kg	0.010						
ndeno(1,2,3-cd)pyrene	ND	mg/Kg	0.10						
Sample ID: LCS-20803	ND	LCS	0.10			Batch ID:	20803	Analysis Date:	12/10/2009 12:10:30 P
	4 400			•	_			_	12/10/2000 12:10:001
laphthalene	1.408	mg/Kg	0.25	2	0	70.4	24.9	105	•
I-Methylnaphthalene	1.562	mg/Kg	0.25	2	0	78.1	31.9	106	
2-Methylnaphthalene	1.425	mg/Kg	0.25	2	0	71.3	30	103	•
Acenaphthylene	1.408	mg/Kg	0.25	2	0	70.4	36.2	107	
Acenaphthene 	1.538	mg/Kg	0.25	2	0	76.9	37.2	107	
Fluorene	0.09475	mg/Kg	0.030	0.2	0	47.4	22.4	87.7	
Phenanthrene	0.05450	mg/Kg	0.015	0.101	0	54.2	32.6	91.9	
Anthracene	0.05700	mg/Kg	0.015	0.101	0	56.7	34.4	101	
Fluoranthene	0.1168	mg/Kg	0.020	0.201	0	58.2	35.9	106	•
Pyrene	0.07500	mg/Kg	0.025	0.2	0	37.5	24.1	96.4	
Benz(a)anthracene	0.02125	mg/Kg	0.010	0.02	0	106	21.6	111	
Chrysene	0.08700	mg/Kg	0.011	0.101	0	86.5	28.6	104	
Benzo(b)fluoranthene	0.01475	mg/Kg	0.010	0.025	0	59.0	28.8	123	
Benzo(k)fluoranthene	ND	mg/Kg	0.010	0.013	0	74.0	30.3	114	·
Benzo(a)pyrene	ND	mg/Kg	0.010		0	64.0	24.4	105	
Dibenz(a,h)anthracene	0.01675	mg/Kg	0.010	0.025	0	67.0	23.6	110	
Benzo(g,h,i)perylene	0.01625	mg/Kg	0.010	0.025	0	65.0	31.7	99.9	
ndeno(1,2,3-cd)pyrene	ND ND	mg/Kg	0.10	0.050	0	61.0	25.1	114	
Method: EPA Method 7471	: Mercury								
Sample ID: MB-20812		MBLK				Batch ID:	20812	Analysis Date:	12/8/2009 4:47:43 P
Mercury	ND	mg/Kg	0.033						,
Sample ID: LCS-20812		LCS				Batch ID:	20812	Analysis Date:	12/8/2009 4:49:27 PI
Mercury	0.1699	mg/Kg	0.033	0.167	0	102	80	120	

E Estimated value

Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Catalyst

Work Order:

0912074

Analyte	Result	Units	PQL	SPK Va SPK re	%Rec LowLimit HighLimit			%RPD	RPDLimit Qual
Method: MERCURY, TCLP Sample ID: MB-20831		MBLK		7	Batch ID:	20831	Analysis	Date:	12/10/2009 2:16:06 PM
Mercury Sample ID: LCS-20831	ND	mg/L LCS	0.020		Batch ID:	20831	Analysis	o Date:	12/10/2009 2:17:49 PM
Mercury	ND	mg/L	0.020	.0.005 0	99.2	80	120	·	

Qualifiers:

R RPD outside accepted recovery limits

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

E Estimated value

J Analyte detected below quantitation limits

H Holding times for preparation or analysis exceeded

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Catalyst

Work Order:

0912074

Analyte		Result	Units	PQL	SPK Va SPK ref	%Rec Lo	wLimit Hiç	ghLimit	%RPD	RPDLimit	Qual
Method:	EPA Method 6010	B: Soil Metals									
Sample ID:	MB-20806		MBLK	•		Batch ID:	20806	Analysis	Date:	12/8/2009	2:09:24 PN
_ead		ND .	mg/Kg	0.25							
Sodium		ND	mg/Kg	25							
Sample ID:	MB-20806		MBLK			Batch ID:	20806	Analysis	Date:	12/9/2009	4:44:45 PN
Aluminum		ND	mg/Kg	3.0		•					
Antimony		ND	mg/Kg	2.5							
Arsenic	•	ND	mg/Kg	2.5							
Barium		ND	mg/Kg	0.10							
Beryllium		ND	mg/Kg	0.15							
Cadmium	•	ND	mg/Kg	0.10							
Calcium		ND ·	mg/Kg	25							
Chromium		ND	mg/Kg	0.30							
Cobalt		ND	mg/Kg	0.30							
Copper		ND	mg/Kg	0.30							
Lead		ND	mg/Kg	0.25							
Magnesium		ND	mg/Kg	25		•					
Nickel		ND	mg/Kg	0.50							
otassium		ND	mg/Kg	50							
Silver		ND	mg/Kg	0.25	•						
Sodium		ND	mg/Kg	25							
Thallium		ND	mg/Kg	2.5							
Vanadium		ND	mg/Kg	2.5							
Zinc		ND	mg/Kg	2.5							
	MB-20816		MBLK			Batch ID:	20816	Analysis	Date:	12/9/2009	4:50:40 PN
Aluminum		ND	mg/Kg	3.0				,			
Antimony		ND	mg/Kg	2.5							
Arsenic		· ND	mg/Kg	2.5							
Barium		ND	mg/Kg	0.10							
Beryllium		ND	mg/Kg	0.15							
Cadmium		ND	mg/Kg	0.10							
Calcium		ND	mg/Kg	25							
Chromium		ND	mg/Kg	0.30							
Cobalt		ND	mg/Kg	0.30							
Copper		ND	mg/Kg	0.30							
Lead		. ND	mg/Kg	0.25							
Magnesium		ND	mg/Kg	25							
Manganese		ND	mg/Kg	0.10							
Nickel		ND	mg/Kg	0.50					•		
Potassium		ND	mg/Kg	50							
Silver		ND	mg/Kg	0.25							
Sodium		ND	mg/Kg	25							
Thallium .		ND	mg/Kg	2.5							
/anadium		ND	mg/Kg	2.5					•		
Zinc		ND	mg/Kg	2.5							

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Catalyst

Work Order:

0912074

Analyte	Result	Units	PQL	SPK Va	a SPK ref	%Rec Lo	owLimit Hi	ghLimit %RP[RPDLimit Qual
Method: EPA Method 6010)B: Soil Metals				· <u>-</u>				
Sample ID: MB-20806		MBLK				Batch ID:	20806	Analysis Date:	12/10/2009 12:18:36 PM
Iron	1.934	mg/Kg	1.0						
Manganese	0.1365	mg/Kg	0.10						
Selenium	ND	mg/Kg	2.5					•	
Sample ID: MB-20816		MBLK				Batch ID:	20816	Analysis Date:	12/10/2009 12:24:26 PM
Iron	ND	mg/Kg	1.0			•		•	
Selenium	ND	mg/Kg	2.5						
Sample ID: LCS-20806		LCS				Batch ID:	20806	Analysis Date:	12/8/2009 2:11:56 PM
Lead	23.97	mg/Kg	0.25	25	0	95.9	80	120	
Sodium	2644	mg/Kg	25	2500	0	106	80	120	
Sample ID: LCS-20806		LCS				Batch ID:	20806	Analysis Date:	12/9/2009 4:47:37 PM
Aluminum	26.79	mg/Kg	3.0	25	0.5305	105	80	120	
Antimony	24.79	mg/Kg	2.5	25	0	99.2	80	120	
Arsenic	26.65	mg/Kg	2.5	25	0	107	80	120	
Barium	25.42	mg/Kg	0.10	25	0	102	80	120	
Beryllium	25.94	mg/Kg	0.15	25	0	104	80	120	
Cadmium	25.77	mg/Kg	0.10	25	0	103	80	120	
Calcium	2565	mg/Kg	25	2500	0	103	80	120	
Chromium	25.51	mg/Kg	0.30	25	0	102	80	120	
Cobalt	23.44	mg/Kg	0.30	25	0	93.7	80	120	
Copper	26.07	mg/Kg	0.30	25	0	104	80	120	
Lead	25.23	mg/Kg	0.25	25	0	101	80	120	
Magnesium	2566	mg/Kg	25	2500	0	103	80	120	
Nickel	25.31	mg/Kg	0.50	25	0.0668	101	80	120	
Potassium	2612	mg/Kg	50	2500	0	104	80	120	
Silver	26.44	mg/Kg	0.25		0.0563	106	80	120	
Sadium	2729	mg/Kg	25	2500	0	109	80	120	
Thallium	25.52	mg/Kg	2.5	25	0	102	80	120	
Vanadium	26.02	mg/Kg	2.5	25		104	80	120	*
Zinc	25.13	mg/Kg	2.5	25	0	101	80	120	
Sample ID: LCS-20806		LCS				Batch ID:	20806	Analysis Date:	12/10/2009 12:21:25 PM
Iron	25.62	mg/Kg	1.0	25	1.934	94.8	80	120	В
Manganese	25.12	mg/Kg	0.10	25	0.1365	99.9	80	120	В
Selenium	25.22	mg/Kg	2.5	25	0	101	80	120	
Sample ID: LCS-20816		LCS				Batch ID:	20816	Analysis Date:	12/10/2009 12:27:15 PM
Iron	22.79	mg/Kg	1.0	25	0.9577	87.3	80	120	
Selenium	23.00	mg/Kg	2.5	25	0	92.0	80	120	

E Estimated value

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

Date: 10-Dec-09

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

FCC Catalyst

Work Order:

0912074

Analyte	Result	Units	PQL	SPK Va	SPK ref		wLimit Hig	ghLimit	%RPD	RPDLimit Qual
Method: EPA Method 60	110B: TCLP Metals									
Sample ID: MB-20830		MBLK				Batch ID:	20830	Analysis	Date:	12/9/2009 4:56:39 PN
Arsenic	ND	mg/L	5.0							
Barium	ND	mg/L	100							
Cadmium	ND	mg/L	1.0						•	_
Chromium	ND	mg/L	5.0							
Lead	, ND	mg/L	5.0							
Silver	, ND	mg/L	5.0							
Sample ID: MB-20830		MBLK				Batch ID:	20830	Analysis	Date:	12/10/2009 12:30:17 PM
Selenium	ND	mg/L	1.0							•
Sample ID: LCS-20830		LCS				Batch ID:	20830	Analysis	Date:	12/9/2009 5:03:37 PN
Arsenic	ND	mg/L	5.0	0.5	0	108	80	120		
Barium	ND	mg/L	100	0.5	0.0012	99.6	80	120		
Cadmlum	ND	mg/L	1.0	0.5	0	105	80	120		
Chromium	ND	mg/L	5.0	0.5	0	99.4	80	120		
Lead	ND	mg/L	5.0	0.5	0.0035	96.4	80	120		
Silver	ND	mg/L	5.0	0.5	0	109	80	120		
Sample ID: LCS-20830		LCS				Batch ID:	20830	Analysis	Date:	12/10/2009 12:34:48 PM
Selenium	ND	mg/L	1.0	0.5	0	112	80	120		

Qualifiers:

R RPD outside accepted recovery limits

S Spike recovery outside accepted recovery limits

E Estimated value

J Analyte detected below quantitation limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit



YOUR LAB OF CHOICE

Hall Environmental Analysis Laboratory Anne Thorne 4901 Hawkins NE

Albuquerque, NM 87109

12065 Lebanon Rd. Mt. Juliet, TN 37122 (615) 758-5858 1-800-767-5859 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Quality Assurance Report Level II

L435261

December 10, 2009

Analyte	Result		aboratory Units	Blank 8 Rec		Limit	Bat	ch Date	Analyzed
Corrosivity	5.50		700		eren eren eren eren eren eren eren eren	A. C.		53892 12/0	
Reactive Sulf.(SW846 7.3.4.1)	< 25		mg/kg				WG4	54467 12/1	0/09 14:0
Reactive CN (SW846 7.3.3.2)	< ,125	<u> </u>	mg/kg	Contractors			WG4	54469 12/1	.0/ <u>09</u> 15;0
Anályte	Units	Resul	Duplic t Dup	are:: licate	RPD	Limit	Re	f Samp	Batch
Corrosivity		0	: ', į 0		' 0 35 7 6		2.4	35261 - 01	W Q4 5389
Ignitability Reactive Sulf. (SW846 7.3.4.1)	Deg. 1 mg/kg	? 0 .0	0	2000 C	0 \$400 kg 0	10 20		35261~02 35261-01	WG45427 WG45446
Reactive CN (SW845 7, 3, 3, 2)	mg/kg			Tages of	·00-33-3-69-3	20	* L4	36261-01	WG45446
				trol Sampl					
Analyte	Units	Know	n Val	Resu	11t	% Rec	Lim		Batch
Corrosivity		9.68		9.70		100.	97.	9-100.8	WG45389
Ignitability	Deg. I	7 82	COD AND S	84.0	8748-A.MOLS	102.	96-	104 5008/0/19/8/88	WG45427
Reactive Sulf.(SW846 7.3.4.1)	mg/kg	100	(V) #12 (15) #6/0 (6/05)	84.0	81 S 475864 S, 41 V, 178	B4.0	70-	130	WG45446
Analyte	W-24-	Laboratory Result		Sample Dup %Rec	licate	*11.	,	14-16	D-5-1
	ONIUS		Ref		41000 IU (VANSEL Y	Limit	RPD	Limit	Batch
Corrosivity		9,70	44. 9 864 9 .004	100		97.9-100.8	1000 -1 000-1000-1000	av.	
Ignitability Reactive Sulf.(SM846 7.3.4.1)	Deg. F mg/kg	7 83.0 80.0	84.0 84.0	101. 80.0		96-104 70-130	1.20	20 20	WG45427 WG45446

Batch number /Run number / Sample number cross reference

WG453892: R1023174: L435261-01 02 WG454275: R1029408: L435261-01 02 WG454467: R1032008: L435261-01 02 WG454469: R1032128: L435261-01 02

^{* *} Calculations are performed prior to rounding of reported values .

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT			•	Date F	Received:			12/4/2009
Work Order Number 0912074				Rece	eived by:	TLS		Λ .
Checklist completed by:			12/4	Sam	ple ID labe	ils checkei	d by:	Initials
Matrix:	Carrier name	UPS		-				
Shipping container/cooler in good condition?		Yes	✓	No [_ N	lot Presen	t 🗆	
Custody seals intact on shipping container/coole	er?	Yes	\checkmark	No [) N	lot Presen	t 🗆	Not Shipped
Custody seals intact on sample bottles?		Yes		No [_ r	√A	\checkmark	
Chain of custody present?		Yes	\checkmark	No [
Chain of custody signed when relinquished and	received?	Yes	\checkmark	No [
Chain of custody agrees with sample labels?		Yes	✓	No [
Samples in proper container/bottle?		Yes	\checkmark	No []			
Sample containers intact?		Yes	\checkmark	No [•	•
Sufficient sample volume for indicated test?		Yes	V	No [
All samples received within holding time?		Yes	V	` No [Number of preserved
Water - VOA vials have zero headspace?	No VOA vials subr	nitted	\checkmark	Yes [No [bottles checked for pH:
Water - Preservation labels on bottle and cap m	atch?	Yes	_ ·	No [N/A		
Water - pH acceptable upon receipt?		Yes		No [N/A		<2 >12 unless noted
Container/Temp Blank temperature?		4.	1°		cceptable			below.
COMMENTS:				If given s	ufficient tir	me to cool	•	
·	•							
·								
				**				
Client contacted	Date contacted:				Person	contacted		
Contacted by:	Regarding:							
Comments:								

							_	
								,,,
			·· ····					
Corrective Action								

HALL ENVIRONR ANALYSIS LABO www.hallenvironmental.com www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87 Tel. 505-345-3975 Fax 505-345-4107	BTEX + MTBE + TMB's (802) BTEX + MTBE + TPH (Gas of TPH (Method 8015B (Gas/Die)) TPH (Method 504.1) EDB (Method 504.1) B310 (PNA or PAH) RCRA 8 Metals - TCLP RORY Pesticides / 8082 PCB's 8081 Pesticides / 8082 PCB's 8081 Pesticides / 8082 PCB's 8081 Pesticides / 8082 PCB's 8081 Pesticides / 8082 PCB's 8081 Pesticides / 8082 PCB's 8081 Pesticides / 8082 PCB's 8081 Pesticides / 8082 PCB's 8081 Pesticides / 8082 PCB's 8081 Pesticides / 8082 PCB's 8260 (YOA)	X	-2 X X X X X X X X X			Time Remarks:	
Turn-Around Time: Standard Tkush Asar Project Name: Project #: Project Manager:	Sampler: Openhow / ICR Sampler Emperiment / ICR Sampler Emperative / Type and # Type	(2) Ecs. Las Nova	2) Boz Lu Nove			Received by, Date	Received by the Time Date Time
of-Custody Record en Refining Afield Refinent field Non 87401 SS 633-4166 Kelly, Robinson Churcom		12/3/9 11:00 Sdid FCC Spent Cotalyst (2) 808. I	43/9 11:30 Solid FCC Fresh Cotoly (2) Boz)			Time: Relinquished by:	

PASADENA CATALYST QUALITY ASSURANCE SYSTEM

REFERENCE NUMBER: ICS409

SAFETY

AUTHORIZATION: SFTY MGR.

ORIGINAL ISSUE DATA: OCTOBER 26, 1995

DATE

VERSION: 03-10-2004

DOCUMENT ID NUMBER SD016

REVISION LEVEL:194

TO OUR VALUED CUSTOMERS,

THE ATTACHED MSDS (MSDS NUMBER 14-FCCMSDS) DESCRIBES THE FOLLOWING AKZO

CHEMICALS INC. PRODUCTS:

ADVANCE 907S2B	CONQUEST-65EPT	OPAL 2.4
ACCESS 907 K-PT	CONQUEST-75UQ	OPAL 95SF
AMBER 546		
AMBER556B-125PT		
AMBER 748K	CONQUEST-87RDT	
AMBER 766MA	CONQUEST-87T	OPAL 547PT
AMBER 768	CONQUEST-562UQ	OPAL 647VH1
AMBER 988	CONQUEST-645	OPAL 648
BP-600R	CONQUEST-646K	OPAL 657
BCMT-100J	CONQUEST-653B	OPAL 657 MA
COBRA 34H	CONQUEST-755 CPS	OPAL657W-P25
COBRA 44ST	CONOUEST-856 EMBR	OPAT. 657W-P50
COBRA 45CAT	CONQUEST-985J CENTURION-28A	OPAL 656G
COBRA 45MST	CENTURION-28A	OPAL 665P
COBRA 45R-P30T	CENTUION-28A-10P	OPAL 757
COBRA 45R-P30T COBRA 47S-125PT	CENTURION-31	OPAL757N
COBRA 54ED	CENTURION-36	OPAL767
COBRA 56W3 COBRA 59SLT	CENTURION-95SF	OPAL SCT 867
COBRA 59SLT	CENTURION-442UQ	RECAP RFCC
COBRA 64CT COBRA 64S2 COBRA 66D COBRA 416D	CENTURION-771	RESOLVE 700T
COBRA 64S2	ECLIPSE-54	RFC1A
COBRA 66D	EM-2A	RUBY 425SLC
COBRA 416D	EMERALD 535	RUBY 655UQ
COBRA 434	EMERALD 637	RUBY 746W
COBRA 515A	EMERALD 647	SAPPHIRE 824
COBRA 524A	EMERALD 647J	SAPPHIRE 546
COBRA 525CP COBRA 525P COBRA 526H	EMERALD 655UQ	SAPPHIRE 646H
COBRA 525P	FOC-100SK	SAPPHIRE 646
COBRA 526H	HORIZON 57MF	SAPPHIRE 646 P50
	HORIZON 537	
		SAPPHIRE 824
COBRA 634H	HOR-460TLC	SK-SCS 556
COBRA 624 COBRA 634H COBRA 635R	HOR-597T	SMOOTH FLOW ADDITIVE
COBRA 644ED	HOR-810LM2	TOM CORAL 95SF
· · · - - · · · ·		

COBRA 644P50

HOR-810LM2Z HOR-810LM3 TOM FOC 90SF-HA3

TOM FOC90SSF-LC

INSITUPRO CENTURION MAX 98 TOM FOC90FS-LC2

INSITUPRO VISIONS 534-7.5A TOM OPAL878L

50% CONQUEST 77HA/50% AMBER 426

THIS COVER LETTER IS PART OF THE MSDS AND MUST BE KEPT AS PART OF THE MSDS. IT SHOULD BE REPRODUCED WHENEVER THE MSDS IS COPIED.

SINCERELY,

C.E. TYLER SAFETY MANAGER

MATERIAL SAFETY DATA SHEET

AKZO NOBEL CHEMICALS INC.

DATE PRINTED: 5/31/1995

FLUID CATALYTIC CRACKING CATALYST

MSDS NO. 14-FCCMSDS

----SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION -----

PRODUCT NAME: FLUID CATALYTIC CRACKING CATALYST

SYNONYM: FCC CATALYST

CHEMICAL NAME: ALUMINA SILICA MATRIX

CHEMICAL FORMULA: MIXTURE

CHEMICAL FAMILY: ' ALUMINA SILICA MATRIX

CAS #: MIXTURE

PRODUCT USE: HYDROCARBON PROCESSING

MANUFACTURERS NAME: ALBEMARLE CATALYSTS COMPANY, LP

ADDRESS: 2625 BAY AREA BLVD.

SUITE 250,

Houston, TEXAS, USA 77058

TEL. [PRODUCT& TECHNICAL INFORMATION]: 1-281-480-4747

EMERGENCY TELEPHONE NUMBERS:

TRANSPORTATION EMERGENCIES: 1-800-424-9300 (USA-CHEMTREC) 1-613-996-6666 (CANADA-CANUTEC)

MEDICAL / HANDLING EMERGENCIES: 1-914-693-6946 (AKZO NOBEL)

COUNTRY: U.S.A.

PRODUCT USE: HYDROCARBON PROCESSING

ISSUE DATE: 5/31/1995

REVISION DATE: 9/21/2004

REVISION NO.: 13.0

-----SECTION 2. HAZARDS INDENTIFICATION -----

EMERGENCY OVERVIEW

THIS MATERIAL IS NOT CONSIDERED HAZARDOUS BY THE OSHA HAZARD COMMUNICATION STANDARD

[29 CFR 1910.1200].

CAUTION!! INCIDENTAL CONTACT WITH DUST MATERIAL MAY CAUSE SKIN, EYE AND RESPIRATORY

TRACT IRRITATION.

APPEARANCE AND ODOR: ODORLESS, OFF-WHITE, FREE-FLOWING POWDER

FIRE AND EXPLOSION HAZARDS: THIS PRODUCT IS NOT DEFINED AS FLAMMABLE OR COMBUSTIBLE.

HOWEVER, UNDER FIRE CONDITIONS, IT MAY SUPPORT COMBUSTION AND DECOMPOSE TO GIVE OFF

SILICON OXIDES AND ALUMINUM OXIDES.

POTENTIAL HEALTH EFFECTS:

PRIMARY ROUTE OF EXPOSURE: SKIN CONTACT, EYE CONTACT AND INHALATION

INHALATION: EXPOSURE TO AN EXCESSIVE CONCENTRATION OF ANY NUISANCE DUST MAY CAUSE

RESPIRATORY TRACT DISCOMFORT.

SKIN CONTACT: CONTACT MAY CAUSE MILD IRRITATION.

INGESTION: THIS PRODUCT HAS A LOW ORDER OF TOXICITY AND IS CONSIDERED TO BE PRACTICALLY

HARMLESS BY INGESTION.

CARCINOGENICITY: THE CARCINOGENIC PROPERTIES OF THIS PRODUCT HAVE NOT BEEN DETERMINED.

THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) HAS CONCLUDED THAT THERE

INADEQUATE EVIDENCE FOR THE CARCINOGENICITY OF AMOPHOUS SILICA TO EXPERIMENTAL ANIMALS

AND HUMANS (UNCLASSIFIABLE - GROUP 3).

MEDICAL CONDITIONS AGGRAVATED: PERSONS WITH PRE-EXISTING LUNG DISEASE MAY BE AT AN

INCREASED RISK IF THIS MATERIAL IS INHALED.

---- SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENTS:	%w/w	CAS #
KAOLIN	10-80	1332-58-7
ZEOLITE	5-50	1318-02-1
SILICON DIOXIDE (AMORPHOUS)	2-30	7631-86-9
ALUMINUM OXIDE (AS A1,03)	.001-45	. 1344-28-1
ALUMINUM PHOSPHATE	.001-5.	7784-30-7

-----SECTION 4. FIRST AID MEASURES -----

INHALATION FIRST AID

REMOVE TO FRESH AIR. IF BREATHING BECOMES DIFFICULT, OXYGEN MAY BE GIVEN, PREFERABLY WITH A PHYSICIAN'S ADVICE. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. GET MEDICAL ATTENTION.

SKIN CONTACT - FIRST AID

WASH CONTAMINATED SKIN THOROUGHLY WITH SOAP AND PLENTY OF WATER. GET MEDICAL ATTENTION IF IRRITATION PERSISTS. REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE.

EYE CONTACT - FIRST AID

FLUSH EYES WITH LARGE QUANTITIES OF RUNNING WATER FOR A MINIMUM OF 15 MINUTES. IF THE VICTIM IS WEARING CONTACT LENSES, REMOVE THEM. HOLD THE EYELIDS APART DURING THE FLUSHING TO ENSURE RINSING OF THE ENTIRE SURFACE OF THE EYE AND LIDS WITH WATER. DO NOT LET VICTIM RUB EYE(S). DO NOT ATTEMPT TO NEUTRALIZE WITH CHEMICAL AGENTS. OILS OR OINTMENTS SHOULD NOT BE USED AT THIS TIME. GET MEDICAL ATTENTION IF EYE IRRITATION OCCURS.

INGESTION - FIRST AID

GIVE SEVERAL GLASSES OF WATER. IF VOMITING OCCURS KEEP HEAD BELOW HIPS TO REDUCE RISK OF ASPIRATION. GIVE FLUIDS AGAIN. SEEK MEDICAL ATTENTION IF HEALTH EFFECTS OCCUR.

MEDICAL CONDITIONS AGGRAVATED

PERSONS WITH PRE-EXISTING LUNG DISEASE MAY BE AT INCREASED RISK SHOULD THIS MATERIAL BE INHALED.

NOTE TO PHYSICIAN

NO SPECIFIC ANTIDOTE IS KNOWN. BASED ON THE INDIVIDUAL REACTIONS OF THE PATIENT, THE PHYSICIAN'S JUDGEMENT SHOULD BE USED TO CONTROL SYMPTOMS AND CLINICAL CONDITIONS.

-----SECTION 5. FIRE FIGHTING MEASURES -----

FLASH POINT: N/D F N/D C NOT APPLICABLE

FLASH METHOD: NOT APPLICABLE

AUTO IGNITION TEMPERATURE: N/D F N/D C

UPPER EXPLOSION LIMIT: N/D LOWER EXPLOSION LIMIT: N/D

EXTINGUISHING METHOD

THE UNUSED PRODUCT WILL NOT BURN. IF SPENT CATALYST IS INVOLVED IN A FIRE, USE WATER FOG, FOAM, DRY CHEMICAL OR CO2 TO EXTINGUISH.

FIRE FIGHTING PROCEDURES

AS IN ANY FIRE, PREVENT HUMAN EXPOSURE TO FIRE, SMOKE, FUMES OR PRODUCTS OF COMBUSTION. EVACUATE NON-ESSENTIAL PERSONNEL FROM THE FIRE AREA. FIREFIGHTERS SHOULD WEAR FULL-FACE, SELF-CONTAINED BREATHING APPARATUS AND IMPERVIOUS PROTECTIVE CLOTHING.

FIRES & EXPLOSION HAZARDS

POTENTIAL FOR DUST EXPLOSION MAY EXIST. THIS PRODUCT IS NOT DEFINED AS FLAMMABLE OR COMBUSTIBLE. DEPENDING UPON CONDITIONS, DUSTS MAY BE SENSITIVE TO STATIC DISCHARGE. AVOID POSSIBILITY OF DRY POWDER AND FRICTION CAUSING STATIC ELECTRICITY IN PRESENCE OF FLAMMABLES. (SEE NFPA-77, CHPT. 6)

OTHER FIRE + EXPLOSION HAZARDS

THE UNUSED PRODUCT WILL NOT BURN. HOWEVER, IN USE, THE CATALYST BECOMES REDUCED AND SULFIDED. THE REDUCED FORM, ESPECIALLY WHEN WARM, REACTS WITH OXYGEN ON CONTACT WITH AIR TO PRODUCE HEAT WHICH IN TURN CAN IGNITE COKE AND/OR RESIDUAL ORGANIC MATERIAL LEFT ON THE CATALYST. TO AVOID THIS, SPENT CATALYST SHOULD BE OXIDIZED AND COOLED BEFORE REMOVING FROM REACTOR. OTHER MEASURES SUCH AS COOLING AND BLANKETING WITH NITROGEN OR WETTING WITH WATER MAY BE USED.

HAZARDOUS PRODUCTS/COMBUSTION

THERMAL DECOMPOSITION PRODUCTS MAY RELEASE TOXIC AND/OR HAZARDOUS FUMES AND GASSES, INCLUDING METAL OXIDES.

NFPA HEALTH RATING

1*

NFPA FLAMMABILITY RATING

0

NFPA REACTIVITY RATING

0

NFPA OTHER

NA

*-CHRONIC HEALTH HAZARD (SEE SECTION 11)

-----SECTION 6. ACCIDENTAL RELEASE MEASURES -----

CLEAN-UP

STOP SOURCE OF SPILL. DEPENDING UPON THE SURFACE, SWEEP UP OR VACUUM SPILLED MATERIAL, BEING CAREFUL NOT TO GENERATE DUST. RETURN SWEEPINGS TO STOCK OR IF CONTAMINATED, PLACE INTO A CHEMICAL WASTE CONTAINER FOR

DISPOSAL.

-----SECTION 7. HANDLING AND STORAGE -----

HANDLING

AVOID PROLONGED AND/OR REPEATED SKIN AND EYE CONTACT AND INHALATION WHEN HANDLING THIS PRODUCT.

STORAGE

KEEP CONTAINER CLOSED AND DRY. SUITABLE FOR ANY GENERAL CHEMICAL STORAGE AREA. ISOLATE FROM INCOMPATIBLE MATERIALS.

MAXIMUM STORAGE TEMPERATURE

N/D F N/D C (NOT APPLICABLE)

GENERAL COMMENTS

THE GENERATION OF DUST SHOULD BE AVOIDED WHEN HANDLING THIS PRODUCT.

----SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION -----

APPLICABLE EXPOSURE LIMITS: IN ADDITION TO ANY EXPOSURE LIMITS DISPLAYED BELOW, EXPOSURES TO THIS PRODUCT SHOULD BE CONTROLLED BELOW LIMITS ESTABLISHED FOR "PARTICULATES NOT OTHERWISE CLASSIFIED" (PNOC).

- ACGIH 10MG/M3
- OSHA 15MG/M3 (TOTAL DUST); 5MG/M3 (RESPIRABLE FRACTION) IN ADDITION TO THE LIMITS SHOWN BELOW, THE FOLLOWING DATA APPLIES TO THE VARIOUS COMPONENTS:
- ALUMINUM OXIDE (as Al): OSHA PEL = 5MG/M3 (RESPIRABLE FRACTION)

IDHL (Immediately Dangerous to Life and Health) concentrations:
- SILICON DIOXIDE (AMOUPHOUS) = 3,000MG/M3

EXPOSURE LIMITS / REGULATORY INFORMATION (in mg/m3)
THE OSHA PEL SHOWN FOR SILICON DIOXIDE (AMORPHOUS) IS CALCULATED USING THE
FORMULA [80 mg/m3] / [%sio2], WHERE THE PERCENT SILICA IS THE MAXIMUM RANGE
VALUE SHOWN IN SECTION 2.

RESPIRATORY PROTECTION

IF HANDLING OPERATIONS LEAD TO DUSTING, USE A NIOSH/APPROVED HALF-MASK, AIR-PURIFYING RESPIRATOR WITH DUST, MIST AND FUME FILTERS. WHEN USING RESPIRATOR CARTRIDGES OR CANISTERS, THEY MUST BE CHANGED FREQUENTLY (FOLLOWING EACH USE OR AT THE END OF THE WORKSHIFT) TO ASSURE BREAKTHROUGH EXPOSURE DOES NOT OCCUR.

CHEMICAL NAME:

SUBSTANCE DESCRIPTION	REG.AGCY	PEL	TLV	AWT	STEL	CEIL
KAOLIN	OSHA	15.0	N/D	N/D	N/D	N/D
	ACGIH	N/D	2.0	N/D	N/D	N/D
	NIOSH	N/D	N/D	10.0	N/D	N/D
	SUPPLIER	N/D	N/D	N/D	N/D	N/D

ZEOLITE						
	OSHA	N/D	N/D	N/D	N/D	N/D
	ACGIH	N/D	N/D	N/D	N/D	N/D
	NIOSH	N/D	N/D	N/D	N/D	N/D
	SUPPLIER	N/D	N/D	N/D	N/D	N/D
SILICON DIOXIDE, AMORPHOU	JS					
	OSHA	2.67	N/D	N/D	N/D	N/D
	ACGIH	N/D	10.0	N/D	N/D	N/D
	NIOSH	N/D	N/D	6.0	N/D	N/D
	SUPPLIER	N/D	N/D	N/D	N/D	N/D
ALUMINUM OXIDE, AS A12 03	3					

OSHA ACGIH

NIOSH

SUPPLIER

LEGEND:

EXPOSURE LIMIT DESCRIPTIONS

CEIL: CEILING EXPOSURE LIMIT
PEL: PERMISSIBLE EXPOSURE LIMIT
STEL: SHOT TERM EXPOSURE LIMIT
TLV: THRESHOLD LIMIT VALUE
TWA: TIME WEIGHTED AVERAGE

N/D = NOT DETERMINED

ENGINEERING CONTROLS - VENTILATION: SPECIAL VENTILATION IS USUALLY NOT REQUIRED UNDER NORMAL USE CONDITIONS. ENSURE THAT EXISTING VENTILATION IS SUFFICIENT TO PREVENT THE CIRCULATION AND/OR ACCUMULATION OF DUST IN THE AIR.

15.0 N/D N/D N/D

N/D 10.0 N/D N/D

N/D N/D N/D N/D

N/D N/D N/D N/D

N/D

N/D

N/D

N/D

PERSONAL PROTECTIVE EQUIPMENT (PPE):

RESPIRATORY PROTECTION: IF HANDLING OPERATIONS LEAD TO DUSTING, USE A NIOSHAPPROVED

HALF-FACE AIR-PURIFYING RESPIRATOR WITH DUST, MUST AND FUME FILTERS TO REDUCE POTENTIAL FOR INHALATION EXPOSURE. WHEN USING RESPIRATION CARTIDGES OR CANISTERS,

THEY MUST BE CHANGED FREQUENTLY (FOLLOWING EACH USEOR AT THE END OF THE WORK SHIFT)

TO ASSURE BREAKTHROUGH EXPOSURE DOES NOT OCCUR.

SKIN PROTECTION

SKIN CONTACT WITH THIS PRODUCT SHOULD BE MINIMIZED THROUGH THE USE OF SUITABLE PROTECTIVE CLOTHING AND GLOVES SELECTED WITH REGARD FOR USE CONDITION EXPOSURE POTENTIAL.

EYE PROTECTION

INDIRECT VENTED, DUST-TIGHT GOGGLES ARE RECOMMENDED IF DUST IS GENERATED WHEN HANDLING THIS PRODUCT.

VENTILATION PROTECTION

PREVENT THE CIRCULATION OR ACCUMULATION OF DUST IN THE AIR WITH SUFFICIENT VENTILATION.

OTHER PROTECTION

ALL FOOD AND SMOKING MATERIALS SHOULD BE KEPT IN A SEPARATE AREA AWAY FROM THE STORAGE/USE LOCATION. EATING, DRINKING AND SMOKING SHOULD BE PROHIBITED IN AREAS WHERE THERE IS A POTENTIAL FOR SIGNIFICANT EXPOSURE TO THIS MATERIAL. BEFORE EATING, DRINKING OR SMOKING, HANDS AND FACE SHOULD BE THOROUGHLY WASHED.

-----SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES -----

PHYSICAL STATE/APPEARANCE/ODOR: ODORLESS, OFF-WHITE, FREE-FLOWING POWDER

VAPOR PRESSURE (MM HG): N/D NOT APPLICABLE

VAPOR DENSITY (AIR=1.0): N/D NOT APPLICABLE

EVAPORATION RATE: N/D NOT APPLICABLE

VOLATILE %: <17 @ 815 C.

BOILING POINT: N/D F N/D C

ODOR THRESHOLD (PPM): N/D

SPECIFIC GRAVITY: N/D

BULK DENSITY: N/D NOT DETERMINED

SOLUBILITY IN WATER: N/D NEGLIGIBLE

SOLUBILITY IN OTHER SOLVENTS: NOT DETERMINED

COEFFICIENT OF OIL/WATER: N/D

POUR POINT: N/D F N/D C NOT APPLICABLE

MELTING POINT: 2192.00 F 1200.00 C

PH FACTOR: N/D

CLOUD POINT: N/D F N/D C NOT APPLICABLE

FLASH POINT: N/D F N/D C NOT APPLICABLE

FLASH METHOD: NOT APPLICABLE

UPPER EXPLOSION LIMIT: N/D

LOWER EXPLOSION LIMIT: N/D

AUTO IGNITION TEMPERATURE: N/D F N/D C

OTHER: NO OTHER DATA AVAILABLE.

-----SECTION 10. STABILITY AND REACTIVITY -----

STABILITY:

THIS PRODUCT IS STABLE AT AMBIENT TEMPERATURES AND ATMOSPHERIC PRESSURES. IT IS NOT SELF-REACTIVE AND IS NOT SENSITIVE TO PHYSICAL IMPACT.

INCOMPATIBILITIES /CONDITIONS TO AVOID:

THIS PRODUCT IS INCOMPATIBLE WITH STRONG ACIDS AND SULFUR CONTAINING MATERIALS.

POLYMERIZATION:

HAZARDOUS POLYMERIZATION IS NOT EXPECTED TO OCCUR.

DECOMPOSITION:

THERMAL DECOMPOSITION PRODUCTS MAY INCLUDE TOXIC METAL OXIDE FUMES.

-----SECTION 11. TOXICOLOGICAL INFORMATION -----

TOXICOLOGICAL - INHALATION

INHALATION TOXICITY DATA ARE NOT AVAILABLE FOR THIS PRODUCT.

INHALATION CHRONIC EXPOSURE

PROLONGED AND/OR REPEATED INHALATION MAY CAUSE RESPIRATORY IRRITATION, COUGH AND CHEST DISCOMFORT.

TOXICOLOGICAL - DERMAL

DERMAL TOXICITY DATA IS NOT AVAILABLE FOR THIS PRODUCT.

SKIN CONTACT - CHRONIC

PROLONGED OR REPEATED EXPOSURE TO DUST MAY HAVE A DRYING EFFECT ON THE SKIN.

TOXICOLOGICAL - EYE

THE ACUTE EYE EFFECTS OF THIS PRODUCT HAVE NOT BEEN DETERMINED.

TOXICOLOGICAL - INGESTION

INGESTION TOXICITY DATA IS NOT AVAILABLE FOR THIS PRODUCT. HOWEVER, THE ACUTE ORAL LD50 IS EXPECTED TO BE GREATER THAN 5000 MG/KG. THE ORAL LD50 FOR SILICON DIOXIDE IS 3160 MG/KG IN RATS.

INGESTION - CHRONIC

HEALTH EFFECTS AS A RESULT OF CHRONIC INGESTION ARE NOT KNOWN.

CARCINOGENICITY/MUTAGENICITY

THE CARCINOGENIC/MUTAGENIC PROPERTIES OF THIS PRODUCT ARE NOT KNOWN. THE AMORPHOUS MINERAL COMPONENT OF THIS PRODUCT HAS BEEN CLASSIFIED AS A CLASS 3 CARCINOGEN BY IARC. IARC CLASS 3 CARCINOGENS MAY HAVE LIMITED SUPPORTING ANIMAL DATA BUT NO HUMAN DATA TO SUGGEST CARCINOGENICITY.

REPRODUCTIVE EFFECTS

THE REPRODUCTIVE TOXICITY OF THIS PRODUCT IS NOT KNOWN.

NEUROTOXICITY

THE NEUROTOXIC EFFECTS OF THIS PRODUCT ARE NOT KNOWN.

OTHER TOXICOLOGICAL EFFECTS

NO OTHER TOXIC EFFECTS FOR THIS PRODUCT ARE KNOWN.

TARGET ORGANS

OVEREXPOSURE TO THIS PRODUCT MAY AFFECT THE RESPIRATORY SYSTEM.

-----SECTION 12. ECOLOGICAL INFORMATION -----

ECOTOXICOLOGICAL INFORMATION

THE ECOLOGICAL TOXICITY OF THIS PRODUCT IS NOT KNOWN.

DISTRIBUTION

OTHER ECOLOGICAL INFORMATION ON THIS PRODUCT IS NOT KNOWN.

CHEMICAL FATE

THIS PRODUCT IS NOT READILY BIODEGRADABLE.

-----SECTION 13. DISPOSAL CONSIDERATIONS -----

WASTE DISPOSAL

MATERIAL THAT CANNOT BE USED OR CHEMICALLY REPROCESSED AND EMPTY CONTAINERS SHOULD BE DISPOSED OF AT AN APPROVED FACILITY IN ACCORDANCE WITH ANY APPLICABLE REGULATIONS.

SPENT UNREGENERATED CATALYST IS A WASTE MATERIAL AND COULD BE AN IGNITABLE HAZARDOUS WASTE (D001) PER RCRA. GENERATORS OF WASTE MATERIAL ARE REQUIRED TO EVALUATE ALL WASTE FOR COMPLIANCE WITH RCRA AND ANY APPLICABLE STATE AND LOCAL DISPOSAL PROCEDURES AND REGULATIONS.

NOTE! STATE AND LOCAL REGULATIONS MAY BE MORE STRINGENT THAN FEDERAL.

CONTAINER DISPOSAL

CONTAINERS SHOULD BE CLEANED OF RESIDUAL PRODUCT BEFORE DISPOSAL. EMPTY CONTAINERS SHOULD BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.

-----SECTION 14. TRANSPORT INFORMATION -----

SHIPPING DESCRIPTION

THIS PRODUCT IS NOT REGULATED FOR SHIPPING.

REQUIRED LABELS

NOT REGULATED FOR SHIPPING, NO TRANSPORT LABELS REQUIRED.

ENVIRON. HAZARDOUS SUBSTANCE

THIS PRODUCT DOES NOT CONTAIN AN ENVIRONMENTALLY HAZARDOUS SUBSTANCE PER 49 CFR 172.101, APPENDIX.

-----SECTION 15. REGULATORY INFORMATION -----

COMPONENT KAOLIN IS SUBJECT TO THE FOLLOWING:

ENVIRONMENTAL LIST:

DSL: DOMESTIC SUBSTANCE LIST-CANADA

PA. LIST: PENN. HAZARDOUS SUBSTANCE LIST TSCA: TOXIC SUBST. CONT. ACT - LISTED

COMPONENT ZEOLITE IS SUBJECT TO THE FOLLOWING:

ENVIRONMENTAL LIST:

DSL: DOMESTIC SUBSTANCE LIST-CANADA NJ R-T-K: NEW JERSEY R-T-K HAZARD. SUB. TOXIC SUBST. CONT. ACT - LISTED

COMPONENT SILICON DIOXIDE, AMORPHOUS IS SUBJECT TO THE FOLLOWING:

ENVIRONMENTAL LIST:

DSL: DOMESTIC SUBSTANCE LIST-CANADA MA, LIST: MASSACHUSETTS SUBSTANCE LIST NJ R-T-K: NEW JERSEY R-T-K HAZARD. SUB. PA. LIST: PENN. HAZARDOUS SUBSTANCE LIST TOXIC SUBST. CONT. ACT - LISTED TSCA:

COMPONENT ALUMINUM OXIDE, AS A12 03 IS SUBJECT TO THE FOLLOWING:

ENVIRONMENTAL LIST:

DSL: DOMESTIC SUBSTANCE LIST-CANAL MA, LIST: MASSACHUSETTS SUBSTANCE LIST DOMESTIC SUBSTANCE LIST-CANADA NJ R-T-K: NEW JERSEY R-T-K HAZARD. SUB. PA. LIST: PENN. HAZARDOUS SUBSTANCE LIST TSCA: TOXIC SUBST. CONT. ACT - LISTED

OTHER REGULATORY INFORMATION

THE COMPONENTS ARE SUBJECT TO THE FOLLOWING ENVIRONMENTAL REGULATORY

SUBSTANCE NAME: CAA CERCLA DSL NDSL USS STATE RIGHT-TO- PROP65 SARA TSCA

KNOW LIST KAOLIN X MA/MN/PA/RI ZEOLITE Х NJ SILICON DIOXIDE X CA/MN/MA/MN/JN X (AMORPHOUS) /PA X ALUMINUM OXIDE MA/MN/NJ/PA/RI Χ X ALUMINUM PHOSPHATE NJ

X

Х

X

LEGEND

CA LIST CALIFORNIA-DIRCTIORS LIST OF HAZARDOUS SUBSTANCES
CAA CLEAN AIR ACT, SECTION 12
CERCLA CERCLA HAZARDOUS SUBSTANCES
DSL DOMESTIC SUBSTANCE LIST- CANADA

FL LIST FLORDIA-SUBSTANCE LIST

IARC INTERNATIONAL AGENCY FOR RESEARCH ON CANCER-CARCINOGENS

GROUPS 1,2A OR 2B

MA LIST MASSACHUSETTS-R-T-K SUBSTANCES LIST MN LIST MINNESOTA HAZARDOUS SUBSTANCES LIST NDSL NON-DOMESTIC SUBSTANCE LIST-CANADA

NJ R-T-K NEW JERSEY-R-T-K HAZARD LIST

PA LIST PENNSYLVANIA HAZARDOUS SUBSTANCE LIST

PROP 65

CALIFORNIA PROPOSITION 65

RI LIST

RHODE ISLAND- HAZARDOUS SUBSTANCE LIST

SARA TSCA SARA TITLE III, SECTION 302/313
TOXIC SUBSTANCES CONTROL ACT-USA

WHMIS HAZARD CLASS NOT CONTROLLED

HAZARD RATING SOURCE

HEALTH

1

REACTIVITY

0

FLAMMABILITY

0

OTHER

-----SECTION 16. OTHER INFORMATION -----

OTHER INFORMATION

THIS MSDS DESCRIBES THE FOLLOWING AKZO NOBEL INC. PRODUCTS: ADVANCE-503SB, ADVANCE-507A, ADVANCE-707AS, ADVANCE-709ED, ADVANCE-805, ADVANCE-807, ADVANCE-807A, ADVANCE-807WL, ADVANCE-817, ADVANCE-829, ADVANCE-829WL, ADVANCE-907, ADVANCE-907, ADVANCE-907S, ADVANCE-907S2, ADVANCE-907S3, ADVANCE-909, ADVANCE-916, KMC-207PLUSAG, OCTAVISION-505, OCTAVISION-507, OCTAVISION-507L, OCTAVISION-507B, OCTAVISION-508, OCTAVISION-509, OCTAVISION-509-ES7, OCTAVISION-ES3, OCTAVISION-ES3A, OCTAVISION-ES7, OCTAVISION-509SX, OCTAVISION-509X, OCTAVISION-518, OCTAVISION-630-2, OCTAVISION-635-2G1, OCTAVISION-637-2, OCTAVISION-637-2B, OCTAVISION-639-1, OCTAVISION-639-2, OCTAVISION-639-2A, OCTAVISION-639-2D, OCTAVISION-639-3, OCTAVISION-639-3A, OCTAVISION-639-A, OCTAVISION-643-A, OCTAVISION-651, OCTAVISION-715-2, OCTAVISION-719-1BT, OCTAVISION-725-2G, VISION-49A, VISION-55, VISION-56, VISION-56R, VISION-57, VISION-57ASH, VISION-57L, VISION-57PCX, VISION-57ST, VISION-57X, VISION-58S, VISION-59, VISION-59D, VISION-, VISION-516, VISION-, VISION-519, ECLIPSE-, VISION 57/KOB, 629-2SM, MRD-1000, MRD-1010, ACTION-507, ACTION-508, ACTION-509, FOC-90, FOC-91, FOC-93, FOC-94, FOC-95, HORIZON-54, HORIZON-54C, HORIZON-55, HORIZON-56, HORIZON-57, HORIZON-58, HORIZON-58L, HORIZON-58S, HORIZON-58SR, HORIZON-508, HRO-600, ACCESS-903, ACCESS-904, ACCESS-905, ACCESS-905T, ACCESS-906, ACCESS-906T, ACCESS-907, ACCESS-907TA, ACCESS-907T, ACCESS-908, ACCESS-909.

CREATED BY: PRODUCT SAFETY 914 674-5000

KEY TO ABBREVIATIONS: EQ=EQUAL LT=LESS THAN GT=GREATER THAN AP=APPROXIMATELY TR=TRACE ND-NO DATA AVAILABLE ALL INFORMATION CONCERNING THIS PRODUCT AND/OR ALL SUGGESTIONS FOR HANDLING AND USE CONTAINED HEREIN ARE OFFERED IN GOOD FAITH AND ARE BELIEVED TO BE RELIABLE. AKZO CHEMICALS INC., HOWEVER, MAKES NO WARRANTY AS TO THE ACCURACY AND OR SUFFICIENCY OF SUCH INFORMATION AND/OR SUGGESTIONS, AS TO THE PRODUCT'S MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, OR THAT ANY SUGGESTED USE WILL NOT INFRINGE ANY PATENT. NOTHING CONTAINED HEREIN SHALL BE CONSTRUED AS GRANTING OR EXTENDING ANY LICENSE UNDER ANY PATENT. BUYER MUST DETERMINE FOR HIMSELF, BY PRELIMINARY TESTS OR OTHERWISE, THE SUITABILITY OF THIS PRODUCT FOR HIS PURPOSES. THE INFORMATION CONTAINED HEREIN SUPERSEDES ALL PREVIOUSLY ISSUED BULLETINS ON THE SUBJECT MATTER COVERED.

100

Chavez, Carl J, EMNRD

From:

Chavez, Carl J. EMNRD

Sent:

Thursday, May 07, 2009 3:18 PM 'Hurtado, Cindy'; Pinkerton, Barbara

To: Cc:

Schmaltz, Randy, Krakow, Bob

Subject:

RE: Western Refining Southwest- Bloomfield Refinery (GW-001) Profile 06523B Used

Process Filters

Ladies and Gentlemen:

Re: New Mexico Oil Conservation Division (OCD) Discharge Permit (GW-001) for Western Refining Southwest-Bloomfield Refinery

By receipt of this e-mail, the New Mexico Oil Conservation Division (OCD) confirms that the existing permit (which has expired) is still valid until the OCD issues an updated discharge permit that will include all waste streams identified in the currently expired permit.

Under an OCD Discharge Permit, any renewal application received at least 120 days in advance of the expiration date, the OCD will allow the permittee to continue operating under the existing discharge permit until a renewal permit is reissued, modified and/or terminated.

The OCD hopes that this e-mail message will satisfy the request made by Ms. Barbara Pinkerton.

To review the existing permit, you may go to OCD Online http://ocdimage.emnrd.state.nm.us/imaging/AEOrderFileView.aspx?appNo=pENV000GW00001 (go to the "Permits" thumbnail) to review the permit and application with waste streams, etc.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/ index.htm (Pollution Prevention Guidance is under "Publications")

From: Hurtado, Cindy [mailto:Cindy.Hurtado@wnr.com]

Sent: Thursday, May 07, 2009 2:06 PM

To: Chavez, Carl J, EMNRD; Pinkerton, Barbara

Cc: Schmaltz, Randy; Krakow, Bob

Subject: RE: Profile 06523B Used Process Filters

Good Afternoon Carl,

Per our telephone conversation today, I am forwarding you the e-mail from Waste Management (WM) informing us of the expiration date for the profile for our used process filters. WM is requesting a review of our DMP (Discharge Permit) which also expires in June and also an approval letter from OCD.

Please find attached the most current analysis of the used process filters that we dispose of as special waste at the San Juan County Landfill.

Bloomfield Refinery is requesting an approval letter from OCD that can be transmitted to Barbara Pinkerton of Waste Management. Your prompt attention to this matter will be greatly appreciated.

Sincerely, Cindy Hurtado

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery
cindy.hurtado@wnr.com
505-632-4161

From: Pinkerton, Barbara [mailto:BPinkert@wm.com]

Sent: Tuesday, April 14, 2009 3:28 PM

To: Hurtado, Cindy

Subject: Profile 06523B Used Process Filters

Hi Cindy,

You have a profile that will be expiring 6-7-09. Would you like to recertify it? If so, we need to review the DMP as our last copy has expired. We can use the existing analytical from 5-18-06 and it would be good for one year. If you have new analytical then we can do a 3 year approval. We would also want to see the most recetn OCD approval.

Let me know.

<<Recertification_Form.pdf>>

Thanks, Barbara Pinkerton Technical Service Representative 2425 S 40th St, Phoenix, AZ 85034

ph: 602-454-2001

fax: 602-470-0692 or 713-286-7427

Visit our new website!

www.wmdisposal.com < <http://www.wmdisposal.com/>>

This inbound email has been scanned by the MessageLabs Email Security System.



COVER LETTER

Friday, April 24, 2009

Cindy Hurtado Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4161 FAX (505) 632-3911

RE: Process Filter Profile-2009

Dear Cindy Hurtado:

Order No.: 0904230

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 4/16/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager Nancy McDuffie, Laboratory Manager

NM Lab # NM9425 AZ license # AZ0682 ORELAP Lab # NM100001 Texas Lab# T104704424-08-TX



Date: 24-Apr-09

CLIENT:

Western Refining Southwest, Inc.

Project:

Process Filter Profile-2009

Lab Order:

0904230

CASE NARRATIVE

[&]quot;S" flags denote that the surrogate was not recoverable due to sample dilution or matrix interferences.

Date: 24-Apr-09

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0904230

Client Sample ID: C-203 Collection Date: 4/15/2009 10:50:00 AM

Process Filter Profile-2009

Date Received: 4/16/2009

Project: Lab ID:

0904230-01

Matrix: SOLID

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE	ORGANICS	· · · · · · · · · · · · · · · · · · ·			· · · · · · · · · · · · · · · · · · ·	Analyst: SCC
Diesel Range Organics (DRO)	14000	10000		mg/Kg	100	4/17/2009
Motor Oil Range Organics (MRO)	160000	50000		mg/Kg	100	4/17/2009
Surr: DNOP	0	61.7-135	Ś	%REC	100	4/17/2009
EPA METHOD 8015B: GASOLINE RAN	IGE				-	Analyst: DAM
Gasoline Range Organics (GRO)	ND	250		mg/Kg	5	4/22/2009 8:50:37 PM
Surr: BFB	87.1	58.8-123		%REC	5	4/22/2009 8:50:37 PM
EPA METHOD 8021B: VOLATILES		`			•	Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	5.0		mg/Kg	5	4/22/2009 8:50:37 PM
Benzene	3.0	2.5		mg/Kg	5	4/22/2009 8:50:37 PM
Toluene	4.6	2.5	,	mg/Kg	5	4/22/2009 8:50:37 PM
Ethylbenzene	ND	2.5	-	mg/Kg	5	4/22/2009 8:50:37 PM
Xylenes, Total	ND	5.0		mg/Kg	5	4/22/2009 8:50:37 PM
Surr: 4-Bromofluorobenzene	91.8	66.8-139		%REC	5	4/22/2009 8:50:37 PM
MERCURY, TCLP						Analyst: MMS
Mercury	ND	0.020		mg/L	1	4/21/2009 4:33:32 PM
EPA METHOD 6010B: TCLP METALS						Analyst: NMO
Arsenic	ND	5.0		mg/L	1	4/22/2009 8:21:27 AM
Barlum	ND	100		mg/L	1	4/22/2009 8:21:27 AM
Cadmlum	ND	1.0		mg/L	1	4/22/2009 8:21:27 AM
Chromium	ND	5.0		mg/L	1	4/22/2009 8:21:27 AM
Lead	ND	5.0		mg/L	1	4/22/2009 8:21:27 AM
Selenium	ND	1.0		mg/L	1	4/22/2009 8:21:27 AM
Silver	ND	5.0		mg/L	1	4/22/2009 8:21:27 AM

Qua	lifiers
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Value exceeds Maximum Contaminant Level

Page 1 of 4

E Estimated value

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

Spike recovery outside accepted recovery limits

Analyte detected in the associated Method Blank В

н Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

Reporting Limit

Date: 24-Apr-09

CLIENT:

Western Refining Southwest, Inc.

Lab Order: Project: 0904230

0904230

Process Filter Profile-2009

Lab ID:

0904230-02

Client Sample ID: F-801-DSL

Collection Date: 4/15/2009 11:00:00 AM

Date Received: 4/16/2009

Matrix: SOLID

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE ORGANICS				`	Analyst: SCC
Diesel Range Organics (DRO)	270000	10000		mg/Kg	100	4/17/2009
Motor Oil Range Organics (MRO)	79000	50000		mg/Kg	100	4/17/2009
Surr: DNOP	0	61.7-135	S	%REC	100	4/17/2009
EPA METHOD 8015B: GASOLINE R	ANGÉ				,	Analyst: DAM
Gasoline Range Organics (GRO)	ND .	2500		mg/Kg	50	4/22/2009 2:22:16 AM
Surr: BFB	74.3	58.8-123		%REC	50	4/22/2009 2:22:16 AM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	50		mg/Kg	50	4/22/2009 2:22:16 AM
Benzene	ND	25		mg/Kg	50	4/22/2009 2:22:16 AM
Toluene	ND	25		mg/Kg	50	4/22/2009 2:22:16 AM
Ethylbenzene	ND	25		mg/Kg	50	4/22/2009 2:22:16 AM
Xylenes, Total	ND	50		mg/Kg	50	4/22/2009 2:22:16 AM
Surr: 4-Bromofluorobenzene	71.7	66.8-139		%REC	50	4/22/2009 2:22:16 AM
MERCURY, TCLP						Analyst: MMS
Mercury	ND	0.020		mg/L	1	4/21/2009 4:35:08 PM
EPA METHOD 6010B: TCLP METAL	.s					Analyst: NMO
Arsenic	ND	5.0		mg/L	1	4/22/2009 8:23:10 AM
Barium	ND	100		mg/L	1	4/22/2009 8:23:10 AM
Cadmium	ND	1.0		mg/L	1	4/22/2009 8:23:10 AM
Chromium	ND	5.0		mg/L	1	4/22/2009 8:23:10 AM
Lead	ND	5.0		mg/L	1	4/22/2009 8:23:10 AM
Selenium	ND	1.0		mg/L	1	4/22/2009 8:23:10 AM
Silver	ND	5.0		mg/L	1 '	4/22/2009 8:23:10.AM

Qualifiers

- Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
 - RL Reporting Limit

Page 2 of 4

Date: 24-Apr-09

CLIENT:

Western Refining Southwest, Inc.

0904230

Client Sample ID: F-403-Naphtha

Lab Order:

Collection Date: 4/15/2009 11:10:00 AM

Project:

Process Filter Profile-2009

Date Received: 4/16/2009

Lab ID:

0904230-03

Matrix: SOLID

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE ORGANICS	·				Analyst: SCC
Diesel Range Organics (DRO)	410000	10000		mg/Kg	100	4/17/2009
Motor Oil Range Organics (MRO)	ND	50000		mg/Kg	100	4/17/2009
Surr: DNOP	0	61.7-135	S	%REC	100	4/17/2009
EPA METHOD 8015B: GASOLINE R	ANGE			*		Analyst: DAM
Gasoline Range Organics (GRO)	ND	2500	•	mg/Kg	50	4/22/2009 3:23:18 AM
Surr: BFB	72.5	58.8-123		%REC	50	4/22/2009 3:23:18 AM
EPA METHOD 8021B: VOLATILES					•	Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	50		mg/Kg	50	4/22/2009 3:23:18 AM
Benzene	ND	25		mg/Kg	50	4/22/2009 3:23:18 AM
Toluene	ND	25		mg/Kg	50	4/22/2009 3:23:18 AM
Ethylbenzene	ND	25		m g/Kg	50	4/22/2009 3:23:18 AM
Xylenes, Total	ND	50		mg/Kg	50	4/22/2009 3:23:18 AM
Surr: 4-Bromofluorobenzene	70.9	66.8-139	•	%REC	50	4/22/2009 3:23:18 AM
MERCURY, TCLP					-	Analyst: MMS
Mercury	ND	0.020		mg/L	1	4/21/2009 4:36:45 PM
EPA METHOD 6010B: TCLP METAL	S					Analyst: NMO
Arsenic	ND	5.0		mg/L	1	4/22/2009 8:26:31 AM
Barium	ND	100		mg/L	1	4/22/2009 8:26:31 AM
Cadmium	ND	1.0		mg/L	1	4/22/2009 8:26;31 AM
Chromium	. ND	5.0		mg/L	1	4/22/2009 8:26:31 AM
Lead	ND	5.0		mg/L	1	4/22/2009 8:26:31 AM
Selenium	ИD	1.0		mg/L	1	4/22/2009 8:26:31 AM
Silver	ND	5.0		mg/L	1	4/22/2009 8:26:31 AM

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Vun		~ .

Value exceeds Maximum Contaminant Level

Spike recovery outside accepted recovery limits

Reporting Limit

Page 3 of 4

Estimated value E

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

В Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

Date: 24-Apr-09

CLIENT:

Western Refining Southwest, Inc.

Lab Order:

0904230

Process Filter Profile-2009

Project: Lab ID:

0904230-04

Client Sample ID: F-704-Gasoline

Collection Date: 4/15/2009 11:20:00 AM

Date Received: 4/16/2009

Matrix: SOLID

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E ORGANICS	**			······································	Analyst: SCC
Diesel Range Organics (DRO)	890	100		mg/Kg	1	4/22/2009
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	1 '	4/22/2009
Surr: DNOP	48.2	61.7-135	S	%REC	1	4/22/2009
EPA METHOD 8015B: GASOLINE RA	ANGE					Analyst: DAM
Gasoline Range Organics (GRO)	ND	100		mg/Kg	1	4/22/2009 9:21:13 PM
Surr: BFB	92.1	58.8-123		%REC	. 1	4/22/2009 9:21:13 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.0		mg/Kg	1	4/22/2009 9:21:13 PM
Benzene	1.1	1.0		mg/Kg	1	4/22/2009 9:21:13 PM
Toluene	3.5	1.0		mg/Kg	1.	4/22/2009 9:21:13 PM
Ethylbenzene	ND	1.0		mg/Kg	1	4/22/2009 9:21:13 PM
Xylenes, Total	ND	2.0		mg/Kg	1	4/22/2009 9:21:13 PM
Surr: 4-Bromofluorobenzene	101	66.8-139		%REC	1	4/22/2009 9:21:13 PM
MERCURY, TCLP		•				Analyst: MMS
Mercury	ND	0.020		mg/L	1	4/21/2009 4;38:22 PM
EPA METHOD 6010B: TCLP METAL	S					Analyst: NMO
Arsenic	ND	5.0		mg/L	1	4/22/2009 8:32:50 AM
Barium	ND	100		mg/L	1	4/22/2009 8:32:50 AM
Cadmium	ND	1.0		mg/L	1	4/22/2009 8:32:50 AM
Chromium	ND	5.0		mg/L	· 1	4/22/2009 8:32:50 AM
Lead	ND	5.0		mg/L	1	4/22/2009 8:32:50 AM
Selenium	ND	1.0		mg/L	1	4/22/2009 8:32:50 AM
Silver	ND	5.0		mg/L	1	4/22/2009 8:32:50 AM

Qu	a	li	fi	e	re
V	ıaı	и	11	c	13

- Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

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Date: 24-Apr-09

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

Process Filter Profile-2009

Work Order:

0904230

Analyte	Result	Units	PQL	%Rec	LowLimit HighLimit	%RPD RI	PDLimit Qual
Method: EPA Method 8015B: D	iesel Range	_			Datability 4000	. Analysis Date:	447,000
Sample ID: MB-18863		MBLK			Batch ID: 18863	Analysis Date:	4/17/200
Diesel Range Organics (DRO)	ND	mg/Kg	10				•
Motor Oil Range Organics (MRO)	ND	mg/Kg	50		D-4-5 ID: 40001	Analysis Detay	4/47/2004
Sample ID: LCS-18863		LCS			Batch ID: 18863	Analysis Date:	4/17/2009
Diesel Range Organics (DRO)	45.31	mg/Kg	10	90.6	64.6 116		
Sample ID: LCSD-18863		LCSD			Batch ID: 18863	•	4/17/2009
Diesel Range Organics (DRO)	46.14	mg/Kg	10	92.3	64.6 116	1.81 1	7.4
Method: EPA Method 8015B: G	asoline Ran	ge				•	
Sample ID: MB-18858		MBLK			Batch ID: 18858	Analysis Date:	4/21/2009 10:47:22 PM
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0			,	
Sample ID: LCS-18858		LCS			Batch ID: 18868	Analysis Date:	4/21/2009 9:46:16 PM
Gasoline Range Organics (GRO)	24.69	mg/Kg	5.0	95.6	64.4 133		
Method: EPA Method 8021B: Vo			· · · · · · · · · · · · · · · · · · ·				
Sample ID: MB-18858	nathes	MBLK			Batch ID: 18858	Analysis Date:	4/21/2009 10:47:22 PM
•	ND		0.40		Daton ID. 10000	Thaiyolo Bato.	412112000 TO.47.22 TW
Methyl tert-bulyl ether (MTBE) Benzene	ND ND	mg/Kg mg/Kg	0.10 0.050		•		
Toluene	ND	mg/Kg	0.050				
Ethylbenzene	ND	mg/Kg	0.050		•		
Xylenes, Total	ND	mg/Kg	0.10		•		•
Sample ID: LCS-18858		LCS	•		Batch ID: 18858	Analysis Date:	4/21/2009 10:16:46 PM
Methyl tert-butyl ether (MTBE)	1.066	mg/Kg	0.10	107	67.9 135	-	
Benzene	0.9286	mg/Kg	0.050	90.1	78.8 132	•	
Toluene	0.9174	mg/Kg	0.050	89.7	78.9 112		•
Ethylbenzene	0.9420	mg/Kg	0.050	94.2	69.3 125		
Xylenes, Total	2.834	mg/Kg	0.10	94.5	73 128		
Method: MERCURY, TCLP							
Sample ID: MB-18894		MBLK			Batch ID: 18894	Analysis Date:	4/21/2009 4:25:40 PM
Mercury	ND	mg/L	0.020			-	
Sample ID: LCS-18894	110	LCS	0.020		Batch ID: 18894	Analysis Date:	4/21/2009 4:27:14 PM
Mercury	ND	mg/L	0.020	99.5	80 120		

Qualifiers:

Page 1

E Estimated value

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

Date: 24-Apr-09

QA/QC SUMMARY REPORT

Client:

Western Refining Southwest, Inc.

Project:

Process Filter Profile-2009

Work Order:

0904230

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD RI	DLimit Qual
Method: EPA Method 60)10B: TCLP Metals		<u> </u>					
Sample ID: MB-18893		MBLK			Batch	ID: 18893	Analysis Date:	4/22/2009 8:07:56 AN
Arsenic	ND	mg/L	5.0					
Barium	ND	mg/L	100					
Cadmium	ND	mg/L	1.0					
Chromium	ND .	mg/L	5.0					
Lead	ND	mg/L	5.0					
Selenium	ND	mg/L	1.0					
Silver	ND	. mg/L	5.0					
Sample ID: LCS-18893		LCS			Batch	ID: 18893	Analysis Date:	4/22/2009 8:09:41 AN
Arsenic	ND	mg/L	5.0	120	80	120		s
Barium	ND	mg/L	100	98.8	80	120		
Cadmium	ND	mg/L	1.0	107	80	120		
Ch romium	ND	mg/L	5.0	100	80	120		
_ead	ND	mg/L	5.0	99.0	80	120		
Selenium	ND	mg/L	1.0	109	80	120		
Silver	ND	mg/L	5.0	106	80	120		

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E Estimated value

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

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Sample Receipt Checklist

Client Name WESTERN REFINING SOL	IT			Date Receive	d:	4/16/2009	
Work Order Number 0904230	·)			Received by	: TLS	by: A	A 5
Checklist completed by:			Date	116109		Initials	
Matrix:	Carrier name	<u>UPS</u>	<u> </u>				
Shipping container/cooler in good condition	?	Yes	V	No 🗌	Not Present		
Custody seals intact on shipping container/	cooler?	Yes	V	No 🗆	Not Present	☐ Not Shipp	ed 🗌
Custody seals intact on sample bottles?		Yes		No 🗔	N/A	V	
Chain of custody present?		Yes	V	No 🗆			•
Chain of custody signed when relinquished	and received?	Yes	\checkmark	No 🗌			
Chain of custody agrees with sample labels	3?	Yes	\checkmark	No 🗌			
Samples in proper container/bottle?		Yes	V	No 🗌	•		
Sample containers intact?		Yes	V	No 🗌			
Sufficient sample volume for indicated test?	?	Yes	✓	No 🗌			
All samples received within holding time?		Yes	V	No 🗌			
Water - VOA vials have zero headspace?	No VOA vials subr	nilled	V	Yes 🗌	No □		
Water - Preservation labels on bottle and ca	ap match?	Yes		No 🗌	N/A		•
Water - pH acceptable upon receipt?		Yes		No 🗌	N/A 🗹		
Container/Temp Blank temperature?			1°	<6° C Acceptab			
COMMENTS:				If given sufficient	t time to cool.		
·	•						
Client contacted	Date contacted:			Pers	on contacted		
Contacted by:	Regarding:						
Somaciad by.							
Comments:							
Corrective Action						• • • • • • • • • • • • • • • • • • • •	

Chain-of-Custody Record	Turn-Around Time:	HALL ENVIRONMENTAL
	Project Name:	www hallenvironmental com
Mailing Address: #50 CR 4990	Process Fiter Kottle-2009	4901 Hawkins NE - Albuquerque, NM 87109
Bloomfield, NM 87413	Project #:	
Phone #: 525-6 72- 4/6/		Analysis
email or Fax#: 525-632-39//	Project Manager:	(/\subseteq (\lambda)
ide:		OS'*(
以 Standard	, , , ,	(Ge)
Accreditation	Sampler: (Ludy / Cob	108 (C
□ EDD (Type)	Sample Hearth Falls	807 14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		thod thod thoo the tho the tho tho tho tho tho tho tho tho tho tho
Date Time Matrix Sample Request ID	Container Preservative FEET NO.	BTEX + BTEX + BTEX + BTEX + BOB (N BOB1 Pe B260B (N B2570 (Se B260B (N
15-09 1050 1050 (C. 203	495.20 - 1	\(\times \)
11AM 34 F F-801-DSL	1-2 ipla 40%	, X
11109m HERT F-403 - Norwha	1-21/2 AR	× ×
F-704	12 place 400	×
Solid		
	· 1	
i		
of App	Received by: A Pate Time	Remarks:
Date: Time: Relinquished by:	Received by	
If necessary, samples submitted to Hall Environmental may be sub-	contracted to other accredited laboratories. This serves as notice of this	If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.