GW - 014

C-141s

From:

Combs, Robert [Robert.Combs@hollyfrontier.com]

Sent:

Wednesday, February 08, 2012 5:36 PM

To:

Chavez, Carl J, EMNRD

Subject:

RE: T-401/T-1215 Spill Cleanup

Carl,

Thanks so much for your help with this. I will start sending you our documentation ASAP so we can work to close these incidents.

Thanks again,

Robert

Robert Combs

Environmental Specialist The HollyFrontier Companies P.O. Box 159

Artesia, NM 88211-0159 office: 575-746-5382 cell: 575-308-2718 fax: 575-746-5451

Robert.Combs@hollyfrontier.com

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

Sent: Wednesday, February 08, 2012 9:41 AM

To: Combs, Robert

Subject: RE: T-401/T-1215 Spill Cleanup

Robert:

You should have the OCD's path forward on the releases.

Only the OCD is involved with the Lea Refinery (Tk-1215), while the NMED should be involved with the OCD on the Artesia Refinery (Tk-401) release.

Please contact me to discuss. 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: Combs, Robert [mailto:Robert.Combs@hollyfrontier.com]

Sent: Friday, February 03, 2012 3:05 PM

To: Chavez, Carl J, EMNRD

Subject: RE: T-401/T-1215 Spill Cleanup

Carl.

Thanks for the feedback; I look forward to your response.

Thanks, Robert

Robert Combs

Environmental Specialist The HollyFrontier Companies P.O. Box 159 Artesia, NM 88211-0159

office: 575-746-5382 cell: 575-308-2718 fax: 575-746-5451

Robert.Combs@hollyfrontier.com

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

Sent: Friday, February 03, 2012 12:24 PM

To: Combs, Robert Cc: Lackey, Johnny

Subject: RE: T-401/T-1215 Spill Cleanup

Robert:

I'm trying to get to this after returning to the office from sick leave. I will follow-up with you next week on Tuesday and/or Wednesday.

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

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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: Combs, Robert [mailto:Robert.Combs@hollyfrontier.com]

Sent: Wednesday, February 01, 2012 5:21 PM

To: Chavez, Carl J, EMNRD

Cc: Lackey, Johnny

Subject: RE: T-401/T-1215 Spill Cleanup

Carl,

Have you had a chance to look for any communications with Darrell regarding clean-up activities around these tanks? We are nearing the end of the maintenance activities and I would like to make sure that we have followed your recommendations.

Thanks,

Robert

Robert Combs

Environmental Specialist The HollyFrontier Companies P.O. Box 159

Artesia, NM 88211-0159

office: 575-746-5382 cell: 575-308-2718 fax: 575-746-5451

Robert.Combs@hollyfrontier.com

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

Sent: Tuesday, January 24, 2012 9:51 AM

To: Combs, Robert Cc: Lackey, Johnny

Subject: RE: T-401/T-1215 Spill Cleanup

Robert:

Good morning. The releases are filed on OCD Online for the refineries (see below):

Lea Refinery (GW-014):

C-141 Files

Artesia Refinery (GW-028):

<u>C-141 Files</u>

I will follow-up by forwarding e-mails that I have in my mail folder for the above spills. 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

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

From: Combs, Robert [mailto:Robert.Combs@hollyfrontier.com]

Sent: Monday, January 23, 2012 4:54 PM

To: Chavez, Carl J, EMNRD

Cc: Lackey, Johnny

Subject: T-401/T-1215 Spill Cleanup

Carl,

As I'm sure you've seen Johnny's previous message about Darrell, his absence leaves several details for us to sort out. Would you mind helping me get up to speed on the cleanup requirements for the T-401 (Artesia) and T-1215 (Lovington) spills?

If you don't mind, I will probably be coming to you with questions as they arise.

Thanks, Robert

Robert Combs

Environmental Specialist The HollyFrontier Companies P.O. Box 159 Artesia, NM 88211-0159

office: 575-746-5382 cell: 575-308-2718 fax: 575-746-5451

Robert.Combs@hollyfrontier.com

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From:

Chavez, Carl J, EMNRD

Sent:

Wednesday, January 04, 2012 7:48 AM

To:

'Moore, Darrell'

Cc:

Lackey, Johnny; Welch, Bill; Crockett, Kevin; Lunsford, Chuck; VonGonten, Glenn, EMNRD;

Gonzales, Elidio L, EMNRD

Subject:

RE: TK 1215 Spill (Crude Bottoms (Asphalt/Vacuum Gas Oil)

Darrell:

Good morning. So, there is no second floor. I've copied EL Gonzales in case they have a staff person in the area today that can stop by.

I think we need to bore down as deep as possible. Also, the tank should be retrofitted with a double bottom w/ leak detection in accordance with the OCD permit. Or, the tank can be lifted and an acceptable liner material may be placed underneath and keyed into the berm w/ tank set on top. 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

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From: Moore, Darrell [mailto:Darrell.Moore@hollyfrontier.com]

Sent: Tuesday, January 03, 2012 10:37 AM

To: Chavez, Carl J, EMNRD

Cc: Lackey, Johnny; Welch, Bill; Crockett, Kevin; Lunsford, Chuck

Subject: RE: TK 1215 Spill

Carl

After getting inside Tk 1215 at Lovington, it has been determined that the tank DOES NOT have a second floor. We have water cut coupons into the floor in the areas where holing was discovered. We plan to go inside the tank and dig in the area these coupons have been removed to sample the ground beneath the tank. We propose to do this sampling beneath the tank tomorrow January 4, 2012. If OCD would like to witness this sampling and/or split samples, we would like to start about 9 am.

From: Moore, Darrell

Sent: Monday, December 05, 2011 1:36 PM

To: 'Chavez, Carl J, EMNRD' Subject: RE: TK 1215 Spill

Carl

We have finished our cleanup of this spill and have done borings in the spill area to insure cleanup. That report with boring detail and analysis along with a final C-141, pictures, waste disposal records, etc. should be to you early next week. The tank leaked as a result of a hole in the floor. On the plus side, the tank DOES have a second floor beneath the first floor and the leak was detected thru weep holes. We are in the process of scanning the floor to detect any other weak spots. Those areas along with the leaking area will be/have been repaired per API-653 standards. We feel confident that there is very little, if any, contamination under the tank due to the secondary floor.

Therefore, once the floor is completely repaired, the tank will be buttoned back up....hydrotested to ensure mechanical integrity and put back in service.

If there are any questions, please contact me at the email address above or at 575-746-5281.

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

Sent: Tuesday, August 02, 2011 4:44 PM **To:** Moore, Darrell; mleighton@lovington.org

Cc: Lackey, Johnny; Combs, Robert; Strange, Aaron; Crockett, Kevin; Welch, Bill; Hutchings, Charles

Subject: RE: TK 1215 Spill

Ok. 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

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From: Moore, Darrell [mailto:Darrell.Moore@hollyfrontier.com]

Sent: Tuesday, August 02, 2011 3:10 PM

To: Chavez, Carl J, EMNRD; mleighton@lovington.org

Cc: Lackey, Johnny; Combs, Robert; Strange, Aaron; Crockett, Kevin; Welch, Bill; Hutchings, Charles

Subject: TK 1215 Spill

Carl and Michael

Attached, please find the C-141 for the spill from TK 1215 that occurred yesterday at Lovington. The tank is essentially empty as of noon today. We are continuing clean up of contaminated soils and investigating what happened to the tank. We will be sending a final C-141 once cleanup is finished. That final C-141 will include sample analysis, photos, and borehole data to determine the horizontal and vertical extent that the spill reached.

If there are any questions concerning this submission, please call me at 575-746-5281.

Darrell Moore Environmental Manager for Water and Waste The HollyFrontier Companies Phone Number 575-746-5281 Cell Number 575-703-5058 Fax Number 575-746-5451

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From:

Chavez, Carl J, EMNRD

Sent:

Thursday, December 15, 2011 3:38 PM

To:

'Strange, Aaron'; mleighton@lovington.org

Cc:

Crockett, Kevin; Lackey, Johnny; Combs, Robert; Moore, Darrell; VonGonten, Glenn, EMNRD

Subject:

RE: 2011-12-10 Frac Tank Spill

Aaron:

Please make sure to provide documentation of cleanup for this release, i.e., photos, bottom hole samples, and disposal documentation, in the final C-141.

How much longer will the temporary frac tank be used? It appears that the operator needs to replace the frac tank ASAP.

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

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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: Strange, Aaron [mailto:Aaron.Strange@hollyfrontier.com]

Sent: Thursday, December 15, 2011 2:38 PM

To: Chavez, Carl J, EMNRD; mleighton@lovington.org

Cc: Crockett, Kevin; Lackey, Johnny; Combs, Robert; Moore, Darrell

Subject: 2011-12-10 Frac Tank Spill

Carl and Mike.

Please see the attached C-141.

Thank you, Aaron

Aaron Strange

Environmental Technician, Senior

Environmental Department Navajo Refining Co, LLC Artesia NM

Off: (575) 746-5468 Cell: (575) 703-5057

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

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised October 10, 2003

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

Release Notification and Corrective Action

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Nama of Co	manana N	ovoia Patini	na Co. I			OPERATOR ☑ Initial Report ☐ Final Report Contact: Aaron Strange							
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By Whom? E email).	stefani Har	nmond (by ph	one) and A	Aaron Strange (by		Date and Hour: 12/10/2011 at ~ 10:30 to the OCD Santa Fe office by phone,							
Cilian).						12/10/2011 at ~10:35 to the OCD Lovington office by phone, 10/12/2011 at ~07:51 to the OCD Santa Fe by email, and 10/12/2011 at ~07:51 to the City							
						Manager of Lovington by email.							
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				ne tank is being use	ed to te	emporarily rep	lace the TK-1209	B Strip	Tank while	e it is being re	paire	d. It was in	
the process of	stripping t	he water with	air at the	time of the spill.									
		and Cleanup A			******								
				ust West of Tank 1				ater was	not recove	ered. There ar	e no s	sign of the	
spill on the gr	ound; no o	ily staining. I	he spill ar	ea will be excavate	ed and	place into bin	s for disposal.						
I hereby certi	fy that the i	nformation gi	ven above	is true and comple	ete to t	he best of my	knowledge and u	nderstan	d that purs	suant to NMO	CD rı	ules and	
regulations al	l operators	are required to	o report ar	d/or file certain re	lcase n	otifications ar	nd perform correct	tive acti	ons for rele	eases which n	nay er	ndanger	
public health	or the envi	ronment. The	acceptance	e of a C-141 repor investigate and re-	t by th	e NMOCD m	arked as "Final R	eport" d	oes not reli	ieve the opera	torot	liability	
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a: /	1	0			OIL CONSERVATION DIVISION								
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2.						Approved by	District Supervis	or:					
											•		
Title: Sr. Env	ironmental	Technician				Approval Dat	e:	E	Expiration	Date:			
E-mail Address: aaron.strange@hollycorp.com						Conditions of Approval:							
Date: 12/15/2	011			Phone: 575-703-50	57								

From:

Strange, Aaron [Aaron.Strange@hollyfrontier.com]

Sent:

Monday, December 12, 2011 7:51 AM

To:

Chavez, Carl J, EMNRD; mleighton@lovington.org

Cc:

Envir

Subject:

FW: 2011-12-10 Waster water spill to bare ground ~15 barrels

Carl and Mike,

Please see the email below. A C-141 will be filled out and forwarded to the OCD and City of Lovington.

Aaron Strange

Environmental Technician, Senior

Off: (575) 746-5468 Cell: (575) 703-5057

From: Hammond, Estefani

Sent: Saturday, December 10, 2011 10:59 AM

To: McKee, Michael; Boans, Robert; Welch, Bill; Hernandez, Eloy; Crockett, Kevin; Hodges, James; Hackmann, Kenneth **Cc:** Combs, Gabriela; Combs, Robert; Hammond, Estefani; Hernandez, Carrie; Lackey, Johnny; Moore, Darrell; Strange,

Aaron

Subject: 2011-12-10 Waster water spill to bare ground ~15 barrels

On 12/10/2011 the Environmental Department was notified by the Lovington control room of a waste water spill to bare ground of ~15 barrels. The spill occurred from a frac tank that was being used to replace Tank 1209B. The pump malfunctioned and was unable to pull the level of the frac tank down and the tank overfilled. A vacuum truck picked up the spill.

Because the volume was greater than 5 barrels I made the following required notifications:

- OCD Santa Fe (505-476-3490) no answer and no answering machine therefore could not leave a message
- OCD Local (575-393-6161 ext.111) message system was full therefore could not leave a message
- Left a message with the operator's answering machine.

We may need to try to telephone again on Monday to verify that OCD received the message.

Thanks,

Estefani Banuelos-Hammond

Environmental Specialist III
The HollyFrontier Companies
Navajo Refining Co., L.L.C. | P.O. Box 159 | Artesia, NM 88211-0159
575.746.5398 direct | 575.308.6009 mobile
Estefani.Hammond@HollyFrontier.com

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·										
	`\									

From:

Leking, Geoffrey R, EMNRD

Sent:

Monday, December 12, 2011 7:38 AM

To:

Chavez, Carl J, EMNRD

Subject:

Navajo

Carl

Navajo, Lovington experienced a wastewater leak this weekend per a phone message left by Stephanie Hammond. Apparently she tried to leave you a message, but stated that your voice mail was turned off? She tried to leave an initial message here, but was using Larry Johnson's old extension. She finally left it with Patricia's voice mail at the front desk. I called her this morning to indicate we had received her notification. She estimated that 15 barrels of wastewater was released and a vac truck was called and picked up most of the release.

She also stated that there had been a flash fire at the Artesia refinery and will call Dist. 2 and you on this.

Geoff

From:

Chavez, Carl J, EMNRD

Sent:

Tuesday, December 06, 2011 2:47 PM

To: Subject:

'Moore, Darrell' RE: TK 1215 Spill

Darrell:

Ok. I'll look for the report. 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

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Sent: Monday, December 05, 2011 1:36 PM

To: Chavez, Carl J, EMNRD **Subject:** RE: TK 1215 Spill

Carl

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Therefore, once the floor is completely repaired, the tank will be buttoned back up....hydrotested to ensure mechanical integrity and put back in service.

If there are any questions, please contact me at the email address above or at 575-746-5281.

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

Sent: Tuesday, August 02, 2011 4:44 PM **To:** Moore, Darrell; mleighton@lovington.org

Cc: Lackey, Johnny; Combs, Robert; Strange, Aaron; Crockett, Kevin; Welch, Bill; Hutchings, Charles

Subject: RE: TK 1215 Spill

Ok. Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

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From: Moore, Darrell [mailto:Darrell.Moore@hollyfrontier.com]

Sent: Tuesday, August 02, 2011 3:10 PM

To: Chavez, Carl J, EMNRD; mleighton@lovington.org

Cc: Lackey, Johnny; Combs, Robert; Strange, Aaron; Crockett, Kevin; Welch, Bill; Hutchings, Charles

Subject: TK 1215 Spill

Carl and Michael

Attached, please find the C-141 for the spill from TK 1215 that occurred yesterday at Lovington. The tank is essentially empty as of noon today. We are continuing clean up of contaminated soils and investigating what happened to the tank. We will be sending a final C-141 once cleanup is finished. That final C-141 will include sample analysis, photos, and borehole data to determine the horizontal and vertical extent that the spill reached.

If there are any questions concerning this submission, please call me at 575-746-5281.

Darrell Moore

Environmental Manager for Water and Waste The HollyFrontier Companies Phone Number 575-746-5281 Cell Number 575-703-5058 Fax Number 575-746-5451

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From: Moore, Darrell [Darrell.Moore@hollyfrontier.com]

Sent: Tuesday, August 02, 2011 3:10 PM

To: Chavez, Carl J, EMNRD; mleighton@lovington.org Cc: Lackey, Johnny; Combs, Robert; Strange, Aaron; Crockett, Kevin; Welch, Bill; Hutchings,

Subject: TK 1215 Spill

Attachments: Release Notification.pdf

Carl and Michael

Attached, please find the C-141 for the spill from TK 1215 that occurred yesterday at Lovington. The tank is essentially empty as of noon today. We are continuing clean up of contaminated soils and investigating what happened to the tank. We will be sending a final C-141 once cleanup is finished. That final C-141 will include sample analysis, photos, and borehole data to determine the horizontal and vertical extent that the spill reached.

If there are any questions concerning this submission, please call me at 575-746-5281.

Darrell Moore

Environmental Manager for Water and Waste The HollyFrontier Companies Phone Number 575-746-5281 Cell Number 575-703-5058 Fax Number 575-746-5451

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received this message in error, please advise the sender immediately by reply e-mail and do not retain any paper or electronic copies of this message or any

From:

Michael Leighton [mleighton@lovington.org]

Sent:

Monday, August 01, 2011 8:39 AM

To:

'Moore, Darrell'; Chavez, Carl J, EMNRD

Cc:

Subject:

'Lackey, Johnny'; wduncan@lovington.org; mdelacruz@lovington.org; 'Patrick McMahon' RE: Tk 1215

OK

From: Moore, Darrell [mailto:Darrell.Moore@hollyfrontier.com]

Sent: Monday, August 01, 2011 7:41 AM

To: Moore, Darrell; Chavez, Carl J, EMNRD; mleighton@lovington.org

Cc: Lackey, Johnny Subject: RE: Tk 1215

Carl and Michael

The tank with the suspected hole is Tk 1215 not Tk 815...we are moving the contents to Tk 1214....not Tk 814

From: Moore, Darrell

Sent: Monday, August 01, 2011 7:35 AM

To: 'Chavez, Carl J, EMNRD'; mleighton@lovington.org

Cc: Lackey, Johnny Subject: Tk 1215

Carl and Michael

Last night (August 1, 2011 at 1 am) we were informed by operators at our Lovington Plant that they had noticed a small pool of oil near Tk 815. This tank is a slop oil tank near the center of the plant just south of the old control room. We suspect the tank may have a hole in the bottom and we are emptying the tank into Tk 814 so we can investigate. A C-141 will be filled out and I will keep you abreast of our findings.

Darrell Moore

Environmental Manager for Water and Waste The HollyFrontier Companies Phone Number 575-746-5281 Cell Number 575-703-5058 Fax Number 575-746-5451

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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

7.

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141
Revised August 1, 2011

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

Release Notification and Corrective Action

	OPERATOR	al Report 🔃 Final Repor							
Name of Company Navajo Lea Refining Co	Contact Darrell Moore								
Address 7401 South Main Lovington NM 88260	Telephone No. 575-746-5281								
Facility Name	Facility Type Petroleum Refinery								
Surface Owner Mineral Own	ner	Lease N	lo.						
		1,2000 1							
	ION OF RELEASE	F MI V							
Unit Letter Section Township Range Feet from the N	orth/South Line Feet from the	East/West Line	County						
Latitude	Longitude								
	RE OF RELEASE								
Type of Release Crude Bottoms (Asphalt, vacuum gas oil)	Volume of Release est. 3:		ecovered 280 bl						
Source of Release Tk 1215	Date and Hour of Occurrer 8/1/11 1 am	Date and I am	Hour of Discover	y 8/1/11 1					
Was Immediate Notice Given? ☐ Yes ☐ No x Not Require	If YES, To Whom?								
•		·							
By Whom? Darrell Moore Was a Watercourse Reached?	Date and Hour 8/1/11 If YES, Volume Impacting	7:35 am							
Yes x No	11 1 L3, Volume impacting	the watercourse.							
If a Watercourse was Impacted, Describe Fully.*									
The Waterbourse was Impacted, Beschie Luny.									
Describe Cause of Problem and Remedial Action Taken.* At 1 am on August 1, 2011, during routine rounds, an operator at the Lovington facility noticed a small pool of hydrocarbon on the south side of Tk 1215 estimated at 3 bbls. He notified environmental and it was determined that the tank may have a hole in the floor. We then started emptying the tank into Tk 1214. The tank, which is a 20,000 bbl tank, was about ½ full. By 7 am the leak had spread to almost all the way around the tank. We think that the heat of the day was making the product, which is an asphalt and vacuum gas oil mixture, more mobile. We did not immediately report the spill because we thought at the time it was a small 3 bbl leak from a pinhole in the floor of the tank. Describe Area Affected and Cleanup Action Taken.* The area affected is inside the dike that contains Tk 1214 and Tk 1215. The spill has almost entirely encircled Tk 1215 and then run southeast inside the dike and pooled up southeast of Tk 1215. Two vacuum trucks were called and began vacuuming up the spilled material. In addition we immediately started emptying Tk 1215 into Tk 1214. We also built small dikes to contain the spilled material into smaller areas. Tk 1215 should be empty by noon on August 2, 2011. We will then finish the vacuuming operation and begin picking up contaminated soil and placing into roll-off bins. Once we have picked up contaminated soil we will do drilling and sampling to insure cleanup. I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger									
public health or the environment. The acceptance of a C-141 report be should their operations have failed to adequately investigate and remove the environment. In addition, NMOCD acceptance of a C-141 reported federal, state, or local laws and/or regulations.	ediate contamination that pose a the ort does not relieve the operator of	reat to ground water, responsibility for co	, surface water, he compliance with ar	uman health					
Signature: Danill Moore	OIL CONSERVATION DIVISION								
Printed Name: Darrell Moore	Approved by District Supervisor:								
Title: Environmental Manager for Water and Waste	Approval Date:	Approval Date: Expiration							
E-mail Address: Darrell.moore@hollyfrontier.com	_ Conditions of Approval: Attached □			^					
Date: 8/2/11 Phone: 575-746-5281									

From:

Jones, Brad A., EMNRD

Sent:

Tuesday, April 26, 2011 10:02 AM

To: Subject: Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD Emailing: AP News Fire Put Navajo Refinery at Risk.htm

AP Associated Press

Get AP Mobile for your phone at APnews.com

Fire Put Navajo Refinery at Risk

ALBUQUERQUE JOURNAL

Published: Yesterday

LOVINGTON -- A fast-moving grass fire burning in southeastern New Mexico came close enough to threaten part of the Navajo Refinery near Lovington.

A spokesman for Dallas-based Holly Corp., which owns the refiner and another by the same name in Artesia, said the Lovington location was "clear of hazard" by midafternoon.

Authorities say the wind-driven fire broke out Monday morning near Lovington. It has jumped two state highways and has charred an estimated 25,000 acres of private and state land.

State Forestry spokesman Dan Ware said firefighters are trying to the stop the blaze at N.M. 18. If the flames jump that road, several more structures could be threatened.

Ware said N.M. 238, 483 and 18 were closed.

The fire was about 17 miles long and 3 miles wide Monday.

Firefighting efforts were being hampered by low humidity and gusting winds.

Elsewhere, near Queen, about 40 miles southwest of Carlsbad, authorities evacuated two structures near where a wind-driven fire had burned 10,000 acres.

The fire broke out Sunday near a forest road five miles west of Queen in an area of grass, brush and piñon trees.

Fire officials said the blaze was threatening three structures, and two were evacuated. The cause is under investigation.

The fire was burning in steep, rocky and inaccessible terrain in the Guadalupe Mountains of the Lincoln National Forest and had burned onto Bureau of Land Management land as well as state and private land.

Firefighters also attacked the blaze from the air most of Sunday, but officials said extremely gusty conditions made their efforts unsuccessful.

Winds gusted up to 55 mph.

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From:

Strange, Aaron [aaron.strange@hollycorp.com]

Sent:

Friday, April 01, 2011 1:41 PM

To:

Chavez, Carl J, EMNRD; Dade, Randy, EMNRD; Hill, Larry, EMNRD;

mleighton@lovington.org

Cc:

Moore, Darrell; Lackey, Johnny

Subject:

C-141 spills

Attachments:

2011-03-17 Spill Waste Water.pdf; 2011-03-17 Spill Waste Water.pdf

Carl, Randy, Buddy, and Mike

Please see the attached C-141s.

Thank you, Aaron

Aaron Strange

Environmental Technician, Senior

Environmental Department Navajo Refining Co, LLC Artesia NM

Off: (575) 746-5468 Cell: (575) 703-5057

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federal, state, or local laws and/or regulations.

E-mail Address: aaron.strange@hollycorp.com

Signature: C

Date: 04/1/2011

Printed Name: Aaron Strange

Title: Sr. Environmental Technician

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe. NM 87505 Form C-141 Revised October 10, 2003

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

Release Notification and Corrective Action OPERATOR Initial Report Final Report Name of Company: Navajo Refining Co. LLC Contact: Aaron Strange Telephone No. 575-748-3311 Address: 7406 South Main Lovington, N.M. Facility Name: Lovington Plant Facility Type: Petroleum Refinery Mineral Owner Lease No. Surface Owner LOCATION OF RELEASE East/West Line Unit Letter Section Township Feet from the North/South Line Feet from the County Longitude _ Latitude ___ NATURE OF RELEASE Type of Release: Crude oil Volume of Release: ~ 5 barrels Volume Recovered: ~ 0 barrels Source of Release: Sump at the Hobbs manifold (crude inlet). Date and Hour of Occurrence: Date and Hour of Discovery: 03/18/2011 $03/18/2011 \sim 23:45$ ~ 23:45 Was Immediate Notice Given? If YES, To Whom? Left a voicemail with Carl Chavez with the OCD in Santa Fe, spoke to El Gonzales with the OCD Lovington Office (575-370-3186) and left a voicemail with Jeff Lecking (575-393-6161 ext. 113) By Whom? Gabriela Combs Date and Hour: 03/19/2011 at ~00:01 to the OCD Santa Fe office, and 03/19/2011 at ~ 00:52 to the OCD Lovington office. Was a Watercourse Reached? If YES, Volume Impacting the Watercourse. ☐ Yes 🖾 No If a Watercourse was Impacted, Describe Fully.* NA Describe Cause of Problem and Remedial Action Taken.* On 03/18/2011 at ~ 23:45 the sump at the Hobbs manifold (crude inlet) ran over onto the ground. The pump did not turn on until an operator shock the level post at the sump. It then started to pump and stopped the spill. Describe Area Affected and Cleanup Action Taken.* The area affected was at the crude oil sump at the Hobbs manifold (crude inlet). Approximately Five barrels of crude ran over the sump and onto the ground. A vacuum truck was called out but the spill had already soaked into the ground. Safety and Environmental Solutions will delineate the spill and collected soil samples for analysis. I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability

should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other

Phone: 575-703-5057

Approval Date:

Conditions of Approval:

Approved by District Supervisor:

OIL CONSERVATION DIVISION

Expiration Date:

Attached

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

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

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Form C-141 Revised October 10, 2003

			Rele	ease Notifica	ation	i and Co	orrective A	ction				
						OPERA'	ГOR		ial Report 🔲 Final Repor			
Name of Co	ompany: N	avajo Refini	ng Co. Ll	LC	(Contact: Aaron Strange						
Address: 74	106 South 1	Main Loving	gton, N.M			Telephone No. 575-748-3311						
Facility Na	me: Loving	gton Plant]	Facility Type: Petroleum Refinery						
Surface Ow	/ner			Mineral O	wner	ner Lease No.						
				LOCA	TION	OF RE	LEASE					
Unit Letter	Section	Township	Range	Feet from the	North/	South Line	Feet from the	East/West Line	County			
			L	atitude		_ Longitud	le					
				NAT	URE	OF REL	EASE	_				
		az Waste Wat	er				Release: ~ 40 ba		Recovered: ~ 0 barrels			
Source of Re	lease: Tank	1209B				Date and F 03/17/2011	lour of Occurrenc 1 ~ 22:55	ee: Date and ~ 22:55	Hour of Discovery: 03/17/2011			
Was Immedi	ate Notice C								I with Carl Chavez with the			
		\boxtimes	Yes _	No Not Rec	quired				CD Lovington Office (575-370- City Manager of Lovington, and			
							mail with the NM		city ividilages of Lovington, and			
By Whom? I	Darrell Moo	re and Gabrie	la Combs			Date and Hour: 03/17/2011 at ~ 23:47 to the OCD Santa Fe office, 03/17/2011						
						at ~23:49 to the OCD Lovington office, 03/17/2011 at ~23:55 to the NMED, and 03/18/2011 at ~07:04 to the City Manager of Lovington.						
Was a Water	course Reac	:hed?				If YES, Volume Impacting the Watercourse.						
was a water	course stone		Yes 🖂	No		NA NA	name impacing	me watercourse.				
If a Watercou	ırse was Im	pacted, Descr	ibe Fully.*	NA		1						
		em and Reme			40.1	1 0		1				
									pump on the tank was running, prevent further spilling and the			
check valve l			the tank to	ini up iastei tilan	it coun	a oc pampea	out. The tank was	s pumpeu down to	prevent further spring and the			
						* ***						
		and Cleanup A			1.0	3	11 11 2 1 .	d 4 200	1.6.1			
									cuum truck for the plant was of the spill on the ground; no oily			
				Solutions will deli					or the spin on the ground, no only			
	6 1 1	<u> </u>				,			\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			
									suant to NMOCD rules and leases which may endanger			
									lieve the operator of liability			
should their	perations h	ave failed to a	adequately	investigate and rea	mediate	e contaminati	on that pose a thr	eat to ground water	er, surface water, human health			
		ddition, NMC vs and/or regu		tance of a C-141 re	eport do	oes not reliev	e the operator of	responsibility for	compliance with any other			
		ws and/or regu	ilations.				OIL CON	SEDVATION	LDIVISION			
Signature: C	lan	<u>کے سے</u>	Fer			OIL CONSERVATION DIVISION						
Printed Name	⊶ Aaron Str	ange				. 11	D:					
1111100111011						Approved by	District Supervis	or:				
Title: Sr. Env	vironmental	Technician				Approval Dat	e:	Expiration	Date:			
E-mail Addre	ess: aaron.st	range@hollyc	corp.com			Conditions of	Approval·					
		8-(3,10,1)				2 3	ppro-un		Attached			
Date: 04/01/2	2011		F	hone: 575-703-50	57							

C-141 Notification (3/17/2011)

Navajo Refining Company- Lovington Refinery (GW-014):

Gabriela Combs (575) 365-8365 of Navajo Refining Company called on 3/17/2011 23:47 to report clear water from API Separator (possibly haz. Waste w/ NRC reporting requirements?) into tanks was released. The release was discovered at about 23:45 and was greater than 5 bbls. The line leaked along reducer where pipeline size decreased. The spill was contained and a vacuum truck had been contacted to remove fluids. A C-141 Form with more details will be submitted soon.

From:

Strange, Aaron [aaron.strange@hollycorp.com]

Sent:

Friday, March 04, 2011 4:01 PM

To:

Chavez, Carl J, EMNRD; Dade, Randy, EMNRD; Hill, Larry, EMNRD;

mleighton@lovington.org

Cc:

Moore, Darrell; Lackey, Johnny

Subject:

C-141

Attachments:

2011-02-27 Spill Waste Water.pdf

Carl, Randy, Buddy, and Michael,

Please see the attached C-141

Thank you, Aaron

Aaron Strange

Environmental Technician, Senior

Environmental Department Navajo Refining Co, LLC Artesia NM

Off: (575) 746-5468 Cell: (575) 703-5057

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State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised October 10, 2003 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

	OPERATOR	☐ Initial Report ☐ Final Report										
Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange											
Address: 7406 South Main Lovington, N.M.	Telephone No. 575-748-3311											
Facility Name: Lovington Plant	Facility Type: Petroleum Refinery											
Surface Owner Mineral Owner	er -	Lease No.										
, , , , , , , , , , , , , , , , , , , ,	ON OF RELEASE											
Unit Letter Section Township Range Feet from the No.	rth/South Line Feet from the Eas	st/West Line County										
Latitude	Longitude											
	NATURE OF RELEASE											
Type of Release: Waste Water	Volume of Release: ~ 10 barrels	Volume Recovered: ~ 0 barrels										
Source of Release: Tank 1209B	Date and Hour of Occurrence: 02/27/2011 ~ 05:30	Date and Hour of Discovery: 02/27/2011 ~ 05:30										
Was Immediate Notice Given?		I to Michael Leighton the City Manager of										
☐ Yes ☐ No ☐ Not Require	voicemail for Larry Johnson with											
By Whom? Johnny Lackey		1:57 to the City Manager of Lovington,										
	OCD Hobbs office.	02/28/2011 at ~11:57 to OCD Santa Fe office, 02/28/2011 at ~12:05 to the										
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse.											
☐ Yes ⊠ No	NA NA	atoroourse.										
If a Watercourse was Impacted, Describe Fully.* NA												
Describe Cause of Problem and Remedial Action Taken.*												
On 02/27/2011 at ~ 06:15 Tank 1209B overflowed approximately 10 b failure in the plant that resulted in the loss of several pumps including the second of the plant that resulted in the loss of several pumps including the second of the plant that resulted in the loss of several pumps including the second of the plant that resulted in the loss of several pumps including the second of the plant that resulted in the loss of several pumps including the second of the plant that resulted in the loss of several pumps including the second of the plant that resulted in the loss of several pumps including the second of the plant that resulted in the loss of several pumps including the second of the plant that resulted in the loss of several pumps including the second of the plant that resulted in the loss of several pumps including the second of the plant that resulted in the loss of several pumps including the second of th												
latitude in the plane that resulted in the loss of several pumps including i	the waste water pump from Tank 1209.	Б.										
Describe Area Affected and Cleanup Action Taken.*												
The area affected was at Tank 1209B at the wastewater separator and f												
ground; no oily staining or wet areas. Some water was absorbed into the	e ground and/or evaporated due to the	extremely high wind in the area; therefore										
there was no free standing water to recover. Safety and Environmental for analysis.	Solutions has started the defineation of	t the spill and have collected water samples										
tor analysis.												
I hereby certify that the information given above is true and complete t	o the best of my knowledge and unders	stand that pursuant to NMOCD rules and										
regulations all operators are required to report and/or file certain release	e notifications and perform corrective	actions for releases which may endanger										
public health or the environment. The acceptance of a C-141 report by												
should their operations have failed to adequately investigate and remed or the environment. In addition, NMOCD acceptance of a C-141 repor												
federal, state, or local laws and/or regulations.	t does not remove the operator of respo	misiothry for compliance with any other										
	OIL CONSERVATION DIVISION											
Signature: Clarum String												
Printed Name: Aaron Strange	Approved by District Supervisor:											
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:										
E mail Address same strangelist.	C- I'i' CA											
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:											
Date: 03/04/2011 Phone: 575-703-5057												

From: Moore, Darrell [Darrell.Moore@hollycorp.com]

Sent: Monday, February 21, 2011 7:37 AM

To: Chavez, Carl J, EMNRD

Cc: Michael Leighton; Lackey, Johnny; Miguel De La Cruz; VonGonten, Glenn, EMNRD; Hill,

Larry, EMNRD

Subject: RE: Tank TK-104A Bottom Sampling

Carl

There was NO flow back when the section of the tank bottom was removed. We have monitored the area for LEL's and get zero. There is absolutely nothing (vapors, stain, etc) that would indicate any leak from the tank.

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

Sent: Friday, February 18, 2011 4:27 PM

To: Moore, Darrell

Cc: Michael Leighton; Lackey, Johnny; Miguel De La Cruz; VonGonten, Glenn, EMNRD; Hill, Larry, EMNRD

Subject: RE: Tank TK-104A Bottom Sampling

Darrell:

Ok on the date and time.

One noticeable item on the analytical lab results was the detection limit on the GRO is required to be lowered to the BTEX detection limit to meet OCD data quality objectives.

Also, could you please respond to the items below:

- Did Navajo note any flow-back when the section of tank bottom was removed? If so, please describe any vapors, odors, etc. that may indicate kerosene is present below the tank. Also, Navajo should conduct ambient air monitoring in the early afternoon at the removed section of tank bottom and report the results.
- If there is a down gradient monitor well from Tank 104A, a ground water sample should be collected and analyzed for TPH and BTEX.

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

"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: Moore, Darrell [mailto:Darrell.Moore@hollycorp.com]

Sent: Friday, February 18, 2011 2:29 PM

To: Chavez, Carl J, EMNRD

Cc: Michael Leighton; Lackey, Johnny; Miguel De La Cruz; VonGonten, Glenn, EMNRD; Hill, Larry, EMNRD

Subject: RE: Tank TK-104A Bottom Sampling

Carl et al,

We will sample this tank again at 10 am on monday Feb. 21, 2011. Anyone interested in witnessing can meet us at the Lovington facility.

Sent from my Palm Pre on the Now Network from Sprint

On Feb 16, 2011 5:02 PM, Chavez, Carl J, EMNRD < CarlJ.Chavez@state.nm.us> wrote:

Darrell, et al.:

The OCD and City of Lovington have completed our review of the TPH analytical data submitted from ALS Environmental.

Observations based on the recent investigation and sampling event

- 1) The operator observed flow-back into the tank from the soil below the tank. This led to OCD requiring further inspection with sampling from beneath the tank.
- 2) A section of tank bottom was removed with a high pressure water jetting or cutting machine. OCD is concerned that the water jetting may have flushed some of the volatiles from the interval being sampled.
- 3) The TPH concentrations observed in both laboratory analytical samples exceed the OCD's TPH limits for Spills and Release Guidance.

Path Forward:

- 1) Did Navajo note any flow-back when the section of tank bottom was removed? If so, please describe any vapors, odors, etc. that may indicate kerosene is present below the tank. Also, Navajo should conduct ambient air monitoring in the early afternoon at the removed section of tank bottom and report the results.
- 2) Now that conditions have stabilized and dried out from the high pressure jetting or cutting, we require Navajo to collect a final soil sample for TPH (similar method of analysis as previous samples) collected at least 2 feet below ground level within the cut section of tank bottom to determine whether LNAPL is present and the concentration.

3) If there is a down gradient monitor well from Tank 104A, a ground water sample should be collected and analyzed for TPH and BTEX. 4) Forward the analytical data for a final review and determination of how to proceed in this matter. 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 and Waste Minimization Guidance is under "About Us- Environmental Bureau" http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental) **From:** Moore, Darrell [mailto:Darrell.Moore@hollycorp.com] Sent: Friday, February 11, 2011 1:50 PM To: Chavez, Carl J, EMNRD; Leking, Geoffrey R, EMNRD Cc: Michael Leighton; Lackey, Johnny Subject: RE: Tank TK-104A

Gentlemen

Enclosed, please find the results from our sampling of the soil underneath Tank 104A at Lovington. As Mr. Leking can attest, the material directly under the tank floor was asphalt. We had to dig thru the asphalt to get any kind of soil sample. You will notice that we have some minor hits in the results. I feel very confident that the hits we got were a direct result of the asphalt under the tank and not a leak in the tank. The holes in the floor, if they were actually holes at all, were pinhole size.

If there are any questions concerning this submission, please contact me at 575-746-5281.

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

Sent: Thursday, February 10, 2011 9:19 AM **To:** Leking, Geoffrey R, EMNRD; Moore, Darrell

Cc: Michael Leighton

Subject: RE: Tank TK-104A

Darrell:

If you want to send it via e-mail, please include Mr. Leighton (City of Lovington). 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/index.htm

(Pollution Prevention and Waste Minimization Guidance is under "About Us- Environmental Bureau" http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental)

From: Leking, Geoffrey R, EMNRD

Sent: Thursday, February 10, 2011 8:46 AM

To: Moore, Darrell

Cc: Chavez, Carl J, EMNRD **Subject:** Tank TK-104A

Darrell

Could you send Carl and I the results from the sampling event? Thank you.

Geoffrey Leking

Environmental Engineer

NMOCD-Hobbs

1625 N. French Drive

Hobbs, NM 88240

Office: (575) 393-6161 Ext. 113

Cell: (575) 399-2990

email: geoffreyr.leking@state.nm.us

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From:

Chavez, Carl J, EMNRD

Sent:

Thursday, March 03, 2011 4:20 PM

To:

Moore, Darrell

Cc:

'Miguel De La Cruz'; VonGonten, Glenn, EMNRD; 'Lackey, Johnny'

Subject:

Navajo Refining Company, Lovington Refinery (GW-014) Follow-up Information Request

Attachments:

Recent C-141 Follow-up 3-3-2011 .pdf

Darrell:

The City of Lovington and OCD (agencies) would like commend Navajo Refining Company (NRC) for its efforts in the investigations and monitor well network to meet the requirements of the discharge permit (permit). The agencies will be going over the permit again later this month (it expires on 10/30/2011) to make sure NRC and the agencies are up to date with deadlines and any requirements that we may not be focused on at present.

The agencies have reviewed the OCD Online file system and reports submitted by the NRC to date. The reports from 2010 to present related to the installation of new ground water monitoring wells, ground water monitoring, follow-up on Attachment 2 in the permit with C-141 investigations, and most recent C-141s in the file were reviewed for completeness.

The agencies have the following information requests:

GW Monitoring:

The new MWs 15 – 29, in addition to MWs 1 -14 (Note: MWs 1 – 11 were recently replaced or deepened) need to be incorporated in the ground water monitoring program and ground water sampling needs to be completed for this year's annual report due in April of 2011. The agencies notice that while the new monitor wells were installed, we have not received ground water quality data from them yet or received notification of the next sampling event. The agencies realize that the annual report is due in April. Therefore, the agencies require the date of ground water monitoring and sampling so we may ensure that ground water data will be included in the report. You may recall receiving some messages from the OCD regarding a decision from NRC on whether to develop a Facility-Wide Ground Water Monitoring Program (FWGWMP) similar to the Artesia Refinery to determine well sampling schedules, etc., but OCD records indicate that NRC did not reply.

Environmental Site Assessment (November 2010) Follow-up:

The agencies notice that benzene was detected in MW-13 above the regulatory limit for the first time. The agencies suspect that the Tank 1214 C-141 release may explain this detection?

Although NRC provided photos, and bore hole analytical data with a summary of excavation volumes removed (one instance no volume was specified) there were no final waste disposal facility signed C-138 waste manifest forms with volumes of soils received and provided to support the excavated volumes of contaminated soils summarized in the report for the C-141 investigations. Therefore, the agencies are requesting this information by COB April 5, 2011. We also request the final signed C-138 from the OCD permitted facility for all corrective actions to be included with the final C-141 report documentation from now on.

Recent C-141 Follow-up:

Please refer to the attached C-141 follow-up documents where the agencies are requiring the final C-141 Reports with documentation of corrective actions taken by April 5, 2011. Also, similar to the section above,

any excavation volumes of contaminated soils disposed at an OCD permitted facility must be supported by a signed C-138 from the receiving facility that verifies the volume removed.

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

"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)

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Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

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Form C-141

Revised October 10, 2003

			Rele	ase Notific	ation	and Co	rrective A	ction					
						OPERATOR						Report	
		Navajo Refin	ing Com	pany, LLC		Contact Aaron Strange							
Address 74						Telephone No. 575-748-3311 Facility Type Petroleum Refinery							
Facility Na	me Lea R	ennery		_		acility Typ	e Petroleum R	ennery					
Surface Ow	mer			Mineral O	wner				Lease N	lo.			
				LOCA	TION	OF RE	LEASE						
Unit Letter	Unit Letter Section Township Range Fect from the North/South Line Feet from the East/West								Vest Line	County			
			La	titude		_ Longitud	le						
				NAT	URE	OF REL	EASE						
Type of Rele		le Oil					Release 10 bbls			lecovered	6 bbls		
Source of Re	elease Ov	errun of wast	ewater			Date and F 7:45 pm 8	lour of Occurrent	ce	Date and 7:45 pm	Hour of Dis	covery		
Was Immedi	ate Notice (Yes x	No x Not Requ	ired	If YES, To			7.45 pm	8/10/10	·····		
By Whom?						Date and I	lour						
Was a Water	course Read						olume Impacting	the Wate	ercourse.				
			Yes x	No									
Due to heavy wastewater. rainwater an Describe Art The area affi	y rainstorms In addition, d any hydro ea Affected ected runs fr	heavy rain ad carbons that v and Cleanup arom the Unit of	g in the ar ded to the vere floating. Action Tallon the nortice	rea, power was los problem and so, t ng on the water. cen.*	to the so	ewater system	n overflowed. For	ur vacuu	m trucks w	ere called o	ut and sucked u	ıp	
I hereby cert regulations a public health should their or the enviro	ify that the all operators a or the envioperations bonment. In a	information g are required t ronment. The nave failed to	iven above to report and acceptant adequately OCD accep	and bottom hole s e is true and comp nd/or file certain r ce of a C-141 repo y investigate and r otance of a C-141	lete to the release near by the remediate	ne best of my otifications a c NMOCD me e contaminat	knowledge and and perform correstarked as "Final Fion that pose a th	ctive act Report" d reat to gr	ions for rel loes not rel round wate	eases which ieve the ope r, surface w	may endanger rator of liability atcr, human hea	y	
Signature:	Dan	ull N	love			OIL CONSERVATION DIVISION							
Printed Nam	ne: Darrell I	Moore				Approved by District Supervisor:							
Title: Env.	Mgr. for Wa	ater and Wasto	· 			Approval Da	ite:		Expiration Date:				
E-mail Add	ress: Darrell	.moore@holly	усогр.сот			Conditions of Approval:				Attached			
Date: 8/16/10 Phone: 575-748-3311													

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Release Notification and Corrective Action

						OPERA	TOR		x Initia	ıl Report		Final Report	
Name of Co		vajo Refinir	g Compa	any, LLC		Contact Aar							
Address PO						Telephone No. 575-748-3311							
Facility Nan	ne Lea Re	fining Co]	Facility Type Petroleum Refinery							
Surface Own	ner			Mineral C	wner	er Lease No.							
				LOCA	TION	OF REI	LEASE						
Unit Letter	Section	Township	Range	Feet from the		South Line	Feet from the	East/W	est Line	County			
								}					
			La	titude		_ Longitud	le						
NATURE OF RELEASE													
Type of Relea						Volume of	Release 10-12 b	bls	Volume F	Recovered r	ione		
Source of Re	lease Lcak	ing butterfly	valve				lour of Occurrenc	e		Hour of Disc	covery		
Was Immedia	1 N C	·				10:30 am		1	10:30 am	8/9/10			
was immedia	ite Notice C		Yes x	No x Not Requ	ired	If YES, To	whom?						
By Whom?						Date and I	lour						
Was a Water	ourse Read	hed?					olume Impacting t	he Wate	rcourse.				
			Yes x	No			, ,						
If a Watercou	rse was Im	pacted, Descr	ibe Fully.	*	_								
Describe Cause of Problem and Remedial Action Taken.* A leaking butterfly valve allowed D-70 (Soft Water Tank) to overfill and run over. A vacuum truck was called out to suck down the tank to keep it from running over and a new butterfly valve was put in place. The water soaked in so none was available to be vacuumed up. Describe Area Affected and Cleanup Action Taken.* The area affected is just west of the RO Unit between the road and the RO Unit. It is about 15' wide and 20 ' long. The area will be sampled to determine if any remediation needs to be done. Its soft water!													
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.													
)	AA AI					OIL CON	SERV	ATION	DIVISIO	<u>NC</u>		
Signature:	tau	Il M	soll		1								
Printed Name						Approved by District Supervisor.							
Title: Env. M	lgr, for Wa	er and Waste				Approval Da	te:	Expiration Date:					
E-mail Addr	ess: Darrel	l.moorc@holi	усогр.com	n		Conditions of Approval:			Attached	Attached [
Date: 8/	16/10			Phone:575-748-	3311								
Attach Addi	tional She	ets If Neces:	sarv	1 110/10.3 / 3- / 48-	2211								

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Tuesday, August 10, 2010 7:30 AM

To: Cc: 'Moore, Darrell'; Michael Leighton

Cubinat

Lackey, Johnny; Strange, Aaron; VonGonten, Glenn, EMNRD

Subject:

RE: Spill at Lovington

Darrell:

What is the Tank No. and chemical contents of the tank that the spill occurred from? 5000 mmhos/cm specific conductivity is elevated. Some sampling consistent with the chemical contents of tank is likely required for this "Minor Release" to confirm that the 20.6.2.3103 NMAC and/or 20.6.2.7 NMAC Toxic Pollutants were not present. Based on the chemical contents of the tank, the OCD expects some samples to be collected to determine whether some excavation work needs to be conducted for this "Minor Release". 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/ index.htm (Pollution Prevention Guidance is under "Publications")

From: Moore, Darrell [mailto:Darrell.Moore@hollycorp.com]

Sent: Monday, August 09, 2010 2:23 PM **To:** Chavez, Carl J, EMNRD; Michael Leighton

Cc: Lackey, Johnny; Strange, Aaron

Subject: Spill at Lovington

Carl and Mike

Steve Terry notified me at 1:50 pm today that a water valve in our water softening unit at the Lovington facility had malfunctioned and overran a tank. The spill consists of 10 bbll of water with a conductivity of 5000 mmho/cm. The spill is located near the RO Unit and didn't spill enough to over run the road which is directly west of the unit. The spilled water has soaked in so no standing water was available to be vacuumed up.

A spill report will be filled out by Aaron Strange and sent to you in a timely manner.

If there are any questions, please contact me at 575-746-5281.

Darrell Moore

Environmental Manager for Water and Waste Navajo Refining Company, LLC Phone Number 575-746-5281 Cell Number 575-703-5058 Fax Number 575-746-5451

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Chavez, Carl J, EMNRD

From:

Strange, Aaron [aaron.strange@hollycorp.com]

Sent:

Wednesday, July 07, 2010 11:38 AM

To:

Chavez, Carl J, EMNRD; Dade, Randy, EMNRD; Hill, Larry, EMNRD

Cc;

Moore, Darrell; Lackey, Johnny C-141 for TK-1204 Spill at Lovington

Subject: Attachments:

2010-06-22 Spill TK-1204 C-141.pdf

Carl, Randy, and Buddy,

Please see the attached C-141 form.

Thanks,

Aaron Strange

Environmental Technician, Senior

Environmental Department Navajo Refining Co, LLC Artesia NM Off: (575) 746-5468

Cell: (575) 703-5057

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Release Notification and Corrective Action

						OPERA	OR.		🔯 Initia	il Report		Final Rep
Name of Co	mpany: N	avajo Refini	ng Co. L	LC		Contact: Aa						
Address: 74			ton, N.M	l			lo. 575-748-33					· · · · · · · · · · · · · · · · · · ·
Facility Nar	ne: Loving	ton Plant				Facility Typ	e: Petroleum Re	efinery				
Surface Ow	ner			Mineral C	Owner				Lease N	lo.	· · · · · · · · · · · · · · · · · · ·	
			***************************************			TARDE	EACE					
Unit Letter	Section	Taurahia	D	Feet from the		NOF REI	Feet from the	East/V	Vest Line	County	·	
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	h.,	k <u></u>	Lat	itude		Longitue	le					
	·····					OF RELI						
	/2 drum of			ig of 3 drums of E er, $\sim 2-3$ bbls of c		Volume of Release: ~680 barrels Volume Recovered: ~475 Date and Hour of Occurrence: Date and Hour of Discover						parrels
circulate the	cleaning me	dia.	ose from	pump being used	to .	6/22/10 ~	4:02		~ 14:45		-	
Was Immedia	te Notice (Yes [] No 🔲 Not R	equired	with Mich	Whom? Left voi acl Leighton (City son (OCD Hobbs	y Manag s).	er of Lovir	igton). Left	voicem	ail with
By Whom? J Darrell Moor			e OCD an	d to City of Lovir	ngton.	06/22/2010	lour: 0622/2010 a) at ~15:08 to City (OCD Hobbs).	at ~15:00 y of Arte	to Carl Carl Carl Carl Carls (a)	havez (Santa 6/22/2010 a	Fe OC t ~15:2	CD), 19 to Larry
Was a Water	course Read		Yes 🔯] No			lume Impacting-	the-Wate	ercourse.		- 102	
If a Watercou	rse was Im	pacted, Descr	ibe Fully.	* NA		<u> </u>						
On 6/22/10 a	t ~ 14:02 th	em and Reme e discharge h		n Taken.* on the pump fron	n Tank 1	204 that was	being used to circ	culate cl	eaning med	lia. The pun	ip and :	suction
valves were l	locked in.											
The area affe Tank 1204 to Vacuum truc	cted was in nk dike. Th ks were bro	e media consi ught in to rem	dike of Ta isted of 3 nove the si	ken.* nk 1204. Approxi drums of BP 4423 tanding media and aced into roll off	31 soap, d put it b	1/2 drum of I ack into the t	BP 9272 H2S scav ank. ~475 barrels	venger, -	~ 2- 3 bbls nedia was r	of diesel and ecovered wi	i the re th vacu	st is water. Jum trucks.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.												
Signature: 6	lona	~ £	Z	ne			OIL CON	SERV	'ATION	DIVISIO	<u>N</u>	
Printed Name	_					Approved by	District Supervis	sor:				
Title: Sr. Env	rironmental	Technician				Approval Da	le:		Expiration	Date:		
E-mail Addre	ess: aaron.s	trange@holly	corp.com		<u></u>	Conditions o	f Approval:			Attached		
Date: 7/07/10)	<u> </u>		Phone: 575-703-5	057					<u> </u>		

From: Lackey, Johnny [mailto:Johnny.Lackey@hollycorp.com]

Sent: Tuesday, April 20, 2010 12:51 PM

To: Chavez, Carl J, EMNRD

Cc: Whatley, Michael; Moore, Darrell; Schmidlen, Jeff; Douglas_Wilson@Praxair.com

Subject: NAVAJO UNDERGROUND LINES

Carl.

As you are aware, Navajo has employed Praxair Services, Inc. (Praxair) to set up a comprehensive tank leak detection program throughout the Artesia and Lovington refineries for the majority of our product storage tanks. (The OCD has approved this technology for tank leak detection at Navajo's refineries).

Navajo recently assumed operating responsibilities for 41 pipeline segments located within the Artesia Refinery from Holly Energy Partners (they provide pipeline and terminal services for Holly Corp.), and each of these segments have short runs of underground piping that will be added to our underground line testing program. Navajo also assumed operating responsibilities for some Holly Energy Partner's pipelines at Lovington also. Navajo is in the process of identifying these lines and they will be added to the underground line testing program at Lovington.

Praxair provides leak detection technology for underground pipe testing. To test Praxair's technology for underground piping leak detection, Navajo proactively had Praxair install monitors on selected segments of piping that we assumed operating responsibilities from Holly Energy Partner's. Praxair injected their tracer into these selected segments (13 lines) and their sampling results identified two lines that indicated a leak was present (See attached Praxair Report). Both lines that had suspected leaks are included in the package of assets acquired from Holly Energy Partners. The lines with potential leaks are as follows:

- 1) A section of pipe near Texas Street and just northeast of Tank 413 (Sketch 853)
- 2) A section just south of Tank 115 (Sketch 708).

Both lines were "day lighted" and very small leaks (drips) were discovered. There was no saturation of the soil around these leaks and no free product was present. The leaks were repaired.

Navajo is very encouraged with the results of this technology and this would allow Navajo to test the pipes "online" without the use of water for hydrotesting and the resultant disposal of the water.

The Praxair process would let Navajo test the line segments that cannot be removed from service without a scheduled outage allowing testing of these lines within the discharge permit time frame without refinery disruption. This process eliminates the potential for product or oily water release if there is a failure during pressure testing or hydrostatic testing of the lines.

Attached is a spreadsheet listing the additional lines to be added to our test schedule, copies of the isometric drawings for each line segment (The sketch number on the spreadsheet references the corresponding isometric drawing) and Praxair's Report detailing the trial test results mentioned above.

Navajo requests approval from the OCD to utilize Praxair's Leak Detection Technology for underground pipe testing at our Artesia and Lovington refineries. Navajo and Praxair will be happy to meet with the OCD in Santa Fe to present this technology in detail.

Thanks,

Johnny Lackey
Environmental Manager
Navajo Refining Company, L.L.C.
Office - 575-746-5490
Cell - 972-261-8075
Fax - 575-746-5451
Johnny Lackey @hollycorp.com

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Oil Conservation Division 1220 South St. Francis Dr. Form C-141 Revised October 10, 2003

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

1220 S. St. Francis Dr., Santa Fe, NM 87505 Santa Fe, NM 87505 **Release Notification and Corrective Action OPERATOR** Initial Report Final Report Name of Company Navajo Refining Lea Plant Contact Darrell Moore Address 7406 S. Main Lovington, NM 88260 Telephone No. 575-746-5281 **Facility Name** Facility Type Petroleum Refinery Surface Owner Mineral Owner Lease No. **LOCATION OF RELEASE** Unit Letter North/South Line Feet from the Section Feet from the East/West Line Township Range County Latitude Longitude NATURE OF RELEASE Type of Release Gas Oil Volume of Release 25 bbls Volume Recovered 15 bbls Source of Release Date and Hour of Occurrence Date and Hour of Discovery July 26, July 26, 2009 2:00 pm 2009 2:00 pm Was Immediate Notice Given? If YES, To Whom? ☐ Yes ☒ No ☐ Not Required By Whom? Date and Hour Was a Watercourse Reached? If YES, Volume Impacting the Watercourse. Yes X No If a Watercourse was Impacted, Describe Fully.* Describe Cause of Problem and Remedial Action Taken.* Tk 1214 was run over during normal operations. Crews were working in the area and noticed the tank running over and it was shut down immediately. Describe Area Affected and Cleanup Action Taken.* Area affected is a strip about 150 ft east of the tank and about 10 ft wide. All contamination stayed inside the tank berm. Contaminated soil was picked up and vacuum truck recovered about 15 bbls of the spilled material. I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. **OIL CONSERVATION DIVISION** Signature: Approved by District Supervisor: Printed Name: Darrell Moore Title: Environmental Manager for Water and Waste Approval Date: **Expiration Date:** E-mail Address: Darrell.moore@hollycorp.com Conditions of Approval: Attached Phone: 575-Date: July 28, 2009

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Tuesday, March 01, 2011 6:33 AM

To:

'Lackey, Johnny'; Moore, Darrell

Cc:

Michael Leighton; Miguel De La Cruz; VonGonten, Glenn, EMNRD; Hill, Larry, EMNRD; Terry,

Steve; Hernandez, Eloy; Hutchings, Charles; Whatley, Michael

Subject:

RE: Tank TK-104A Bottom Sampling

Ok. Samples confirm no release, but there was apparently some pitting observed from the removed section. The City of Lovington and OCD recommend a double bottom for the tank; however, the City of Lovington and OCD have agreed to the application of the Praxair Method for tank releases at the facility.

This will be an area of interest to investigate with the Praxair method of tank leak detection and from monitoring wells at the facility. As per the OCD's February 26, 2010 communique with terms and conditions for the Praxair method approval and the operator's agreement to accept to terms of OCD approval, the City of Lovington and OCD are now requesting the date when the Praxair probes will be installed around the above ground tanks at the facility to comply with the OCD's terms and conditions for approving the method in lieu of retrofitting all of the existing above ground tanks with secondary containment.

It is very important that the operator now comply with installation of probes with a date for that the Praxair Method to be applied at the facility to the above ground tanks.

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

"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: Lackey, Johnny [mailto:Johnny.Lackey@hollycorp.com]

Sent: Monday, February 28, 2011 10:09 AM **To:** Chavez, Carl J, EMNRD; Moore, Darrell

Cc: Michael Leighton; Miguel De La Cruz; VonGonten, Glenn, EMNRD; Hill, Larry, EMNRD; Terry, Steve; Hernandez, Eloy;

Hutchings, Charles; Whatley, Michael

Subject: RE: Tank TK-104A Bottom Sampling

Attached are the latest results from sampling of the soil beneath Tank 104A at Navajo's Lovington (Lea) Refinery. Both samples (at one and two foot depths) show non-detect for TPH and GRO. Navajo will proceed with completing work on Tank 104-A in preparation for placing this tank back in service.

Johnny Lackey
Environmental Manager
Navajo Refining Company, L.L.C.
Office - 575-746-5490
Cell - 972-261-8075
Fax - 575-746-5451
Johnny Lackey @hollycorp.com

Chavez, Carl J, EMNRD

From:

Lackey, Johnny [Johnny.Lackey@hollycorp.com]

Sent:

Monday, February 28, 2011 11:57 AM Chavez, Carl J, EMNRD; Michael Leighton

To: Cc:

Terry, Steve; Hernandez, Eloy

Subject:

LOVINGTON WASTE WATER SPILL

At 6:15 PM on February 27, 2011 the Lovington Refinery notified Navajo Environmental of a waste water spill at Tank 1209B in Lovington. A partial power failure in the plant resulted in the loss of several pumps including the waste water pump from Tank 1209B. This resulted in Tank 1209B overflowing approximately 10 barrels of waste water onto the ground. Some water was absorbed into the ground and/or evaporated due to the extremely high win in the area; therefore there was no free standing water to recover. Soil samples will be collected and analyzed. Appropriate cleanup and disposal of material will be scheduled and the C-141 Form submitted.

I also left a voice message for Larry Johnson, OCD District 1 in Hobbs.

Johnny Lackey Environmental Manager Navajo Refining Company, L.L.C. Office - 575-746-5490 Cell - 972-261-8075 Fax - 575-746-5451 Johnny.Lackey@hollycorp.com

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

Sent: Thursday, February 24, 2011 8:25 AM

To: Moore, Darrell

Cc: Michael Leighton; Lackey, Johnny; Miguel De La Cruz; VonGonten, Glenn, EMNRD; Hill, Larry, EMNRD

Subject: RE: Tank TK-104A Bottom Sampling

Darrell:

Have your lab provide us with the lowest detection limits that their lab is capable of meeting for the OCD to consider. A detection limit of 490 ppm is too high. 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/index.htm

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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: Moore, Darrell [mailto:Darrell.Moore@hollycorp.com]

Sent: Thursday, February 24, 2011 8:18 AM

To: Chavez, Carl J, EMNRD

Cc: Michael Leighton; Lackey, Johnny; Miguel De La Cruz; VonGonten, Glenn, EMNRD; Hill, Larry, EMNRD

Subject: RE: Tank TK-104A Bottom Sampling

Carl

Our lab is confused about what you are asking. The responsitivity that they get on their instruments for BTEX and GRO does not allow them to have limits identical. Also, GRO is calibrating a range rather than individual compounds.

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

Sent: Thursday, February 17, 2011 9:52 AM **To:** Chavez, Carl J, EMNRD; Moore, Darrell

Cc: Michael Leighton; Lackey, Johnny; Miguel De La Cruz; VonGonten, Glenn, EMNRD; Hill, Larry, EMNRD

Subject: RE: Tank TK-104A Bottom Sampling

Darrell, et al.:

The OCD also notices the extremely elevated detection limit on the GRO analyses that were submitted. The GRO detection limit should be on the order of the detection limits used for BTEX.... 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

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

From: Chavez, Carl J, EMNRD

Sent: Wednesday, February 16, 2011 5:02 PM

To: 'Moore, Darrell'

Cc: Michael Leighton; Lackey, Johnny; 'Miguel De La Cruz'; VonGonten, Glenn, EMNRD; Hill, Larry, EMNRD

Subject: RE: Tank TK-104A Bottom Sampling

Darrell, et al.:

The OCD and City of Lovington have completed our review of the TPH analytical data submitted from ALS Environmental.

Observations based on the recent investigation and sampling event

- 1) The operator observed flow-back into the tank from the soil below the tank. This led to OCD requiring further inspection with sampling from beneath the tank.
- 2) A section of tank bottom was removed with a high pressure water jetting or cutting machine. OCD is concerned that the water jetting may have flushed some of the volatiles from the interval being sampled.
- 3) The TPH concentrations observed in both laboratory analytical samples exceed the OCD's TPH limits for Spills and Release Guidance.

Path Forward:

- 1) Did Navajo note any flow-back when the section of tank bottom was removed? If so, please describe any vapors, odors, etc. that may indicate kerosene is present below the tank. Also, Navajo should conduct ambient air monitoring in the early afternoon at the removed section of tank bottom and report the results.
- 2) Now that conditions have stabilized and dried out from the high pressure jetting or cutting, we require Navajo to collect a final soil sample for TPH (similar method of analysis as previous samples) collected at least 2 feet below ground level within the cut section of tank bottom to determine whether LNAPL is present and the concentration.
- 3) If there is a down gradient monitor well from Tank 104A, a ground water sample should be collected and analyzed for TPH and BTEX.
- 4) Forward the analytical data for a final review and determination of how to proceed in this matter.

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

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(Pollution Prevention and Waste Minimization Guidance is under "About Us- Environmental Bureau"

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

From: Moore, Darrell [mailto:Darrell.Moore@hollycorp.com]

Sent: Friday, February 11, 2011 1:50 PM

To: Chavez, Carl J, EMNRD; Leking, Geoffrey R, EMNRD

Cc: Michael Leighton; Lackey, Johnny

Subject: RE: Tank TK-104A

Gentlemen

Enclosed, please find the results from our sampling of the soil underneath Tank 104A at Lovington. As Mr. Leking can attest, the material directly under the tank floor was asphalt. We had to dig thru the asphalt to get any kind of soil sample. You will notice that we have some minor hits in the results. I feel very confident that the hits we got were a direct result of the asphalt under the tank and not a leak in the tank. The holes in the floor, if they were actually holes at all, were pinhole size.

If there are any questions concerning this submission, please contact me at 575-746-5281.

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

Sent: Thursday, February 10, 2011 9:19 AM **To:** Leking, Geoffrey R, EMNRD; Moore, Darrell

Cc: Michael Leighton
Subject: RE: Tank TK-104A

Darrell:

If you want to send it via e-mail, please include Mr. Leighton (City of Lovington). 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

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(Pollution Prevention and Waste Minimization Guidance is under "About Us- Environmental Bureau"

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

From: Leking, Geoffrey R, EMNRD

Sent: Thursday, February 10, 2011 8:46 AM

To: Moore, Darrell

Cc: Chavez, Carl J, EMNRD Subject: Tank TK-104A

Darrell

Could you send Carl and I the results from the sampling event? Thank you.

Geoffrey Leking Environmental Engineer NMOCD-Hobbs 1625 N. French Drive Hobbs, NM 88240

Office: (575) 393-6161 Ext. 113

Cell: (575) 399-2990

email: geoffreyr.leking@state.nm.us

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25-Feb-2011

Darrell Moore Navajo Refining Company PO Box 159 Artesia, NM 88211

Tel: (575) 746-5281 Fax: (505) 746-5421

Re: TANK 104-A

Dear Darrell,

ALS Environmental received 2 samples on 23-Feb-2011 08:55 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 11.

Lay Lynn F Thibault

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Electronically approved by: Glenda H. Ramos

JayLynn F Thibault Project Manager certificate No: T104704231-09A-TX

Work Order: 1102680

Date: 25-Feb-11

Client:

Navajo Refining Company

Project:

TANK 104-A

Work Order:

1102680

Work Order Sample Summary

Lab Samp ID	Client Sample ID	<u>Matrix</u>	Tag Number	Collection Date	Date Received	<u>Hold</u>
1102680-01	Tank 104-A 1' Deep	Soil		2/21/2011 11:00	2/23/2011 08:55	
1102680-02	Tank 104-A 2' Deep	Soil		2/21/2011 11:00	2/23/2011 08:55	

Date: 25-Feb-11

Client:

Navajo Refining Company

Project:

TANK 104-A

Work Order:

1102680

Case Narrative

Batch R105891, Method 8015_GRO_S, Sample 1102680-02AMSD: RPD OK

Date: 25-Feb-11

Client:

Note:

Navajo Refining Company

Project:

TANK 104-A

Sample ID:

Tank 104-A 1' Deep

Collection Date: 2/21/2011 11:00 AM

Work Order: 1102680

Lab ID: 1102680-01

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW801	5M	Prep Date: 2/24/2011	Analyst: SE
TPH (Diesel Range)	ND		4	9 mg/Kg	1	2/25/2011 12:11 PM
TPH (Motor Oil Range)	ND		4	9 mg/Kg	1	2/25/2011 12:11 PM
Surr: 2-Fluorobiphenyl	88.7		70-13	0 %REC	1	2/25/2011 12:11 PM
GASOLINE RANGE ORGANICS			SW801	5		Analyst: LAJ
Gasoline Range Organics	ND		0.05	0 mg/Kg	1	2/25/2011 11:54 AM
Surr: 4-Bromofluorobenzene	109		70-13	0 %REC	1	2/25/2011 11:54 AM

See Qualifiers Page for a list of qualifiers and their explanation.

Date: 25-Feb-11

Lab ID: 1102680-02

Client:

Navajo Refining Company

Project:

Note:

TANK 104-A

Sample ID:

Tank 104-A 2' Deep

Collection Date: 2/21/2011 11:00 AM

Work Order: 1102680

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW801	5M	Prep Date: 2/24/2011	Analyst: SE
TPH (Diesel Range)	ND		4	9 mg/Kg	1	2/25/2011 01:09 PM
TPH (Motor Oil Range)	ND		4	9 mg/Kg	1	2/25/2011 01:09 PM
Surr: 2-Fluorobiphenyl	73.8		70-13	0 %REC	1	2/25/2011 01:09 PM
GASOLINE RANGE ORGANICS			SW801	5		Analyst: LAJ
Gasoline Range Organics	ND		0.05	0 mg/Kg	1	2/25/2011 12:09 PM
Surr: 4-Bromofluorobenzene	95.5		70-13	0 %REC	1	2/25/2011 12:09 PM

See Qualifiers Page for a list of qualifiers and their explanation.

Date: 25-Feb-11

QC BATCH REPORT

Client:

Navajo Refining Company

Work Order:

1102680

Project:

TANK 104-A

Batch ID: 50324	Instrument ID FID-8		Metho	d: SW801 :	5M						
MBLK Sample ID:	FBLKS3-110224-50324				U	nits: mg/l	K g	Analysi	s Date: 2/2	25/2011 1	1:51 AM
Client (D:	Run	ID: FID-8_ 1	110224B		Sec	qNo: 229 (338	Prep Date: 2/24	/2011	DF: 1	
				SPK Ref			Control	RPD Ref		RPD	
Analyte	Result	PQL	SPK Val	Value		%REC	Limit	Value	%RPD	Limit	Qual
TPH (Diesel Range)	ND	50									
TPH (Motor Oil Range)	ND	50									
Surr: 2-Fluorobiphenyl	25.53	0	25		0	102	70-130	0			
LCS Sample ID:	FLCSS3-110224-50324				U	nits: mg/l	Kg	Analysi	s Date: 2 /2	25/2011 1	1:12 AM
Client ID:	Run	ID: FID-8_ 1	110224B		Sec	qNo: 229 (336	Prep Date: 2/24	/2011	DF: 1	
				SPK Ref			Control	RPD Ref		RPD	
Analyte	Result	PQL	SPK Val	Value		%REC	Limit	Value	%RPD	Limit	Qual
TPH (Diesel Range)	229	50	250		0	91.6	70-130	0			
TPH (Motor Oil Range)	222.8	50	250		0	89.1	70-130	0			
Surr: 2-Fluorobiphenyl	24.52	0	25		0	98.1	70-130	0			
LCSD Sample ID:	FLCSDS3-110224-50324	i			U	nits: mg/l	Kg	Analysi	s Date: 2 /:	25/2011 1	1:32 AM
Client ID:	Run	ID: FID-8 _1	110224B		Sec	qNo: 229 (337	Prep Date: 2/24	/2011	DF: 1	
	_			SPK Ref Value			Control Limit	RPD Ref Value		RPD Limit	
Analyte	Result	PQL	SPK Val	value		%REC	LITTIR	value	%RPD	LIIIII	Qual
TPH (Diesel Range)	223.7	50	250		0	89.5	70-130	229	2.33	30	
TPH (Motor Oil Range)	215.7	50	250		0	86.3	70-130	222.8	3.24	30	
Surr: 2-Fluorobiphenyl	23.11	0	25		0	92.4	70-130	24.52	5.95	30	
MS Sample ID:	1102680-01AMS				U	nits: mg/ l	Kg	Analysi	s Date: 2 /2	25/2011 1	2:30 PM
Client ID: Tank 104-A 1' [Deep Run	ID: FID-8 _1	110224B		Sec	qNo: 229 (340	Prep Date: 2/24	/2011	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	252.2	49	245.6		0	103	70-130	0			
TPH (Motor Oil Range)	205.4	49	245.6		0	83.7	70-130	0			
Surr: 2-Fluorobiphenyl	23.15	0	24.56		0	94.3	70-130	0			
MSD Sample ID:	1102680-01AMSD	i			U	nits: mg /	Kg	Analysi	s Date: 2 /	25/2011 1	2:50 PM
Client ID: Tank 104-A 1' [Deep Run	ID: FID-8 _1	110224B		Sec	qNo: 229 (341	Prep Date: 2/24	/2011	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	245.6	49	245.3		0	100	70-130	252.2	2.65	30	
TELL (Diese) Kallye)			245.3 245.3		0	93.4	70-130	205.4	10.9	30	
TPH (Motor Oil Range)	220 1							£0J.4	10.3		
TPH (Motor Oil Range) Surr: 2-Fluorobiphenyl	229.1 24.95	49 0	24.53		0	102	70-130	23.15	7.48	30	

Client:

Navajo Refining Company

Work Order:

1102680

Project:

TANK 104-A

Batch ID: R105891 Instrumer	nt ID FID-9		Metho	d: SW8015	i					
MBLK Sample ID: GBLKS-02	2511-R105891	'		· 	Units: m	g/Kg	Analys	is Date: 2 /2	25/2011 1	1:26 AN
Client ID:	Run	ID: FID-9_1	110225A	;	SeqNo: 22	90349	Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics Surr: 4-Bromofluorobenzene	ND 0.1067	0.050 0.0050	0.1	() 107	70-130	0			
LCS Sample ID: GLCSS-022	2511-R105891				Units: m	g/Kg	Analys	is Date: 2 /	25/2011 1	0:56 AN
Client ID:	Run	ID: FID-9 _1	110225A	:	SeqNo: 22	90347	Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%RE0	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics Surr: 4-Bromofluorobenzene	1.104 <i>0.112</i>	0.050 0.0050	1 <i>0.1</i>	(70-130 <i>70-130</i>	0			
		0.0000	0.7							
LCSD Sample ID: GLCSSD-0 Client ID:		ID: FID-9_1	1102254		Units: mg SeqNo: 22	-	Analys Prep Date:	is Date: 2 /:	25/2011 1 DF: 1	1:11 AN
Client ID.	Kuli	10. FID-9_1	110225A		Seqivo. 22		,		RPD	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	Limit	Qual
Gasoline Range Organics Surr: 4-Bromofluorobenzene	1.116 <i>0.1115</i>	0.050 0.0050	1 0.1	(70-130 70-130	1.104 0.112		30 30	
MS Sample ID: 1102680-02	2AMS				Units: m	g/Kg	Analys	sis Date: 2/	25/2011 1	2:24 PN
Client ID: Tank 104-A 2' Deep	Run	ID: FID-9 _1	110225A		SeqNo: 22	90352	Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%RE0	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.027	0.050	1	(0 103	70-130	0	l		
Gasoline Range Organics Surr: 4-Bromofluorobenzene	1.027 0.1152	0.050 0.0050	1 0.1		0 103 0 <i>115</i>				1.1.3893	
* •	0.1152					70-130	0		25/2011 1	2:39 PM
Surr: 4-Bromofluorobenzene MSD Sample ID: 1102680-02	0.1152 2AMSD		0.1	(0 115	70-130 g/ Kg	0		25/2011 1 DF: 1	2:39 PN
Surr: 4-Bromofluorobenzene	0.1152 2AMSD	0.0050	0.1	(0 115 Units: m	70-130 g/Kg 90353 Control	Analys			2:39 PN Qual
Surr: 4-Bromofluorobenzene MSD Sample ID: 1102680-02 Client ID: Tank 104-A 2' Deep	0.1152 2AMSD Run	0.0050	0.1 110225A	SPK Ref Value	0 115 Units: m SeqNo: 22	70-130 g/Kg 90353 Control	Analys Prep Date: RPD Ref Value	sis Date: 2/ %RPD	DF: 1	

QC BATCH REPORT

Date: 25-Feb-11

ALS Environmental

Client: Navajo Refining Company
Project: TANK 104-A
WorkOrder: 1102680

QUALIFIERS,
ACRONYMS, UNITS

Workstatt	1102000
Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
В	Analyte detected in the associated Method Blank above the Reporting Limit
Е	Value above quantitation range
Н	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O P	Sample amount is > 4 times amount spiked Dual Column results percent difference > 40%
r R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
Acronym	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program
Units Reported	d Description
mg/Kg	Milligrams per Kilogram

mg/Kg Milligrams per Kilogram

WALS Laboratory Group

10450 Stanoliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887

Chain of Custody Form

Page / of /

ALS Laboratory Group

3352 128th Ave. Holland, MI 49424-9263 Tel: +1 616 399 6070 Fax: +1 616 399 6185

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Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
2. Unless otherwise agreed in a formal confract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

Copyright 2008 by ALS Laboratory Group.

Sample Receipt Checklist

Client Name:	NAVAJO REFINING			Date/Time Rec	eived:	23-Feb-11	08:55	
Work Order:	1102680			Received by:		SAY		
Checklist comp	oleted by <u>Salvadar D. Yan</u> eSignature	23-Feb-	11_		ay Lynn Signature	, F This	pault	24-Feb-11 Date
Matrices: Carrier name:	Soil FedEx	1						ı
Shipping contai	iner/cooler in good condition?	Ye	es 🗸	No 🗌	Not Prese	nt 🗆		
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Custody seals i	intact on sample bottles?	Ye	es 🗌	No 🗌	Not Prese	nt 🗹		
Chain of custoo	dy present?	Ye	es 🗸	No 🗌				
Chain of custoo	dy signed when relinquished and r	eceived? Ye	es 🗹	No 🗀				
Chain of custoo	dy agrees with sample labels?	Ye	es 🗸	No 🗔				
Samples in pro	per container/bottle?	Ye	es 🔽	No 🗀				
Sample contair	ners intact?	Ye	es 🗸	No 🗌				
Sufficient samp	ble volume for indicated test?	Ye	es 🗹	No 🗔				
All samples rec	ceived within holding time?	Ye	es 🗸	No 🗌				
Container/Tem	p Blank temperature in compliand	e? Yo	es 🗸	No 🗌				
Temperature(s))/Thermometer(s):	3.10			002			
Cooler(s)/Kit(s));	004	<u> </u>					
Water - VOA vi	als have zero headspace?	Y	-	No □ No	VOA vials	submitted	✓	
Water - pH acc	eptable upon receipt?	Ye	es 🗌	No □ N//	A 💆			
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CorrectiveAction	on:						SR	RC Page 1 of 1



10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887

Date: 2 Name: 4 Company:

CUSTODY SEAL	Seal Broken By:
-22-// Time: 10:00	
STEVE HTERRY	Date:
NAVAJO-LAVINGTON	

1102680

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Company	NAVAJO F	HEIMING	CO	(1,1	3 4)	·		
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<u>, L.C</u>	MINGTER			State	244	ZIP	88250	Dept/Front/Suits/flour

Chavez, Carl J, EMNRD

From:

Chavez, Carl J. EMNRD

Sent:

Wednesday, February 16, 2011 5:02 PM

To:

'Moore, Darrell'

Cc:

Michael Leighton; Lackey, Johnny; 'Miguel De La Cruz'; VonGonten, Glenn, EMNRD; Hill,

Larry, EMNRD

Subject:

RE: Tank TK-104A Bottom Sampling

Darrell, et al.:

The OCD and City of Lovington have completed our review of the TPH analytical data submitted from ALS Environmental.

Observations based on the recent investigation and sampling event

- 1) The operator observed flow-back into the tank from the soil below the tank. This led to OCD requiring further inspection with sampling from beneath the tank.
- 2) A section of tank bottom was removed with a high pressure water jetting or cutting machine. OCD is concerned that the water jetting may have flushed some of the volatiles from the interval being sampled.
- 3) The TPH concentrations observed in both laboratory analytical samples exceed the OCD's TPH limits for Spills and Release Guidance.

Path Forward:

- 1) Did Navajo note any flow-back when the section of tank bottom was removed? If so, please describe any vapors, odors, etc. that may indicate kerosene is present below the tank. Also, Navajo should conduct ambient air monitoring in the early afternoon at the removed section of tank bottom and report the results.
- 2) Now that conditions have stabilized and dried out from the high pressure jetting or cutting, we require Navajo to collect a final soil sample for TPH (similar method of analysis as previous samples) collected at least 2 feet below ground level within the cut section of tank bottom to determine whether LNAPL is present and the concentration.
- 3) If there is a down gradient monitor well from Tank 104A, a ground water sample should be collected and analyzed for TPH and BTEX.
- 4) Forward the analytical data for a final review and determination of how to proceed in this matter.

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 and Waste Minimization Guidance is under "About Us- Environmental Bureau"

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

From: Moore, Darrell [mailto:Darrell.Moore@hollycorp.com]

Sent: Friday, February 11, 2011 1:50 PM

To: Chavez, Carl J, EMNRD; Leking, Geoffrey R, EMNRD

Cc: Michael Leighton; Lackey, Johnny

Subject: RE: Tank TK-104A

Gentlemen

Enclosed, please find the results from our sampling of the soil underneath Tank 104A at Lovington. As Mr. Leking can attest, the material directly under the tank floor was asphalt. We had to dig thru the asphalt to get any kind of soil sample. You will notice that we have some minor hits in the results. I feel very confident that the hits we got were a direct result of the asphalt under the tank and not a leak in the tank. The holes in the floor, if they were actually holes at all, were pinhole size.

If there are any questions concerning this submission, please contact me at 575-746-5281.

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

Sent: Thursday, February 10, 2011 9:19 AM **To:** Leking, Geoffrey R, EMNRD; Moore, Darrell

Cc: Michael Leighton

Subject: RE: Tank TK-104A

Darrell:

If you want to send it via e-mail, please include Mr. Leighton (City of Lovington). 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/index.htm

(Pollution Prevention and Waste Minimization Guidance is under "About Us- Environmental Bureau"

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

From: Leking, Geoffrey R, EMNRD

Sent: Thursday, February 10, 2011 8:46 AM

To: Moore, Darrell

Cc: Chavez, Carl J, EMNRD **Subject:** Tank TK-104A

Darrell

Could you send Carl and I the results from the sampling event? Thank you.

Geoffrey Leking Environmental Engineer NMOCD-Hobbs 1625 N. French Drive Hobbs, NM 88240

Office: (575) 393-6161 Ext. 113

Cell: (575) 399-2990

email: geoffreyr.leking@state.nm.us

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08-Feb-2011

Darrell Moore Navajo Refining Company PO Box 159 Artesia, NM 88211

Tel:

(575) 746-5281

Fax: (505) 746-5421

Re:

Kerosene samples

Work Order: 1102086

Dear Darrell.

ALS Environmental received 2 samples on 03-Feb-2011 10:45 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 16.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Lay Lynn F Thibault

JayLynn F Thibault Project Manager

Certificate No: T104704231-09A-TX

ADDRESS 10450 Standiff Rd. Suite 2 (b. Houston, Texas 7/099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887 DODERT X DEVO. E E DOBEGIANIBANDOTEXE NUOL DEFINIS HER TO VERGENTANVEN. MARE NO ACCE

Client:

Navajo Refining Company

Project:

Kerosene samples

Work Order: 1102086

Work Order Sample Summary

Date: 08-Feb-11

Lab Samp ID	Client Sample ID	<u>Matrix</u>	Tag Number	Collection Date	Date Received	Hold
1102086-01	TK104A #1			1/28/2011 15:15	2/3/2011 10:45	
1102086-02	TK104A #2			1/28/2011 15:25	2/3/2011 10:45	

Date: 08-Feb-11

Client:

Navajo Refining Company

Project:

Kerosene samples

Work Order:

1102086

Case Narrative

A kerosene standard was analyzed to determine if there was any present in the sample. These chromatograms are attached at the end of the report for your review.

Date: 08-Feb-11

Client:

Navajo Refining Company

Project:

Sample ID:

Kerosene samples

TK104A#1

Work Order: 1102086

Lab ID: 1102086-01

Collection Date: 1/28/2011 03:15 PM

Matrix:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed			
TPH AND MISCELLANEOUS GCFID			SW801	SM .	Prep Date: 2/3/2011	Analyst: SE			
Client Product	See Attached		49	0 mg/Kg	10	2/7/2011 01:58 PM			
TPH (Gasoline Range)	ND		49	0 mg/Kg	10	2/7/2011 01:58 PM			
TPH (Diesel Range)	610		49	0 mg/Kg	10	2/7/2011 01:58 PM			
TPH (Motor Oil Range)	1,700		98	0 mg/Kg	10	2/7/2011 01:58 PM			
Surr: 2-Fluorobiphenyl	109		70-13	0 %REC	10	2/7/2011 01:58 PM			
Surr: Trifluoromethyl benzene	94.7		70-13	0 %REC	10	2/7/2011 01:58 PM			

Date: 08-Feb-11

Client:

Navajo Refining Company

Project:

Kerosene samples

Work Order: 1102086

Sample ID:

TK104A #2

Lab ID: 1102086-02

Matrix:

Collection Date: 1/28/2011 03:25 PM

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed			
TPH AND MISCELLANEOUS GCFID	1		SW801	5M	Prep Date: 2/3/2011	Analyst: SE			
Client Product	See Attached		49	0 mg/Kg	10	2/7/2011 02:30 PM			
TPH (Gasoline Range)	ND		49	0 mg/Kg	10	2/7/2011 02:30 PM			
TPH (Diesel Range)	930		49	0 mg/Kg	10	2/7/2011 02:30 PM			
TPH (Motor Oil Range)	2,100		97	0 mg/Kg	10	2/7/2011 02:30 PM			
Surr: 2-Fluorobiphenyl	127		70-13	0 %REC	10	2/7/2011 02:30 PM			
Surr: Trifluoromethyl benzene	104		70-13	0 %REC	10	2/7/2011 02:30 PM			

QC BATCH REPORT

ALS Environmental

Client:

Navajo Refining Company

Work Order:

1102086

Project:

Kerosene samples

Batch ID: 49807 In	strument ID FID-11		Metho	d: SW801	5M						
MBLK Sample ID: FBLKS2-110203-49807			•		Ĺ	Jnits: mg/ l	Kg	Analysis	Date: 2 /	7/2011 12	:24 PN
Client ID:	Run	ID: FID-11_	110203B		Se	qNo: 227 1	1570	Prep Date: 2/3/2	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Client Product	ND	5.0									
TPH (Gasoline Range)	ND	50									
TPH (Diesel Range)	ND	50									
TPH (Motor Oil Range)	ND	5,0									
Surr: 2-Fluorobiphenyl	24.47	0	25		0	97.9	70-130	0			
Surr: Trifluoromethyl benzei	ne 23.83	. 0	25		0	95.3	70-130	0			
LCS Sample ID: FLC	SS2-110203-49807				Ĺ	Jnits: mg/ l	Kg	Analysis	Date: 2/	7/2011 11	:21 AN
Client ID:	Run	ID: FID-11 _	110203B	10203B			SeqNo: 2271568		Prep Date: 2/3/2011		
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
TPH (Gasoline Range)	239	50	250		0	95.6	70-130	0			
TPH (Diesel Range)	301.7	50	250		0	121	70-130	0			
Surr: 2-Fluorobiphenyl	28.18	0	25		0	113	70-130	0			
Surr: Trifluoromethyl benzei	ne 25.21	0	25		0	101	70-130	0			
LCSD Sample ID: FLC	CSDS2-110203-49807	÷*			ι	Jnits: mg/	Kg	Analysis	Date: 2/	7/2011 11	:52 AN
Client ID:	Run	ID: FID-11_110203B		SeqNo: 2271569			Prep Date: 2/3/2	DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
TPH (Gasoline Range)	220.6	50	250		0	88.2	70-130	239	8	30	
TPH (Diesel Range)	299.9	50	250		0	120	70-130	301.7	0.595	30	
Surr: 2-Fluorobiphenyl	26.47	0	25		0	106	70-130	28.18	6.26	30	
Surr: Trifluoromethyl benzei	ne 23.86	0	25		0	95.4	70-130	25.21	5.52	30	
The following samples were	analyzed in this hatch:	11	02086-01A	11	020)86-02A			1		

Date: 08-Feb-11

ALS Environmental

Client:

Navajo Refining Company

Project:

Kerosene samples

WorkOrder:

1102086

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
В	Analyte detected in the associated Method Blank above the Reporting Limit
Е	Value above quantitation range
Н	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
М	Manually integrated, see raw data for justification
n NID	Not offered for accreditation
ND O	Not Detected at the Reporting Limit Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program
Units Reported	Description
mg/Kg	Milligrams per Kilogram



e-Lab Analytical, Inc. 10450 Stancliff Rd. #210 Houston, Texas 77099 (Tel) 281.530.5656 (Fax) 281.530.5887

Chain of Custody Form

| | | of Page

e-Lab Analytical, Inc. 3352 128th Avenue Holland, Michigan 49424 (Tel) 616.399.6070 (Fax) 616.399.6185



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Sample Receipt Checklist

Client Name:	NAVAJO REFINING			Dat	te/Time	Received	t: <u>03-l</u>	Feb-11	<u>10:45</u>		
Work Order:	<u>1102086</u>			Re	ceived b	y:	SAY	Ĺ			
Checklist comp	leted by <u>Raymand M</u> Gam. eSignature	baa 03-	Feb-11	Review	ed by:	<u>Lay</u> eSignat	Lynn F ure	Thiba	rult		07-Feb-11 Date
Matrices: Carrier name:	<u>Soil</u> FedEx										
Shipping conta	iner/cooler in good condition?		Yes 🛚		No 🗌	Not	Present				
Custody seals	intact on shipping container/cooler	?	Yes		No 🗌	Not	Present	✓			
Custody seals	intact on sample bottles?		Yes		No \square	Not	Present	\checkmark			
Chain of custoo	dy present?		Yes		No 🗌						
Chain of custoo	dy signed when relinquished and r	eceived?	Yes 🛭	2	No \square						
Chain of custoo	dy agrees with sample labels?		Yes 🛚		No 🗌						
Samples in pro	per container/bottle?		Yes 🛚		No 🗌						
Sample contair	ners intact?		Yes 🛚	/	No \square						
Sufficient samp	ole volume for indicated test?		Yes		No 🗌						
All samples red	eived within holding time?		Yes 🖠		No 🗌						
Container/Tem	p Blank temperature in complianc	e?	Yes 🖢		No 🗌						
Temperature(s)/Thermometer(s):		<u>1.6c</u>				002				
Cooler(s)/Kit(s)	:		2132								
Water - VOA vi	als have zero headspace?		Yes		No 🗌	No VO	Vials sub	mitted	✓		
Water - pH acc	eptable upon receipt?		Yes [No 🗌	N/A	✓				
pH adjusted? pH adjusted by	:		Yes -]	No 🗌	N/A	✓				
Login Notes:											
						- — — -					
		•									
Client Contacte	ed:	Date Contacted:			Person	Contact	ed:				
Contacted By:		Regarding:									
3.		,									
Comments:											
		,									
CorrectiveAction	on:	1									
		1							SR	C Pa	ge 1 of 1

ORIGIN ID: ROWA BRITTANI SOUTHERLAND NAVAJO 501 E MAIN ST

ARTESIA , NM 882109440 UNITED STATES US SHIP DATE: 01FEB11 ACTWGT: 5.0 LB MAN CAD: 634483/CAFE2471

BILL RECIPIENT

TO

ALS LABORATORY GROUP 10450 STANCLIFF RD., SUITE 210

HOUSTON TX 77099

(281) 530-5656 DEPT: ENVIRONMENTAL DEPT.



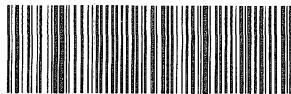
WED - 02 FEB A2 PRIORITY OVERNIGHT

TRK# 0201 4347 1018 9500

AB SGRA

77099 TX-US IAH

Parl # 155148-434 PIT2 05/10



50501/8202/0941

Page 2

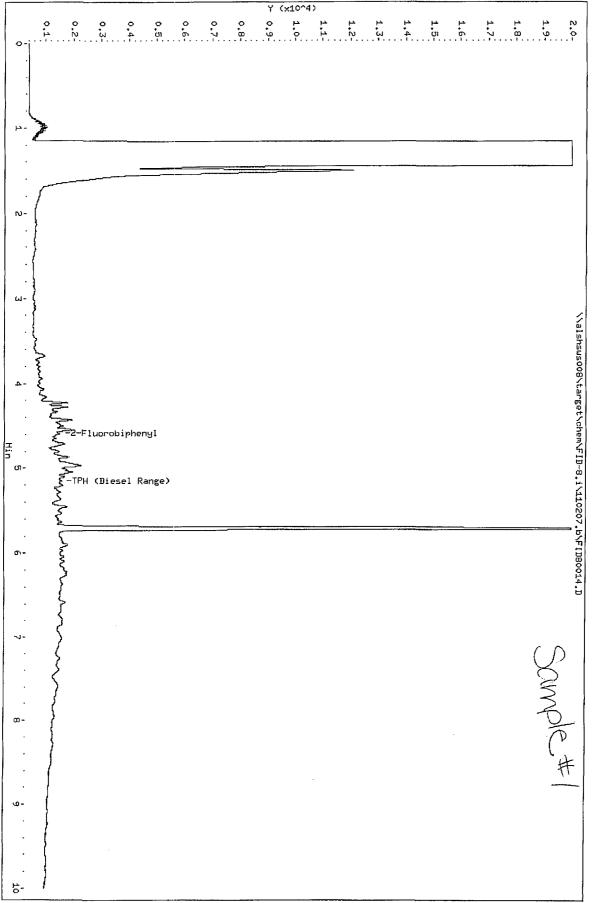
Client ID:

Sample Info: 1102086-01A

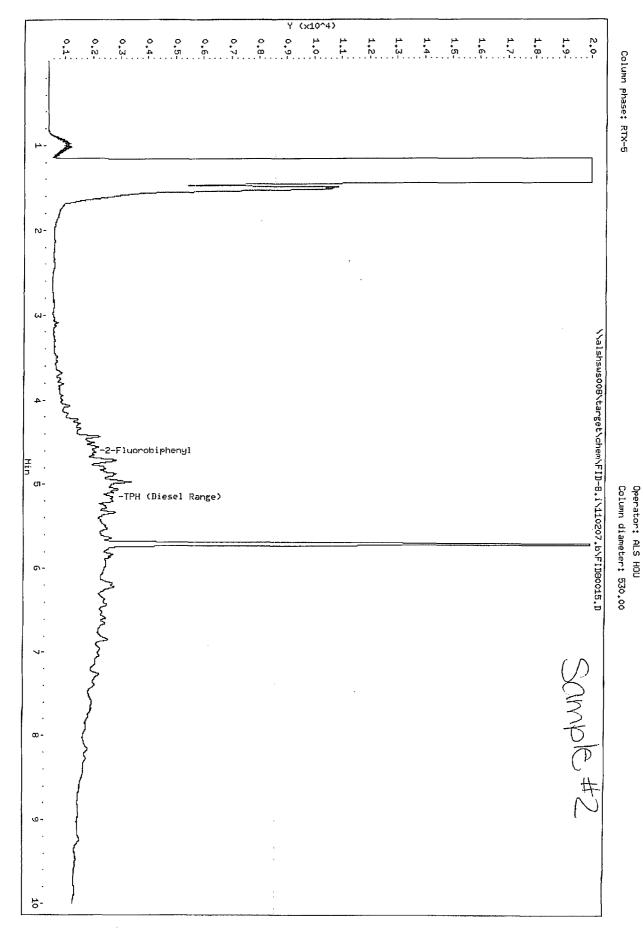
Column phase: RTX-5

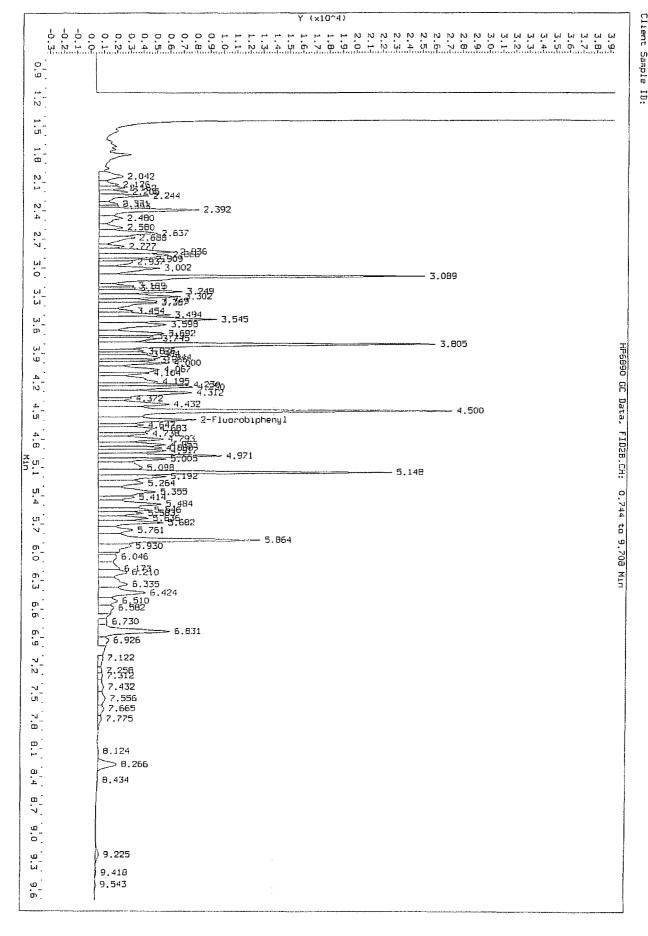
Instrument: FID-8.i

Operator: ALS HOU
Column diameter: 530.00



Page 2





Data File: \\alshsws008\target\chem\FID-8.1\110207.b\FID80014.D Injection Date: 07-FIB-2011 15:26 Instrument: FID-8.1 Client Sample ID:

Data File: \\alshsws008\target\chem\FID-8.1\110207.b\FID80015.D Injection Date: 07-FFB-2011 15:38 Instrument: FID-8.1 Client Sample ID:

From:

Moore, Darrell [Darrell.Moore@hollycorp.com]

Sent:

Saturday, January 29, 2011 10:18 AM

To:

Moore, Darrell; Chavez, Carl J, EMNRD; mleighton@lovington.org

Cc:

Lackey, Johnny

Subject:

HOLLY PIPELINE SPILL

Carl,

At Lovington, we had a spill of 20 bbls of gas oil due to a malfunction of a Relief Valve. We are picking up what we can with vacuum trucks and have front end loaders picking up the contaminated soil. We will send the C-141 monday.

Sent from my Palm Pre on the Now Network from Sprint

On Jan 27, 2011 10:16 AM, Moore, Darrell < Darrell.Moore@hollycorp.com wrote:

See below.

From: Hutchings, Charles

Sent: Thursday, January 27, 2011 10:15 AM

To: Moore, Darrell; Terry, Steve **Subject:** TK-104A Water Jet Cutting

Contractor will arrive today around 5 pm. We will start the water jetting on Jan 28, 2011 sometime after 8 am.

Charles Hutchings

Asst. Maintenance Superintendent

Navajo Refining Company

P.O. Box 2110

7406 South Main

Lovington, NM 88260

(575) 396-5821 Office

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From:

Moore, Darrell [Darrell.Moore@hollycorp.com]

Sent:

Thursday, January 27, 2011 8:01 AM

To:

Chavez, Carl J, EMNRD; mleighton@lovington.org

Subject:

RE: TK 104A Lovington

Update on Tank 104A

There were some communication issues with the previous email I sent out. After following up with our crews in Lovington, here is the full story:

Tank 104A was being cleaned as part of our normal schedule of cleaning tanks. It was emptied and cleaned. The floor and walls were then washed using a high pressure washer. The water from that wash procedure was then squiggied out and the floor was allowed to dry. The "stain" that I mentioned in the previous email is inside the tank on the steel floor of the tank. Something is seeping back up thru two holes in the floor. We don't know if the tank had these two holes BEFORE we started cleaning the tank...or if the pressure washing caused the two holes. Both holes are what we describe as pinholes. The "stain" is mostly (maybe all) water.

We are going to cut out that section of the floor of the tank and then we can hopefully see if there is a hydrocarbon leak under that area. If the City of Lovington and/or OCD would like to send someone to look at that area once we cut the floor out, we would be glad to accommodate them.

Ill keep you updated on any new information.

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

Sent: Wednesday, January 26, 2011 4:20 PM

To: Moore, Darrell

Subject: RE: TK 104A Lovington

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: Moore, Darrell [mailto:Darrell.Moore@hollycorp.com]

Sent: Wednesday, January 26, 2011 8:28 AM

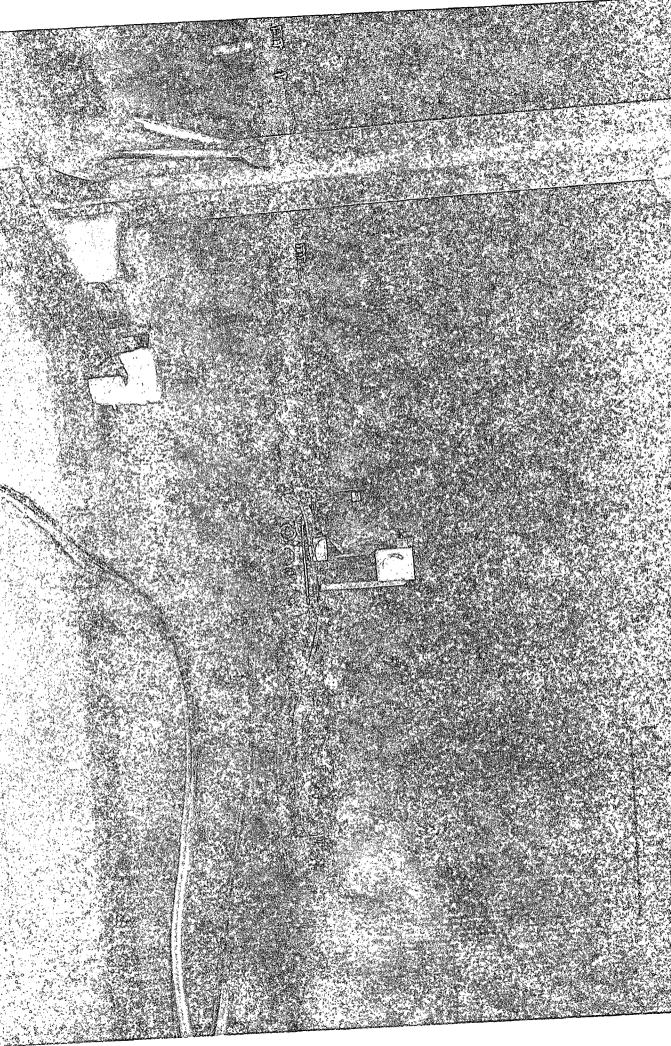
To: Chavez, Carl J, EMNRD; mleighton@lovington.org; Lackey, Johnny

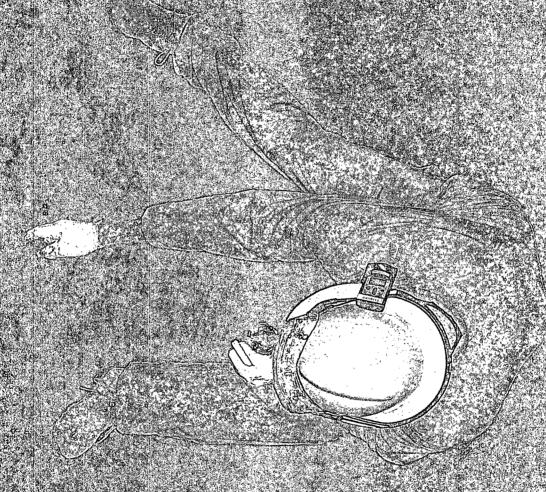
Subject: TK 104A Lovington

Gentlemen

During routine inspections, it was noticed that there was a stain near TK 104A in Lovington (which is in Kerosene service). The tank will be emptied and inspected for leaks. This tank is on the south end of the plant. Navajo will provide updates as soon as possible.

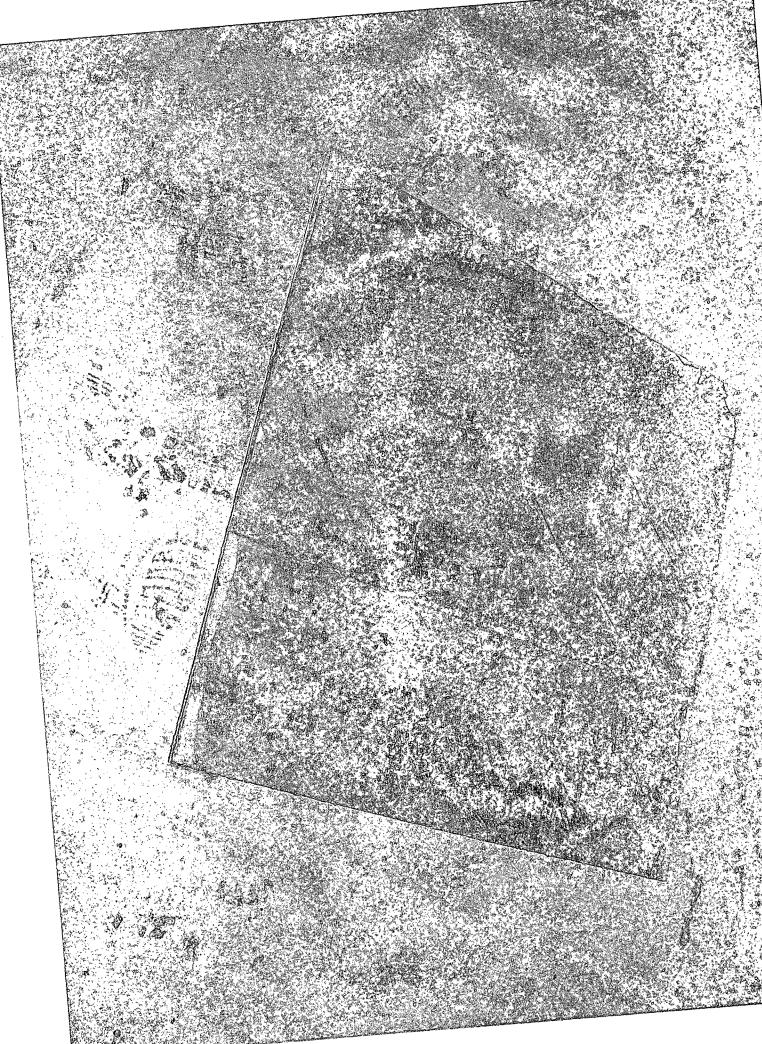
Darrell Moore











From:

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To:

Chavez, Carl J, EMNRD; mleighton@lovington.org

Subject:

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Ill keep you updated on any new information.

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

Sent: Wednesday, January 26, 2011 4:20 PM

To: Moore, Darrell

Subject: RE: TK 104A Lovington

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: Moore, Darrell [mailto:Darrell.Moore@hollycorp.com]

Sent: Wednesday, January 26, 2011 8:28 AM

To: Chavez, Carl J, EMNRD; mleighton@lovington.org; Lackey, Johnny

Subject: TK 104A Lovington

Gentlemen

During routine inspections, it was noticed that there was a stain near TK 104A in Lovington (which is in Kerosene service). The tank will be emptied and inspected for leaks. This tank is on the south end of the plant. Navajo will provide updates as soon as possible.

Darrell Moore

Environmental Manager for Water and Waste Navajo Refining Company, LLC Phone Number 575-746-5281 Cell Number 575-703-5058 Fax Number 575-746-5451

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Environmental Manager for Water and Waste Navajo Refining Company, LLC Phone Number 575-746-5281 Cell Number 575-703-5058 Fax Number 575-746-5451

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From:

Strange, Aaron [aaron.strange@hollycorp.com]

Sent:

Friday, October 15, 2010 4:09 PM

To:

Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV; Dade, Randy, EMNRD; Hill, Larry,

EMNRD

Cc:

Moore, Darrell; Lackey, Johnny

Subject:

C-141 final report

Attachments:

2010-10-03 H-102 Fire.pdf

Carl, Randy, Buddy, and Hope,

Please see the attached C-141.

Thanks,

Aaron Strange

Environmental Technician, Senior

Environmental Department Navajo Refining Co, LLC Artesia NM

Off: (575) 746-5468 Cell: (575) 703-5057

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Date:10/15/2010

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

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

Form C-141

Revised October 10, 2003

			Rele	ease Notific	eation	i and Co	rrective A	ction				
						OPERATOR			Initia	al Report	Final Report	
Name of Company: Navajo Refining Co. LLC						Contact: Aaron Strange						
						Telephone No. 575-748-3311						
Facility Name: Lovington Plant						Facility Type: Petroleum Refinery						
Surface Owner Mineral Owner						Lease				No.		
	LOCATION OF RELEASE											
Unit Letter	Section	Township	Range	Feet from the	North/	South Line	Feet from the	East/West Line County				
LatitudeLongitude												
NATURE OF RELEASE												
Type of Release: Fire (Naphtha inside of H-102)										Volume Recovered: NA		
Source of Release: Leaking tub (Naphtha) inside the reboiler (H-102)									Date and Hour of Discovery: 10/03/10 ~ 04:15			
Was Immediate Notice Given?						If YES, To Whom? Left voicemail with Carl Chavez (OCD Santa Fe). Spoke						
☐ Yes ☐ No ☐ Not Required						with Michael Leighton (City Manager of Lovington). Left voicemail with Larry Johnson (OCD Hobbs).						
By Whom? Gabriela Combs						Date and Hour: 10/03/2010 at ~04:50 to Larry Johnson Carl Chavez (Local						
						OCD), 10/03/2010 at ~04:53 to Hope Monzeglio (NMED), and 10/03/2010 at ~04:57 to Carl Chavez (OCD Santa Fe).						
Was a Watercourse Reached?						If YES, Volume Impacting the Watercourse.						
Yes 🛭 No						NA						
		pacted, Descri										
Describe Cause of Problem and Remedial Action Taken.*												
On $10/03/2010$ at $\sim 04:15$ a fire was noticed coming out of the inspection doors of the convection section of H-102. Earlier at $\sim 03:00$ the refinery experienced a power loss that caused the pumps to go down that pump to H-102. These pumps were brought back up at $\sim 03:11$. It is possible that when												
these pumps shutdown after the power loss; the sudden loss of flow; followed by a sudden increase of flow upon the pump restart may have produced a												
hydraulic shock on the weakened area of the tube, contributing to form the observed hole. As a result, the naphtha product leaked outside the tube, starting the fire in the convection section of the reboiler. The leaking tube was removed and replaced.												
the fire in the	convection	section of the	e reboiler.	The leaking tube	was rem	loved and rep	laced.					
Describe Are	a Affected	and Cleanup A	Action Tak	en.*								
				of the reboiler (H								
				oons spilled on the here were no inju							ne fire was	
contained his	ide the reoc	nici s box at a	n umes. 1	nere were no mju	11163 01 0	uner damage:	s. Smoke was visi	ioie out of	me H-10	2 Stack.		
				is true and comp								
				d/or file certain re e of a C-141 repo								
should their of	or the envi	ave failed to a	dequately	investigate and re	emediate	contaminati	on that pose a thr	eat to grou	and water	r, surface water,	human health	
or the environ	should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other											
federal, state, or local laws and/or regulations.												
Signature: Charmer Street						OIL CONSERVATION DIVISION						
Printed Name: Aaron Strange						Approved by District Supervisor:						
Title: Sr. Environmental Technician						Approval Date: Expiration Date:						
E-mail Addre	essi aaron et	trange@hollve	orn com		1	Conditions of	Annroval·			_	_	
E-mail Address: aaron.strange@hollycorp.com						Conditions of Approval.				Attached		

Phone: 575-703-5057

From: Moore, Darrell [Darrell.Moore@hollycorp.com]

Sent: Monday, August 16, 2010 3:16 PM

To: Johnson, Larry, EMNRD; Chavez, Carl J, EMNRD

Cc: Michael Leighton; Strange, Aaron Waste Water Overflow at Lea Refinery

Attachments: Waste Water Overflow.pdf

Gentlemen

Attached, please find the C-141 for an overrun of our waste water system last Tuesday during the heavy rainstorm in that area.

Darrell Moore

Environmental Manager for Water and Waste Navajo Refining Company, LLC Phone Number 575-746-5281 Cell Number 575-703-5058 Fax Number 575-746-5451

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

Date: 8/16/10

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised October 10, 2003

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

Release Notification and Corrective Action **OPERATOR** Initial Report Final Report Name of Company Navajo Refining Company, LLC Contact Aaron Strange Address 7420 South Hiway 18 Telephone No. 575-748-3311 Facility Name Lea Refinery Facility Type Petroleum Refinery Surface Owner Mineral Owner Lease No. LOCATION OF RELEASE Unit Letter Section North/South Line Feet from the East/West Line Township Range Feet from the County Latitude Longitude NATURE OF RELEASE Type of Release Crude Oil Volume of Release 10 bbls Volume Recovered Source of Release Overrun of wastewater Date and Hour of Occurrence Date and Hour of Discovery 7:45 pm 8/10/10 7:45 pm 8/10/10 Was Immediate Notice Given? If YES, To Whom? Yes x No x Not Required By Whom? Date and Hour Was a Watercourse Reached? If YES, Volume Impacting the Watercourse. Yes x No If a Watercourse was Impacted, Describe Fully.* Describe Cause of Problem and Remedial Action Taken.* Due to heavy rainstorms and lightening in the area, power was lost to the plant. This knocked out all pumps and hindered the ability of the plant to pump wastewater. In addition, heavy rain added to the problem and so, the wastewater system overflowed. Four vacuum trucks were called out and sucked up rainwater and any hydrocarbons that were floating on the water. Describe Area Affected and Cleanup Action Taken.* The area affected runs from the Unit on the north end of the plant to the southeast where the water pools up near the firehouse. It is about 20' wide and 600 yds long. Contaminated soil has been picked up and bottom hole samples will be taken on 8/17/10. I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. **OIL CONSERVATION DIVISION** Signature: Approved by District Supervisor: Printed Name: Darrell Moore Title: Env. Mgr. for Water and Waste Approval Date: Expiration Date: E-mail Address: Darrell.moore@hollycorp.com Conditions of Approval: Attached

Phone: 575-748-3311

From: Moore, Darrell [Darrell.Moore@hollycorp.com]

Sent: Monday, August 16, 2010 3:11 PM

To: Johnson, Larry, EMNRD; Chavez, Carl J, EMNRD

Cc: Michael Leighton
Subject: Soft Water Spill
Attachments: Soft Water Spill.pdf

Gentlemen

Attached is the C-141 for a spill of soft water we had at the Lovington Refinery.

Darrell Moore Environmental Manager for Water and Waste Navajo Refining Company, LLC Phone Number 575-746-5281 Cell Number 575-703-5058 Fax Number 575-746-5451

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State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Revised October 10, 2003 abmit 2 Copies to appropriate

Form C-141

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

Attached

Release Notification and Corrective Action **OPERATOR** Final Report x Initial Report Name of Company Navajo Refining Company, LLC Contact Aaron Strange Address PO Box 159 Telephone No. 575-748-3311 Facility Name Lea Refining Co Facility Type Petroleum Refinery Surface Owner Mineral Owner Lease No. LOCATION OF RELEASE East/West Line Unit Letter Feet from the North/South Line | Feet from the Section Township County Range Latitude Longitude NATURE OF RELEASE Type of Release Water Volume of Release 10-12 bbls Volume Recovered none Source of Release Leaking butterfly valve Date and Hour of Occurrence Date and Hour of Discovery 10:30 am 8/9/10 10:30 am 8/9/10 Was Immediate Notice Given? If YES, To Whom? Yes x No x Not Required By Whom? Date and Hour Was a Watercourse Reached? If YES, Volume Impacting the Watercourse. Yes x No If a Watercourse was Impacted, Describe Fully.* Describe Cause of Problem and Remedial Action Taken.* A leaking butterfly valve allowed D-70 (Soft Water Tank) to overfill and run over. A vacuum truck was called out to suck down the tank to keep it from running over and a new butterfly valve was put in place. The water soaked in so none was available to be vacuumed up. Describe Area Affected and Cleanup Action Taken.* The area affected is just west of the RO Unit between the road and the RO Unit. It is about 15' wide and 20 ' long. The area will be sampled to determine if any remediation needs to be done. Its soft water! I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. OIL CONSERVATION DIVISION Signature: Approved by District Supervisor. Printed Name: Darrell Moore Title: Env. Mgr. for Water and Waste **Expiration Date:** Approval Date:

Conditions of Approval:

Phone:575-748-3311

8/16/10

Date:

E-mail Address: Darrell.moore@hollycorp.com

^{*} Attach Additional Sheets If Necessary

From: Chavez, Carl J, EMNRD

Sent: Tuesday, August 10, 2010 7:30 AM
To: 'Moore, Darrell'; Michael Leighton

Cc: Lackey, Johnny; Strange, Aaron; VonGonten, Glenn, EMNRD

Subject: RE: Spill at Lovington

Darrell:

What is the Tank No. and chemical contents of the tank that the spill occurred from? 5000 mmhos/cm specific conductivity is elevated. Some sampling consistent with the chemical contents of tank is likely required for this "Minor Release" to confirm that the 20.6.2.3103 NMAC and/or 20.6.2.7 NMAC Toxic Pollutants were not present. Based on the chemical contents of the tank, the OCD expects some samples to be collected to determine whether some excavation work needs to be conducted for this "Minor Release". 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/index.htm (Pollution Prevention Guidance is under "Publications")

From: Moore, Darrell [mailto:Darrell.Moore@hollycorp.com]

Sent: Monday, August 09, 2010 2:23 PM **To:** Chavez, Carl J, EMNRD; Michael Leighton

Cc: Lackey, Johnny; Strange, Aaron

Subject: Spill at Lovington

Carl and Mike

Steve Terry notified me at 1:50 pm today that a water valve in our water softening unit at the Lovington facility had malfunctioned and overran a tank. The spill consists of 10 bbll of water with a conductivity of 5000 mmho/cm. The spill is located near the RO Unit and didn't spill enough to over run the road which is directly west of the unit. The spilled water has soaked in so no standing water was available to be vacuumed up.

A spill report will be filled out by Aaron Strange and sent to you in a timely manner.

If there are any questions, please contact me at 575-746-5281.

Darrell Moore

Environmental Manager for Water and Waste Navajo Refining Company, LLC Phone Number 575-746-5281 Cell Number 575-703-5058 Fax Number 575-746-5451

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From:

Strange, Aaron [aaron.strange@hollycorp.com]

Sent:

Wednesday, July 07, 2010 11:38 AM

To:

Chavez, Carl J, EMNRD; Dade, Randy, EMNRD; Hill, Larry, EMNRD

Cc:

Moore, Darrell; Lackey, Johnny C-141 for TK-1204 Spill at Lovington

Subject: Attachments:

2010-06-22 Spill TK-1204 C-141.pdf

Carl, Randy, and Buddy,

Please see the attached C-141 form.

Thanks,

Aaron Strange Environmental Technician, Senior

Environmental Department Navajo Refining Co, LLC Artesia NM

Off: (575) 746-5468 Cell: (575) 703-5057

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

State of New Mexico **Energy Minerals and Natural Resources**

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

Revised October 10, 2003

Form C-141

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

Release Notification and Corrective Action OPERATOR M Initial Report Final Report Name of Company: Navajo Refining Co. LLC Contact: Aaron Strange Telephone No. 575-748-3311 Facility Type: Petroleum Refinery

Address: 7406 South Main Lovington, N.M. Facility Name: Lovington Plant Lease No. Surface Owner Mineral Owner LOCATION OF RELEASE Unit Letter Feet from the North/South Line Feet from the East/West Line County Section Township Range Longitude Latitude NATURE OF RELEASE Volume Recovered: ~475 barrels Type of Release: Spill (cleaning media consisting of 3 drums of BP Volume of Release: ~680 barrels 44231 soap, 1/2 drum of BP 9272 H2S scavenger, ~ 2-3 bbls of diesel and the rest is water) Date and Hour of Discovery: 6/22/10 Source of Release: Broken discharge hose from pump being used to Date and Hour of Occurrence: circulate the cleaning media. $6/22/10 \sim 14:02$ ~ 14:45 Was Immediate Notice Given? If YES, To Whom? Left voicemail with Carl Chavez (OCD Santa Fe). Spoke with Michael Leighton (City Manager of Lovington). Left voicemail with Larry Johnson (OCD Hobbs). Date and Hour: 0622/2010 at ~15:00 to Carl Chavez (Santa Fe OCD), By Whom? Johnny Lackey to Santa Fe OCD and to City of Lovington. Darrell Moore to Hobbs OCD. 06/22/2010 at ~15:08 to City of Artesia), and 06/22/2010 at ~15:29 to Larry Johnson to (OCD Hobbs). Was a Watercourse Reached? If YES, Volume Impacting the Watercourse. ☐ Yes ⊠ No If a Watercourse was Impacted, Describe Fully.* NA Describe Cause of Problem and Remedial Action Taken.* On 6/22/10 at ~ 14:02 the discharge hose broke on the pump from Tank 1204 that was being used to circulate cleaning media. The pump and suction valves were blocked in. Describe Area Affected and Cleanup Action Taken.* The area affected was inside the tank dike of Tank 1204. Approximately 680 barrels of cleaning media spilled onto the ground but remained within the Tank 1204 tank dike. The media consisted of 3 drums of BP 44231 soap, 1/2 drum of BP 9272 H2S scavenger, ~ 2-3 bbls of diesel and the rest is water. Vacuum trucks were brought in to remove the standing media and put it back into the tank. ~475 barrels of the media was recovered with vacuum trucks. The contaminated soil has been removed and placed into roll off bins for disposal. Bottom hole samples have been collected and sent for analysis. I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. **OIL CONSERVATION DIVISION** Signature: Claman Str. Printed Name: Aaron Strange Approved by District Supervisor: Title: Sr. Environmental Technician Approval Date: **Expiration Date:** E-mail Address: aaron.strange@hollycorp.com Conditions of Approval: Attached Date: 7/07/10 Phone: 575-703-5057

From:

Chavez, Carl J, EMNRD

Sent:

Wednesday, April 21, 2010 4:18 PM

To:

'Strange, Aaron'

Cc:

Chavez, Carl J, EMNRD

Subject:

Release Notifications & C-141s for Navajo Refining Company (GW-14 and GW-28)

Aaron:

OCD would appreciate notification e-mails with a copy to the OCD District Supervisor on releases with an indication of whether a C-141 Form is to follow. As I mentioned at refineries, where the discovery of leakage from pipelines, tanks, etc. are not known, it is best to take the conservative approach to reporting all of these type of spills/releases where the volume is not known. And on all fire and explosions, Navajo Refining Company seem to be following the permit condition on reporting, etc. Thank you.

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:

Chavez, Carl J, EMNRD

Sent:

Wednesday, April 21, 2010 4:34 PM

To:

'Lackey, Johnny'

Cc:

VonGonten, Glenn, EMNRD; Monzeglio, Hope, NMENV

Subject:

RE: NAVAJO UNDERGROUND LINES

Johnny:

Sorry, I don't think OCD is very comfortable with an approach to leak detection at pipelines where the refinery implements a repair or replacement without corrective actions or investigation to determine the extent of the contamination, but attempts to rely on downgradient monitoring wells, recovery systems, or the addition of a monitor well to detect any contamination from leaky pipelines or infrastructure at a refinery.

If allowed, this would be allowing the refinery to openly contaminate the water resources of the state. However, this method with active investigation and corrective action to remediate or remove point source(s) contamination may address this concern, but otherwise, OCD would be allowing Navajo Refining Company to openly contaminate New Mexico's water resources. OCD cannot allow this.

Regarding the discovery of pipeline releases, yes C-141s are needed and I notice that while the contents of Tank 413 (older distillate tank) is listed in your most recent submittal of above ground tank schedule for the discharge permit, Tank 115 and its information has not been updated on our above ground tank schedule. What does Tank 115 contain and how old is it? Please update the tank list and tank diagram to include all updated tanks that are missing from the existing table in the OCD file by May 5, 2010 so we may keep the tank list and any new updated tank diagrams showing the location of each new tank installed by the refinery. 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: Lackey, Johnny [mailto:Johnny.Lackey@hollycorp.com]

Sent: Wednesday, April 21, 2010 4:10 PM

To: Chavez, Carl J, EMNRD

Cc: Whatley, Michael; Moore, Darrell; Douglas_Wilson@Praxair.com

Subject: RE: NAVAJO UNDERGROUND LINES

Thanks for the prompt reply Carl.

The ultrasonic testing that you refer to is offered through Praxair's Alliance Partner, IMPro Technologies. This is the Guided Wave UT Technology (GWUT) that Navajo initially considered but decided this was not the best solution for our leak detection needs. Praxair also offers the Tracer Tight leak detection system which is the process Navajo is asking the OCD to evaluate for approval. It is our belief that the TracerTight Leak Detection system is the most sensitive and most appropriate method to test underground piping within the refineries.

The ultimate advantage of the TracerTight leak detection is the identification of a true failure at the onset, when the failure mechanism is very small and produces little effect to the environment. The sensitivity of TracerTight system, 0.05 gallons per hour, cannot be matched by either hydrostatic testing or GWUT inspection. It would be probable that leaks missed by these two other methods would continue to increase in size and produce contamination levels detrimental to the environment. Not to mention the disruption in refinery operations and water waste during hydrostatic testing methods.

Navajo is best served both environmentally and operationally by the TracerTight leak detection methods. This benefit is also compounded by the fact that buried piping can be tested in conjunction with tank testing already in progress. Any associated piping downstream from an inoculated tank is testable using the TracerTight method. If a leak is detected through use of this technology, the line is dug up, if a leak is confirmed it is repaired and areas around the leak are UT'd to determine if there are additional areas that may need further investigation, repair or replacement of that segment of line.

Navajo will submit the C-141 forms for these leaks. The leaks have been repaired. We currently have monitor wells and recovery trenches down gradient from these leaks.

Johnny Lackey
Environmental Manager
Navajo Refining Company, L.L.C.
Office - 575-746-5490
Cell - 972-261-8075
Fax - 575-746-5451
Johnny.Lackey@hollycorp.com

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

Sent: Wednesday, April 21, 2010 6:55 AM

To: Lackey, Johnny

Cc: Whatley, Michael; Moore, Darrell; Schmidlen, Jeff; Douglas Wilson@Praxair.com

Subject: RE: NAVAJO UNDERGROUND LINES

Johnny:

Good morning. The OCD is in receipt of your request for approval of the Praxair technology and is evaluating your request. I am curious as to why Navajo is also not including the ultrasonic wall thickness (Impro) monitoring that complimented Praxair's technology at the time OCD received joint presentations from Praxair and Impro. Is Navajo forgetting the Impro services component of pipeline testing to determine when wall thickness decreases to a point of repair and/or replacement?

Also, OCD will be checking the chemicals in the associated tanks referenced in the leaky pipelines as over time these leaks become point sources for ground water contamination and depending on the days, months, years, etc. Therefore, by receipt of this e-mail, please submit a C-141 for the releases so Navajo and OCD can track corrective actions performed to fix the leaks. Also, if Navajo did not dig out around the leaks to remove the source of contamination, it should proposed monitoring of the ground water downgradient at a minimum to determine if there is a ground water contamination problem downgradient from the leaky lines.

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: Lackey, Johnny [mailto:Johnny.Lackey@hollycorp.com]

Sent: Tuesday, April 20, 2010 12:51 PM

To: Chavez, Carl J, EMNRD

Cc: Whatley, Michael; Moore, Darrell; Schmidlen, Jeff; Douglas_Wilson@Praxair.com

Subject: NAVAJO UNDERGROUND LINES

Carl,

As you are aware, Navajo has employed Praxair Services, Inc. (Praxair) to set up a comprehensive tank leak detection program throughout the Artesia and Lovington refineries for the majority of our product storage tanks. (The OCD has approved this technology for tank leak detection at Navajo's refineries).

Navajo recently assumed operating responsibilities for 41 pipeline segments located within the Artesia Refinery from Holly Energy Partners (they provide pipeline and terminal services for Holly Corp.), and each of these segments have short runs of underground piping that will be added to our underground line testing program. Navajo also assumed operating responsibilities for some Holly Energy Partner's pipelines at Lovington also. Navajo is in the process of identifying these lines and they will be added to the underground line testing program at Lovington.

Praxair provides leak detection technology for underground pipe testing. To test Praxair's technology for underground piping leak detection, Navajo proactively had Praxair install monitors on selected segments of piping that we assumed operating responsibilities from Holly Energy Partner's. Praxair injected their tracer into these selected segments (13 lines) and their sampling results identified two lines that indicated a leak was present (See attached Praxair Report). Both lines that had suspected leaks are included in the package of assets acquired from Holly Energy Partners. The lines with potential leaks are as follows:

- 1) A section of pipe near Texas Street and just northeast of Tank 413 (Sketch 853)
- 2) A section just south of Tank 115 (Sketch 708).

Both lines were "day lighted" and very small leaks (drips) were discovered. There was no saturation of the soil around these leaks and no free product was present. The leaks were repaired.

Navajo is very encouraged with the results of this technology and this would allow Navajo to test the pipes "online" without the use of water for hydrotesting and the resultant disposal of the water.

The Praxair process would let Navajo test the line segments that cannot be removed from service without a scheduled outage allowing testing of these lines within the discharge permit time frame without refinery disruption. This process eliminates the potential for product or oily water release if there is a failure during pressure testing or hydrostatic testing of the lines.

Attached is a spreadsheet listing the additional lines to be added to our test schedule, copies of the isometric drawings for each line segment (The sketch number on the spreadsheet references the corresponding isometric drawing) and Praxair's Report detailing the trial test results mentioned above.

Navajo requests approval from the OCD to utilize Praxair's Leak Detection Technology for underground pipe testing at our Artesia and Lovington refineries. Navajo and Praxair will be happy to meet with the OCD in Santa Fe to present this technology in detail.

Thanks,

Johnny Lackey
Environmental Manager
Navajo Refining Company, L.L.C.
Office - 575-746-5490
Cell - 972-261-8075
Fax - 575-746-5451
Johnny Lackey @hollycorp.com

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From:

Chavez, Carl J. EMNRD

Sent:

Friday, October 09, 2009 9:54 AM

To:

'Moore, Darrell'; 'mleighton@lovington-nm.org'; 'hsncpbm@leaco.net'

Cc:

Lackey, Johnny; Terry, Steve

Subject:

RE: Navajo Lea Refinery Delineation Report

Received. The agencies will consider this an attachment to the Section 21(A) Environmental Status of the GW-014 discharge permit. 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/index.htm (Pollution Prevention Guidance is under "Publications")

From: Moore, Darrell [mailto:Darrell.Moore@hollycorp.com]

Sent: Friday, October 09, 2009 8:34 AM

To: Chavez, 'Carl J, EMNRD; 'mleighton@lovington-nm.org'; 'hsncpbm@leaco.net'

Cc: Lackey, Johnny; Terry, Steve

Subject: FW: Navajo Lea Refinery Delineation Report

This e mail was also sent on July 20, 2009 to all concerned. This delineation was for the spill where the bleeder valves were left open upon start up of the unit after turnaround.

From: Moore, Darrell

Sent: Monday, July 20, 2009 1:45 PM

To: 'Chavez, Carl J, EMNRD'; 'hsncpbm@leaco.net'; 'mleighton@lovington-nm.org'

Subject: FW: Navajo Lea Refinery Delineation Report

Carl,

Please find attached the delineation report for a spill at our Lovington facility that was reported to OCD on February 21, 2009. The C-141 is attached.

From: Susana Rodriguez [mailto:office2@sesi-nm.com]

Sent: Friday, June 12, 2009 2:06 PM

To: Moore, Darrell

Subject: Navajo Lea Refinery Delineation Report

Mr. Moore:

Attached please find the delineation report/work plan for the Lea Refinery. This is the first spill in which three separate areas were affected. If you have any comments or concerns please let me know.

Thank you,

Susana Rodriguez Administrative Assistant Safety & Environmental Solutions, Inc.

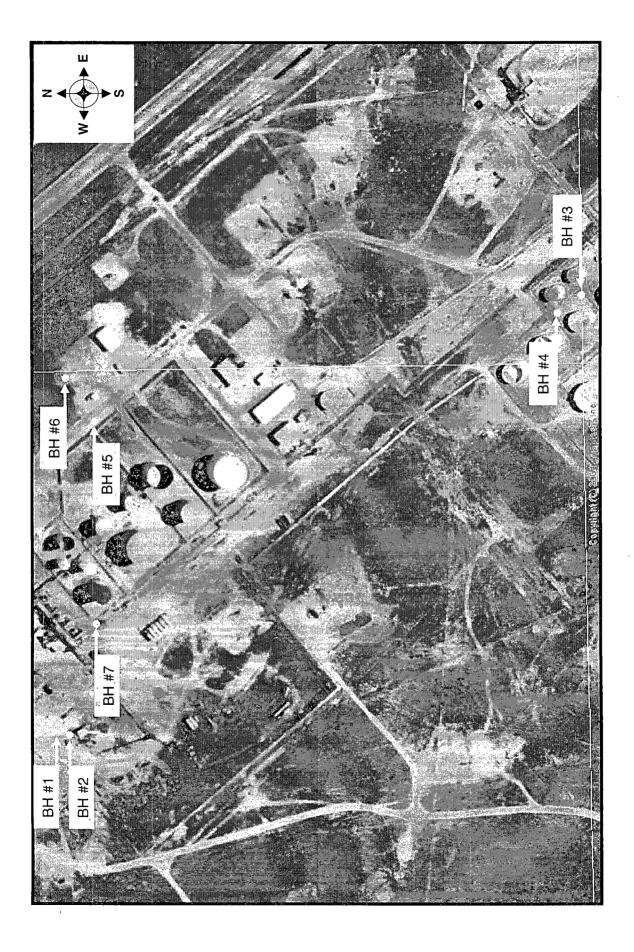
office: 575.397.0510 fax: 575.393.4388 office2@sesi-nm.com

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Navajo Refining Company Lea Refinery Delineation Report/Work Plan Section 36, Township 16S, Range 36E Lea County, New Mexico

May 29, 2009



Prepared for:

Navajo Refining Company P.O. Box 159 Artesia, New Mexico 88211

By:

Safety & Environmental Solutions, Inc. 703 East Clinton Hobbs, New Mexico 88240 (575) 397-0510

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	BACKGROUND SURFACE AND GROUND WATER SOILS WORK PERFORMED ACTION PLAN FIGURES & APPENDICES igure 1 — Vicinity Map igure 2 — Site Plan igure 3 — Logs of Boring ppendix A — Analytical Results ppendix B — C-141

I. Company Contacts

NAME	Company	Telephone	E-mail
Darrell Moore	Navajo Refining	575-748-3311	darrell.moore@navajo-refining.com
Bob Allen	SESI	505-397-0510	ballen@sesi-nm.com

II. Background

Safety and Environmental Solutions, Inc. (SESI) was engaged by Lea Refining Company to perform delineation services at the Lea Refinery. There were three (3) separate areas located inside of the refinery boundary that were affected and all were near operating facilities.

III. Surface and Ground Water

The closest groundwater of record listed with the New Mexico office of the state engineer is located in the same section, range and township. The depth of water in this well was 55'.

IV Soils

The surface soils in the area are predominantly sand and sandy loam.

V. Work Performed

On February 26-27, 2009 SESI installed a total of six (6) soil borings inside the spill areas (three separate areas) to determine the vertical extent of contamination.

AREA 1

Borehole #1 was drilled to a depth of 25', Borehole #2 was drilled to a depth of 20'.

AREA 2

Boreholes #3 and Borehole #4 were drilled to a depth of 15' and Borehole #5 was drilled to a depth of 10'.

AREA 3

Borehole #6 was drilled to a depth of 15'.

Samples were retrieved in 5' intervals from all boreholes. All samples were properly preserved and transported under Chain of Custody to Argon Laboratories of Hobbs, New Mexico for analysis. The samples were analyzed for Total Petroleum Hydrocarbons (EPA Method 8015) and BTEX (EPA Method SW-846-8260).

The results of the analysis are as follows:

Sample ID	TPH (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl Benzene (mg/kg)	Xylenes (mg/kg)
AREA 1 - South	h						
BH#1 Surface	3880	ND	3600	ND	0.32	2.6	5.1
BH#1 5'	88	ND	80	ND	0.24	1.5	2.4
BH#1 10'	220	30	190	ND	0.054	1.7	2.2

BH#1 15'	390	50	340	ND	0.43	6.8	9.7
BH#1 20'	ND	ND	ND	ND	ND	ND	ND
BH#1 25'	ND	ND	ND	ND	ND	ND	ND
BH#2 Surface	3190	ND	3000	ND	2.4	10	17
BH#2 5'	460	30	430	ND	0.24	1.2	2.5
BH#2 10'	50	ND	50	ND	ND	ND	ND
BH#2 15'	ND	ND	ND	ND	ND	ND	ND
BH#2 20'	ND	ND	ND	ND	ND	ND	ND
AREA 2							
BH#3 Surface	20200	D	12000	ND	0.090	0.60	1.3
BH#3 5'	20	ND	20	ND	ND	ND	ND
BH#3 10'	ND	ND	ND	ND	ND	ND	ND
BH#3 15'	ND	ND	ND	ND	ND	ND	ND
BH#4 Surface	41600	480	34000	ND	4.6	16	26
BH#4 5'	450	ND	360	ND	ND	0.12	2.8
BH#4 10'	ND	ND	_ND	ND	ND	ND	ND
BH#4 15'	ND	ND	ND	ND	ND	ND	ND-
BH#5 Surface	24800	ND	20000	ND	ND	2.0	5.7
BH#5 5'	14	ND	14	ND	ND	ND	ND
BH#5 10'	ND	ND	ND	ND	ND	ND	ND
AREA 3 - North	1						
BH#6 Surface	2110	350	1300	1.8	30	31	42
BH#6 5'	440	50	390	ND	ND	ND	1.4
BH#6 10'	24	ND	24	ND	ND	ND	ND
BH#6 15'	ND	ND	ND	ND	ND	ND	ND

All borings were backfilled from total depth to surface with bentonite and hydrated.

The results for all areas indicate there was minimal vertical migration and BTEX readings are below regulatory limits.

VI. Action Plan

It is recommended for both Area 1 and Area 2 to be excavated 6-10" below ground surface for the removal of the most highly contaminated and/or saturated material. For Area 3 the top 4' to 5' of contaminated soil be removed by excavation. The excavated soils will be transported to an NMOCD approved facility for disposal. The excavations will then be backfilled with clean soils.

Upon completion a closure report will be submitted to the NMOCD.

VII. Figures & Appendices

Figure 1 - Vicinity Map

Figure 2 – Site Plan

Figure 3 – Logs of Boring

Appendix A – Analytical Results

Appendix B - C-141

Figure 1 Vicinity Map

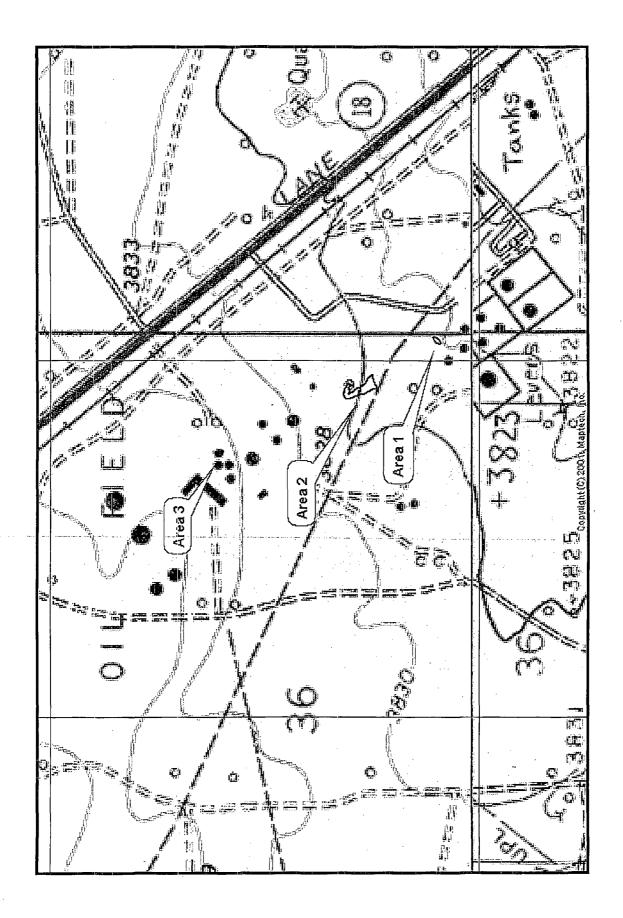


Figure 2 Site Plan

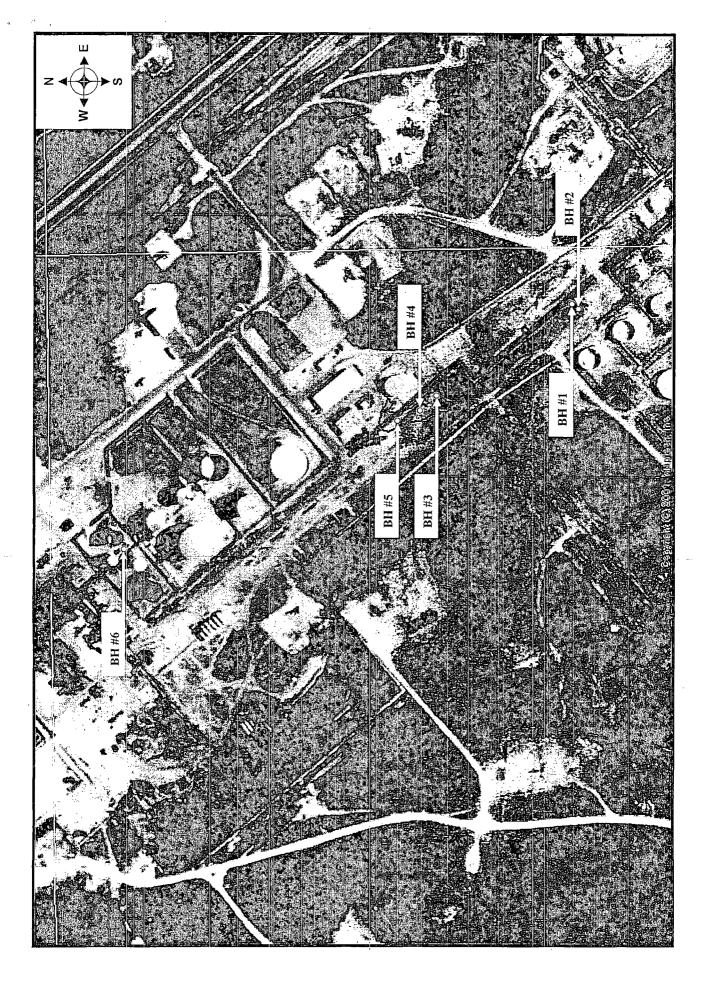


Figure 3 Logs of Boring



Safety & Environmental Solutions, Inc.

LOG OF BORING BH-1

(Page 1 of 1)

Hydrocarbon Release Investigation Navajo Lea Refinery Lovington, New Mexico South Location

Date, Time Started

Hole Diameter

Drilling Method

: 02/26/09, 0845 Date, Time Complete : 02/26/09, 1030

: Hollow Stem Auger

Drilled By Sampling Method : 3 1/4 in.

: Eco/Enviro Drilling

Logged By Company Rep. : 5 ft. core barrel : Isaac Kincald : Steve Terry, Navajo

	N32° 5	2' 33.0	8", W10	3° 17' 5	58.11"	Drilling Equipment	: Foremost-Mobile B-	-57					•	
Depth in Feet	Sample Type	Recovery (in.)	nscs	GRAPHIC	, ,	oon (18" ar 24") errel (2,5' or 5') uttlings	PTION		Lab No.	TPH 8015 (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Ethyl Benzene (mg/Kg)
0-		Т	1	KOZO	0-0.5 ft Surf	face sample taken. D	Dark rock (caliche)		D902014-01	3,880	<0.20	0.32	2.6	2.6
1- 2- 3- 4-	СВ	0	CA		staining with	n H/C odor LICHE, white, hard, c			D902014-02	88	<0.10	0.24	1.5	1.5
5- 6- 7- 8- 9-	CB	14	CA			CHE, H/C odor, no st	_	ith						
10-	СВ	14		22	cobblestones	s, no staining, H/C od	dor	:	D902014-03	220	<0.10	0.054	1.7	1.7
14- 15- 16-			SP						D902014-04	390	<0.10	0.43	6.8	6.8
17 - 18 - 19 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 2	CB	13			15-20 ft. SAN or odor	ND, tan-brown, fine g	rained, no H/C stain		D902014-05	<10	<0.005	<0.005	<0.005	<0,005
21 - 22 - 23 - 24 - 25	СВ	42	SP/SS		20-25 ft. SAN layers, no H/C	(D, tan-brown, fine gr C staining or odor	rained, with sandsto		D902014-05	<10	<0.005	÷0.005	<0.005	<0.005

Notes: Boring backfilled with 9 bags bentonite, hydrated.

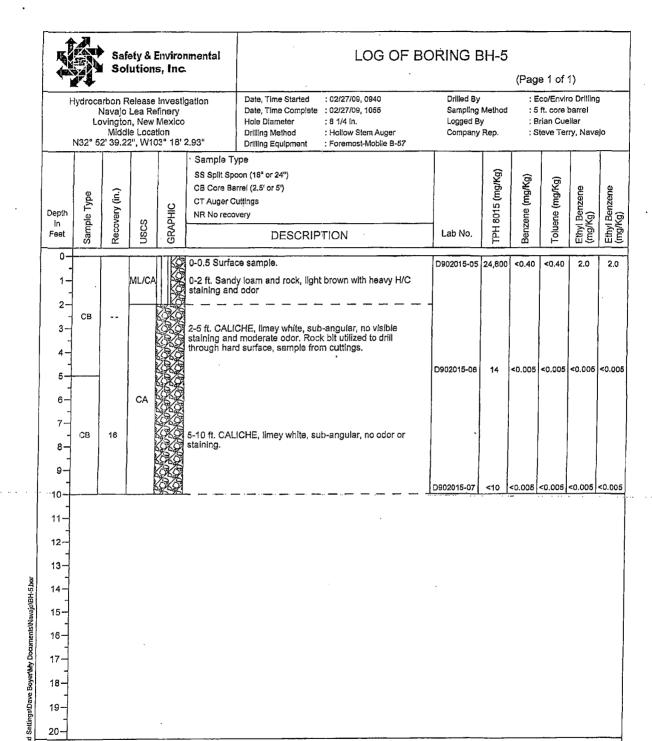
C:\Documents and Seltings\Dave Boyer\My Documents\Navajo\BH-1.bor

LOG OF BORING BH-2 Safety & Environmental Solutions, Inc. (Page 1 of 1) Date, Time Started : 02/26/09, 1230 **Drilled By** : Eco/Enviro Drilling Hydrocarbon Release Investigation Date, Time Complete : 02/26/09, 1400 Sampling Method : 5 ft. core barrel Navajo Lea Refinery : 8 1/4 in. Logged By : Isaac Kincaid Lovington, New Mexico Hole Diameter South Location N32° 52' 32.88", W103° 17' 58.32" : Hollow Stem Auger : Steve Terry, Navajo Drilling Method Company Rep. **Drilling Equipment** : Foremost-Mobile B-67 Sample Type TPH 8015 (mg/Kg) SS Split Spoon (18" or 24") Benzene (mg/Kg) Toluene (mg/Kg) Ethyl Benzene (mg/Kg) CB Core Barrel (2.5' or 5') Ethyl Benzene (mg/Kg) Recovery (in.) CT Auger Cuttings GRAPHIC Depth NR No recovery uscs In Lab No. Feet DESCRIPTION 0 AR 0-0.5 ft. Surface sample taken; fill material, sand, clay, D902014-07 3,190 2.4 10 10 rock, dark staining with odor. 2. СВ 0 0.5-5 ft. CALICHE and SAND, tan-light brown, coarse, CA/SP 3heavy H/C odor, no staining 4. D902014-08 <0.10 0.24 1.2 1.2 5 6-5-8 ft. CALICHE, hard rock, light brown (whitish) CA 7-СВ ₿ g. 8-10 ft. SAND, tan-light brown, coarse grained, with rock 9fragments. D902014-09 <0.005 | <0.005 | <0.005 | <0.005 10 11 SP/CA 12 10-15 ft. SAND, tan-light brown with rock fragments, no СВ 12 H/C staining or odor. 13-14-<0.005 | <0.005 | <0.005 | <0.005 | D902014-10 <10 15 16 17 15 SP 15-20 ft. SAND, tan-light brown, no H/C staining or odor. СВ 18 19-D902014-11 <10 <0.005 <0.005 <0.005 <0.005 20-

Notes: Boring backfilled with 9 bags bentonite, hydrated.

s s	afety & E	Environmental s, Inc.		LOG OF B	ORING E	3H-3				
Hydrocarbon Nava Loving Mic	Release o Lea Re on, New I	Investigation finery Mexico	Date, Time Started Date, Time Complete Hole Diameter Drilling Method Drilling Equipment	: 02/26/09, 1425 : 02/26/09, 1516 : 8 1/4 in. : Hollow Stem Auger : Foremost-Mobile B-57	Drilled By Sampling Logged B Company	Method y	: E : 5	ft. core saac Kin	ro Drillin barrei	
sample Type Recovery (in.)		Sample T	/pe oon (18" or 24") rrel (2.5' or 5') uttlings		Lab No.	TPH 8015 (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Ethyl Benzene (mg/Kg)
0		0-0.5 Surfa 0.5-5 ft. Top H/C odor		with staining and heavy	D902014-12	20,200	<0.050	0.090	0.60	0.60
5 - CB 16	ML			aining with minimal odor	D902014-13	20	<0.005	<0.005	<0.005	<0.005
11- 12- 13- CB 60	CL	9-10 ft. CLA	Y, red LAY, red, no H/C stair	ning or odor	D902014-14	<10	<0.005	<0.005	<0.005	<0.005
14 15 15 16 17 17 18 17 18 17 18 18	CL Substitution of the control of th	\ <u>st</u> ain <u>Ing or</u> o	ANDY CLAY, tan-light	brown, no H/C	D902014-15	<10	<0.005	<0.005	<0,005	<0.005

5		Sa So	lety & lution	Enviro s, Inc	nmental	LOG (OF BC	ORING E	3H-4				
	71			-,						(Pag	je 1 of	1)	
, 	L	Navajo ovingto Mido	Lea Re n, New le Loca	Mexico	2.30"	Date, Time Started		Drilled By Sampling Logged B Company	Method y	: 5 : E	i ft. core Brian Cu		
Depth in Feet	Sample Type	Recovery (in.)	uscs	GRAPHIC		oon (18" or 24") arrel (2.6' or 5') cuttings		Lab No.	TPH 8015 (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Ethyl Benzene
0 - 1-			ML		0-0.5 Surfac 0-2 ft. Sand odor.	ce sample. ly loam, light brown, heavy H/C staining .	and	D902015-01	41,600	<0.50	4.6	16	16
2- 3- 4- 5-	СВ	12	CA/CI		2-5 ft. CALIC staining and	CHE with SANDY CLAY, limey white with a moderate odor	n light	D902015-02	450	<0.050	<0.050	0.12	0.1
6- 7- 8- 9-	СВ	9.5			5-10 ft. CALi light odor	ICHE, limey white, very light staining and		D902015-03	<10	<0.005	<0.005	<0.005	<0.0
10 11 12 13 14	СВ		CA		10-15 ft. CAL staining or oc	LICHE, limey white, sub angular, no H/C dor		D902015-04			-0.005		
15-16-17-18-				<u>26~76</u>				5502010-04	<u> </u>	3.300	10.000	-6.000	-0,00
19-													
Notes: Bo	ring bad	ckfilled v	ith 5 bag	gs bentor	nite, hydrated.							,	



Notes: Boring backfilled with 5 bags bentonite, hydrated.

LOG OF BORING BH-6 Safety & Environmental Solutions, Inc. (Page 1 of 1) : 02/27/09, 1300 Drilled By : Eco/Enviro Drilling Date, Time Started Hydrocarbon Release Investigation Date, Time Complete : 02/27/09, 1420 Sampling Method : 5 ft. core barrel Navajo Lea Refinery : Brian Cuellar Lovington, New Mexico Hole Diameter : 8 1/4 in. Logged By North Location **Drilling Method** : Hollow Stem Auger Company Rep. : Steve Terry, Navajo N32° 52' 48.09", W103° 18' 7.76" Drilling Equipment : Foremost-Mobile B-57 Sample Type SS Split Spoon (18" or 24") 8015 (mg/Kg) Benzene (mg/Kg) Foluene (mg/Kg) Ethyl Benzene (mg/Kg) Ethyl Benzene (mg/Kg) CB Core Barrel (2.5' or 5') Recovery (in.) Sample Type CT Auger Cuttings Depth NR No recovery uscs iп TPH Feet DESCRIPTION Lab No. 0 0-0.5 Surface sample. D902015-08 2,110 30 31 31 0-2 ft. Sandy loam and rock, heavy staining with historic staining, heavy odor 0-3 ft. $\,$ 2-CB 3-5 ft. CALICHE, limey white, sub-angular, no staining and light odor. Rock bit utilized to break through rock D902015-09 <0.10 <0.10 <01.0 <01.0 laver. 5. 6-CB 5-10 ft. CALICHE, limey white, sub-angular, no staining or apparent odor. Rock bit utilized. 8-CA 9-D902015-10 <0.005 | <0.005 | <0.005 | <0.005 24 10 10-14 ft. CALICHE, Ilmey white, sub-angular, no staining 12 or odor. CB 8 13-Settings\Dave Boyer\My Documents\Navajo\BH-6,bor 14. 14-15 ft. CLAYEY SAND, reddish-brown, no H/C staining SC D902015-11 <0.005 | <0.005 | <0.005 | <0.005 15 16-17-18-19 20-Notes: Boring backfilled with bentonite, hydrated.

Appendix A Analytical Results

06 March 2009

Bob Allen Safety & Environmental Solutions, Inc. 703 E. Clinton Ave Hobbs, NM 88240

RE: Navajo Lea Refinery Delineation Project Data

Enclosed are the results for sample(s) received on 02/27/09 16:00 by Argon Laboratories. The sample(s) were analyzed according to instructions in accompanying chain-of-custody. Results are summarized on the following pages.

Please see quality control report for a summary of QC data pertaining to this project.

The sample(s) will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Sample(s) may be archived by prior arrangement.

Thank you for the opportunity to service the needs of your company.

Sincerely,

Hiram Cueto Lab Manager

A FOOT A PES 2126 W. Marland Ave Hobbs, NM 88240 (505)397-0295 (505)397-0296 into@argonlabs.com

CHAIN OF CUSTODY

1227

ņ.,

Project No: NAV-09-002			Client: SEST			
Location:			703 E. (1 whou	مولی		
ķ			س <u>ا</u>	M 88240		
Sampler's Name: Arica (Coell Coell C	4		Phone: Fax:	- 1		
			Bill To:);		
Sampler's Signatuze			Client: Address: SA-WA	راً ا		
TURN AROUND TIME	ME.			ANALYSIS		
RUSH 24 Hour 48 Hour	other	Standard				
		(5 days)	X3 \$108			
			H9T , T. 8			COMMENTS
Sample ID. Date Time	# Containers	Matrix				
Gare 2/27/09/0		Soil	> >			
-						
10						
15,						
Rtt5. Sviko						
				-		
RH 5,101 1030						
RH#6.5v1face 1310						
Bit to. 5' 1332						
BH#6.101 1345						
1 P S1	⊋.	>	7			
Relinauished By:	Date: 2 (17/09	Time:	Received By: Marcall Strange	Date:	Time:	SPECIAL INSTRUCTIONS:
Relinquished By:	Date:	Tíme:	Received By:	Date:	Time:	
Refinquished By:	Date:	Тіме:	Received By:	Date:	Time:	

Argon Laboratories Sample Receipt Checklist

Client Name: S	SESI				Date & Ti	ime Receiv	ed:	02/27/09		16:00		
Project Name: N	Vavajo Lea Re	finery			Client Pro	oject Numb	er:	NAV-09	-002		_ _	
Received By:	VF.			Ma	atrix:	Water []	Soil 🔽				
Sample Carrier: C	Client 🗌	Lab	oratory	1	Fed Ex	< []	UPS	Other]			
Argon Labs Project N	lumber:	D90	2015			_						
Shipper Container in go	od condition?					Samples re	eceived	in proper containers?	Yes	V	No	
N	V/A	Yes	V	No		Samples re	eceived	intact?	Yes	✓	No	
Samples received under	r refrigeration?	Yes	V	No		Sufficient s	ample v	volume for requested te	sts? Yes	V	No	
Chain of custody presen	ıt?	Yes	V	No		Samples re	ceived	within holding time?	Yes	V	No	
Chain of Custody signed	d by all parties?	Yes	V	No		Do sample:	s contai	n proper preservative? N/A	Yes		No	
Chain of Custody match	es all sample la	bels?				Do VOA vial	s contair	ı zero headspace?				
		Yes	V	No			((None submitted 🔽) Yes		No	
Date Client Contacted								MENTS SECTION BEL		- 		
												
Contacted By:					Subject:	·						—
Comments:												.
												_
							·					-
Action Taken:												-
												-
												-
			A	DDITIC	NAL TES	T(S) REQUE	ST / 01	THER — – – ——— – – ———				
Contacted By:	· -			·- <u></u> -		Date:			Time	:		
Call Received By:	Call Received By:											
Comments:	Comments:											-
												-
												-

Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave

Project Name: Navajo Lea Refinery Delineation Hobbs, NM 88240 Project Manager: Bob Allen

Work Order No.: D902015

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH #4 Surface	D902015-01	Soil	02/27/09 08:11	02/27/09 16:00
BH #4 5'	D902015-02	Soil	02/27/09 08:30	02/27/09 16:00
BH #4 10'	D902015-03	Soil	02/27/09 08:45	02/27/09 16:00
BH #4 15'	D902015-04	Soil	02/27/09 09:10	02/27/09 16:00
BH #5 Surface	D902015-05	Soil	02/27/09 09:50	02/27/09 16:00
BH #5 5'	D902015-06	Soil	02/27/09 10:05	02/27/09 16:00
BH #5 10'	D902015-07	Soil	02/27/09 10:30	02/27/09 16:00
BH #6 Surface	D902015-08	Soil	02/27/09 13:10	02/27/09 16:00
BH #6 5'	D902015-09	Soil	02/27/09 13:32	02/27/09 16:00
BH #6 10'	D902015-10	Soil	02/27/09 13:45	02/27/09 16:00
BH#6 15'	D902015-11	Soil	02/27/09 14:10	02/27/09 16:00

QC Officer Approval

Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave

Project Name: Navajo Lea Refinery Delineation

Work Order No.:

Hobbs, NM 88240

Project Manager: Bob Allen

D902015

BTEX EPA Method 8021B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
BH #4 Surface (D902015-01) So					, Allatyzou		140163
							
Benzene	ND	0.50	mg/kg	100	03/03/09	8021B	
Toluene	4.6	0.50		н	"	11	
Ethylbenzene	16	0.50	ıı	**	"	n n	
Xylenes (total)	26	1.0	····		· · · · · · · · · · · · · · · · · · ·	"	
Surr. Rec.:		103 %			"	"	
BH #4 5 ' (D902015-02) Soil S	ampled: 02/27/09 08:30	Received:	02/27/09	16:00			
Benzene	ND	0.050	mg/kg	10	03/03/09	8021B	
Toluene	ND	0.050	11	W	и	u	
Ethylbenzene	0.12	0.050	o	II.	п	0	
Xylenes (total)	2.8	0.10	н	н	"	ıı .	
Surr. Rec.:		104 %			"	ıt	
BH #4 10 ' (D902015-03) Soil	Sampled: 02/27/09 08:45	Received	l: 02/27/0	9 16:00	_		
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	ti	н	ti	II.	
Ethylbenzene	ND	0.005	u u	O	11	ti	
Xylenes (total)	ND	0.010	n	ŧi	II.	Ħ	
Surr. Rec.:		86 %			п	"	
BH #4 15 ' (D902015-04) Soil	Sampled: 02/27/09 09:10	Received	: 02/27/0	9 16:00			
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	11	н	n	11	
Ethylbenzene	ND	0.005	u	II	11	n	
Xylenes (total)	ND	0.010	n	u	II	ır	
Surr. Rec.:		88 %			п	"	

QC Officer Approval

Argon Laboratories, Inc.

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email: info@argonlabs.com

Page 2 of 10

Safety & Environmental Solutions, Inc.

703 E. Clinton Ave Hobbs, NM 88240 Project Number: NAV-09-002

Project Name: Navajo Lea Refinery Delineation

Project Manager: Bob Allen

Work Order No.: D902015

BTEX EPA Method 8021B

Analyte	Result	Reporting Limit	Units	Dilution			Analyzed	Method	Note:
BH #5 Surface (D902015-0	5) Soil Sampled: 02/27/09 (09:50 Rece	ived: 02/	27/09 16:00					
Benzene	ND	0.40	mg/kg	80			03/03/09	8021B	
Toluene	ND	0.40	4	n			H	11	
Ethylbenzene	2.0	0.40	er er	H			н	11	
Xylenes (total)	5.7	0.80	n	II .			U	u	
Surr. Rec.:		84 %					"	"	
BH #5 5 ' (D902015-06) Soi	il Sampled: 02/27/09 10:05	Received:	02/27/09	16:00					
Benzene	ND	0.005	mg/kg	I			03/03/09	8021B	
Toluene	ND	0.005	ti	ti			II	tt .	
Ethylbenzene	ND	0.005	н	II			11	ti	
Xylenes (total)	ND	0.010		μ				ti	
Surr. Rec.:		106 %					"	"	
BH #5 10 ' (D902015-07) So	oil Sampled: 02/27/09 10:3	0 Received	: 02/27/0	9 16:00					
Benzene	ND	0.005	mg/kg	1			03/03/09	8021B	
Toluene	ND	0.005	II	11			If	u	
Ethylbenzene	ND	0.005	0	и			н	It	
Xylenes (total)	ND	0.010	ti	ji.			n	n	
Surr. Rec.:	,	86 %				,	n	11	
BH #6 Surface (D902015-08	8) Soil Sampled: 02/27/09 1	3:10 Rece	ived: 02/2	27/09 16:00					
Benzene	1.8	0.50	mg/kg	100	·····		03/03/09	8021B	
Toluene	30	0.50	"	ri .			n	ŧŧ	
Ethylbenzene	31	0.50	11	u			п	u ·	
Xylenes (total)	42	1.0	11	n			н	**	
Surr. Rec.:		112 %					"	II.	

QC Officer Approval

Argon Laboratories, Inc.

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laboratories

Safety & Environmental Solutions, Inc.

703 E. Clinton Ave

Hobbs, NM 88240 Project Number: NAV-09-002

Project Name: Navajo Lea Refinery Delineation

Project Manager: Bob Allen

Work Order No.: D902015

BTEX EPA Method 8021B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
BH #6 5 ' (D902015-09) Soil	Sampled: 02/27/09 13:32	Received:	02/27/09	16:00			
Benzene	ND	0.10	mg/kg	20	03/03/09	8021B	
Toluene	ND	0.10	11	n .	n	n	
Ethylbenzene	ND	0.10	н	n	tt	n	
Xylenes (total)	1.4	0.20	н	11	п	11	
Surr. Rec.:		96 %				u	
BH #6 10 ' (D902015-10) Soil	Sampled: 02/27/09 13:45	Received	: 02/27/0	9 16:00			
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	87	n	u	u	
Ethylbenzene	· ND	0.005	tt	и	н	st	
Xylenes (total)	ND _	0.010	u		u .	n	
Surr. Rec.:		100 %			n	"	
BH #6 15 ' (D902015-11) Soil	Sampled: 02/27/09 14:10	Received	: 02/27/0	9 16:00			
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	u	н	п	II .	
Ethylbenzene	ND	0.005	4	п	tt	ti .	
Xylenes (total)	ND	0.010	n	н	11	и	
Surr. Rec.:		85 %			и	"	

QC Officer Approval

Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave

Project Name: Navajo Lea Refinery Delineation

Work Order No.: D902015

Hobbs, NM 88240

Project Manager: Bob Allen

Total Petroleum Hydrocarbons EPA Method 8015M

		Reporting			······			
Analyte	Result	Limit	Units	Dilution		Analyzed	Method	Notes
BH #4 Surface (D902015-01) Sc	oil Sampled: 02/27/09 0	8:11 Rece	ived: 02/	27/09 16:00				S-09
Gasoline Range Organics	480	200	mg/kg	20		03/03/09	EPA 8015M	
Diesel Range Organics	34000	200	n	11		n	11	
C29 - C35 Range Organics	7100	400	11	II		11	II .	
Total Petroleum Hydrocarbons	41600	200	u	11		ti .	11	
BH #4 5 ' (D902015-02) Soil S	ampled: 02/27/09 08:30	Received:	02/27/09	16:00				
Gasoline Range Organics	ND	10	mg/kg	1		03/03/09	EPA 8015M	
Diesel Range Organics	360	10	II .	"		n	ø	
C29 - C35 Range Organics	90	20	Ħ	11		" ,	n	
Total Petroleum Hydrocarbons	. 450	10	11	"		11	n	
Surr. Rec.:		106 %				"	n	
BH #4 10 ' (D902015-03) Soil	Sampled: 02/27/09 08:45	Received	: 02/27/0	9 16:00				
Gasoline Range Organics	ND	10	mg/kg	1		03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	n	u		II.	n	
C29 - C35 Range Organics	ND	20	u	. 11		ır	n	
Total Petroleum Hydrocarbons	ND	10	11			11	0	
Surr. Rec.:		111 %				"	н	
BH #4 15 ' (D902015-04) Soil	Sampled: 02/27/09 09:10	Received	: 02/27/0	9 16:00	•			
Gasoline Range Organics	ND	10	mg/kg	1		03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	ŧr	R		tı	n	
C29 - C35 Range Organics	ND	20	11	N		n	n	
Total Petroleum Hydrocarbons	ND	10		H			0	
Surr. Rec.:		104 %				п .	n	

QC Officer Approval

Argon Laboratories, Inc.

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email: info@argonlabs.com Page 5 of 10

Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave

Hobbs, NM

Project Name: Navajo Lea Refinery Delineation

Project Manager: Bob Allen

Work Order No.: D902015

Total Petroleum Hydrocarbons EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
BH #5 Surface (D902015-05) Soil	Sampled: 02/27/09 09	:50 Rece	ived: 02/2	27/09 16:00			S-09
Gasoline Range Organics	ND	200	mg/kg	20	03/03/09	EPA 8015M	,
Diesel Range Organics	20000	200	11	li	II	п	
C29 - C35 Range Organics	4700	400	11	n .	п	11	
Total Petroleum Hydrocarbons	24800	200	11	n	IÍ	†I	
BH #5 5 ' (D902015-06) Soil Sar	mpled: 02/27/09 10:05	Received:	02/27/09	16:00			
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	14	10	11	II	11	• 11	
C29 - C35 Range Organics	ND	20	11	U	11	Ħ	
Total Petroleum Hydrocarbons	14	10	"	11	ti .	ii .	
Surr. Rec.:		94 %			n	"	
BH #5 10 ' (D902015-07) Soil Sa	ampled: 02/27/09 10:30	Received	: 02/27/0	9 16:00			
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	и	II .	li	и	
C29 - C35 Range Organics	ND	20	н	H	11	II	
Total Petroleum Hydrocarbons	ND	10	**	11		tr	
Surr. Rec.:		99 %			"	"	
BH #6 Surface (D902015-08) Soil	Sampled: 02/27/09 13	:10 Rece	ived: 02/2	27/09 16:00			
Gasoline Range Organics	350	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	1300	10	(1	11	11	n	
C29 - C35 Range Organics	460	20	18	u	н	n	
Total Petroleum Hydrocarbons	2110	10	n .	н	11	17	
Surr. Rec.:		106 %			и	"	

QC Officer Approval

Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave

Project Name: Navajo Lea Refinery Delineation

Work Order No.:

Hobbs, NM 88240 Project Manager: Bob Allen

D902015

Total Petroleum Hydrocarbons EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution		Analyzed	Method	Notes
BH #6 5 ' (D902015-09) Soil	Sampled: 02/27/09 13:32	Received:	02/27/09	16:00				
Gasoline Range Organics	50	10	mg/kg	1		03/03/09	EPA 8015M	
Diesel Range Organics	390	10	14	н		13	II .	
C29 - C35 Range Organics	ND	20	ti	11		11	11	
Total Petroleum Hydrocarbons	s440	10		II		н	11	
Surr. Rec.:		93 %				11	tt.	
BH #6 10 ' (D902015-10) Soil	Sampled: 02/27/09 13:45	Received	: 02/27/0	9 16:00				
Gasoline Range Organics	ND	10	mg/kg	1		03/03/09	EPA 8015M	
Diesel Range Organics	24	10	u	п.,		n	п	
C29 - C35 Range Organics	ND	20	n	II		11	11	
Total Petroleum Hydrocarbons	s 24	10	11	n .		tt	11	
Surr. Rec.:		97 %				"	"	
BH #6 15 ' (D902015-11) Soil	Sampled: 02/27/09 14:10	Received	: 02/27/0	9 16:00				
Gasoline Range Organics	ND	10	mg/kg	1		03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	n	n		n	0.3	
C29 - C35 Range Organics	ND	20	11	11		11	н	
Total Petroleum Hydrocarbons	ND	10	17	tt		11	а	
Surr. Rec.:		98 %				"	н	

QC Officer Approval

Safety & Environmental Solutions, Inc.

703 E. Clinton Ave Hobbs, NM 88240 Project Number: NAV-09-002

Project Name: Navajo Lea Refinery Delineation

Project Manager: Bob Allen

Work Order No.: D902015

BTEX EPA Method 8021B - Quality Control

Argon Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	RPD	Notes
Batch DS00038 - EPA 5030B			******		_			
Blank (DS00038-BLK1)				Prepared a	& Analyze	ed: 03/03/09		
Surrogate: a,a,a-Trifluorotoluene	0.0410		mg/kg	0.0500		82		
Benzene	ND	0.005	H					
Toluene	ND	0.005	n.					
Ethylbenzene	ND	0.005	n					
Xylenes (total)	ND	0.010	u					
LCS (DS00038-BS1)				Prepared a	& Analyze	ed: 03/03/09		
Benzene	0.047		mg/kg	0.0500		94	-	
LCS Dup (DS00038-BSD1)				Prepared a	& Analyze	:d: 03/03/09		
Benzene	0.050		mg/kg	0.0500		100	6	,
Matrix Spike (DS00038-MS1)				Prepared &	& Analyze	d: 03/03/09		
Toluene	0.047		mg/kg	0.0500		94		
Matrix Spike Dup (DS00038-MSD1)				Prepared &	& Analyze	d: 03/03/09		
Toluene	0.046		mg/kg	0.0500		92	2	

QC Officer Approval

Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave

Project Name: Navajo Lea Refinery Delineation

Work Order No.: D902015

Hobbs, NM 88240 Project Manager: Bob Allen

Total Petroleum Hydrocarbons EPA Method 8015M - Quality Control

Argon Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	RPD	Notes
Batch DS00039 - EPA 3550B								
Blank (DS00039-BLK1)				Prepared	& Analyze	d: 03/03/09		
Surrogate: p-Terphenyl	0.0970		mg/kg	0.100	· · · · · · · · · · · · · · · · · · ·	97		
Gasoline Range Organics	ИD	10	н					
Diesel Range Organics	ND	10	11					
C29 - C35 Range Organics	ND	20	II					
Total Petroleum Hydrocarbons	ND	10	п .					
LCS (DS00039-BS1)				Prepared	& Analyze	:d: 03/03/09		
Total Petroleum Hydrocarbons	234		mg/kg	250		94		
LCS Dup (DS00039-BSD1)				Prepared	& Analyze	d: 03/03/09		
Total Petroleum Hydrocarbons	228		mg/kg	250		91	3	
Matrix Spike (DS00039-MS1)	,			Prepared	& Analyze	d: 03/03/09		
Total Fetroleum Hydrocarbons	240		mg/kg	250		96		
Matrix Spike Dup (DS00039-MSD1)				Prepared	& Analyze	ed: 03/03/09		
Total Petroleum Hydrocarbons	244		mg/kg	250		98	2	

QC Officer Approval

Argon Laboratories, Inc.

email: info@argonlabs.com Page 9 of 10

Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave

Project Name: Navajo Lea Refinery Delineation

Work Order No.: D902015

Hobbs, NM 88240

Project Manager: Bob Allen

Notes and Definitions

S-09 Surrogate diluted out of range due to sample dilution.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

QC Officer Approval

06 March 2009

Bob Allen Safety & Environmental Solutions, Inc. 703 E. Clinton Ave Hobbs, NM 88240

RE: Navajo Lea Refinery Delineation Project Data

Enclosed are the results for sample(s) received on 02/27/09 16:00 by Argon Laboratories. The sample(s) were analyzed according to instructions in accompanying chain-of-custody. Results are summarized on the following pages.

Please see quality control report for a summary of QC data pertaining to this project.

The sample(s) will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Sample(s) may be archived by prior arrangement.

Thank you for the opportunity to service the needs of your company.

Sincerely,

Hiram Cueto Lab Manager

email: info@argonlabs.com

Argon Labs

2126 W. Marland Ave Hobbs, NM 88240 (505)397-0295 (505)397-0296 info@argonlabs.com

CHAIN OF CUSTODY

Project No: Nar 09-00 Z Project Title: Narajo Lca Pe, Location: Narajo Lca Pe, 100-00	Groy be mother deduces.	Client: SESF Clinton SKE 40	3
Sampler's Name: (print)	1-10-21	Phops: 575397-0500	
イがなり	7/2	Bill To:	
Sampler's Signature:		Client: Sam &	
TURN AROUND TIME	IME	ANALYSIS	
RUSH 24 Hour 48 Hour	other		
	(5 days)		
		7_Z 108 4.1.2	
Sample ID. Date Time	\ _		COMMENTS
1 1217 day		>	
13/FI W. 101.			
13H#1 (51) DESS			
101			
25-1			
2 Sussay	٠		
3Ht 51 1245			
,0/			
12			
134#2201 1355	>	x X	
Relinquished By:	Date: Time:	Received By Lens 10016.	109 5 PM SPECIAL INSTRUCTIONS:
Ralinguished By:	Date: / Time:	Received By: Tally & Both Co. 2-27-09	ime: //
Relinquished By:	Date: Time:	Received By: Date:	Time:

From Labs

2126 W. Marland Ave Hobbs, NM 88240 (505)397-0295 (505)397-0296 info@argonlabs.com

CHAIN OF CUSTODY

D902014225

					-	COMMENTS										Dy SPECIAL INSTRUCTIONS: *	W 0	**,	
	ho 88246		ANALYSIS													Date: A OF 5 M	Date: Time: J. D. D. J. J. G. C. J. P. M.	Date: Time:	
	56 205 205 207	Bill To:	ANA		产	GZ!			X	×,						Raceived By Coll	Received By: Medicular CACO	Received By:	
-	contains Contains	Client:	2	Standard (5 days)	25 _/	441	Matrix	So 11	X	X	X)				Time: Receiv	Time: Receiv	Time: Receiv	
	now Delas			other			# Containers			-)					Date / Date /	Date: 1 To Date: 7	Date: T	
	Margio Lea Refinery Defination Address: Pargio Lea La, nm Contact: Phope: Fax:	•		24 Hour 48 Hour			Date Time	02 41 PUSIS 20	1435	esm	J 1500						to ch		
	Project No: Project Title: Location: Sampler's Nan (print)	Sampler's Signature:		RUSH			Sample ID.	13/145 21/4	BH #3 51	(RHIES 10)	BH#315					Relinquished By:	Reinpaujsthed By:	Relinquished By:	

Argon Laboratories Sample Receipt Checklist

Client Name:	SESI				Date & Ti	me Received:	· ·	02/27/09		16:00		
Project Name:	Navajo Lea Re	finery			Client Pro	oject Number:		NAV	-09-002			
Received By:	NF			Ma	trix:	Water	Soil	$\overline{\checkmark}$				
Sample Carrier:	Client	Lab	oratory	V	Fed Ex	(🗌 U	PS 🗌	Other				
Argon Labs Project	t Number:	D90	2014			_						
Shipper Container in	good condition?					Samples recei	ived in prop	er containers	? Y	es 🗸	No	
	N/A	Yes	✓	No		Samples recei	ived intact?		Y	'es 🗸	No	
Samples received un	der refrigeration?	Yes	V .	No		Sufficient sam	ple volume	for requested	I tests? Y	'es 🗸	No	
Chain of custody pres	sent?	Yes	V	No		Samples recei	ived within h	nolding time?	Y	es 🔽	No	
Chain of Custody sign	ned by all parties?	Yes	V	No		Do samples co	ontain prope			es 🗌	No	
Chain of Custody ma	tches all sample la	bels?				Do VOA vials co	ontain zero he	eadspace?			٠	
		Yes	V	No			(None s	ubmitted [☑) Y	es 🗌	No	
•	ANY "N	lo" RE	ESPONSE	: MUST	BE DETA	LILED IN THE C	OMMENTS	SECTION P	FI OW			
												
Date Client Contact	ted:			_	Per	rson Contacte	d:			- 		
Contacted By:					Subject:	-						
Comments:						1						_
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								π				-
Action Taken:												- '
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			Al	ODITIO	NAL TEST	r(s) request	OTHER					
Contacted By:					_	Date:			Ti	ime:		
Call Received By: _					_							
Comments:												_
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												-

Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave

Project Name: Navajo Lea Refinery Delineation

Work Order No.: D902014

Hobbs, NM 88240 Project Manager: Bob Allen

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH#1 Surface	D902014-01	Soil	02/26/09 08:45	02/27/09 16:00
BH#1 5'	D902014-02	Soil	02/26/09 09:00	02/27/09 16:00
BH#1 10'	D902014-03	Soil	02/26/09 09:30	02/27/09 16:00
BH#1 15'	D902014-04	Soil	02/26/09 09:55	02/27/09 16:00
BH#1 20'	D902014-05	Soil	02/26/09 10:05	02/27/09 16:00
BH #1 25'	D902014-06	Soil	02/26/09 10:20	02/27/09 16:00
BH #2 Surface	D902014-07	Soil	02/26/09 10:45	02/27/09 16:00
BH #2 5'	D902014-08	Soil	02/26/09 12:45	02/27/09 16:00
BH #2 10'	D902014-09	Soil	02/26/09 13:00	02/27/09 16:00
BH #2 15'	D902014-10	Soil	02/26/09 13:45	02/27/09 16:00
BH #2 20'	D902014-11	Soil	02/26/09 13:55	02/27/09 16:00
BH#3 Surface	D902014-12	Soil	02/26/09 14:30	02/27/09 16:00
BH #3 5	D902014-13	Soil	02/26/09 14:35	02/27/09 16:00
BH #3 10 '	D902014-14	Soil	02/26/09 14:50	02/27/09 16:00
BH#3 15'	D902014-15	Soil	02/26/09 15:00	02/27/09 16:00

QC Officer Approval

Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave

Project Name: Navajo Lea Refinery Delineation

Work Order No.: D902014

Hobbs, NM 88240

Project Manager: Bob Allen

BTEX EPA Method 8021B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
BH #1 Surface (D902014-01) So	oil Sampled: 02/26/09 08	3:45 Rece	ived: 02/	27/09 16:00			
Benzene	ND	0.20	mg/kg	40	03/03/09	8021B	· · · · · · · · · · · · · · · · · · ·
Toluene	0.32	0.20	п	II	ч	ti	
Ethylbenzene	2.6	0.20	0	11	ri .	tr.	
Xylenes (total)	5.1	0.40		11	a	lı	
Surr. Rec.:		96 %			"	II .	
BH #1 5 ' (D902014-02) Soil S	ampled: 02/26/09 09:00	Received:	02/27/09	16:00			
Benzene	ND	0.10	mg/kg	20	03/03/09	8021B	
Toluene	0.24	0.10	11	H	H	u	
Ethylbenzene	1.5	0.10	u	u	п	Ħ	
Xylenes (total)	2.4	0.20	"	ч	. 11	н	
Surr. Rec.:		94 %			n	"	
BH #1 10 ' (D902014-03) Soil	Sampled: 02/26/09 09:30	Received	: 02/27/0	9 16:00			
Benzene	ND	0.025	mg/kg	5	03/03/09	8021B	
Toluene	0.054	0.025	n	Ħ	11	II	
Ethylbenzene	1.7	0.025	11	n	н	, н	
Xylenes (total)	2.2	0.050	16	1t	ti .	n	
Surr. Rec.:		89 %			"	11	
BH #1 15 ' (D902014-04) Soil	Sampled: 02/26/09 09:55	Received	: 02/27/09	9 16:00			
Benzene	ND	0.20	mg/kg	40	03/03/09	8021B	***************************************
Toluene	0.43	0.20	11	п	п	u	
Ethylbenzene	6.8	0.20	lt.	ti	ti	u	
Xylenes (total)	9.7	0.40	u	u	n .	IT	
Surr. Rec.:		81 %			и	"	

QC Officer Approval

Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave Hobbs, NM 88240 Project Name: Navajo Lea Refinery Delineation

Project Manager: Bob Allen

Work Order No.: D902014

BTEX EPA Method 8021B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
BH #1 20 ' (D902014-05) Soil	Sampled: 02/26/09 10:05	Received	: 02/27/0	9 16:00			
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	"	н	и	11	
Ethylbenzene	ND	0.005	11	11	н	11	
Xylenes (total)	ND	0.010	11	ii .	11	II .	
Surr. Rec.:		88 %			ıı .	ıı .	····
BH #1 25 ' (D902014-06) Soil	Sampled: 02/26/09 10:20	Received	: 02/27/0	9 16:00			
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	н	11	II	ti	
Ethylbenzene	· ND	0.005	n	n .	n	Ħ	
Xylenes (total)	ND	0.010	II	41	u u		
Surr. Rec.:		88 %			"	n	
BH #2 Surface (D902014-07)	Soil Sampled: 02/26/09 10	:45 Rece	ived: 02/	27/09 16:00			
Benzene	ND	0.50	mg/kg	100	03/03/09	8021B	
Toluene	2.4	0.50	n	n	н	и	
Ethylbenzene	10	0.50	n	n	11	11	
Xylenes (total)	17	1.0	11	u		u i	
Surr. Rec.:		92 %			n .	11	
BH #2 5 ' (D902014-08) Soil	Sampled: 02/26/09 12:45	Received:	02/27/09	16:00			
Benzene	ND	0.10	mg/kg	20	03/03/09	8021B	
Toluene	0.24	0.10	11	H	II	IT	
Ethylhenzene	1.2	0.10	n	11	II.	Ħ	
Xylenes (total)	2.5	0.20	, п	n	ti .	17	
Surr. Rec.:		77 %			"	n	

QC Officer Approval

Argon Laboratories, Inc.

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laboratories

Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave

Project Name: Navajo Lea Refinery Delineation

Work Order No.: D902014

Hobbs, NM 88240

Project Manager: Bob Allen

BTEX EPA Method 8021B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Note
BH #2 10 ' (D902014-09) Soil	Sampled: 02/26/09 13:00	Received	1: 02/27/0	9 16:00			
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	, , , , , , , , , , , , , , , , , , ,
Toluene	ND	0.005	u	n	n	n	
Ethylbenzene	ND	0.005	11	п	0	tı .	
Xylenes (total)	ND	0.010	11		n	H	
Surr. Rec.:		87 %			n	п	
BH #2 15 ' (D902014-10) Soil	Sampled: 02/26/09 13:45	Received	: 02/27/0	9 16:00			
Benzene	ND	0.005	mg/kg	I	03/03/09	8021B	
Toluene	ND	0.005	u	11	n	II .	
Ethylbenzene	· ND	0.005	It	If	ti	и	
Xylenes (total)	ND	0.010	11	U		н	
Surr. Rec.:		90 %			"	п.	
BH #2 20 ' (D902014-11) Soil	Sampled: 02/26/09 13:55	Received	: 02/27/0	9 16:00			
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	н	u	11	и	
Ethylbenzene	ND	0.005	H	п	н	W	
Xylenes (total)	ND	0.010	11	tt	μ	n	
Surr. Rec.:		94 %			n n	11	,
BH #3 Surface (D902014-12) S	oil Sampled: 02/26/09 14	:30 Rece	ived: 02/2	27/09 16:00			
Benzene	ND	0.050	mg/kg	10	03/03/09	8021B	
Toluene	0.090	0.050	н	ii .	ti .	If	
Ethylbenzene	0.60	0.050	u	11	If	11	
Xylenes (total)	1.3	0.10	ii.	п	ıı	II	
Surr. Rec.:		92 %			II .	11	- 74

QC Officer Approval

Safety & Environmental Solutions, Inc.

703 E. Clinton Ave Hobbs, NM 88240 Project Number: NAV-09-002

Project Name: Navajo Lea Refinery Delineation

Project Manager: Bob Allen

Work Order No.: D902014

BTEX EPA Method 8021B

Analyte	Result	Reporting Limit	Units	Dilution	· · · · · · · · · · · · · · · · · · ·	Analyzed	Method	Notes
BH #3 5 ' (D902014-13) Soil	Sampled: 02/26/09 14:35	Received:	02/27/09	16:00	· · · · · · · · · · · · · · · · · · ·	****		
Benzene	ND	0.005	mg/kg	1		03/03/09	8021B	
Toluene	ND	0.005	11	*11		ø	et .	
Ethylbenzene	ND	0.005	0	п		r r	u	
Xylenes (total)	ND	0.010	n	ti .		II .	H	
Surr. Rec.:		98 %				u	n .	
BEI #3 10 ' (D902014-14) Soil	Sampled: 02/26/09 14:50	Received	: 02/27/0	9 16:00				
Benzene	ND	0.005	mg/kg	1		03/03/09	8021B	· · · · · · · · · · · · · · · · · · ·
Toluene	ND	0.005	n .	II .		н	n	
Ethylbenzene	ND	0.005	n	Ħ		"	u .	
Xylenes (total)	ND	0.010	11	н		tt .	н	
Surr. Rec.:		93 %				н	"	
BH #3 15 ' (D902014-15) Soil	Sampled: 02/26/09 15:00	Received	: 02/27/0	9 16:00				
Benzene	ND	0.005	mg/kg	1		03/03/09	8021B	
Toluene	ND	0.005	It	11		11	R	
Ethylbenzene	ND	0.005	n	**		11	u	
Xylenes (total)	ND	0.010	и	п		II	n	
Surr. Rec.:		89 %				n	"	

QC Officer Approval

Argon Laboratories, Inc.

2126 W. Marland Ave., Hobbs, NM 88240 • Phone (505) 397-0295 • Fax (505) 397-0296

email: info@argonlabs.com Page 5 of 12

Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave

Project Name: Navajo Lea Refinery Delineation

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Work Order No.: D902014

Hobbs, NM 88240

Project Manager: Bob Allen

Total Petroleum Hydrocarbons EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	A 11	Method	Notes
					Analyzed	Method	Note
BH #1 Surface (D902014-01) Soi	il Sampled: 02/26/09 08	:45 Rece	eived: 02/	27/09 16:00			S-09
Gasoline Range Organics	ND	200	mg/kg	20	03/03/09	EPA 8015M	
Diesel Range Organics	3600	200	u	u	ss.	v	
C29 - C35 Range Organics	ND	400	11	19	IT .	II .	
Total Petroleum Hydrocarbons	3880	200	U	11	II	ч	
BH #1 5 (D902014-02) Soil Sa	mpled: 02/26/09 09:00	Received:	02/27/09	16:00			
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	80	10	n	n	tr.	. и	
C29 - C35 Range Organics	ND	20	0	11	U	D.	
Total Petroleum Hydrocarbons	. 88	10	11	11	"	H	
Surr. Rec.:		99 %			n	"	
BH #1 10 ' (D902014-03) Soil S	Sampled: 02/26/09 09:30	Received	l: 02/27/ 0	9 16:00			
Gasoline Range Organics	30	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	190	10	lr .	н	H.))	
C29 - C35 Range Organics	ND	20	н ,	μ	π	u	
Total Petroleum Hydrocarbons	220	10		1)			
Surr. Rec.:		91 %			ıı .	n .	
BH #1 15 ' (D902014-04) Soil S	Sampled: 02/26/09 09:55	Received	i: 02/27/0	9 16:00			
Gasoline Range Organics	50	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	340	10					
C29 - C35 Range Organics	ND	20	tr.	IT	r r	li .	
Total Petroleum Hydrocarbons	390	10			11	1)	
Surr. Rec.:		98 %			"	n	

QC Officer Approval

Argon Laboratories, Inc.

Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave Hobbs, NM 88240 Project Name: Navajo Lea Refinery Delineation

Project Manager: Bob Allen

Work Order No.: D902014

Total Petroleum Hydrocarbons EPA Method 8015M

		Reporting				
Analyte	Result	Limit	Units	Dilution	Analyzed Method	Notes
BH #1 20 ' (D902014-05) Soil	Sampled: 02/26/09 10:05	Received	: 02/27/0	9 16:00		
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09 EPA 8015M	
Diesel Range Organics	ND	10	II	и	n . n	
C29 - C35 Range Organics	ND	20	Ð	и	и , п	
Total Petroleum Hydrocarbons	ND	10	#1	н	n tı	
Suir. Rec.:		104 %			" "	
BH #1 25 ' (D902014-06) Soil	Sampled: 02/26/09 10:20	Received	: 02/27/0	9 16:00		
Gasoline Range Organics	ND .	10	mg/kg	1	03/03/09 EPA 8015M	
Diesel Range Organics	ND	10	11	II	11 11	
C29 - C35 Range Organics	ND	20	11	11	. п и	
Total Petroleum Hydrocarbons	ND	10		Ħ	11 11	
Surr. Rec.:		101 %			n n	
BH #2 Surface (D902014-07) S	oil Sampled: 02/26/09 10	:45 Rece	ived: 02/2	27/09 16:00		S-09
Gasoline Range Organics	ND	200	mg/kg	20	03/03/09 EPA 8015M	
Diese Range Organics	3000	200	"	u	ti n	
C29 - C35 Range Organics	ND	400	**	tt	II (I	
Total Petroleum Hydrocarbons	3190	200	Ħ	u	ч	
BH #2 5 ' (D902014-08) Soil S	Sampled: 02/26/09 12:45	Received:	02/27/09	16:00		
Gasoline Range Organics	30	10	mg/kg	1	03/03/09 EPA 8015M	
Diesel Range Organics	430	10		и		
C29 - C35 Range Organics	ND	20	и	11	и 11	
Total Petroleum Hydrocarbons	460	10	11	u	H II	
Surr. Rec.:		102 %			" "	

QC Officer Approval

Argon Laboratories, Inc.

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Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave

Project Name: Navajo Lea Refinery Delineation

Hobbs, NM 88240 Project Manager: Bob Allen

Work Order No.: D902014

Total Petroleum Hydrocarbons EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution		Analyzed	Method	Notes
BH #2 10 ' (D902014-09) Soil	Sampled: 02/26/09 13:00	Received	: 02/27/0	9 16:00		<u> </u>		
Gasoline Range Organics	ND	10	mg/kg	1		03/03/09	EPA 8015M	
Diesel Range Organics	50	10	H	II		11	11	
C29 - C35 Range Organics	ND	20	D	11		n	I†	
Total Petroleum Hydrocarbons	50	10	*11				· n	
Surr. Rec.:		104 %				ı,	11	
BH #2 15 ' (D902014-10) Soil	Sampled: 02/26/09 13:45	Received	: 02/27/0	9 16:00				
Gasoline Range Organics	ND	10	mg/kg	1		03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	u	ŋ	•	II	Ir	
C29 - C35 Range Organics	ND	20	u	u		41	u	
Total Petroleum Hydrocarbons	ND	10	11	н		u	li .	
Surr. Rec.:		105 %				ıı	"	
BH #2 20 ' (D902014-11) Soil	Sampled: 02/26/09 13:55	Received	: 02/27/0	9 16:00			,	
Gasoline Range Organics	ND	10	mg/kg	1		03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	11	11		11	n	
C29 - C35 Range Organics	ND	20	Ħ	11		44	11	
Total Petroleum Hydrocarbons	ND	10	0			u	II .	
Surr. Rec.:		105 %				11	"	
BH #3 Surface (D902014-12) S	oil Sampled: 02/26/09 14	:30 Rece	ived: 02/2	27/09 16:00				S-09
Gasoline Range Organics	ND	200	mg/kg	20	· · · · · · · · · · · · · · · · · · ·	03/03/09	EPA 8015M	
Diesel Range Organics	12000	200	n	н		II	II .	
C29 - C35 Range Organics	8100	400	н	n		íi .	11	
Total Petroleum Hydrocarbons	20200	200	n	n		1f	n	

QC Officer Approval

Argon Laboratories, Inc.

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email: info@argonlabs.com Page 8 of 12

Safety & Environmental Solutions, Inc.

88240

Project Number: NAV-09-002

703 E. Clinton Ave

Hobbs, NM

Project Name: Navajo Lea Refinery Delineation

Project Manager: Bob Allen

Work Order No.: D902014

Total Petroleum Hydrocarbons EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
BH #3 5' (D902014-13) Soil	Sampled: 02/26/09 14:35	Received:	02/27/09	16:00			
Gasoline Range Organics	ND	10	mg/kg	1	 03/03/09	EPA 8015M	
Diesel Range Organics	20	10	ų	tt.	u	91	
C29 - C35 Range Organics	ND	20	11	H	ti	u	
Total Petroleum Hydrocarbon:	s 20	10	# · · · · · · · · · · · · · · · · · · ·	11		11	
Surr. Rec.:		104 %			 "	ff .	
BH #3 10 ' (D902014-14) Soil	Sampled: 02/26/09 14:50	Received	: 02/27/0	9 16:00			
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	' n	n	u	н	
C29 - C35 Range Organics	ND	20	H	n	n ,	n	
Total Petroleum Hydrocarbons	ND	10	11	n	11	и	
Surr. Rec.:		104 %			"	- н	
BH #3 15 ' (D902014-15) Soil	Sampled: 02/26/09 15:00	Received	: 02/27/0	9 16:00			
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	11	n	11	al	
C29 - C35 Range Organics	ND	20	10	ti	U	u	
Total Petroleum Hydrocarbons	ND	10	u	u	11	IF	
Surr. Rec.:		99 %			"	В	

QC Officer Approval

Argon Laboratories, Inc.

Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave

Project Name: Navajo Lea Refinery Delineation

Hobbs, NM 88240

Project Manager: Bob Allen

Work Order No.: D902014

BTEX EPA Method 8021B - Quality Control

Argon Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	RPD	Notes
Batch DS00038 - EPA 5030B								
Blank (DS00038-BLK1)			~	Prepared a	& Analyze	:d: 03/03/09		
Surrogate: a,a,a-Trifluorotoluene	0.0410		mg/kg	0.0500		82		· · · · · · · · · · · · · · · · · · ·
Benzene	ND	0.005	E)					
Coluene	ND	0.005	н					
Ethylbenzene	ND	0.005	u					
(ylenes (total)	ND	0.010	н					
LCS (DS00038-BS1)				Prepared of	& Analyze	ed: 03/03/09		
Benzene	0.047		mg/kg	0.0500		94		
LCS Dup (DS00038-BSD1)				Prepared a	& Analyze	d: 03/03/09		
Benzene	0.050		mg/kg	0.0500		100	6	
Matrix Spike (DS00038-MS1)				Prepared of	& Analyze	d: 03/03/09		
Coluene	0.047		mg/kg	0.0500		94		
Matrix Spike Dup (DS00038-MSD1)				Prepared a	& Analyze	d: 03/03/09		
roluene roluene	0.046		mg/kg	0.0500		92	2	

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Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave

Project Name: Navajo Lea Refinery Delineation

Work Order No.:

Hobbs, NM Project Manager: Bob Allen

D902014

Total Petroleum Hydrocarbons EPA Method 8015M - Quality Control

Argon Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	RPD	Notes
Batch DS00039 - EPA 3550B								
Blank (DS00039-BLK1)				Prepared	& Analyze	ed: 03/03/09	·	
Surrogate: p-Terphenyl	0.0970		mg/kg	0.100		97		
Gasoline Range Organics	ND	10	II .					
Diesel Range Organics	ND	10	11					
C29 - C35 Range Organics	ND	20	н					
Total Petroleum Hydrocarbons	ND	10	n					
LCS (DS00039-BS1)			_	Prepared	& Analyze	ed: 03/03/09		
Total Petroleum Hydrocarbons	. 234		mg/kg	250		94		
LCS Dup (DS00039-BSD1)				Prepared	& Analyze	ed: 03/03/09		
Total Petroleum Hydrocarbons	228		mg/kg	250		91	3	
Matrix Spike (DS00039-MS1)				Prepared	& Analyze	ed: 03/03/09		
Total Petroleum Hydrocarbons	240		mg/kg	250		96		
Matrik Spike Dup (DS00039-MSD1)				Prepared	& Analyze	ed: 03/03/09		
Total Petroleum Hydrocarbons	244		mg/kg	250		98	2	

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Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave

Project Name: Navajo Lea Refinery Delineation

Hobbs, NM 88240

Project Manager: Bob Allen

Work Order No.: D902014

Notes and Definitions

S-09 Surrogate diluted out of range due to sample dilution.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

QC Officer Approval

Argon Laboratories, Inc.

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Appendix B C-141

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

* Attach Additional Sheets If Necessary

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised October 10, 2003

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

	A -45						
	X Initi	al Report					
	5281						
ier	Lease I	No.					
ION OF RELEASE							
	County						
T 14 7		<u> </u>					
Longitude	<u>.</u>						
RE OF RELEASE							
		Recovered 80 bbls					
		Hour of Discovery 2/21/09					
If YES, To Whom?	77.10 tut						
red Larry Johnson							
Date and Hour 2/21/09	7:50 am						
If YES, Volume Impacting	g the Watercourse.						
							
ip the plant, rundown lines were	being filled. A bleed	er was inadvertently left open					
a diffining the tor thingson, to de	miodio voitioni exion	s or spini					
•		į.					
to the hest of my knowledge and	understand that purs	ment to NMOCD rules and					
se notifications and perform corr	ective actions for rele	eases which may endanger					
y the NMOCD marked as "Final	Report" does not reli	eve the operator of liability					
diate contamination that pose a ti	reat to ground water freenonsibility for co	, surface water, human health					
off does frot telloae the oberator o	r responsibility for co	mphance will any onter					
OIL CON	SERVATION	DIVISION					
Approved by District Superv	isor:						
Approval Date:	Expiration 1	Date:					
Conditions of Approval:							
	Attached						
	Contact Darrell Moore Telephone No. 575-746- Facility Type Petroleum Inter ION OF RELEASE Orth/South Line Feet from the Longitude RE OF RELEASE Volume of Release 100 b Date and Hour of Occurre 2/21/09 7:30 am If YES, To Whom? Larry Johnson Date and Hour 2/21/09 If YES, Volume Impacting on the plant, rundown lines were at southwest of the office building a drilling rig for Thursday to desentifications and perform correy the NMOCD marked as "Final diate contamination that pose a that does not relieve the operator of OIL COM Approved by District Superviolence.	Contact Darrell Moore Telephone No. 575-746-5281 Facility Type Petroleum Refinery					

ANALYTICAL CHEMISTRY & TESTING SERVICES



Environmental Division

04-Jun-09

Darrell Moore Navajo Refining Company PO Box 159 Artesia, NM 88211

Tel: (575) 746-5281 Fax: (505) 746-5421

Re: NAV-04-009-Lea Refining

Work Order: 0906079

Dear Darrell,

ALS Laboratory Group received 5 samples on 5/2/2009 08:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 15.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Electronically approved by: Glenda H. Ramos

Jay Lynn F Thibault

JayLynn F Thibault Project Manager

certificate No: T104704231-08-TX

ALS Group USA, Corp.
Part of the ALS Laboratory Group

10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338
Phone: (281) 530-5656 Fax: (281) 530-5887
www.elabl.com www.elabl.com
A Campbell Brothers Limited Company

Date: 04-Jun-09

Client:

Navajo Refining Company

Project:

NAV-04-009-Lea Refining

Work Order:

0906079

Work Order Sample Summary

Lab Samp ID Client Sample ID	<u>Matrix</u>	Tag Number	Collection Date	Date Received	<u>Hold</u>
0906079-01 BH#5 5'	Soil	0905050-19	4/30/2009 14:00	5/2/2009 08:30	
0906079-02 BH#5 10'	Soil	0905050-20	4/30/2009 14:25	5/2/2009 08:30	
0906079-03 BH#6 5'	Soil	0905050-21	4/30/2009 15:15	5/2/2009 08:30	
0906079-04 BH#6 10'	Soil	0905050-22	4/30/2009 15:25	5/2/2009 08:30	
0906079-05 BH#6 15'	Soil	0905050-23	4/30/2009 15:40	5/2/2009 08:30	

Date: 04-Jun-09

Client:

Navajo Refining Company

Project:

NAV-04-009-Lea Refining

Sample ID:

BH#5 5'

Work Order: 0906079

Lab ID: 0906079-01

Matrix: SOIL

Collection Date: 4/30/2009 02:00 PM

Report Dilution Result **Date Analyzed** Analyses Limit Qual Units **Factor** PΗ SW9045B Analyst: TDW 6/4/2009 03:00 PM 8.82 0.100 pH Units рΗ

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client:

Navajo Refining Company

Project:

NAV-04-009-Lea Refining

Sample ID:

Note:

BH#5 10'

Collection Date: 4/30/2009 02:25 PM

Date: 04-Jun-09

Work Order: 0906079

Lab ID: 0906079-02

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PH Hc	8.94		SW904 0.10	5B 00 pH Units	1	Analyst: TDW 6/4/2009 03:00 PM

Date: 04-Jun-09

Client:

Navajo Refining Company

Project:

NAV-04-009-Lea Refining

Sample ID:

BH#6 5'

Work Order: 0906079

Lab ID: 0906079-03

Matrix: SOIL

Collection Date: 4/30/2009 03:15 PM Report Dilution Analyses Result **Date Analyzed** Limit Qual Units **Factor** РΗ SW9045B Analyst: TDW 6/4/2009 03:00 PM pН 8.81 0.100 pH Units

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Date: 04-Jun-09

Client:

Navajo Refining Company

Project:

NAV-04-009-Lea Refining

Sample ID:

BH#6 10'

Collection Date: 4/30/2009 03:25 PM

Work Order: 0906079

Lab ID: 0906079-04

Matrix: SOIL

Report Dilution Analyses Result Limit Qual **Date Analyzed** Units **Factor** РΗ SW9045B Analyst: TDW 9.66 6/4/2009 03:00 PM рΗ 0.100 pH Units

Date: 04-Jun-09

Client:

Navajo Refining Company

Project:

Note:

NAV-04-009-Lea Refining

Sample ID:

BH#6 15'

Collection Date: 4/30/2009 03:40 PM

Work Order: 0906079

Lab ID: 0906079-05

Matrix: SOIL

Report Dilution Analyses Result Qual Limit **Date Analyzed** Units Factor РΗ SW9045B Analyst: TDW 6/4/2009 03:00 PM рΗ 9.79 0.100 pH Units

See Qualifiers Page for a list of qualifiers and their explanation.

Client:

Navajo Refining Company

Work Order:

0906079

Project:

NAV-04-009-Lea Refining

Date: 04-Jun-09

QC BATCH REPORT

Batch ID: F	R77613	Instrument ID We	tChem		Method	d: SW904	5B						
LCS Sample ID: WLCSW1-060409-R77613						<u> </u>	U	nits: pH l	Units	Analys	is Date: 6/	4/2009 03	:00 PM
Client ID:		,	Run II	D: WETCH	IEM_09060	4A	Se	qNo: 168 0	6501	Prep Date:		DF: 1	
Analyte		F	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
рН			6	0.10	6		0	100	90-110	0			
DUP	Sample ID:	0906079-01adup					U	Inits: pH I	Units	Analys	is Date: 6/	4/2009 03	:00 PM
Client ID:	BH#5 5'		Run II	D: WETCH	IEM_09060	4A	Se	qNo: 168	6515	Prep Date:		DF: 1	
Analyte		F	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
рН			8.81	0.10	0		0	0	0-0	8.82	0.113	20	
The follow	ving samples	were analyzed in th	is batch:		906079-01A 906079-04A			79-02A 79-05A	09	06079-03A			

Client: Navajo Refining Company

Project: NAV-04-009-Lea Refining

WorkOrder: 0906079

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
В	Analyte detected in the associated Method Blank above the Reporting Limit
Е	Value above quantitation range
Н	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
О	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
Acronym	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program
Units Reported	Description
pH Units	

QF Page 1 of 1

0905050-19B

Stored: 10F

SxID: EIH#5 5'

Bottle: 1 of 1

Client: NAVAJO REFINING Collected: 4/30/2009 2:00:00 PM Received: 5/2/2009 8:30:00 AM

300_S, 300_S_PR, 8015M_S, 8015SPR

0905050-20B

Stored: 10F

SxID: BH#5 10'

Bottle: 1 of 1

Client: NAVAJO REFINING

Collected: 4/30/2009 2:25:00 PM Received: 5/2/2009 6:30:00 AM

300_S, 300_S_PR, 8015M_S, 8015SPR

0905050-21B

Stored: 10F

Bottle: 1 of 1

SxID: EH#6 5'

Client: NAVAJO REFINING

Collected: 4/3 1/2009 3:15:00 PM Received: 5/2/2009 8:30:00 AM

300_S, 300_S_PR, 8015M_S, 8015SPR

0905050-22B

Stored: 10F

Bottle: 1 of 1

SxID: BH#6 10'

Client: NAVAJO REFINING Collected: 4/30.2009 3:25:00 PM Received: 5/2/2009 8:30:00 AM

300_S, 300_S_PR, 8015M_S, 8015SPR

0905050-23B

Stored: 10F

Bottle: 1 of 1

SxID: BH#6 15'

Client: NAVAJO REFINING Collected: 4/30/2009 3:40:00 PM Received: 5/2/2009 0:30:00 AM

300_S, 300_S_PR, 8015M_S, 8015SPR

10450 Standliff Rd., Sulle 210 Houslon, Texas 77099 Tel. +1 281 530 5656 Fax, +1 281 530 5887

Chain of Custody Form

Page / of 3

3352 128th Ave. Holfand, MI 49424-9263 Tel: +1 616 399 6070 Fax: +1 616 399 6185

ALS Laboratory Group

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Note: 1. Any changes must be made in writing once samples and COC Form lave been submitted to ALS Labaratory Group. 2. Unless otherwise agreed in a formal confract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.

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Chain of Custody Form

Page 2 of 3

3352 128th Ave. Holland, MI 49424-9263 Tel: +1 816 399 6070 Fex: +1 616 399 6185

ALS Laboratory Group

1	Cuctomer Information	Project Information:	Parameter/Wethod Hequest for Alialysis
**************************************		PARTHURS OF THE TOTAL CARE RETURNED	(A) BTEX (8021)
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Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
2. Unless otherwise agreed in a formal contract, services pravided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.

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Chain of Custody Form

Page 3 of 3

ALS Laboratory Group

3352 128th Ave. Holland, MI 49424-9263 Tel: +1 616 399 6070 Fax: +1 616 399 6185

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	Customer Information		Project Information	Parameter/Method Request for Analysis
France seriond		The Project Names	Lea Refining	(A) BTEX (8021)
Work Order		Project Number	NAV-04-009	(B) GRO (8015M)
Company Names	Navajo Refining Company	HILTO COMPany	Navajo Refining Company	្សំ ភូមិ ពេល (B015M)
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Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
2. Unless otherwise agreed to a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.

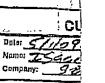
Copyright 2008 by ALS Laboratory Group.

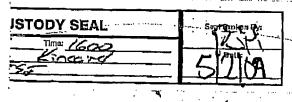
Sample Receipt Checklist

Client Name:	NAVAJO REFINING				Date/Time F	Received;	<u>02-r</u>	Лау-09	<u>08:30</u>			
Work Order:	0905060				Received by	<i>r</i> ;	RDI	<u>1</u>				
Checklist comp	pleted by Roumand 77 Game	644 04-M	lay-09	-	Reviewed by:	aSignalura	.n. 9	This	ult		05-May-0	19
Matrices; Carrier name;	<u>Sall</u> FedEx	•								F		
Shipping conta	iner/cooler in good condition?		Yes	V	No 🗆	Not Pr	esent					
Custody seals	intect on shipping container/coole		Yes	V	No 🗆	Not P	esent		•			
Custody seals	infact on sample bottles?		Yes		No 🗀	Not Pi	esent	\checkmark				
Chain of custo	dy present?		Yes	\checkmark	No 🗀							
Chain of custo	dy signed when relinquished and r	ecelved?	Yes	V	No 🗆							
Chain of custo	dy agrees with sample labels?		Yes		No 🗹	·						
Samples in pro	oper container/boitle?		Yes	V	No 🗆							
Sample contai	ners Intact?	•	Yes	V	No 🗆							
Sufficient sam	ple volume for indicated test?		Yes	V	No 🗀							
All samples re	celved within holding time?	,	Yes	V	No 🗌							
Container/Ten	np Blank temperature in compliand	:e7	Yes	ਂ	No 🗆							
Temperature(s	s)/Thermometer(s):		3,4c				002					
Cooler(s)/Kll(s	s):		2497									
Water - VOA	vials have zero headspace?		Yes	V	No 🗀	No VOA	ilals sub	milled				
Water - pH ac	ceptable upon receipt?		Yes		No 🗀	N/A 🖢						
?belzulbs Hq d belzulbs Hq	у:		Yes		No 🗀	N/A S	2					
Login Notes:	Received sample "BH#5 15"	" not on COC; lage	ed in wi	lh an	alysis.	•						
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ALS Laboratory Group
10450 Stancliff Rd., Sulte 210
Houston, Texas 77098
Tel. +1 281 530 5896
Fax. +1 281 530 5887





ANALYTICAL CHEMISTRY & TESTING SERVICES



Environmental Division

18-May-09

Darrell Moore
Navajo Refining Company
PO Box 159
Artesia, NM 88211

Tel: (575) 746-5281 Fax: (505) 746-5421

Re: NAV-09-004-Lea Refining

Work Order: 0905050

Dear Darrell,

ALS Laboratory Group received 28 samples on 5/2/2009 08:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 51.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Jal ynf Thalt

Electronically approved by: Glenda H. Ramos

JayLynn F Thibault Project Manager



ALS Group USA, Corp.
Part of the ALS Laboratory Group

10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338
Phone: (281) 530-5656 Fax: (281) 530-5887
www.alsglobal.com www.elabi.com
A Campbell Brothers Limited Company

Date: 18-May-09

Client:

Navajo Refining Company

Project: Work Order: NAV-09-004-Lea Refining **0905050**

Work Order Sample Summary

					* * * * * * * * * * * * * * * * * * * *	
Lab Samp ID	Client Sample ID	<u>Matrix</u>	Tag Number	Collection Date	Date Received	<u>Hold</u>
0905050-01	BH#1 5'	Soil		4/29/2009 09:05	5/2/2009 08:30	
0905050-02	BH#1 10'	Soil		4/29/2009 09:25	5/2/2009 08:30	
0905050-03	BH#1 15'	Soil		4/29/2009 09:35	5/2/2009 08:30	
0905050-04	BH#2 5'	Soil		4/30/2009 08:00	5/2/2009 08:30	
0905050-05	BH#2 10'	Soil		4/30/2009 08:10	5/2/2009 08:30	
0905050-06	BH#2 15'	Soil		4/30/2009 08:30	5/2/2009 08:30	
0905050-07	BH#3 5'	Soil		4/30/2009 09:20	5/2/2009 08:30	
0905050-08	BH#3 10'	Soil		4/30/2009 09:35	5/2/2009 08:30	
0905050-09	BH#3 15'	Soil		4/30/2009 09:40	5/2/2009 08:30	
0905050-10	BH#3 20'	Soil		4/30/2009 09:50	5/2/2009 08:30	
0905050-11	BH#3 25'	Soil		4/30/2009 10:05	5/2/2009 08:30	
0905050-12	BH#3 30'	Soil		4/30/2009 10:30	5/2/2009 08:30	
0905050-13	BH#3 35	Soil		4/30/2009 10:55	5/2/2009 08:30	
0905050-14	BH#3 40'	Soil		4/30/2009 11:15	5/2/2009 08:30	
0905050-15	BH#3 45'	Soil		4/30/2009 11:30	5/2/2009 08:30	
0905050-16	BH#4 5'	Soil		4/30/2009 12:50	5/2/2009 08:30	
0905050-17	BH#4 10'	Soil		4/30/2009 13:10	5/2/2009 08:30	
0905050-18	BH#4 15'	Soil		4/30/2009 13:20	5/2/2009 08:30	
0905050-19	BH#5 5'	Soil		4/30/2009 14:00	5/2/2009 08:30	
0905050-20	BH#5 10'	Soil		4/30/2009 14:25	5/2/2009 08:30	
0905050-21	BH#6 5'	Soil		4/30/2009 15:15	5/2/2009 08:30	
0905050-22	BH#6 10'	Soil		4/30/2009 15:25	5/2/2009 08:30	
0905050-23	BH#6 15'	Soil		4/30/2009 15:40	5/2/2009 08:30	
0905050-24	BH#7 5'	Soil		5/1/2009 08:45	5/2/2009 08:30	
0905050-25	BH#7 10'	Soil		5/1/2009 09:00	5/2/2009 08:30	
0905050-26	BH#7 15'	Soil		5/1/2009 09:25	5/2/2009 08:30	
0905050-27	Trip Blank	Water		5/1/2009 09:25	5/2/2009 08:30	
0905050-28	BH#5 15	Soil		4/30/2009 14:27	5/2/2009 08:30	

Date: 18-May-09

Client: Navajo Refining Company

NAV-09-004-Lea Refining Project: **Case Narrative** Work Order: 0905050

BTEX (Samples 0905050-08, 09, 10, 11, 12 and 13) recovery out of control limits for surrogates. confirmed by reanalysis.

Gasoline Range Organics (Sample 0905050-08, 09, 10, 11,) recovery out of control limits for surrogates. Confirmed by reanalysis.

Batch R76430 BTEX (sample 0905020-02) MS unrelated sample.

Batch R76752 GRO (sample 0905050-10) MS/MSD recovery out of control limits due to matrix.

Date: 18-May-09

Client:

Note:

Navajo Refining Company

Project:

NAV-09-004-Lea Refining

Sample ID:

BH#1 5'

Collection Date: 4/29/2009 09:05 AM

Work Order: 0905050

Lab ID: 0905050-01

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW8015I	VI	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	ND		49	mg/Kg	1	5/11/2009 04:46 PM
TPH (Motor Oil Range)	ND		97	mg/Kg	1	5/11/2009 04:46 PM
Surr: 2-Fluorobiphenyl	126		70-130	%REC	1	5/11/2009 04:46 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	ND		0.050	mg/Kg	1	5/6/2009 11:07 AM
Surr: 4-Bromofluorobenzene	120		70-130	%REC	1	5/6/2009 11:07 AM
втех			SW8021	В		Analyst: WLR
Benzene	ND		0.0010	mg/Kg	1	5/4/2009 02:53 PM
Toluene	ND		0.0010	mg/Kg	1	5/4/2009 02:53 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	5/4/2009 02:53 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	5/4/2009 02:53 PM
Surr: 4-Bromofluorobenzene	98.8		75-131	%REC	1	5/4/2009 02:53 PM
Surr: Trifluorotoluene	101		73-130	%REC	1	5/4/2009 02:53 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	9.75		4.99	mg/Kg	1	5/7/2009 07:01 PM
Surr: Selenate (surr)	106		85-115	%REC	1	5/7/2009 07:01 PM

Date: 18-May-09

Client:

Navajo Refining Company

Project:

Note:

NAV-09-004-Lea Refining

Sample ID:

BH#1 10'

Collection Date: 4/29/2009 09:25 AM

Work Order: 0905050

Lab ID: 0905050-02

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW8015N	νī	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	ND		50	mg/Kg	1	5/11/2009 06:24 PM
TPH (Motor Oil Range)	ND		100	mg/Kg	1	5/11/2009 06:24 PM
Surr: 2-Fluorobiphenyl	128		70-130	%REC	1	5/11/2009 06:24 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	ND		0.050	mg/Kg	1	5/6/2009 04:29 PM
Surr: 4-Bromofluorobenzene	119		70-130	%REC	1	5/6/2009 04:29 PM
ВТЕХ			SW8021E	3		Analyst: WLR
Benzene	ND		0.0010	mg/Kg	1	5/4/2009 03:26 PM
Toluene	ND		0.0010	mg/Kg	1	5/4/2009 03:26 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	5/4/2009 03:26 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	5/4/2009 03:26 PM
Surr: 4-Bromofluorobenzene	101		75-131	%REC	1	5/4/2009 03:26 PM
Surr: Trifluorotoluene	101		73-130	%REC	1	5/4/2009 03:26 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	7.63		4.90	mg/Kg	1	5/7/2009 07:24 PM
Surr: Selenate (surr)	105		85-115	%REC	1	5/7/2009 07:24 PM

See Qualifiers Page for a list of qualifiers and their explanation.

Client:

Navajo Refining Company

Project:

NAV-09-004-Lea Refining

Sample ID:

Note:

BH#1 15'

Collection Date: 4/29/2009 09:35 AM

Date: 18-May-09

Work Order: 0905050

Lab ID: 0905050-03

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW8015	М .	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	ND		49	mg/Kg	1	5/11/2009 06:56 PM
TPH (Motor Oil Range)	ND		98	3 mg/Kg	1	5/11/2009 06:56 PM
Surr: 2-Fluorobiphenyl	98.5		70-130	%REC	1	5/11/2009 06:56 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	ND		0.050) mg/Kg	1	5/6/2009 04:05 PM
Surr: 4-Bromofluorobenzene	121		70-130	%REC	1	5/6/2009 04:05 PM
BTEX			SW/8021	В		Analyst: WLR
Benzene	ND		0.0010) mg/Kg	1	5/4/2009 03:59 PM
Toluene	ND		0.0010	mg/Kg	1	5/4/2009 03:59 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	5/4/2009 03:59 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	5/4/2009 03:59 PM
Surr: 4-Bromofluorobenzene	101		75-13 ⁻	1 %REC	1	5/4/2009 03:59 PM
Surr: Trifluorotoluene	100		73-130	0 %REC	1	5/4/2009 03:59 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	17.3		4.97	7 mg/Kg	1	5/7/2009 07:47 PM
Surr: Selenate (surr)	106		85-11	5 %REC	1	5/7/2009 07:47 PM

See Qualifiers Page for a list of qualifiers and their explanation.

Date: 18-May-09

Client:

Navajo Refining Company

Project:

Note:

NAV-09-004-Lea Refining

Sample 1D:

BH#2 5'

Work Order: 0905050

Lab ID: 0905050-04

Collection Date: 4/30/2009 08:00 AM					Matrix: SOIL	
Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW801	5M	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	ND		4	9 mg/Kg	1	5/11/2009 07:29 PM
TPH (Motor Oil Range)	ND		Ş	9 mg/Kg	1	5/11/2009 07:29 PM
Surr: 2-Fluorobiphenyl	117		70-13	80 %REC	1	5/11/2009 07:29 PM
GASOLINE RANGE ORGANICS			SW801	5		Analyst: DKG
Gasoline Range Organics	ND		0.05	0 mg/Kg	1	5/6/2009 06:08 PM
Surr: 4-Bromofluorobenzene	119		70-13	80 %REC	1	5/6/2009 06:08 PM
втех			SW802	1B		Analyst: WLR
Benzene	ND		0.001	0 mg/Kg	1	5/4/2009 04:32 PM
Toluene	ND		0.001	0 mg/Kg	1	5/4/2009 04:32 PM
Ethylbenzene	ND		0.001	0 mg/Kg	1	5/4/2009 04:32 PM
Xylenes, Total	ND		0.003	30 mg/Kg	1	5/4/2009 04:32 PM
Surr: 4-Bromofluorobenzene	101		75-13	31 %REC	1	5/4/2009 04:32 PM
Surr: Trifluorotoluene	101		73-13	30 %REC	1	5/4/2009 04:32 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	5.41		4.9	6 mg/Kg	1	5/7/2009 08:10 PM
Surr: Selenate (surr)	105			15 %REC	1	5/7/2009 08:10 PM

Date: 18-May-09

Client:

Note:

Navajo Refining Company

Project:

NAV-09-004-Lea Refining

Sample ID:

BH#2 10'

Collection Date: 4/30/2009 08:10 AM

Work Order: 0905050

Lab ID: 0905050-05

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID	-		SW8015	M	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	ND		49	mg/Kg	1	5/11/2009 08:01 PM
TPH (Motor Oil Range)	ND		97	mg/Kg	1	5/11/2009 08:01 PM
Surr: 2-Fluorobiphenyl	130		70-130	%REC	1	5/11/2009 08:01 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	ND		0.050	mg/Kg	1	5/6/2009 06:33 PM
Surr: 4-Bromofluorobenzene	120		70-130	%REC	1	5/6/2009 06:33 PM
втех			SW8021	В		Analyst: WLR
Benzene	ND		0.0010	mg/Kg	1	5/4/2009 05:04 PM
Toluene	ND		0.0010	mg/Kg	1	5/4/2009 05:04 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	5/4/2009 05:04 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	5/4/2009 05:04 PM
Surr: 4-Bromofluorobenzene	99.5		75-131	%REC	1	5/4/2009 05:04 PM
Surr: Trifluorotoluene	100		73-130	%REC	1	5/4/2009 05:04 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	5.33		4.99	mg/Kg	1	5/7/2009 08:33 PM
Surr: Selenate (surr)	99.4		85-115	%REC	1	5/7/2009 08:33 PM

Date: 18-May-09

Client:

Navajo Refining Company

Project:

Note:

NAV-09-004-Lea Refining

Sample ID:

BH#2 15'

Collection Date: 4/30/2009 08:30 AM

Work Order: 0905050

Lab ID: 0905050-06

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW8015	5M	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	ND		4!	9 mg/Kg	1	5/11/2009 08:34 PM
TPH (Motor Oil Range)	ND		9:	9 mg/Kg	1	5/11/2009 08:34 PM
Surr: 2-Fluorobiphenyl	127		70-13	0 %REC	1	5/11/2009 08:34 PM
GASOLINE RANGE ORGANICS			SW8015	j		Analyst: DKG
Gasoline Range Organics	ND		0.05	0 mg/Kg	1	5/6/2009 06:58 PM
Surr: 4-Bromofluorobenzene	123		70-13	0 %REC	1	5/6/2009 06:58 PM
втех			SW8021	В		Analyst: WLR
Benzene	ND		0.001	0 mg/Kg	1	5/5/2009 10:08 AM
Toluene	ND		0.001	0 mg/Kg	1	5/5/2009 10:08 AM
Ethylbenzene	ND		0.001	0 mg/Kg	1	5/5/2009 10:08 AM
Xylenes, Total	ND		0.003	0 mg/Kg	1	5/5/2009 10:08 AM
Surr: 4-Bromofluorobenzene	97.3		75-13	1 %REC	1	5/5/2009 10:08 AM
Surr: Trifluorotoluene	100		73-13	0 %REC	1	5/5/2009 10:08 AM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	5.31		4.99	9 mg/Kg	1	5/7/2009 08:56 PM
Surr: Selenate (surr)	106		85-11	5 %REC	1	5/7/2009 08:56 PM

See Qualifiers Page for a list of qualifiers and their explanation.

Client:

Navajo Refining Company

Project:

Note:

NAV-09-004-Lea Refining

Sample ID:

BH#3 5'

Collection Date: 4/30/2009 09:20 AM

Date: 18-May-09

Work Order: 0905050

Lab ID: 0905050-07

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW8015	M	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	370		49	mg/Kg	1	5/11/2009 09:07 PM
TPH (Motor Oil Range)	. ND		97	mg/Kg	1	5/11/2009 09:07 PM
Surr: 2-Fluorobiphenyl	128		70-130	%REC	1	5/11/2009 09:07 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	0.58		0.050	mg/Kg	1	5/6/2009 08:37 PM
Surr: 4-Bromofluorobenzene	124	•	70-130	%REC	. 1	5/6/2009 08:37 PM
ВТЕХ			SW8021	В		Analyst: WLR
Benzene	ND		0.0010	mg/Kg	1	5/4/2009 11:37 PM
Toluene	ND		0.0010	mg/Kg	1	5/4/2009 11:37 PM
Ethylbenzene	0.055		0.0010	mg/Kg	1	5/4/2009 11:37 PM
Xylenes, Total	0.022		0.0030	mg/Kg	1	5/4/2009 11:37 PM
Surr: 4-Bromofluorobenzene	127		75-131	%REC	1	5/4/2009 11:37 PM
Surr: Trifluorotoluene	96.4		73-130	%REC	1	5/4/2009 11:37 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	5.26		4.94	l mg/Kg	1	5/7/2009 09:18 PM
Surr: Selenate (surr)	107		85-115		1	5/7/2009 09:18 PM

Date: 18-May-09

Client:

Navajo Refining Company

Project:

Note:

NAV-09-004-Lea Refining

Sample ID:

BH#3 10'

Collection Date: 4/30/2009 09:35 AM

Work Order: 0905050

Lab ID: 0905050-08

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW8015M		Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	2,500		99	mg/Kg	2	5/12/2009 06:39 PM
TPH (Motor Oil Range)	ND		200	mg/Kg	2	5/12/2009 06:39 PM
Surr: 2-Fluorobiphenyl	74.1		70-130	%REC	2	5/12/2009 06:39 PM
GASOLINE RANGE ORGANICS			SW8015		•	Analyst: DKG
Gasoline Range Organics	28		0.050	mg/Kg	1	5/6/2009 07:23 PM
Surr: 4-Bromofluorobenzene	546	S	70-130	%REC	1	5/6/2009 07:23 PM
втех			SW8021	3		Analyst: WLR
Benzene	0.0048		0.0010	mg/Kg	1	5/5/2009 12:10 AM
Toluene	ND		0.0010	mg/Kg	1	5/5/2009 12:10 AM
Ethylbenzene	3.4		0.12	mg/Kg	125	5/4/2009 03:14 PM
Xylenes, Total	4.1		0.38	mg/Kg	125	5/4/2009 03:14 PM
Surr: 4-Bromofluorobenzene	194	S	75-131	%REC	1	5/5/2009 12:10 AM
Surr: 4-Bromofluorobenzene	122		75-131	%REC	125	5/4/2009 03:14 PM
Surr: Trifluorotoluene	100		73-130	%REC	1	5/5/2009 12:10 AM
Surr: Trifluorotoluene	97.0		73-130	%REC	125	5/4/2009 03:14 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	5.96		4.96	mg/Kg	1	5/7/2009 09:41 PM
Surr: Selenate (surr)	106		85-115	%REC	1	5/7/2009 09:41 PM

Date: 18-May-09

Client:

Navajo Refining Company

Project:

NAV-09-004-Lea Refining

Sample ID:

Note:

BH#3 15'

Collection Date: 4/30/2009 09:40 AM

Work Order: 0905050

Lab ID: 0905050-09

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID	· · · · · · · · · · · · · · · · · · ·		SW8015	M	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	2,200		99	mg/Kg	2	5/12/2009 07:12 PM
TPH (Motor Oil Range)	ND		200	mg/Kg	2	5/12/2009 07:12 PM
Surr: 2-Fluorobiphenyl	73.5		70-130	%REC	2	5/12/2009 07:12 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	20		0.050	mg/Kg	1	5/6/2009 07:47 PM
Surr: 4-Bromofluorobenzene	427	S	70-130	%REC	1	5/6/2009 07:47 PM
втех			SW8021	В		Analyst: WLR
Benzene	0.0015		0.0010	mg/Kg	1	5/4/2009 06:10 PM
Toluene	ND		0.0010	mg/Kg	1	5/4/2009 06:10 PM
Ethylbenzene	1.1		0.12	mg/Kg	125	5/6/2009 02:56 PM
Xylenes, Total	0.60		0.015	mg/Kg	5	5/5/2009 12:52 PM
Surr: 4-Bromofluorobenzene	112		75-131	%REC	125	5/6/2009 02:56 PM
Surr: 4-Bromofluorobenzene	180	S	75-131	%REC	1	5/4/2009 06:10 PM
Surr: 4-Bromofluorobenzene	128		75-131	%REC	5	5/5/2009 12:52 PM
Surr: Trifluorotoluene	97.4		73-130	%REC	5	5/5/2009 12:52 PM
Surr: Trifluorotoluene	94.5		73-130	%REC	125	5/6/2009 02:56 PM
Surr: Trifluorotoluene	101		73-130	%REC	1	5/4/2009 06:10 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	5.55		4.90	mg/Kg	1	5/7/2009 11:13 PM
Surr: Selenate (surr)	109		85-115	%REC	1	5/7/2009 11:13 PM

Date: 18-May-09

Client:

Navajo Refining Company

Project:

Note:

NAV-09-004-Lea Refining

Sample ID:

BH#3 20'

Collection Date: 4/30/2009 09:50 AM

Work Order: 0905050

Lab ID: 0905050-10

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW8015	M	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	4,600		250	mg/Kg	5	5/12/2009 07:44 PM
TPH (Motor Oil Range)	ND		490	mg/Kg	5	5/12/2009 07:44 PM
Surr: 2-Fluorobiphenyl	123		70-130	%REC	5	5/12/2009 07:44 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	26		0.050	mg/Kg	1	5/6/2009 08:12 PM
Surr: 4-Bromofluorobenzene	568	S	70-130	%REC	1	5/6/2009 08:12 PM
BTEX			SW8021	В		Analyst: WLR
Benzene	0.0029		0.0010	mg/Kg	1	5/4/2009 06:43 PM
Toluene	ND		0.0010	mg/Kg	1	5/4/2009 06:43 PM
Ethylbenzene	3.3		0.12	mg/Kg	125	5/6/2009 03:23 PM
Xylenes, Total	0.81		0.015	mg/Kg	5	5/5/2009 01:25 PM
Surr: 4-Bromofluorobenzene	112		75-131	%REC	125	5/6/2009 03:23 PM
Surr: 4-Bromofluorobenzene	75.3		75-131	%REC	1	5/4/2009 06:43 PM
Surr: 4-Bromofluorobenzene	198	S	75-131	%REC	5	5/5/2009 01:25 PM
Surr: Trifluorotoluene	98.5		73-130	%REC	5	5/5/2009 01:25 PM
Surr: Trifluorotoluene	98.5		73-130	%REC	125	5/6/2009 03:23 PM
Surr: Trifluorotoluene	104		73-130	%REC	1	5/4/2009 06:43 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	ND		4.89	mg/Kg	1	5/7/2009 11:36 PM
Surr: Selenate (surr)	107		85-115	%REC	1	5/7/2009 11:36 PM

See Qualifiers Page for a list of qualifiers and their explanation.

and Education, Group

Client: Navajo Refining Company

Project: NAV-09-004-Lea Refining

Sample ID: BH#3 25'

Collection Date: 4/30/2009 10:05 AM

Date: 18-May-09

Work Order: 0905050

Lab ID: 0905050-11

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW8015	M	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	6,100		500	mg/Kg	10	5/14/2009 02:12 PM
TPH (Motor Oil Range)	ND		990	mg/Kg	10	5/14/2009 02:12 PM
Surr: 2-Fluorobiphenyl	89.8		70-130	%REC	10	5/14/2009 02:12 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	19		0.050	mg/Kg	1	5/8/2009 02:52 PM
Surr: 4-Bromofluorobenzene	468	S	70-130	%REC	1	5/8/2009 02:52 PM
втех			SW8021	В		Analyst: WLR
Benzene	0.0023		0.0010	mg/Kg	1	5/4/2009 07:16 PM
Toluene	ND		0.0010	mg/Kg	1	5/4/2009 07:16 PM
Ethylbenzene	3.0		0.12	2 mg/Kg	125	5/6/2009 03:50 PM
Xylenes, Total	0.20		0.0030) mg/Kg	1	5/4/2009 07:16 PM
Surr: 4-Bromofluorobenzene	116		75-13°	1 %REC	1	5/4/2009 07:16 PM
Surr: 4-Bromofluorobenzene	99.4		75-13°	1 %REC	125	5/6/2009 03:50 PM
Surr: Trifluorotoluene	102		73-130	%REC	1	5/4/2009 07:16 PM
Surr: Trifluorotoluene	93.4		73-130	%REC	125	5/6/2009 03:50 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	5.30		4.88	3 mg/Kg	1	5/7/2009 11:59 PM
Surr: Selenate (surr)	110		85-11	5 %REC	1	5/7/2009 11:59 PM

See Qualifiers Page for a list of qualifiers and their explanation.

Note:

Date: 18-May-09

Client:

Navajo Refining Company

Project:

Note:

NAV-09-004-Lea Refining

Sample ID:

BH#3 30'

1142 201

Collection Date: 4/30/2009 10:30 AM

Work Order: 0905050

Lab ID: 0905050-12

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID	-		SW8015	vi	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	820		50	mg/Kg	1	5/11/2009 03:40 PM
TPH (Motor Oil Range)	ND		99	mg/Kg	1	5/11/2009 03:40 PM
Surr: 2-Fluorobiphenyl	106		70-130	%REC	1	5/11/2009 03:40 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	21		0.050	mg/Kg	1	5/8/2009 04:32 PM
Surr: 4-Bromofluorobenzene	504	S	70-130	%REC	1	5/8/2009 04:32 PM
втех			SW8021	В		Analyst: WLR
Benzene	0.0022		0.0010	mg/Kg	1	5/4/2009 07:48 PM
Toluene	ND		0.0010	mg/Kg	1	5/4/2009 07:48 PM
Ethylbenzene	2.0		0.12	mg/Kg	125	5/6/2009 04:17 PM
Xylenes, Total	0.20		0.0030	mg/Kg	1	5/4/2009 07:48 PM
Surr: 4-Bromofluorobenzene	228	S	75-131	%REC	1	5/4/2009 07:48 PM
Surr: 4-Bromofluorobenzene	91.9		75-131	%REC	125	5/6/2009 04:17 PM
Surr: Trifluorotoluene	97.1		73-130	%REC	1	5/4/2009 07:48 PM
Surr: Trifluorotoluene	96.6		73-130	%REC	125	5/6/2009 04:17 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	8.13		4.88	mg/Kg	1	5/8/2009 12:22 AM
Surr: Selenate (surr)	110		85-115	%REC	1	5/8/2009 12:22 AM

Date: 18-May-09

Client:

Navajo Refining Company

Project:

NAV-09-004-Lea Refining

Sample ID:

Note:

BH#3 35

Collection Date: 4/30/2009 10:55 AM

Work Order: 0905050

Lab ID: 0905050-13

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW8015	M	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	1,900		· 49	mg/Kg	1	5/11/2009 04:46 PM
TPH (Motor Oil Range)	ND		98	mg/Kg	1	5/11/2009 04:46 PM
Surr: 2-Fluorobiphenyl	107		70-130	%REC	1	5/11/2009 04:46 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	20		0.050	mg/Kg	1	5/8/2009 05:46 PM
Surr: 4-Bromofluorobenzene	469	S	70-130	%REC	1	5/8/2009 05:46 PM
ВТЕХ			SW8021	В		Analyst: WLR
Benzene	0.0016		0.0010) mg/Kg	1	5/4/2009 09:26 PM
Toluene	ND		0.0010) mg/Kg	1	5/4/2009 09:26 PM
Ethylbenzene	0.40		0.0050	mg/Kg	5	5/5/2009 11:14 PM
Xylenes, Total	0.12		0.0030	mg/Kg	1	5/4/2009 09:26 PM
Surr: 4-Bromofluorobenzene	126		75-13:	1 %REC	5	5/5/2009 11:14 PM
Surr: 4-Bromofluorobenzene	189	S	75-13	1 %REC	1	5/4/2009 09:26 PM
Surr: Trifluorotoluene	97.0		73-130	%REC	5	5/5/2009 11:14 PM
Surr: Trifluorotoluene	97.5		73-130	%REC	1	5/4/2009 09:26 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	6.05		4.96	mg/Kg	1	5/8/2009 12:45 AM
Surr: Selenate (surr)	108.		85-11	5 %REC	1	5/8/2009 12:45 AM

Date: 18-May-09

Client:

Navajo Refining Company

Project:

Note:

NAV-09-004-Lea Refining

Sample ID:

BH#3 405

Collection Date: 4/30/2009 11:15 AM

Work Order: 0905050

Lab ID: 0905050-14

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW8015	VI	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	ND		50	mg/Kg	1	5/11/2009 05:18 PM
TPH (Motor Oil Range)	ND		100	mg/Kg	1	5/11/2009 05:18 PM
Surr: 2-Fluorobiphenyl	85. 4		70-130	%REC	1	5/11/2009 05:18 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	ND		0.050	mg/Kg	1	5/8/2009 06:11 PM
Surr: 4-Bromofluorobenzene	59.9	S	70-130	%REC	1	5/8/2009 06:11 PM
втех			SW8021	В		Analyst: WLR
Benzene	ND		0.0010	mg/Kg	1	5/4/2009 09:59 PM
Toluene	ND		0.0010	mg/Kg	1	5/4/2009 09:59 PM
Ethylbenzene	0.0015		0.0010	mg/Kg	1	5/4/2009 09:59 PM
Xylenes, Total	0.0042		0.0030	mg/Kg	1	5/4/2009 09:59 PM
Surr: 4-Bromofluorobenzene	108		75-131	%REC	1	5/4/2009 09:59 PM
Surr: Trifluorotoluene	101		73-130	%REC	1	5/4/2009 09:59 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	6.71		4.93	mg/Kg	1	5/8/2009 01:07 AM
Surr: Selenate (surr)	106		85-115	%REC	1	5/8/2009 01:07 AM

See Qualifiers Page for a list of qualifiers and their explanation.

Date: 18-May-09

Client:

Navajo Refining Company

Project:

NAV-09-004-Lea Refining

Sample ID:

Note:

BH#3 45'

Collection Date: 4/30/2009 11:30 AM

Work Order: 0905050

Lab ID: 0905050-15

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID		`	SW8015	м	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	ND		49	mg/Kg	1	5/11/2009 05:51 PM
TPH (Motor Oil Range)	ND		98	mg/Kg	1	5/11/2009 05:51 PM
Surr: 2-Fluorobiphenyl	102	-	70-130	%REC	1	5/11/2009 05:51 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	. ND		0.050	mg/Kg	1	5/8/2009 06:35 PM
Surr: 4-Bromofluorobenzene	88.1		70-130	%REC	1	5/8/2009 06:35 PM
зтех			SW8021	В		Analyst: WLR
Benzene	ND		0.0010	mg/Kg	1	5/4/2009 10:32 PM
Toluene	ND		0.0010	mg/Kģ	1	5/4/2009 10:32 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	5/4/2009 10:32 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	5/4/2009 10:32 PM
Surr: 4-Bromofluorobenzene	102		75-131	%REC	1	5/4/2009 10:32 PM
Surr: Trifluorotoluene	99.4		73-130	%REC	1	5/4/2009 10:32 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	8.21		4.96	mg/Kg	1	5/8/2009 01:30 AM
Surr: Selenate (surr)	106		85-115	%REC	.1	5/8/2009 01:30 AM

Date: 18-May-09

Client:

Navajo Refining Company

Project:

NAV-09-004-Lea Refining

Sample ID:

Collection Date: 4/30/2009 12:50 PM

BH#4 5'

Work Order: 0905050

Lab ID: 0905050-16

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW8015	VI	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	ND		49	mg/Kg	1	5/11/2009 06:24 PM
TPH (Motor Oil Range)	ND		98	mg/Kg	1	5/11/2009 06:24 PM
Surr: 2-Fluorobiphenyl	93.1		70-130	%REC	1	5/11/2009 06:24 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	ND		0.050	mg/Kg	1	5/8/2009 03:17 PM
Surr: 4-Bromofluorobenzene	84.2		70-130	%REC	1	5/8/2009 03:17 PM
ВТЕХ			SW8021	3		Analyst: WLR
Benzene	ND		0.0010	mg/Kg	1	5/5/2009 03:03 PM
Toluene	0.0011		0.0010	mg/Kg	1	5/5/2009 03:03 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	5/5/2009 03:03 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	5/5/2009 03:03 PM
Surr: 4-Bromofluorobenzene	101		75-131	%REC	1	5/5/2009 03:03 PM
Surr: Trifluorotoluene	99.8		73-130	%REC	1	5/5/2009 03:03 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	6.18		4.93	mg/Kg	1	5/8/2009 04:16 PM
Surr: Selenate (surr)	105		85-115	%REC	1	5/8/2009 04:16 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Date: 18-May-09

Client:

Navajo Refining Company

Project:

NAV-09-004-Lea Refining

Sample ID:

Note:

BH#4 10'

Collection Date: 4/30/2009 01:10 PM

Work Order: 0905050

Lab ID: 0905050-17

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW8015I	М	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	ND		50	mg/Kg	1	5/11/2009 06:56 PM
TPH (Motor Oil Range)	ND		99	mg/Kg	1	5/11/2009 06:56 PM
Surr: 2-Fluorobiphenyl	100		70-130	%REC	1	5/11/2009 06:56 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	ND		0.050	mg/Kg	1	5/8/2009 07:00 PM
Surr: 4-Bromofluorobenzene	85.5		70-130	%REC	1	5/8/2009 07:00 PM
ВТЕХ			SW8021	В		Analyst: WLR
Benzene	ND		0.0010	mg/Kg	1	5/5/2009 03:36 PM
Toluene	ND		0.0010	mg/Kg	1	5/5/2009 03:36 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	5/5/2009 03:36 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	5/5/2009 03:36 PM
Surr: 4-Bromofluorobenzene	98.6		75-131	%REC	1	5/5/2009 03:36 PM
Surr: Trifluorotaluene	99.4		73-130	%REC	1	5/5/2009 03:36 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	5.01		4.94	mg/Kg	1	5/8/2009 05:24 PM
Surr: Selenate (surr)	103		85-115	%REC	1	5/8/2009 05:24 PM

See Qualifiers Page for a list of qualifiers and their explanation.

Date: 18-May-09

Client:

Navajo Refining Company

Project:

NAV-09-004-Lea Refining

Sample ID:

Note:

Collection Date: 4/30/2009 01:20 PM

Work Order: 0905050

Lab ID: 0905050-18

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID	- -		SW8015	M	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	ND		49	mg/Kg	1	5/11/2009 07:29 PM
TPH (Motor Oil Range)	ND		97	mg/Kg	1	5/11/2009 07:29 PM
Surr: 2-Fluorobiphenyl	91.7		70-130	%REC	1	5/11/2009 07:29 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	ND		0.050) mg/Kg	1	5/8/2009 07:25 PM
Surr: 4-Bromofluorobenzene	90.2		70-130	%REC	1	5/8/2009 07:25 PM
BTEX			SW8021	В		Analyst: WLR
Benzene	ND		0.0010	mg/Kg	1	5/5/2009 04:08 PM
Toluene	ND		0.0010	mg/Kg	1	5/5/2009 04:08 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	5/5/2009 04:08 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	5/5/2009 04:08 PM
Surr: 4-Bromofluorobenzene	97.7		75-13 ⁻	1 %REC	1	5/5/2009 04:08 PM
Surr: Trifluorotoluene	99.2		73-13	%REC	1	5/5/2009 04:08 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	5.18		4.96	mg/Kg	1	5/8/2009 05:47 PM
Surr: Selenate (surr)	104		85-11	5 %REC	1	5/8/2009 05:47 PM

Date: 18-May-09

Client:

Note:

Navajo Refining Company

Project:

Sample ID:

BH#5 5'

Collection Date: 4/30/2009 02:00 PM

NAV-09-004-Lea Refining

Work Order: 0905050

Lab ID: 0905050-19

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID		.	SW8015I	М	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	ND		49	mg/Kg	1	5/11/2009 08:01 PM
TPH (Motor Oil Range)	ND		99	mg/Kg	1	5/11/2009 08:01 PM
Surr: 2-Fluorobiphenyl	82.7		70-130	%REC	1	5/11/2009 08:01 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	ND		0.050	mg/Kg	1	5/8/2009 07:50 PM
Surr: 4-Bromofluorobenzene	86.3		70-130	%REC	1	5/8/2009 07:50 PM
BTEX			SW8021	В		Analyst: WLR
Benzene .	ND		0.0010	mg/Kg	1	5/5/2009 04:41 PM
Toluene	ND		0.0010	mg/Kg	1	5/5/2009 04:41 PM
Ethylbenzen <i>e</i>	ND		0.0010	mg/Kg	1	5/5/2009 04:41 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	5/5/2009 04:41 PM
Surr: 4-Bromofluorobenzene	100		75-131	%REC	1	5/5/2009 04:41 PM
Surr: Trifluorotoluene	98.9		73-130	%REC	. 1	5/5/2009 04:41 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	7.79		4.99	mg/Kg	1	5/8/2009 06:10 PM
Surr: Selenate (surr)	108		85-115	%REC	1	5/8/2009 06:10 PM

Date: 18-May-09

Client:

Navajo Refining Company

Project:

NAV-09-004-Lea Refining

Sample ID:

Note:

BH#5 10'

Collection Date: 4/30/2009 02:25 PM

Work Order: 0905050

Lab ID: 0905050-20

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW8015	М	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	ND		49	mg/Kg	1	5/11/2009 08:34 PM
TPH (Motor Oil Range)	ND		99	mg/Kg	1	5/11/2009 08:34 PM
Surr: 2-Fluorobiphenyl	97.6		70-130	%REC	1	5/11/2009 08:34 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	ND		0.050	mg/Kg	1	5/8/2009 08:14 PM
Surr: 4-Bromofluorobenzene	86.7		70-130	%REC	1	5/8/2009 08:14 PM
втех			SW8021	В		Analyst: WLR
Benzene	ND		0.0010) mg/Kg	1	5/5/2009 05:14 PM
Toluene	ND		0.0010) mg/Kg	1	5/5/2009 05:14 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	5/5/2009 05:14 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	5/5/2009 05:14 PM
Surr: 4-Bromofluorobenzene	99.2		75-131	1 %REC	1	5/5/2009 05:14 PM
Surr: Trifluorotoluene	99.9		73-130	%REC	1	5/5/2009 05:14 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	11.6		4.98	mg/Kg	1	5/8/2009 06:33 PM
Surr: Selenate (surr)	108		85-115	5 %REC	1	5/8/2009 06:33 PM

See Qualifiers Page for a list of qualifiers and their explanation.

Date: 18-May-09

Client:

Navajo Refining Company

Project:

NAV-09-004-Lea Refining

Sample ID:

Note:

BH#6 5'

Collection Date: 4/30/2009 03:15 PM

Work Order: 0905050

Lab ID: 0905050-21

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW8015	M	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	ND		49	mg/Kg	1	5/7/2009 02:33 PM
TPH (Motor Oil Range)	ND		99	mg/Kg	1	5/7/2009 02:33 PM
Surr: 2-Fluorobiphenyl	88.4		70-130	%REC	1	5/7/2009 02:33 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	ND		0.050) mg/Kg	1	5/8/2009 08:39 PM
Surr: 4-Bromofluorobenzene	87.0		70-130	%REC	1	5/8/2009 08:39 PM
втех			SW8021	В		Analyst: WLR
Benzene	ND		0.0010	mg/Kg	1	5/5/2009 05:47 PM
Toluene	ND		0.0010	mg/Kg	1 .	5/5/2009 05:47 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	5/5/2009 05:47 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	5/5/2009 05:47 PM
Surr: 4-Bromofluorobenzene	97.1		75-13°	1 %REC	1	5/5/2009 05:47 PM
Surr: Trifluorotoluene	97.8	•	73-130	%REC	1	5/5/2009 05:47 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	12.3		4.90	mg/Kg	1	5/8/2009 06:56 PM
Surr: Selenate (surr)	105		85-11	5 %REC	1	5/8/2009 06:56 PM

Date: 18-May-09

Client:

Navajo Refining Company

Project:

Note:

NAV-09-004-Lea Refining

Sample ID:

BH#6 10'

Collection Date: 4/30/2009 03:25 PM

Work Order: 0905050

Matrix: SOIL

Lab ID: 0905050-22

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW8015	М	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	ND		50	mg/Kg	1	5/11/2009 09:40 PM
TPH (Motor Oil Range)	ND		100	mg/Kg	1	5/11/2009 09:40 PM
Surr: 2-Fluorobiphenyl	99.0		70-130	%REC	1	5/11/2009 09:40 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	ND		0.050	mg/Kg	1	5/8/2009 09:04 PM
Surr: 4-Bromofluorobenzene	87.3		70-130	%REC	1	5/8/2009 09:04 PM
BTEX			SW8021	В		Analyst: WLR
Benzene	ND		0.0010	mg/Kg	1	5/5/2009 06:20 PM
Toluene	ND		0.0010	mg/Kg	1	5/5/2009 06:20 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	5/5/2009 06:20 PM
Methyl tert-butyl ether	ND		0.0050	mg/Kg	1	5/5/2009 06:20 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	5/5/2009 06:20 PM
Surr: 4-Bromofluorobenzene	99.8		75-131	%REC	1	5/5/2009 06:20 PM
Surr: Trifluorotoluene	99.8		73-130	%REC	1	5/5/2009 06:20 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	12.1		4.97	mg/Kg	1	5/8/2009 08:27 PM
Surr: Selenate (surr)	107		85-115	%REC	1	5/8/2009 08:27 PM

Client: Navajo

Navajo Refining Company

Project:

NAV-09-004-Lea Refining

Sample ID:

Note:

BH#6 15'

Collection Date: 4/30/2009 03:40 PM

Date: 18-May-09

Work Order: 0905050

Lab ID: 0905050-23

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW8015	м	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	ND		49	mg/Kg	1	5/11/2009 09:07 PM
TPH (Motor Oil Range)	ND		97	mg/Kg	1	5/11/2009 09:07 PM
Surr: 2-Fluorobiphenyl	70.5		70-130	%REC	1	5/11/2009 09:07 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	ND		0.050	mg/Kg	1	5/8/2009 10:18 PM
Surr: 4-Bromofluorobenzene	85.0		70-130	%REC	1	5/8/2009 10:18 PM
втех			SW8021	В		Analyst: WLR
Benzene	ND		0.0010) mg/Kg	1	5/5/2009 06:53 PM
Toluene	ND		0.0010) mg/Kg	1	5/5/2009 06:53 PM
Ethylbenzene	ND		0.0010) mg/Kg	1	5/5/2009 06:53 PM
Methyl tert-butyl ether	ND		0.0050	mg/Kg	1	5/5/2009 06:53 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	5/5/2009 06:53 PM
Surr: 4-Bromofluorobenzene	97.3		75-13 ⁻	1 %REC	. 1	5/5/2009 06:53 PM
Surr: Trifluorotoluene	98.5		73-130	%REC	1	5/5/2009 06:53 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	6.80		4.92	2 mg/Kg	1	5/8/2009 08:50 PM
Surr: Selenate (surr)	. 106		85-11:	5 %REC	1	5/8/2009 08:50 PM

Date: 18-May-09

Client:

Navajo Refining Company

Project:

NAV-09-004-Lea Refining

Sample ID:

Note:

BH#7 5'

Collection Date: 5/1/2009 08:45 AM

Work Order: 0905050 Lab ID: 0905050-24

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID	,		SW8015	M	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	ND		49	mg/Kg	1	5/14/2009 01:40 PM
TPH (Motor Oil Range)	ND		98	mg/Kg	1	5/14/2009 01:40 PM
Surr: 2-Fluorobiphenyl	73.0		70-130	%REC	1	5/14/2009 01:40 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	ND		0.050	mg/Kg	1	5/8/2009 10:43 PM
Surr: 4-Bromofluorobenzene	83.9		70-130	%REC	1	5/8/2009 10:43 PM
втех			SW8021	В		Analyst: WLR
Benzene	ND		0.0010	mg/Kg	1	5/5/2009 07:25 PM
Toluene	0.0015		0.0010	mg/Kg	1	5/5/2009 07:25 PM
Ethylbenzene	0.0021		0.0010	mg/Kg	1	5/5/2009 07:25 PM
Methyl tert-butyl ether	ND		0.0050	mg/Kg	1	5/5/2009 07:25 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	5/5/2009 07:25 PM
Surr: 4-Bromofluorobenzene	92.4		75-131	%REC	1	5/5/2009 07:25 PM
Surr: Trifluorotoluene	97.8		73-130	%REC	1	5/5/2009 07:25 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	5.76		4.90	mg/Kg	1	5/8/2009 09:13 PM
Surr: Selenate (surr)	106		85-115	%REC	1	5/8/2009 09:13 PM

See Qualifiers Page for a list of qualifiers and their explanation.

Date: 18-May-09

Client:

Navajo Refining Company

Project:

NAV-09-004-Lea Refining

Sample ID:

Note:

BH#7 10'

D11#7 10!

Collection Date: 5/1/2009 09:00 AM

Work Order: 0905050

Lab ID: 0905050-25

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW8015	M	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	ND		50	mg/Kg	1	5/11/2009 11:18 PM
TPH (Motor Oil Range)	ND		100	mg/Kg	1	5/11/2009 11:18 PM
Surr: 2-Fluorobiphenyl	80.4		70-130	%REC	1	5/11/2009 11:18 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	ND		0.050	mg/Kg	1	5/14/2009 11:42 AM
Surr: 4-Bromofluorobenzene	89.7		70-13	%REC	1	5/14/2009 11:42 AM
ВТЕХ			SW8021	В		Analyst: WLR
Benzene	ND		0.001	mg/Kg	1	5/5/2009 07:58 PM
Toluene	ND		0.0010) mg/Kg	1	5/5/2009 07:58 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	5/5/2009 07:58 PM
Methyl tert-butyl ether	ND		0.005	mg/Kg	1	5/5/2009 07:58 PM
Xylenes, Total	ND		0.003	mg/Kg	1	5/5/2009 07:58 PM
Surr: 4-Bromofluorobenzene	99.0		75-13	1 %REC	1	5/5/2009 07:58 PM
Surr: Trifluorotoluene	99.0		73-13	0 %REC	1	5/5/2009 07:58 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	21.7		4.8	9 mg/Kg	1	5/12/2009 02:39 AM
Surr: Selenate (surr)	97.9		85-11	5 %REC	1	5/12/2009 02:39 AM

Date: 18-May-09

Client:

Navajo Refining Company

Project:

Note:

NAV-09-004-Lea Refining

Sample ID:

BH#7 15'

Collection Date: 5/1/2009 09:25 AM

Work Order: 0905050

Lab ID: 0905050-26

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID		-	SW8015	М	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	ND		49	mg/Kg	1	5/11/2009 10:45 PM
TPH (Motor Oil Range)	ND		98	3 mg/Kg	1	5/11/2009 10:45 PM
Surr: 2-Fluorobiphenyl	70.6		70-130	%REC	1	5/11/2009 10:45 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	ND		0.050) mg/Kg	1	5/8/2009 11:32 PM
Surr: 4-Bromofluorobenzene	86.6		70-130	%REC	1	5/8/2009 11:32 PM
втех			SW8021	В		Analyst: WLR
Benzene	ND		0.0010) mg/Kg	1	5/5/2009 09:36 PM
Toluene	ND		0.0010) mg/Kg	1	5/5/2009 09:36 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	5/5/2009 09:36 PM
Methyl tert-butyl ether	ND		0.0050	mg/Kg	1	5/5/2009 09:36 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	5/5/2009 09:36 PM
Surr: 4-Bromofluorobenzene	96.8		75-131	1 %REC	1	5/5/2009 09:36 PM
Surr: Trifluorotoluene	98.7		73-130	%REC	1	5/5/2009 09:36 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	15.3		4.97	mg/Kg	1	5/12/2009 03:02 AM
Surr: Selenate (surr)	98.4		85-118		1	5/12/2009 03:02 AM

See Qualifiers Page for a list of qualifiers and their explanation.

Date: 18-May-09

Client:

Note:

Navajo Refining Company

Project:

NAV-09-004-Lea Refining

BH#5 15

Sample ID: Collection Date: 4/30/2009 02:27 PM Work Order: 0905050

Lab ID: 0905050-28

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TPH AND MISCELLANEOUS GCFID			SW8015	V	Prep Date: 5/5/2009	Analyst: KMB
TPH (Diesel Range)	ND		50	mg/Kg	1	5/11/2009 10:12 PM
TPH (Motor Oil Range)	ND		99	mg/Kg	1	5/11/2009 10:12 PM
Surr: 2-Fluorobiphenyl	79.6		70-130	%REC	1	5/11/2009 10:12 PM
GASOLINE RANGE ORGANICS			SW8015			Analyst: DKG
Gasoline Range Organics	ND		0.050	mg/Kg	1	5/14/2009 11:17 AM
Surr: 4-Bromofluorobenzene	89.9		70-130	%REC	1	5/14/2009 11:17 AM
ВТЕХ			SW8021	3		Analyst: WLR
Benzene	ND		0.0010	mg/Kg	1	5/5/2009 10:09 PM
Toluene	ND		0.0010	mg/Kg	1	5/5/2009 10:09 PM
Ethylbenzene	ND		0.0010	mg/Kg	1	5/5/2009 10:09 PM
Xylenes, Total	ND		0.0030	mg/Kg	1	5/5/2009 10:09 PM
Surr: 4-Bromofluorobenzene	98.3		75-131	%REC	1	5/5/2009 10:09 PM
Surr: Trifluorotoluene	99.3		73-130	%REC	1	5/5/2009 10:09 PM
ANIONS			E300		Prep Date: 5/6/2009	Analyst: IGF
Chloride	6.51		4.92	mg/Kg	1	5/12/2009 03:25 AM
Surr: Selenate (surr)	99.2		85-115	%REC	. 1	5/12/2009 03:25 AM

See Qualifiers Page for a list of qualifiers and their explanation.

Client:

Navajo Refining Company

Work Order:

0905050

Project:

NAV-09-004-Lea Refining

QC BATCH REPORT

Date: 18-May-09

Batch ID: 35866	Instrument ID FID-8		Metho	d: SW801	5M						
MBLK Sample ID:	FBLKS1-090505-35866				Ĺ	Jnits: mg /l	Kg	Analysi	s Date: 5 /*	1/2009 0	3:07 PM
Client ID:	Rur	n ID: FID-8_ 0	90505A		Se	qNo: 166 9	789	Prep Date: 5/5/2	2009	DF: 1	
				SPK Ref Value			Control Limit	RPD Ref Value		RPD Limit	01
Analyte	Result	PQL	SPK Val			%REC	Littil		%RPD		Qual
TPH (Diesel Range)	ND	50									
TPH (Motor Oil Range) Surr: 2-Fluorobiphenyl	ND 29.94	50	25		0	120	70-130	0			
			· ·		_				a Mata: Ell	14/2000 0	2.40 DM
LCS Sample ID: Client ID:	FLCSS1-090505-35866	n ID: FID-8_(ngnsnsa			Jnits: mg/ i qNo: 166 9	•	Prep Date: 5/5/2	s Date: 5/° 2009	DF: 1	3:40 PW
Cheff ID.	T Cui	1110. 11 0-0_ (790303A	0DV D 1	00	q(10 0. 100 3		,	2003	RPD	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	Limit	Qual
TPH (Diesel Range)	310	50	250		0	124	70-130	0			
TPH (Motor Oil Range)	191.6	50	250		0	76.6	70-130	0			
Surr: 2-Fluorobiphenyl	30.59	0	25		0	122	70-130	0			_
LCSD Sample ID:	FLCSDS1-090505-35866				ι	Jnits: mg/	Kg	Analysi	s Date: 5 /	11/2009 0	4:13 PM
Client ID:	Rui	n ID: FID-8_ 0	090505A		Se	qNo: 166 9	9791	Prep Date: 5/5/2	2009	DF: 1	
				SPK Ref Value			Control Limit	RPD Ref Value		RPD Limit	
Analyte	Result	PQL	SPK Val	value		%REC	Limit	value	%RPD		Qual
TPH (Diesel Range)	287.8	50	250		0	115	70-130		7.42	30	
TPH (Motor Oil Range)	200.2	50	250	· · · · · ·	0	80.1	70-130		4.4	30	
Surr: 2-Fluorobiphenyl	31.87	0	25		-	127	70-130	30.59	4.12	30	
MS Sample ID:	0905050-01BMS				Ĺ	Jnits: mg/	Kg	Analysi	is Date: 5/	11/2009 0	5:18 PM
Client ID: BH#1 5'	Rui	n ID: FID-8_ (090505A		Se	eqNo: 166 9	9793	Prep Date: 5/5/2	2009	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH (Diesel Range)	292.5	49	242.7	1.03	38	120	70-130	0			
TPH (Motor Oil Range)	246.5	49	242.7		0	102	70-130	0		_	
Surr: 2-Fluorobiphenyl	31.48	0	24.27		0	130	70-130	0			
MSD Sample ID:	0905050-01BMSD			"	Į	Jnits: mg /	Kg	Analysi	is Date: 5 /	11/2009 0	5:51 PM
Client ID: BH#1 5'	Ru	n ID: FID-8_ 0	090505A		Se	eqNo: 166 !	9794	Prep Date: 5/5/2	2009	DF: 1	
	5	DO!	ODK V-I	SPK Ref Value		N DE 0	Control Limit	RPD Ref Value	a/ DDD	RPD Limit	01
Analyte	Result	PQL	SPK Val			%REC			%RPD		Qual
TPH (Diesel Range)	293	49	243.7	1.03		120	70-130		0.167	30	
TPH (Motor Oil Range) Surr: 2-Fluorobiphenyl	254.3 31.48	49	243.7 24.37		0	104 129	70-130 70-130		3.12 0.00509	30 30	
Зап. 2-і паоговірненуї	31.40	U	24.57		J	123	70-130	31.40	0,00009	30	

Navajo Refining Company

Work Order:

0905050

Project:

NAV-09-004-Lea Refining

Batch (D: 35866	Instrument ID FID-8	Method:	SW8015M	·	
The following sample	es were analyzed in this batch:	0905050-01B	0905050-02B	0905050-03B	
		0905050-04B	0905050-05B	0905050-06B	
		0905050-07B	0905050-08B	0905050-09B	
		0905050-10B	0905050-11B	0905050-12B	
		0905050-13B	0905050-14B	0905050-15B	
		0905050-16B	0905050-17B	0905050-18B	
		0905050-19B	0905050-20B		

Navajo Refining Company

Work Order:

0905050

Project:

NAV-09-004-Lea Refining

Batch ID: 35867 Instrument ID FID-7 Method: SW8015M Analysis Date: 5/7/2009 11:15 AM **MBLK** Sample ID: FBLKS2-090505-35867 Units: mg/Kg Client ID: Run ID: FID-7_090505A SeqNo: 1664705 Prep Date: 5/5/2009 DF: 1 SPK Ref Control RPD Ref **RPD** Value Limit Value Limit %RPD SPK Val %REC Qual Result PQL Analyte ND 50 TPH (Diesel Range) TPH (Motor Oil Range) ND 50 0 Surr: 2-Fluorobiphenyl 28.12 0 25 0 112 70-130 Sample ID: FLCSS2-090505-35867 Analysis Date: 5/7/2009 01:27 PM LCS Units: mg/Kg Client ID: Run ID: FID-7_090505A SeqNo: 1664944 Prep Date: 5/5/2009 DF: 1 RPD Ref RPD SPK Ref Control Value Limit Value Limit Qual Analyte Result **PQL** SPK Val %REC %RPD TPH (Diesel Range) 237.5 0 0 50 250 95 70-130 50 250 0 304.9 0 70-130 TPH (Motor Oil Range) 122 Surr: 2-Fluorobiphenyl 28.33 0 25 0 113 70-130 0 LCSD Sample ID: FLCSDS2-090505-35867 Units: mg/Kg Analysis Date: 5/7/2009 01:59 PM Client ID: Run ID: FID-7 090505A SeqNo: 1664945 Prep Date: 5/5/2009 DF: 1 RPD SPK Ref RPD Ref Control Value Limit Limit Value Qual PQL SPK Val %REC %RPD Result Analyte 50 250 TPH (Diesel Range) 230 0 92 70-130 237.5 3.21 30 50 250 0 TPH (Motor Oil Range) 298.7 119 70-130 304.9 2.05 30 0 25 0 Surr: 2-Fluorobiphenyl 29.44 118 70-130 28.33 3.86 30 MS Sample ID: 0905050-21BMS Units: mg/Kg Analysis Date: 5/7/2009 03:05 PM Run ID: FID-7_090505A Client ID: BH#6 5' SeqNo: 1664949 Prep Date: 5/5/2009 DF: 1 RPD SPK Ref RPD Ref Control Value Limit Value Limit %RPD Qual Analyte Result **PQL** SPK Val %REC TPH (Diesel Range) 200.8 49 0.05187 0 246.1 81.6 70-130 TPH (Motor Oil Range) 284 49 246.1 1.956 115 70-130 0 0 Surr: 2-Fluorobiphenyl 19.49 24.61 79.2 70-130 0 MSD Sample ID: 0905050-21BMSD Units: mg/Kg Analysis Date: 5/7/2009 03:38 PM Client ID: BH#6 5' Run ID: FID-7 090505A SeqNo: 1664951 Prep Date: 5/5/2009 DF: 1 RPD SPK Ref RPD Ref Control Value Limit Value Limit Analyte Result **PQL** SPK Val %REC %RPD Qual 206.9 0.05187 TPH (Diesel Range) 49 246.3 84 70-130 200.8 3.03 30 266.5 49 1.956 30 TPH (Motor Oil Range) 246.3 107 70-130 284 6.35 Surr: 2-Fluorobiphenyl 25.1 24.63 0 102 70-130 19.49 25.2 30 0905050-21B 0905050-22B The following samples were analyzed in this batch: 0905050-23B 0905050-24B 0905050-25B 0905050-26B 0905050-28B

Navajo Refining Company

Work Order:

0905050

Project:

NAV-09-004-Lea Refining

Batch ID: R76430 Instrument ID BTEX3 Method: SW8021B Sample ID: BBLKS1-050409-R76430 Analysis Date: 5/4/2009 10:17 AM **MBLK** Units: µg/Kg Client ID: Run ID: BTEX3 090504A SeqNo: 1661826 Prep Date: DF: 1 RPD SPK Ref RPD Ref Control Limit Value Limit Value Result PQL SPK Val %REC %RPD Qual Analyte ND 1.0 Benzene ND Toluene 1.0 ND 1.0 Ethylbenzene Xylenes, Total ND 3.0 1.0 30.37 30 0 0 Surr: 4-Bromofluorobenzene 101 75-131 30.78 1.0 30 0 0 Surr: Trifluorotoluene 103 73-130 Units: µg/Kg LCS Sample ID: BLCSS1-050409-R76430 Analysis Date: 5/4/2009 09:12 AM Prep Date: Client ID: Run ID: BTEX3 090504A SeqNo: 1661825 DF: 1 RPD SPK Ref Control RPD Ref Limit Value SPK Val Limit Value Result PQL %REC %RPD Qual Analyte 21.84 1.0 20 0 109 74-129 0 Benzene Toluene 20.96 1.0 20 0 105 75-128 0 20.62 1.0 20 0 103 73-127 0 Ethylbenzene 62.57 3.0 60 0 Xylenes, Total 0 104 74-127 30 75-131 0 Surr: 4-Bromofluorobenzene 32.88 1.0 0 110 Surr: Trifluorotoluene 31.56 1.0 30 0 105 0 73-130 MS Sample ID: 0905020-02AMS Units: µg/Kg Analysis Date: 5/4/2009 01:48 PM Client ID: Run ID: BTEX3_090504A SeqNo: 1661832 Prep Date: DF: 1 SPK Ref RPD Ref RPD Control Limit Value Limit Value PQL SPK Val %REC %RPD Qual Result Analyte 15.61 1.0 20 0 78.1 74-129 0 Benzene 14.94 20 75-128 S Toluene 1.0 74.7 0 Ethylbenzene 15.03 1.0 20 0.9792 70.2 73-127 0 s 44.66 3.0 60 3.175 0 S Xylenes, Total 69.1 74-127 30 Surr: 4-Bromofluorobenzene 27.45 1.0 0 91.5 75-131 0 27.62 1.0 30 Surr: Trifluorotoluene 0 92.1 73-130 0 Analysis Date: 5/4/2009 12:43 PM MSD Sample ID: 0905020-02AMSD Units: µg/Kg SeqNo: 1661830 Client ID: Run ID: BTEX3_090504A Prep Date: DF: 1 SPK Ref RPD Control RPD Ref Value Value Limit SPK Val %REC Limit %RPD Qual Result **PQL** Analyte Benzene 18.41 1.0 20 0 92.1 74-129 15.61 16.5 30 17.59 1.0 20 0 88 75-128 14.94 16.3 30 Toluene 20 1.0 0.9792 17 30 17.82 84.2 73-127 15.03 Ethylbenzene 52.89 3.0 60 3.175 82.9 74-127 44.66 16.9 30 Xylenes, Total 1.0 30 75-131 27.45 30 Surr: 4-Bromofluorobenzene 28.2 0 94 2.73 Surr: Trifluorotoluene 28.87 1.0 30 0 96.2 73-130 27.62 4.42 30

Navajo Refining Company

Work Order:

0905050

Project:

NAV-09-004-Lea Refining

Batch ID: R76430	Instrument ID BTEX3	Method:	SW8021B	
The following sample:	s were analyzed in this batch:	0905050-01A	0905050-02A	0905050-03A
•	-	0905050-04A	0905050-05A	0905050-07A
		0905050-08A	0905050-09A	0905050-10A
		0905050-11A	0905050-12A	0905050-13A
		0905050-14A	0905050-15A	

Navajo Refining Company

Work Order:

0905050

NAV-09-004-Lea Refining Project: Batch ID: R76451 Instrument ID BTEX1 Method: SW8021B MBLK Sample ID: MEOHW1-050409-R76451 Units: µg/L Analysis Date: 5/4/2009 08:20 AM Client ID: Run ID: BTEX1_090504A SeqNo. 1662154 Prep Date: DF: 1 RPD SPK Ref RPD Ref Control Value Limit Limit Value Analyte Result **PQL** SPK Val %REC %RPD Qual ND Ethylbenzene 1.0 ND 3.0 Xyleries, Total Surr: 4-Bromofluorobenzene 30.65 1.0 30 0 102 77-129 0 30 0 0 Surr: Trifluorotoluene 32.33 1.0 108 75-130 Sample ID: BBLKW1-050409-R76451 Analysis Date: 5/4/2009 08:50 AM **MBLK** Units: µg/L Run ID: BTEX1_090504A Client ID: DF: 1 SeqNo: 1662155 Prep Date: RPD SPK Ref RPD Ref Control Limit Value Limit Value Result **PQL** SPK Val %RPD Qual Analyte %REC Ethylbenzene ND 1.0 Xylenes, Total ND 3.0 Surr: 4-Bromofluorobenzene 28.94 1.0 30 0 96.5 77-129 0 1.0 30 0 0 Surr: Trifluorotoluene 32.65 109 75-130 LCS Sample ID: BLCSW1-050409-R76451 Units: µg/L Analysis Date: 5/4/2009 07:53 AM Prep Date: Client ID: Run ID: BTEX1_090504A SeqNo: 1662153 DF: 1 RPD SPK Ref Control RPD Ref Value Limit Value Limit Result Qual **PQL** SPK Val %REC %RPD Analyte 17.8 0 0 Ethylbenzene 1.0 20 89 76-125 51.58 Xylenes, Total 3.0 60 0 86 79-124 0 Surr: 4-Bromofluorobenzene 30 29.62 1.0 0 98.7 77-129 0 Surr: Trifluorotoluene 32.41 1.0 30 0 108 75-130 0 MS Sample ID: 0904680-07AMS Units: µg/L Analysis Date: 5/4/2009 10:10 AM SeqNo: 1662158 Client ID: Run ID: BTEX1_090504A Prep Date: DF: 1 RPD SPK Ref RPD Ref Control Limit Value Limit Value Result **PQL** SPK Val %REC %RPD Qual Arialyte 0 0 20.44 1.0 20 102 76-125 Ethylbenzene 60.08 3.0 60 0 79-124 0 Xylenes, Total 100 30 0 Surr: 4-Bromofluorobenzene 29.57 1.0 0 98.6 77-129 Surr: Trifluorotoluene 33.66 1.0 30 0 112 75-130 0 MSD Sample ID: 0904680-07AMSD Units: µg/L Analysis Date: 5/4/2009 10:37 AM Run ID: BTEX1_090504A SeqNo: 1662159 Prep Date: DF: 1 Client ID: RPD SPK Ref Control RPD Ref Value Limit Value Limit %REC %RPD Qual Result PQL SPK Val Analyte 20.33 1.0 20 0 102 76-125 20.44 0.562 20 Ethylbenzene 58.84 3.0 60 0 98.1 60.08 2.09 20 Xylenes, Total 79-124 30 1.0 30 0 77-129 29.57 1.46 20 Surr: 4-Bromofluorobenzene 100 Surr: Trifluorotoluene 32.52 1.0 30 108 75-130 33.66 3.44 20

Note:

See Qualifiers Page for a list of Qualifiers and their explanation.

Navajo Refining Company

Work Order:

0905050

Project:

NAV-09-004-Lea Refining

Batch ID: R76451

Instrument ID BTEX1

Method: SW8021B

The following samples were analyzed in this batch:

0905050-08A

Navajo Refining Company

Work Order:

0905050

Project:

NAV-09-004-Lea Refining

Batch ID: R76502	Instrument ID BTEX3		Method	d: SW802	1B						
MELK Sample ID: BE	BLKS1-050509-R76502	··· · ·			Units: µg/Kg			Analy	sis Date: 5	/5/2009 09	:35 AM
Client ID:	Run	D: BTEX3_	090505A		Se	qNo: 1663	3129	Prep Date: ,		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0									
Toluene	ND	1.0									
Ethylbenzene	ND	1.0									
Methyl tert-butyl ether	ND	5.0									
Xylenes, Total	ND	3.0									
Surr: 4-Bromofluorobenze	ne 29.06	1.0	30		0	96.9	75-131	()		
Surr: Trifluorotoluene	29.97	1.0	30		0	99.9	73-130	, (0	_	
LCS Sample ID: BI	LCSS1-050509-R76502			·	Ĺ	Jnits: µg/k	(g	Analy	sis Date: 5	/5/2009 0	3:30 AN
Client ID:	Run	ID: BTEX3	_090505A		Se	qNo: 166 :	3128	Prep Date:	•	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	21.68	1.0	20		0	108	74-129		0		,//
Toluene	20.64	1.0	20		0	103	75-128		0		
Ethylbenzene	20.48	1.0	20		0	102	73-127		0		
Methyl tert-butyl ether	109	5.0	100		0	109	73-128		0		
Xylenes, Total	61.67	3.0	60		0	103	74-127		0		
Surr: 4-Bromofluorobenze	ene 30.25	1.0	30		0	101	75-131		0		
Surr: Trifluorotoluene	30.28	1.0	30		0	101	73-130		0		
MS Sample ID: 09	905050-06AMS				l	Jnits: µg/l	√ g	Analy	sis Date: 5	/5/2009 1	0:41 AN
Client ID: BH#2 15'	Run	ID: BTEX3	_090505A		Se	qNo: 166 :	3131	Prep Date:		DF: 1	
				SPK Ref			Control	RPD Ref		RPD	
Analyte	Result	PQL	SPK Val	Value		%REC	Limit	Value	%RPD	Limit	Qua
Berizene	20.64	1.0	20		0	103	74-129		0		
Toluene	19.71	1.0	20		0	98.5	75-128		0 ~		
Ethylbenzene	19.55	1.0	20		0	97.8	73-127		0		
Methyl tert-butyl ether	104.4	5.0	100		0	104	73-128		0		
Xylenes, Total	58.75	3.0	60		0	97.9	74-127		0		
Surr: 4-Bromofluoroben.ze	ene 30.06	1.0	30		0	100	75-131		0		
Surr: Trifluorotoluene	29.43	1.0	30		0	98.1	73-130		0		

Navajo Refining Company

Work Order:

0905050

Project:

NAV-09-004-Lea Refining

Batch ID: R76502	Instrument	D PTEV2		Method	d: SW802	410						
Balch ID. R76302	mstrument			Metrio	J. SVV8UZ	16						
MSD Sample II	D: 0905050-06A	MSD				Uni	ts: µg/K	g	Analysi	s Date: 5/	5/2009 11	:13 AM
Client ID: BH#2 15'		Run ID:	втехз	_090505A		SeqN	No: 166 3	1132	Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene		21.74	1.0	20		0	109	74-129	20.64	5.21	30	
Toluene		20.76	1.0	20		00	104	75-128	19.71	5.22	30	
Ethylbenzene		20.52	1.0	20		0	103	73-127	19.55	4.84	30	
Methyl tert-butyl ether		108.8	5.0	100		0	109	73-128	104.4	4.13	30	
Xylenes, Total		61.58	3.0	60		0	103	74-127	58.75	4.71	30	
Surr: 4-Bromofluorob	enzene	29.18	1.0	30		0	97.3	75-131	30.06	2.97	30	
Surr: Trifluorotoluene		29.8	1.0	30		00	99.3	73-130	29.43	1.25	30	
The following sample:	s were analyzed	in this batch:	09	05050-06A 05050-13A 05050-18A 05050-21A	090	05050 05050 05050 05050)-16A)-19A	090 090	5050-10A 5050-17A 5050-20A 5050-23A			

0905050-25A

0905050-26A

0905050-24A

0905050-28A

Navajo Refining Company

Work Order:

0905050

Project:

NAV-09-004-Lea Refining

Method: SW8015 Batch ID: R76536 Instrument ID FID-9 Sample ID: GBLKS-050609-R76536 Analysis Date: 5/6/2009 10:43 AM **MBLK** Units: mg/Kg Run ID: FID-9_090506A Client ID: SeqNo: 1664578 Prep Date: DF: 1 RPD SPK Ref RPD Ref Control Value Limit Value Limit Result **PQL** SPK Val %REC %RPD Qual Analyte Gasoline Range Organics ND 0.050 0.0050 0 Surr: 4-Bromofluorobenzene 0.1154 0.1 115 70-130 0 Sample ID: GLCSS-050609-R76536 Units: mg/Kg LCS Analysis Date: 5/6/2009 09:53 AM Run ID: FID-9_090506A SeqNo: 1664577 Prep Date: DF: 1 Client ID: SPK Ref RPD Ref RPD Control Limit Result PQL SPK Val Value %REC Limit Value %RPD Qual Analyte Gasoline Range Organics 1.079 0.050 0 108 70-130 0 Surr: 4-Bromofluorobenzene 0.1224 0.0050 0.1 0 122 70-130 0 Sample ID: 0905050-01AMS Units: mg/Kg Analysis Date: 5/6/2009 11:57 AM MS Client ID: BH#1 5' Run ID: FID-9 090506A SeqNo: 1664581 Prep Date: DF: 1 RPD RPD Ref SPK Ref Control Limit Value Limit Value Analyte Result PQL SPK Val %REC %RPD Qual 0.7992 Gasoline Range Organics 0.050 0 79.9 70-130 0 0.0050 Surr: 4-Bromofluorobenzene 0.1205 0.1 0 70-130 0 120 MSD Sample ID: 0905050-01AMSD Units: mg/Kg Analysis Date: 5/6/2009 12:22 PM Client ID: BH#1 5' Run ID: FID-9 090506A SeqNo: 1664582 Prep Date: DF: 1 SPK Ref RPD Ref RPD Control Limit Value Limit Value %RPD Result **PQL** SPK Val %REC Qual Analyte Gasoline Range Organics 0.8703 0.050 1 0 87 70-130 0.7992 8.51 30 Surr: 4-Bromofluorobenzene 0.1199 0.0050 0.1 0 120 70-130 0.1205 0.523 30 0905050-01A 0905050-02A The following samples were analyzed in this batch: 0905050-03A 0905050-04A 0905050-05A 0905050-06A 0905050-07A 0905050-09A 0905050-08A 0905050-10A

Navajo Refining Company

Work Order:

0905050

Project:

NAV-09-004-Lea Refining

Batch ID: R76563 Instrumen	t ID BTEX1		Metho	d: SW8021	В						
MBLK Sample ID: MEOHW1-0	50609-R76563				U	nits: µg/L		Analy	/sis Date: 5 /	6/2009 08	:14 AM
Client ID:	ient ID: Run ID:		D: BTEX1_090506A		SeqNo: 1664189					DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylbenzene	ND	1.0							-		
Surr: 4-Bromofluorobenzene	28.84	1.0	30	(<u> </u>	96.1	77-129		0		
Surr: Trifluorotoluene	32.01	1.0	30	()	107	75-130		0		
MBLK Sample ID: BBLKW1-05	50609-R76563				U	nits: µg/L		Analy	/sis Date: 5 /	6/2009 08	:41 AM
Client ID:		: BTEX1	090506A			No: 166 4		Prep Date:		DF: 1	
				SPK Ref			Control	RPD Ref		RPD	
Analyte	Result	PQL	SPK Val	Value		%REC	Limit	Value	%RPD	Limit	Qual
Ethylbenzene	ND	1.0									
Surr: 4-Bromofluorobenzene	29.28	1.0	30	(0	97.6	77-129		0		
Surr: Trifluorotoluene	32.63	1.0	30	(0 .	109	75-130		0		
LCS Sample ID: BLCSW1-09	50609-R76563			<u> </u>	U	nits: µg/L		Analy	ysis Date: 5/	6/2009 07	·47 AN
Client ID:		D: BTEX1	_090506A			qNo: 166		Prep Date:	yolo Balo. 0 ,	DF: 1	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
	, , , , , ,			SPK Ref		,	Control	RPD Ref		RPD	
Analyte	Result	PQL	SPK Val	Value		%REC	Limit	Value	%RPD	Limit	Qual
Ethylbenzene	19.86	1.0	20	(0	99.3	76-125		0		
Surr: 4-Bromofluorobenzene	30.47	1.0	30	(0	102	77-129		0		
Surr: Trifluorotoluene	32.89	1.0	30		0	110	75-130		0		
MS Sample ID: 0905081-02	AMS				U	nits: µg/L	_	Anal	ysis Date: 5/	6/2009 09	:34 AM
Client ID:	Run I	D: BTEX1	_090506A		Se	qNo: 166	4192	Prep Date:		DF: 1	
				SPK Ref			Control	RPD Ref		RPD	
Analyte	Result	PQL	SPK Val	Value		%REC	Limit	Value	%RPD	Limit	Qual
Ethylbenzene	19.56	1.0	20		0	97.8	76-125		0		
Surr: 4-Bromofluorobenzene	29.4	1.0	30		0	98	77-129		0		
Surr: Trifluorotoluene	32.84	1.0	30		0	109	75-130		0		
MSD Sample ID: 0905081-02	AMSD				U	Inits: µg/l	-	Anal	ysis Date: 5 /	6/2009 10	:01 AN
Client ID:	Run II	D: BTEX1	_090506A		Se	qNo: 166	4193	Prep Date:		DF: 1	
				SPK Ref			Control	RPD Ref		RPD	
Analyte	Result	PQL	SPK Val	Value		%REC	Limit	Value	%RPD	Limit	Qua
Ethylbenzene	20.04	1.0	20		0	100	76-125	19.	56 2.44	20	
Surr: 4-Bromofluorobenzene	30.26	1.0	30		0	101	77-129	29	.4 2.87	20	
Surr: Trifluorotoluene	32.96	1.0	30	-	0	110	75-130	32.8	34 <i>0.363</i>	20	
The following samples were analyze	ed in this batch:		905050-09A 905050-12A		050	50-10A	09	05050-11A			

Navajo Refining Company

Work Order:

0905050

Project: NAV-09-004-Lea Refining Instrument ID FID-9 Method: SW8015 Batch ID: R76752 **MBLK** Sample ID: GBLKS-050809-R76752 Units: mg/Kg Analysis Date: 5/8/2009 02:28 PM SeqNo: **1668463** Run ID: FID-9_090508A Prep Date: DF: 1 Client ID: RPD SPK Ref Control RPD Ref Value Limit Limit Value PQL SPK Val %REC %RPD Qual Analyte Result ND 0.050 Gasoline Range Organics 0 0.0050 0 Surr: 4-Bromofluorobenzene 0.08274 0.1 82.7 70-130 Sample ID: GLCSS-050809-R76752 Analysis Date: 5/8/2009 01:38 PM LCS Units: mg/Kg Client ID: Run ID: FID-9 090508A SeqNo: 1668462 Prep Date: · DF: 1 SPK Ref RPD Ref **RPD** Control Value Limit Value Limit Result PQL SPK Val %REC %RPD Qual Analyte Gasoline Range Organics 1.236 0.050 1 0 124 70-130 0 0.08742 0.0050 0 0 Surr: 4-Bromofluorobenzene 0.1 87.4 70-130 Sample ID: GLCSD-050809-R76752 Analysis Date: 5/8/2009 05:21 PM LCSD Units: mg/Kg Run ID: FID-9_090508A SeqNo: 1668524 Prep Date: DF: 1 Client ID: RPD SPK Ref RPD Ref Control Value Value Limit Limit PQL SPK Val %REC %RPD Qual Analyte Result 0 Gasoline Range Organics 1.194 0.050 1 119 70-130 1.236 3.48 30 Surr: 4-Bromofluorobenzene 0.08727 0.0050 0.1 0 87.3 70-130 0.08742 0.165 30 Sample ID: 0905050-16AMS Units: mg/Kg Analysis Date: 5/8/2009 03:42 PM MS Client ID: BH#4 5' Run ID: FID-9 090508A SeqNo: 1668466 Prep Date: DF: 1 RPD RPD Ref SPK Ref Control Value Limit Value Limit Result PQL SPK Val %REC %RPD Qual Analyte Gasoline Range Organics 0.7333 0.050 1 0.039 0 S 69.4 70-130 0.0888 0.0050 0.1 0 0 Surr: 4-Bromofluorobenzene 88.8 70-130 Analysis Date: 5/8/2009 04:07 PM MSD Sample ID: 0905050-16AMSD Units: mg/Kg Client ID: BH#4 5' Run ID: FID-9_090508A SeqNo: 1668467 Prep Date: DF: 1 SPK Ref RPD RPD Ref Control Value Limit Value Limit Result **PQL** SPK Val %REC %RPD Qual Analyte 0.6029 0.039 Gasoline Range Organics 0.050 1 56.4 70-130 0.7333 19.5 S 30 0.0050 0.1 0.0888 Surr: 4-Bromofluorobenzene 0.08721 0 87.2 70-130 1.8 30 The following samples were analyzed in this batch:

0905050-1	1A 0905050-1	2A 0905050-13A	
0905050-14	4A 0905050-1	5A 0905050-16A	
0905050-17	7A 0905050-1	18A 0905050-19A	
0905050-20	OA 0905050-2	21A 0905050-22A	
0905050-23	3A 0905050-2	24A 0905050-26A	

Navajo Refining Company

Work Order:

0905050

Project:

NAV-09-004-Lea Refining

Batch ID: R76861 Instrument ID FID-9 Method: SW8015 MBLK Units: mg/Kg Sample ID: GBLKS-051409-R76861 Analysis Date: 5/14/2009 10:28 AM Client ID: Run ID: FID-9_090514A SeqNo: 1670496 Prep Date: DF: 1 SPK Ref **RPD** RPD Ref Control Value Limit Value Limit Qual Result SPK Val %REC %RPD Analyte **PQL** Gasoline Range Organics ND 0.050 Surr: 4-Bromofluorobenzene 0.08848 0.0050 0.1 0 88.5 70-130 0 Sample ID: GLCSS-051409-R76861 Analysis Date: 5/14/2009 09:38 AM LCS Units: mg/Kg Client ID: Run ID: FID-9_090514A SeqNo: 1670495 Prep Date: DF: 1 RPD SPK Ref RPD Ref Control Value Limit Value Limit Analyte Result **PQL** SPK Val %REC %RPD Qual 0 Gasoline Range Organics 0.050 0 70-130 1.238 1 124 Surr: 4-Bromofluorobenzene 0.09367 0.0050 0.1 0 70-130 0 93.7 LCSD Sample ID: GLCSD-051409-R76861 Units: mg/Kg Analysis Date: 5/14/2009 02:44 PM Run ID: FID-9_090514A Client ID: SeqNo: 1670502 Prep Date: DF: 1 RPD SPK Ref Control RPD Ref Limit Value 1 imit Value SPK Val %RPD Qual **PQL** %REC Analyte Result Gasoline Range Organics 1.247 0.050 1 0 70-130 1.238 0.739 30 125 Surr: 4-Bromofluorobenzene 0.09014 0.0050 0.1 0 90.1 70-130 0.09367 30 3.84 MS Sample ID: 0905156-05AMS Units: mg/Kg Analysis Date: 5/14/2009 12:07 PM Client ID: Run ID: FID-9 090514A SeqNo: 1670500 Prep Date: DF: 1 RPD Ref RPD SPK Ref Control Value Value Limit Limit Result **PQL** SPK Val %REC %RPD Qual Analyte 0 0 Gasoline Range Organics 0.6581 0.050 1 65.8 70-130 \$ Surr: 4-Bromofluorobenzene 0.08626 0.0050 0.1 0 86.3 70-130 0 MSD Sample ID: 0905156-05AMSD Units: mg/Kg Analysis Date: 5/14/2009 01:55 PM Client ID: Run ID: FID-9_090514A SeqNo: 1670501 Prep Date: DF: 1 RPD SPK Ref RPD Ref Control Limit Value Limit Value %REC Qual PQL SPK Val %RPD Analyte Result Gasoline Range Organics 0.3537 0.050 0 35.4 70-130 0.6581 60.2 30 SR 1 Surr: 4-Bromofluorobenzene 0.08684 0.0050 0 0.08626 0.669 30 0.1 86.8 70-130 0905050-25A 0905050-28A The following samples were analyzed in this batch:

Navajo Refining Company

Work Order:

0905050

Project:

NAV-09-004-Lea Refining

Batch ID: 35912	Instrument ID ICS	3000		Method	: E300							
MBLK Sample ID	: WBLKS1-050609-3	35912	·	PH		U	nits: mg/l	⟨g	Analys	sis Date: 5 /	7/2009 06	:15 PM
Client ID:	ID:		Run ID: ICS3000_090507C			SeqNo: 1666046		046	Prep Date: 5/6/2009		DF: 1	
Analyte	F	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride		2.82	5.0									J
Surr: Selenate (surr)		52.46	1.0	50_		0	105	85-115	0)		
LCS Sample II	: WLCSS1-050609-3	35912				U	Inits: mg/l	Kg	Analys	sis Date: 5 /	7/2009 06	:38 PM
Client ID:	lient ID: Run I): ICS3000_090507C			SeqNo: 1666048			Prep Date: 5/6/2009		DF: 1	
Analyte	F	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride		202.9	5.0	200		0	101	90-110	()		
Surr: Selenate (surr)		51.72	1.0	50		0	103	85-115	()		
MS Sample II	D: 0905050-15BMS					Ĺ	Inits: mg /	Kg	Analy	sis Date: 5/	8/2009 02	:16 AN
Client ID: BH#3 45'		Run IC): ICS300	0_090507C		Se	qNo: 166 6	8068	Prep Date: 5/6	/2009	DF: 1	
Analyte	l	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Chloride		113.6	5.0	99.11	8.2	06	106	75-125	(0		
Surr: Selenate (surr)		55.16	0.99	49.55		0	111	80-120	(0		
DUP Sample II	D: 0905050-15BDUP		***************************************		· ·	Ĺ	Jnits: mg /	Kg	Analy	sis Date: 5/	8/2009 01	:53 AN
Client ID: BH#3 45'		Run I	D: ICS300	0_090507C		Se	qNo: 166 0	6067	Prep Date: 5/6	6/2009	DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride		8.186	. 5.0	0		0	0	0-0	8.20	6 0.242	20	
Surr: Selenate (surr)		53.68	0.99	49.55	*** *** *** *** ***	0	108	85-115	52.7	6 1.73	20	
The following sample:	s were analyzed in th	nis batch:	09	905050-01B 905050-04B 905050-07B 905050-10B 905050-13B	09 09	9050 9050 9050	050-02B 050-05B 050-08B 050-11B 050-14B	09 09 09	05050-03B 05050-06B 05050-09B 05050-12B 05050-15B			

Navajo Refining Company

Work Order:

0905050

Project:

NAV-09-004-Lea Refining

Batch ID: 35926	Instrument ID ICS3000		Method	: E300							
MBLK Sample ID	: WBLKS2-050609-35926				Ĺ	Jnits: mg /	Kg	Analysi	is Date: 5 /8	8/2009 03	:30 PN
Client ID:	Run ID		D: ICS3000_090508A		SeqNo: 1666381		5381	Prep Date: 5/6/2009		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Chloride	ND	5.0									
Surr: Selenate (surr)	50.75	1.0	50		0	102	85-115	0			
LCS Sample ID	: WLCSS2-050609-35926				L	Inits: mg /l	Kg	Analysi	s Date: 5 /8	8/2009 03	:53 PN
Client ID: Run IE		: ICS3000_090508A		SeqNo: 1666384			Prep Date: 5/6/2009		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Chloride	198.1	5.0	200		0	99.1	90-110	0			
Surr: Selenate (surr)	49.25	1.0	50		0	98.5	85-115	0			
MS Sample ID	: 0905050-16BMS				L	Inits: mg /	Kg	Analysi	is Date: 5 /	8/2009 05	:01 PN
Client ID: BH#4 5' Run IE		D: ICS3000_090508A			SeqNo: 1666390			Prep Date: 5/6/2	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Chloride	103.2	4.9	98.52	6.17	77	98.4	75-125	0			
Surr: Selenate (surr)	51.32	0.98	49.26		0	104	80-120	0		····	
DUP Sample ID	: 0905050-16BDUP				L	Jnits: mg /	Kg	Analysi	is Date: 5 /	8/2009 04	:38 PI
Client ID: BH#4 5'	Run ID	: ICS300	0_090508A		Se	qNo: 166 6	6389	Prep Date: 5/6/2	2009	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qua
Chloride	6.177	4.9	0		0	0	0-0	6.177	0	20	
Surr: Selenate (surr)	51.52	0.98	49.26		0	105	85-115	51.8	0.553	20	
The following samples	were analyzed in this batch:	09	905050-16B 905050-19B 905050-22B 905050-25B	09 09	050 050	50-17B 50-20B 50-23B 50-26B	09 09	05050-18B 05050-21B 05050-24B 05050-28B			

Date: 18-May-09

Client:

Navajo Refining Company

Project:

NAV-09-004-Lea Refining

WorkOrder:

0905050

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited .
В	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
Н	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
Acronym	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program
Units Reported	Description
mg/Kg	Milligrams per Kilogram

10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887

Chain of Custody Form

Page /_ of _ \$

3352 128th Ave. Holland, MI 49424-9263 Tel: +1 616 399 6070 Fax: +1 616 399 6185

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Holds: GO Packaga: (Check One Box Below) tages a total and TRRP CheckList TRRP Level IV Required Turnahound: Time: (CriecleBox) (Cri ACTION OF THE PROJECT Manager: | Free State Stat CA AT SECTION OF COMENT OF THE FOREST PRINCE OF THE SECTION OF THE Parameter/Method Request for Analysis Level III Sid QC/Ritw Data TLevel IV SW846/CLP C FISH I SIQ OC other 10 Work Days TAT Artions (300) Ci GRO (8015M) DRO (8015M) ORO (8015M) BTEX (8021) 2 000 BT D 老時與數者各無養審察 Notes: ٠.ن٠ **√** m ٔ۵ · # [] = [] 15 × i 8 * ± ; إن إن AND THE STREET OF STREET OF STREET ST -Other - 18-4°C - 9-5035 C Navajo Refining Company Project Information Artesia, NM 88211 18年末年第二十二年 Faxia (505) 746-5421 Darrell Moore P.O. Box 159 Lea Refining NAV-04-009 43.H.SO4.1.1.4.H.B.O.L. 1.5.Na.S.C. 1.6.Na.H.SO. 0460 29/09 0905 0260 0830 Received by 2830 080 5250 0810 2550 RSD Shipment Method Bill To Company ProjectName Project Number e s invoice, Attn . Clty/State/Zip. é-Mail Address g 9 Ŕ Navajo Refining Company Customer Information dgboyer@SESI-NM.com Artesia, NM 88211 1-HGI . 2-HNO. (505) 748-3311 (505) 746-5421 Darrell Moore P.O. Box 159 Logged by (Laboratory): \$ \$ \$ \$ \$ \$ \$ 新聞の高の日の東京の東京の東京の をその中の本部をあるからの本名 をおって、Address の はまたので、Address の Company Name e-Mail Address AKKABBABBALLO City/State/Zip. Send, Report To Purchase Order *** Work Order Preservative Key: Ő <u>,</u> , φ,

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
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Chain of Custody Form

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Company Name (Solo 748-3311 Send Telport To Darrell Moore Send Telport To Darrell Moore Company Name (Solo 748-3311 Company Name (Project Information	Parameter/Method Request for Analysis
State		
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Address (505) 748-3311 Antesia, NM 88211 State/Zip. Antesia, NM 88211 Company Address A	NAV-04-009	B; GRO (8015M)
Report To. Darrell Moore Report To. Box 159 Address AMM ADDRESINA	Navajo Refining Company	C: DRO (8015M)
Address Add	. Dалте!! Moore	D. ORO (8015M)
State/Zip: Artesia, NM 88211 State/Zip: Cos) 748-3311 Sphore: Fax: (505) 748-3311 Address: dgboyer@SESI-NM.com BHEZ ZS CHRES 201 CHES 201	P.O. Box 159	告 Anions (300) Ci
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of M Page 3

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			WEST TO SEE ALS Project Managers	· · · · · · · · · · · · · · · · · · ·	ALTERNATION OF THE STATE OF THE
Custo	Customer Information		Project Information		Parameter/Method Request for Analysis
Purchase Order		Project Name	Lea Refining	¥	BTEX (8021)
Work Orders		Project Number	NAV-04-009	ď.	GRO (8015M)
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Sample Receipt Checklist

Client Name: 1	NAVA	JO REFINING					Date/Time	Receive	ed: <u>02-</u> f	May-09	08:30			
Work Order: (09050	<u>)50</u>					Received b	y:	RDI	<u>i</u>				
Checklist comple	eted b	y Raymond N eSignature	Gamboa	04-M Date	iay-09	_	Reviewed by:	Jay øSign	Lynn F alura	Thib.	rult		05-May-09	9
Matrices: Carrier name:	<u>Soil</u> Fed											·		
Shipping contain	ner/co	oler in good condition	on?		Yes	V	No 🗆	No	t Present					
Custody seals in	ntact c	n shipping contains	er/cooler?		Yes	✓	No 🗌	No	ot Present		•			
Custody seals in	ntact c	n sample bottles?			Yes		No 🗆	No	ot Present	V				
Chain of custody	y pres	ent?			Yes	V	No 🗆							
Chain of custody	y sign	ed when relinquishe	ed and received?		Yes	V	No 🗌							
Chain of custody	y agre	es with sample lab	els?		Yes		No 🗹							
Samples in prop	oer co	ntainer/bottle?			Yes	V	No 🗆							
Sample contains	ers int	act?			Yes	V	No 🗆							
Sufficient sample	le volu	ime for indicated te	st?		Yes	V	No 🗀							
All samples rece	eived ¹	within holding time?	?		Yes	V	No 🗀							
Container/Temp	Blan	k temperature in co	mpliance?		Yes	V	No 🗌							
Temperature(s)/	/Therr	nometer(s):			3.4c				002					
Cooler(s)/Kit(s):	:			•	2497									
Water - VOA via	als ha	ve zero headspace:	7		Yes	V	No 🗀	No V	OA vials sub	mitted				
Water - pH acce	eptabl	e upon receipt?			Yes		No 🗆	N/A	$\overline{\mathbf{V}}$					
pH adjusted? pH adjusted by:					Yes		No 🗆	N/A	▽					
Login Notes:	B	eceived sample "Bl	H#5 15" not on CO	C; logge	ed in wit	h an	alysis.							
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ALS Laboratory Group 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887

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Date: 5	109
Namo: Z	960
Company:	90

JSTODY SEAL

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Friday, October 09, 2009 9:26 AM

To:

'Moore, Darrell'; 'mleighton@lovington-nm.org'; 'hsncpbm@leaco.net'

Cc:

Lackey, Johnny; VonGonten, Glenn, EMNRD

Subject:

RE: Lea Refinery Historic Delineation Report/Work Plan (GW-14) General Correspondence

Darrell:

Received. After the meeting I recalled the C-141 submittal and it was scanned into our C-141 thumbnail, but the Environmental Status Presentation and Report was to have addressed the attached C-141 issues and should have been included in the report that was passed out at the meeting for our consideration of addressing potential point sources at the facility.

The agencies would appreciate it in the future if you could package items together and reference the discharge permit so we may keep our records complete. The agencies will strive to identify extraneous submittals submitted under the discharge permit and will strive to include them in our review of the Section 21(A) Environmental Status Report and presentation from our meeting yesterday.

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: Moore, Darrell [mailto:Darrell.Moore@hollycorp.com]

Sent: Friday, October 09, 2009 8:26 AM

To: Chavez, Carl J, EMNRD; 'mleighton@lovington-nm.org'; 'hsncpbm@leaco.net'

Cc: Lackey, Johnny

Subject: FW: Lea Refinery Historic Delineation Report/Work Plan

To all:

The e mail below with attachments was sent to all concerned on July 20, 2009. This is the delineation report of historical spills at the Lovington facility.

From: Moore, Darrell

Sent: Monday, July 20, 2009 1:33 PM

To: 'Chavez, Carl J, EMNRD'; 'hsncpbm@leaco.net'; 'mlaighton@lovington-nm.org'

Subject: FW: Lea Refinery Historic Delineation Report/Work Plan

Carl.

Attached is the delineation report for the historical spills referenced in GW-014 for our facility at Lovington. Also attached are all analysis' from samples that were caught and a site map. None of the spills impacted groundwater. Further, also as part of GW-014, we have installed numerous new monitor wells, in some instances directly downdip from historical spills, and these monitor wells have shown no impact to groundwater. We will be forwarding those results along with a site map showing monitor wells locations and analysis in the very near future.

Please note...I have sent this email the the City of Lovington and to Patrick McMahon with Heidel, Samberson, Newell, Cox and McMahon.

If there are any questions from anyone about this submission, please call me at 575-746-5281 or on my cell at 575-703-5058.

From: Susana Rodriguez [mailto:office2@sesi-nm.com]

Sent: Friday, June 12, 2009 4:44 PM

To: Moore, Darrell

Subject: Lea Refinery Historic Delineation Report/Work Plan

Mr. Moore

I have attached the Lea Refinery Historic Delineation/Work Plan for your review. If you have any questions regarding this report please let us know.

Thank you,

Susana Rodriguez Administrative Assistant Safety & Environmental Solutions, Inc. office: 575.397.0510

fax: 575.397.0510 fox: 575.393.4388 office2@sesi-nm.com

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Navajo Refining Company Lea Refinery (Historic) Delineation Report/Work Plan Section 36, Township 16S, Range 36E Lea County, New Mexico

May 29, 2009



Prepared for:

Navajo Refining Company P.O. Box 159 Artesia, New Mexico 88211

By:

Safety & Environmental Solutions, Inc. 703 East Clinton Hobbs, New Mexico 88240 (575) 397-0510

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	pperior = 0-171	v

I. Company Contacts

NAME	Company	Telephone	E-mail
Darrell Moore	Navajo Refining	575-748-3311	darrell.moore@navajo-refining.com
Bob Allen	SESI	505-397-0510	ballen@sesi-nm.com

II. Background

Safety and Environmental Solutions, Inc. (SESI) was engaged by Lea Refining Company to perform delineation services at the Lea Refinery.

III. Surface and Ground Water

The closest groundwater of record listed with the New Mexico office of the state engineer is located in the same section, range and township. The depth of water in this well was 95 ft.

IV Soils

The surface soils in the area are predominantly sand and sandy loam.

V. Work Performed

During the period April 29-May 1, 2009, seven boreholes were drilled at four locations where spills or leaks of refinery related fluids were released. The boreholes were advanced to a minimum depth of 15 feet with the deepest borehole drilled to 45 feet. Samples were collected at each location for TPH, BTEX and chloride analysis. At the location having a spent caustic release soil pH was also measured.

The locations of the boreholes are shown on the report aerial photo. Borehole logs are included in the report and reference the appropriate NMOCD C-141 spill report form. With the exception of one borehole (discussed below), all TPH and BTEX analyses showed non-detectable constituents. All soil chloride and pH results were non-elevated and were typical for uncontaminated area soils.

Borehole BH-3 was drilled inside the tank berm near Tank 103B and showed detectable TPH and BTEX. A diesel fuel release occurred the morning of December 7, 2003 and reported to NMOCD later that day. The cause of the release was a relief valve left open which discharged fluid when an associated pump was turned on. An estimated 70 barrels of fuel was released and 30 barrels was recovered. Approximately 100 cubic yards of contaminated soil was removed and shipped to Controlled Recovery Inc., a state permitted disposal facility.

On April 30, 2009 a borehole was drilled inside the tank berm near the lowest point of diesel fuel accumulation. The boring was drilled to a depth of 45 feet with samples collected every 5 feet. The highest diesel range TPH was 6,100 mg/Kg at a depth of 25 feet. The base of the contamination was 35 feet. No TPH contamination was detected at 40 or 45 feet. BTEX was detected to a depth of 40 feet. Maximum benzene was 0.0048 mg/Kg at 10 feet, well below the soil screening reference levels of 10.3 mg/kg and 25.8 mg/Kg for residential and industrial soil, respectively. Groundwater at the location is at a depth of approximately 95 feet and a monitor well was completed downgradient of the location following the release. That monitor well was sampled following installation but

did not show contamination. It has been scheduled for re-sampling together with the new replacement wells recently installed at the refinery.

Samples were retrieved in 5' intervals from all boreholes. All samples were properly preserved and transported under Chain of Custody to ALS Laboratory Group of Houston Texas for analysis. The samples were analyzed for Chlorides (EPA Method 300), Total Petroleum Hydrocarbons (EPA Method 8015) and BTEX (EPA Method SW-846-8260).

The results of the analysis are as follows:

Date	ID	CI (mg/Kg)	TPH (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylenes (mg/Kg)	pH pH units
4/30/09	BH#1 5'	9.75	ND	ND	ND	ND	ND	ND	ND	-
4/30/09	BH#1 10'	7.63	ND	ND	ND	ND	ND	ND	ND	-
4/30/09	BH#1 15'	17.3	CIN	ND	ND	ND	ND	ND	ND	-
4/30/09	BH#2 5'	5.41	ND	ND	ND	ND	ND	ND	ND	_
4/30/09	BH#2 10'	5.33	ND	ND	ND	ND	ND	ND	ND	-
4/30/09	BH#2 15'	5.31	NID	ND	ND	ND	ND	ND	ND	-
4/30/09	BH#3 5'	5.26	-	370	0.58	ND	ND	0.055	0.022	-
4/30/09	BH#3 10'	5.96	-	2500	28	0.0048	ND	3.4	4.1	-
4/30/09	BH#3 15'	5.55	-	2200	20	0.0015	ND	1.1	0.60	-
4/30/09	BH#3 20'	ND	-	4600	26	0.0029	ND	3.3	0.81	-
4/30/09	BH#3 25'	5.30	-	6100	19	0.0023	ND	3.0	0.20	-
4/30/09	BH#3 30'	8.13	-	820	21	0.0022	ND	2.0	0.20	-
4/30/09	BH#3 35'	6.05	-	1900	20	0.0016	ND	0.40	0.12	-
4/30/09	BH#3 40'	6.71	-	ND	ND	ND	ND	0.0015	0.0042	-
4/30/09	BH#3 45'	8.21	ND	ND	ND	ND	ND	ND	ND	-
4/30/09	BH#4 5'	6.18	ND	ND	ND	ND	0.0011	ND	ND	-
4/30/09	BH#4 10'	5.01	ND	ND	ND	ND	ND	ND	ND	-
4/30/09	BH#4 15'	5.18	ND	ND	ND	ND	ND	ND	ND	-
4/30/09	BH#5 5'	7.79	ND	ND	ND	ND	ND	ND	ND	8.82
4/30/09	BH#5 10'	11.6	ND	ND	ND	ND	ND	ND	ND	8.94
4/30/09	BH#5 15'	6.51	ND	ND	ND	ND	ND	ND	ND	-
4/30/09	BH#6 5'	12.3	ND	ND	ND	ND	ND	ND	ND	8.81
4/30/09	BH#6 10'	12.1	ND	ND	ND	ND	ND	ND	ND	9.66
4/30/09	BH#6 15'	6.8	ND	ND	ND	ND	ND	ND	ND	9.79
4/30/09	BH#7 5'	5.76	ND	ND	ND	ND	0.0015	0.0021	ND	-
4/30/09	BH#7 10'	21.7	ND	ND	ND	ND	ND	ND	ND	-
4/30/09	BH#7 15'	15.3	ND	ND	ND	ND	ND	ND	ND	-

All borings were backfilled from total depth to surface with bentonite and hydrated.

VI. Action Plan

Given that the spill occurred 5½ years ago and has not advanced past 35 feet, it is unlikely to move further vertically. No further soil investigation or excavation is recommended. Unless the results of the upcoming sampling of the nearby monitor well show differently, only routine groundwater sampling on the same schedule as other refinery wells should be performed.

VII. Figures & Appendices

Figure 1 – Vicinity Map Figure 2 – Site Plan Figure 3 – Logs of Boring Appendix A – Analytical Results Appendix B – C-141

Figure 1 Vicinity Map

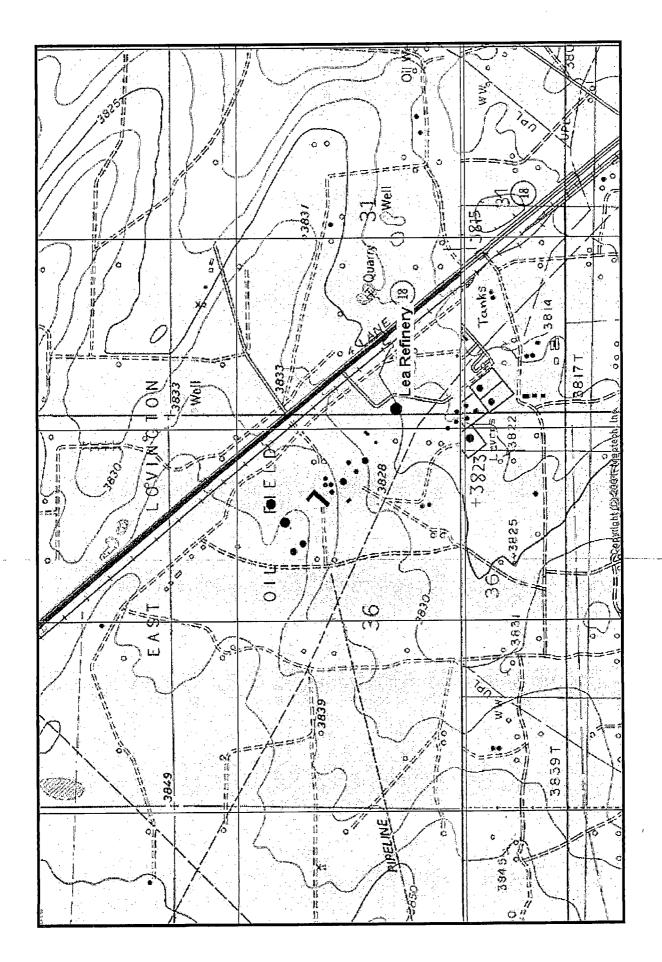


Figure 2 Site Plan



Figure 3 Logs of Boring



LOG OF BORING BH-1

(Page 1 of 1)

Hydrocarbon Release Investigation Navajo Lea Refinery Lovington, New Mexico C-141, 10/10/07 N32° 52' 49.00", W103° 18' 15.20"

Date, Time Started Date, Time Complete : 04/29/09, 0945 Hole Diameter

Drilling Method

Drilling Equipment

: 04/29/09, 0845 : 8 1/4 in. : Hollow Stem Auger

: Foremost-Mobile B-57

Drilled By Sampling Method Logged By

: Eco/Enviro Drilling : 5 ft. core barrel : Isaac Kincaid

Company Rep. : Steve Terry, Navajo

Sample Type GRO-TPH (mg/Kg) MOR-TPH (mg/Kg) DRO-TPH (mg/Kg) SS Split Spoon (18" or 24") 3enzene (mg/Kg) Toluene (mg/Kg) Ethyl Benzene (mg/Kg) CB Core Barrel (2.5' or 5') Total Xylenes (mg/Kg) Recovery (in.) Sample Type CT Auger Cuttings GRAPHIC Depth NR No recovery USCS Lab No. Feet DESCRIPTION 0 AR 0-0.25 ft. Fill material, brown sand and rock. 2 СВ 0 0.25-5 ft. CALICHE, light tan-brown, coarse with rock fragments, no H/C 3 staining or odor CA 0905050-01 < 0.050 <49 ko.oo10ko.oo10ko.oo10ko.oo30 5 6 5-8.5 ft. CALICHE, light tan-brown, caliche coarse with rock fragments 8 CB 8 9 8.5-10 ft. CALICHE and SAND, tan-brown, with rock fragments, no H/C staining or odor 0905050-02 < 0.050 <50 <100 ko.oo10ko.oo10ko.oo10ko.oo30 10 CA/SF 10-13.5 ft. CALICHE and SAND, 11 tan-brown, with rock fragments, no H/C staining or odor 12 CB 13.5 13 13.5-15 ft. SAND, light tan-brown, fine 14 SP grained, with rock fragments, no H/C

0905050-03 <0.050

<50

<100 < 0.0010 < 0.0010 < 0.0010 < 0.0030

Notes: Boring backfilled with 6 bags bentonite, hydrated

staining or odor

ZNSESCentralCompany FilestWavajo/2009 CleanupstWav-09-004 Navajo Lea Refinery old spill delineationBoring Logs/BH-1.bor

15



LOG OF BORING BH-2

(Page 1 of 1)

Hydrocarbon Release Investigation Navajo Lea Refinery Lovington, New Mexico C-141, 10/10/07

Date, Time Started

Hole Diameter

Drilling Method

: 04/29/09, 0950 Date, Time Complete : 04/30/09, 0845 Drilled By Sampling Method Logged By

: Ecc/Enviro Drilling : 5 ft. core barrel

: 8 1/4 in. : Hollow Stem Auger Company Rep. : Isaac Kincaid : Steve Terry, Navajo

	N	32° 52	48.40		3° 18' 1	5.30" Drilling Equipment : Foremost-Mot	•		mpany				, (1010)	
	Depth in Feet	Sample Type	Recovery (in.)	nscs	GRAPHIC	Sample Type SS Split Spoon (18" or 24") CB Core Barrel (2.5' or 5') CT Auger Cuttings NR No recovery DESCRIPTION	Lab No.	GRO-TPH (mg/Kg)	DRO-TPH (mg/Kg)	MOR-TPH (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Total Xylenes (mg/Kg)
	0-			AR	XX	0-0.25 ft. Fill material, brown sand and								
	1-					\rock, no H/C.staining or odor						:		
	2-	СВ	0			0.25-5 ft. CALICHE, light tan-brown, hard			ı			:		
	3-			CA		coarse with rock fragments, no H/C staining or odor								
	4-						•							
	.5 —						0905050-04	<0.050	<49	<99	<0.0010	<0.0010	<0.0010	<0.0030
LOGS IDIT-E.	6-					5-6 ft. CALICHE, light tan-brown			i					
2			_							!				
npary rueswavajovzous cieanupswav-05-004 Navajo Lea Kennery dio spin denireation politig Logs don-2. Don	7 — 8 —	СВ	20	CA/SP		6-10 ft. CALICHE and SAND, tan-brown, fine grained, with rock fragments, no H/C								
Kerinery or	9-					staining or odor					İ			
Ivavajo Lea	10-					10-11 ft. Sandy CALICHE, tan-brown, fine grained, no H/C staining or odor	0905050-05	<0.050	<49	<99	<0.0010	<0.0010	<0.0010	<0.0030
Nav-03-004	11 –				Ko l			<u> </u>						
agunbar	12-	СВ	12									i		
avajovzous cit	13-			SP		11-15 ft. SAND, light tan-brown, fine grained, with rock fragments, no H/C staining or odor	<u>}</u>							
pany Filestva	14 — - 15 —						0905050-06	<0.050	<49	<99	<0.0010	<0.0010	<0.0010	<0.0030

Notes: Hydraulic line broke @0950 4/29; resumed drilling at 0750 4/30. Boring backfilled with 7 bags bentonite, hydrated.

Maximum chloride concentration, all samples 5.4 mg/kg, 5 ft.



Safety & Environmental Solutions, Inc.

LOG OF BORING BH-3

(Page 1 of 1)

Hydrocarbon Release Investigation Navajo Lea Refinery Lovington, New Mexico C-141, 12/07/03

Date, Time Started Date, Time Complete : 04/30/09, 1210 Hole Diameter

Drilling Method

: 04/30/09, 0905 : 8 1/4 in. : Hollow Stem Auger Drilled By Sampling Method Logged By Company Rep.

: Eco/Enviro Drilling : 5 ft. core barrel : Isaac Kincaid : Steve Terry, Navajo

Depth In Feet	Sample Type	Recovery (in.)	nscs	GRAPHIC		oon (18" or 24") errel (2.5' or 5') uttings		Lab No.	SRO-TPH (mg/Kg)	DRO-TPH (mg/Kg)	MOR-TPH (mg/Kg)	Benzene (mg/Kg)	Foluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Total Xylenes
	Ϋ́	ď.	Ď	Ō		DESCRIPTION			ত	0	Σ	<u> </u>		世と	
5	СВ	0	CA		caliche 0.25-5 ft. C/ staining, H/	Il material, brown san ALICHE, hard, light gr C odor CHE, brown, coarse,	<i></i>	0905050-07	0.58	370	<97	<0.0010	<0.0010	0.055	0.0
10	СВ	18	CA/SP		7-10 ft. CAL no H/C stair	LICHE and SAND, tan ning, minimal odor	-brown,	0905050-08	28	2,500	<200	0.0048	<0.0010	3,4	4
15	СВ	12		NO CO	11-15 ft. Sa H/C odor	ndy CALICHE, tan-br	own, with	0905050-09	20	2,200	<200	0.0015	<0.0010	1.1	0.
20-	СВ	22	SP		15-20 ft. SA fragments	ND, fine grained, with		0905050-10	26	4,600	<490	0.0029	<0.0010	3.3	0.
25	СВ	26			20-25 ft. SA grained, SA H/C staining	ND, light tan-brown, f NDSTONE layers, H/	C odor, no	0905050-11	19	6,100	<990	0.0023	<0.0010	3.0	0
30	СВ	21	SP/SS		25-30 ft. SA fine grained	.ND with SANDSTONI , no staining, H/C odd	or	0905050-12	21	820	<99	0.0022	<0.0010	2.0	0
35	СВ	26				ND with SANDSTONI	taining,	0905050-13	20	1,900	<98	0.0016	<0.0010	0.40	0
40	СВ	22	SP			ND, light tan-brown, fi H/C staining		0905050-14 :	<0.050	<50	<100	<0.0010	<0.0010	0.0015	0.0
45	СВ	23				ND, light tan-brown, fi H/C staining or odor.		0905050-15	<0.050	<49	<98	≤0.0010	<0.0010	<0.0010	<0.0



Safety & Environmental Solutions, Inc.

LOG OF BORING BH-4

(Page 1 of 1).

Hydrocarbon Release Investigation Navajo Lea Refinery Lovington, New Mexico C-141, 12/07/03 N32° 52' 29.99", W103° 17' 57.07"

Date, Time Started Date, Time Complete Hole Diameter

: 04/30/09, 1230 : 04/30/09, 1335 : 8 1/4 in.

Drilled By Sampling Method Logged By

: Eco/Enviro Drilling : 5 ft. core barrel : Isaac Kincaid

: Hollow Stem Auger **Drilling Method**

Company Rep.

: Steve Terry, Navajo

İ	N	32° 52	' 29.99'	", W103	3° 17' 5	57.07" Drilling Equipment : Foremost-Mob	ile B-57							
Dep in Fee	۱	Sample Type	Recovery (in.)	nscs	GRAPHIC	Sample Type SS Split Spoon (18" or 24") CB Core Barrel (2.5' or 5') CT Auger Cuttings NR No recovery DESCRIPTION	Lab No.	GRO-TPH (mg/Kg)	DRO-TPH (mg/Kg)	MOR-TPH (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Total Xylenes (mg/Kg)
	0-			AR	IX X	0-0.25 ft. Fill material, dark sand and rock		Γ' Ι						
	1-2-3-4-	СВ	0	CA		0.25-5 ft. CALICHE, tan-brown, hard, coarse no H/C staining, minimal H/C odor 2-3 ft.	0905050-16	×0.050	<49	<98	<0.0010	0.0044	~0.0010	-0.0020
1	6-					5-7 ft. CALICHE, light tan-brown, no H/C staining or odor					CO.0010	0.0011		10.0030
	8-9-	СВ	20			7-10 ft. CALICHE and SAND, light tan-brown, no H/C staining or odor	0905050-17	<0.050	<50	<99	<0.0010	<0.0010	<0.0010	<0.0030
1 1	1 - 2 - 3 - 4 - 5	СВ	13	CA/SP		10-15 ft. Sandy CALICHE, tan-brown, rock fragments, fine grained	0905050-18	<0.050	<49	<97	<0.0010	<0.0010	<0.0010	<0.0030

Notes: Boring backfilled with 7 bags bentonite, hydrated. Maximum chloride concentration, all samples 6.18 mg/kg, 5 ft.

Z:XSESCentral/Company Files/Navajo/2009 Cleanups/Nav-09-004 Navajo Lea Refinery old spill delineation/Boring Logs/BH-4.bor



LOG OF BORING BH-5

(Page 1 of 1)

Hydrocarbon Release Investigation Navaio Lea Refinery Lovington, New Mexico C-141, 07/10/08

Date, Time Started Date, Time Complete

Hole Diameter

Drilling Method

: 04/30/09, 1345 : 04/30/09, 1440 : 8 1/4 in.

: Hollow Stem Auger

Drilled By Sampling Method Logged By

Company Rep.

: Eco/Enviro Drilling : 5 ft. core barrel · Isaac Kincaid

: Steve Terry, Navajo

N32° 52' 47.30", W103° 18' 2.09" **Drilling Equipment** : Foremost-Mobile B-57 Sample Type MOR-TPH (mg/Kg) GRO-TPH (mg/Kg) DRO-TPH (mg/Kg) SS Split Spoon (18" or 24") Benzene (mg/Kg) Toluene (mg/Kg) Ethyl Benzene (mg/Kg) CB Core Barrel (2.5' or 5') Total Xylenes (mg/Kg) Type (in.) **CT Auger Cuttings** GRAPHIC Recovery Depth NR No recovery in Feet DESCRIPTION Lab No. 0 0-0.25 ft. Fill material, dark brown sand with rock 2 СВ 0 0.25-5 ft. CALICHE, light tan-brown, hard, no H/C staining or odor 3. 4 CA 0905050-19 < 0.050 <49 ko.0010ko.0010ko.0010ko.0030 5 6 5-8.5 ft. CALICHE, light tan-brown СВ 14.5 8 9 8.5-10 ft. CALICHE SAND, light tan-brown, medium to coarse grained, with rock fragments, no H/C staining or odor 0905050-20 <0.050 <49 <0.0010<0.0010<0.0010<0.0030 10-SP/CA 10-12 ft. CALICHE SAND, light tan-brown, 11 fine grained, no H/C staining or odor 12 CB 21 13 CA/SP 12-15 ft. SANDY CALICHE, light tan-brown, sand fine grained, with rock 14 fragments, no H/C staining or odor 0905050-28 < 0.050 <50 k0.0010k0.0010k0.0010k0.0030 15

Notes: Boring backfilled with 6 bags bentonite, hydrated. Maximum chloride concentration, all samples 11.6 mg/kg, 10 ft. Maximum pH concentration, all samples 8.94, 10 ft.

2:\SESCentral\Company Files\Navajo\2009 Cleanups\Nav-09-004 Navajo Lea Refinery old spill defineation\Boring Logs\BH-5.bor



Safety & Environmental Solutions, Inc.

LOG OF BORING BH-6

(Page 1 of 1)

Hydrocarbon Release Investigation Navajo Lea Refinery Lovington, New Mexico C-141, 07/10/08 N32° 52' 48.31", W103° 18' 0.22"

Date, Time Started Date, Time Complete

: 04/30/09, 1450 : 04/30/09, 1600

: 8 1/4 in.

Drilled By Sampling Method Logged By

: Eco/Enviro Drilling : 5 ft. core barrel

Hole Diameter Drilling Method **Drilling Equipment**

: Hollow Stem Auger : Foremost-Mobile B-57

: Isaac Kincaid Company Rep. : Steve Terry, Navajo

Depth in Feet	Sample Type	Recovery (in.)		:	Sample Type SS Split Spoon (18" or 24") CB Core Barrel (2.5' or 5')		'Kg)	Kg)	Kg)	<u>6</u>	(
		Rec	nscs	GRAPHIC	CT Auger Cuttings NR No recovery DESCRIPTION	Lab No.	GRO-TPH (mg/Kg)	DRO-TPH (mg/Kg)	MOR-TPH (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Total Xylenes (mg/Kg)
1-			I AR D		0.005 # 511								
3-4-	СВ	0	CA CA		0-0.25 ft. Fill material, dark brown sand 0.25-5 ft. CALICHE, brown to light tan, hard, coarse, no H/C staining or odor	0905050-21	<0.050	<49	<99	<0.0010	<0.0010	<0.0010	<0.0030
5 - 6 - 7	-		SP/CA	CACACACAC	5-7 ft. CALICHE SAND, light tan-brown, medium grained, no H/C staining or odor			-					-
7 - 8 - 9 - 10 - 10 - 10 - 10 - 10 - 10 - 10	СВ	48	CA/SP		7-10 ft. SANDY CALICHE, light tan-brown, medium grained, no H/C staining or odor	0905050-22	<0.050	<50	<100	<0.0010	<0.0010	<0.0010	<0.0030
10 11 12 13 14	СВ	27	SP		10-15 ft. SAND, tan-brown, fine grained, no H/C staining or odor	0905050-23	<0.050	<49	<97	<0.0010	· · · ·	<0.0010	<0.0030

Notes: Boring backfilled with 8 bags bentonite, hydrated. Maximum chloride concentration, all samples 12.3 mg/kg, 5 ft. Maximum pH concentration, all samples 9.79, 15 ft.



LOG OF BORING BH-7

(Page 1 of 1)

Hydrocarbon Release Investigation Navajo Lea Refinery Lovington, New Mexico C-141, 10/13/05 N32° 52' 47.40", W103° 18' 10.60"

Date, Time Started Date, Time Complete : 05/01/09, 1000

: 05/01/09, 0820

: 8 1/4 in.

Drilled By Sampling Method : Eco/Enviro Drilling : 5 ft. core barrel

Logged By

: Isaac Kincald

Hole Diameter : Steve Terry, Navajo Drilling Method : Hollow Stem Auger Company Rep. **Drilling Equipment** : Foremost-Mobile B-57

1 '		Sample Type	Recovery (in.)	nscs	GRAPHIC	Sample Type SS Split Spoon (18" or 24") CB Core Barrel (2.5' or 5') CT Auger Cuttings NR No recovery DESCRIPTION	Lab No.	GRO-TPH (mg/Kg)	DRO-TPH (mg/Kg)	MOR-TPH (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Total Xylenes (mg/Kg)
Boring Logs\BH-7.bor	0 AR AR AR AR AR AR AR AR AR AR AR AR AR			0-0.25 ft. Fill material, CALICHE, GRAVEL, H/C staining and odor 0.25-2 ft. CALICHE, black, staining and heavy H/C odor 2-5 ft. CALICHE, light tan-brown, coarse, no staining, slight H/C odor 5-5.5 ft. CALICHE, light tan, slight H/C odor 5.5-7 ft. CALICHE, light tan-brown, coarse, no H/C staining or odor	0905050-21	<0.050	<49	<98	<0.0010	0.0015	0.0021	<0.0030		
Lea Refinery old spill delineation	8- 9-	В	16	SP/CA	KACACACACACACA	7-10 ft. CALICHE SAND, light tan-brown, fine grained, no H/C staining or odor	0905050-22	<0.050	<50	<100	<0.0010	<0.0010	<0.0010	<0.0030
ny FilesNNavajo/2009 CleanupsNNav-09-004 Navajo	1-	В	15	5 SP	10-15 ft. SAND, tan-brown, fine grained, no H/C staining or odor	0905050-23	<0.050	<49	<98	<0.0010	:0.0010	<0.0010	<0.0030	
Z-SESCentral/Con po M po N po N						onite, hydrated. ples 21.7 mg/kg, 10 ft.	4, 44				,			

Appendix A Analytical Results

Appendix B C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Azacc, NM 87410
District IV
2040 South Pacheco, Santa Fc, NM 87505

State of New Mexico Energy Munerals and Natural Resources

Oil Conservation Division 2040 South Pacheco Santa Fe, NM 87505 Form C-141 Revised March 17, 1999

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

Release Notification and Corrective Action

Control Marija ya men

OPEI	RATOR Liniual Report Final Report
Name of Company Navajo Lea Refining Co. LLC	Contact Darrell Moore
Address 7406 S. Main Lovington, NM	Telephone No. 575-748-3311
Facility Name	Facility Type
Lovington Plant	Petroleum Refinery
Surface Owner Mineral Owner	-Lease No.
	OF RELEASE
Unit Letter Section Township Range Feet from the North	South Line Feet from the East/West Line County
NATURE O	FRELEASE
Type of Release Crude Oil	Volume of Release Yolume Recovered 5 bbls
Source of Release	Date and Hour of Occurrence Date and Hour of Discovery 10/10/07 8:00am 10/10/07 8:00am
was immediate Notice Given?	If YES, To Whom?
A Yes No Not Required	Hobbs OCD voicemail-on call phone
By Whom? Doug Price	Date and Hour 10/10/07 9:05am
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse.
If a Watercourse was Impacted, Describe Fully.*	<u> </u>
· ·	
Describe Cause of Problem and Remedial Action Taken. During Sw	
	and overrunning. Vacuum was used to suck
up free oil.	
Describe Area Affected and Cleanup Action Taken.* Area affecte	d is in two areas of about 10' wide by 100'
long each. Contaminated soil has been	picked up and bottom hole TPH samples
taken. Waiting on results	
I hereby certify that the information given above is true and complete to the and regulations all operators are required to report and/or file certain release endanger public health or the environment. The acceptance of a C-141-report liability should their operations have failed to adequately investigate and water, human health or the environment. In addition, NMOCD acceptance compliance with any other federal, state, or local laws and/or regulations	e notifications and perform corrective actions for releases which may be by the NMOCD marked as Final Report does not relieve the operator fremediate contamination that pose a threat to ground water, surface
Signature. Accell Milor	OIL CONSERVATION DIVISION
Printed Name: Darrell Moore	Approved by District Supervisor:
Title Env. Mgr. for Waste & Water	Approval Date Expiration Date
Unic 1:0/18/07 Phone.575-748-3311	Conditions of Approval

Attach Additional Sheets If Necessary

Pistrict I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aziec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 2040 South Pacheco Santa Fe, NM 87505 Form C-141 Revised March 17, 1999

Submit 2 Copies to appropriete
District Office in accordance
with Rule 115 or: back
side of form

Release Notification and Corrective Action

OPI	CRATOR
Name of Company	Contact Page 7.3 Month
Navajo Refining - Lea	Darrell Moore Telephone No.
P.O. Drawer 159 Artesia, NM	505-748-3311
Facility Name	Facility Type
	A POST PROPERTY OF THE PARTY OF
Surface Owner . Mineral Own	er Lease No.
1.54,551	
LOCATION	OF RELEASE
	h/South Line Feet from the East/West Line County
NATURE	OF RELEASE
Type of Release	Volume of Release Volume Recovered
Diesel	70 bbls. 30 bbls.
Source of Release Relief valve	Date and Hour of Occurrence 12/7/03 4:00 am Date and Hour of Discovery 12/7/03 4:00 am
Was Immediate Notice Given?	If YES, To Whom?
Yes No Not Required	
By Whom?	Date and Hour 12/7/03 1:00 pm
Darrell Moore Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse.
Yes X No	
If a Watercourse was impacted, Describe Fully.	
	The state of the s
Describe Cause of Problem and Remedial Action Taken.	
Relief valve was left open. When occurred.	pump was kicked on, the release
and the first of the statement of the st	The Control of the Co
Describe Area Affected and Cleanup Action Taken.* Area is ne	ar TK103B Vacuum truck picked up 30bbls.
Liquid. 100vds. of contaminated	soil was removed and shipped to CRI.
Bottom hole samples have been col	lected. Awaiting results.
and the same of th	
I hereby certify that the information given above is true and complete to	the best of my knowledge and understand that pursuant to NMOCD rules
and regulations all operators are required to report and/or file certain tele	ase notifications and perform corrective actions for releases which may
endanger public health or the environment. The acceptance of a C-141 to of liability should their operations have failed to adequately investigate.	eport by the NMOCD marked as "Final Report" does not relieve the operator
or matrices and their operations have made to adequately investigated water, human health or the environment. In addition, NMOCD acceptant	ce of a C-14) report does not relieve the operator of responsibility for
compliance with any other federal, state, or local laws and/or regulations	
\rightarrow 10 M.	OIL CONSERVATION DIVISION
Signature: Aud IV Wole	
Printed Name: Darrell Moore	Approved by District Supervisor:
Title: Env. Mgr. for Water & Waste	Approval Date: Expiration Date:
Date: 12/17/03 Phone: 505-748-3311	Conditions of Approval:

^{*} Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IY
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division, 2040 South Pacheco Santa Fe, NM 87505 Form C-141 Revised March 17, 1999

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

Release Notification and Corrective Action

OPER	ATOR Dinit	ial Report Final Report
Name of Company Navajo Beā Refining Co. LLC	Contact Darrell Moore	•
Address	Telephone No.	
7406 Sl Main Loyington, NM 88260	505-703-5058	
Facility Name	Facility Type Petroleum Ref	inery
Surface Owner Mineral Owner		Lease No.
LOCATION		
Unit Letter Section Township Range Feet from the North/	South Line Feet from the Rast/We	st Line County
NATURE O	F RELEASE	to .
Type of Release	Volume of Release 150 Bbls	Volume Recovered 120 Bbls
Caustic Source of Release Caustic Scrubber	Date and How of Occurrence	Date and Hour of Discovery. 7/10/08/16:00 am
Was Immediate Notice Given?	If YES, To Whom?	
Yes No Not Required		
By Whom?	Date and How	
Was a Watercourse Reached? Yes X No	If YES, Volume Impacting the Water	course.
If a Watercourse was Impacted, Describe Fully.*		
	were to be seen and a commence of the commence	
Describe Cause of Problem and Remedial Action Taken.* Relief V	alve hung in the open p	OBILION AND LITTED
sump. Which then over flowed. Valve	a is being replaced.	
Describe Area Affected and Cleanup Action Taken, Area affect	ed is to the east and s	outh of caustic
scrubber. Happened during a rain ever water. Vacuum truck sucked up spill	ent, so most of materia material. Contaminate	d soil will be ramove
I hereby certify that the information given above is true and complete to the and regulations all operators are required to report and/or file certain release endanger public health or the environment. The acceptance of a C-141 report liability should their operations have failed to adequately investigate an water, human health or the environment. In addition, NMOCD acceptance compliance with any other federal, state, or local laws and/or regulations.	se notifications and perform corrective a nort by the NMOCD marked ar "Final R d remediate contamination that pose a th	eport" does not relieve the operator meat to ground water, surface
Signature Dauld Moule	OIL CONSERVA	<u>TION DIVISION</u>
Printed Name: Darrell Moore	Approved by District Supervisor:	
Tile: Env. Mgr. for Water & Waste	Approval Date:	Expiration Date:
Date: 7/10/08 Phone: 575-703-5058	Conditions of Approval:	Attached
* Attach Additional Sheets If Necessary		

"Josz N. French Dr., Hobbs, NM 88240 District! II 1301 W. Grand, Avenue, Artesia, NM 88210 District! III 1000 Rob Road, Aziec, NM 87410 District! IV 1220 S. St. Francis Dr., Sania Fe, NM 87505

State of New Mexico . Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised October 10, 2003

Submit 2 Copies to appropriate
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with Rule 116 on back
side of form

Release Notification and Corrective Action .

1						OPERA:		·	X Initi	al Report	Fin	al Repor
Name of Co	mpany I	ea Refin	ing Co).		Contact Darrell Moore						
Address .	•	<u></u>				Telephone No. 505-746-5281						
Facility Na	ne .	···				Facility Type Refinery						
· Surface Ow	ner _		· Mineral O	wner				Lease 1	Vo.			
• ,		-		LOCA	TIO	OF RE	LEASE					
Unit Letter	Section	Township .	Range	Feet-from the			Feet from the	EastV	Vest Line	County		
	٠.			•		4		, .	.:			•
·	Latitude 32 52 38"N Longitude 03 18 00"W											
		•		NAT	URE	OF RELI	EASE	• .	٠,		,	
Type of Rele	ISE NEAT	La-Kercs	en e				ReleaseUnknov			Recovered 30		
Source of Re	Case Dun	Down Lity	ne				ond of Destribute	e]	Date and	Hour of Disco	very 0/	2/05
Was Immedia	te Notice C		v 🗂	No Not Rea	، وحديده	If YES, To		. •	··	,	•	i
By Whom?			1 ES 1	NO LINDI KE	durico .	Larry	y Johnson (our 10/13/05	ocp	0		 	
Was a Water	Darrel	Moore										
az a ,waten			Yes 🐷	No .	•	. II 125, VO	lume Impacting t	IIC WHIC	COUTEC.	•	•	
If a Watercou	rse was Im	pacted, Descri	be Fully.*	- 	·					·		
. ,	•					•	•	•				
•				•				• •				٠. ١
٠.		•.		•	•				•		•	.
Describe Caus	e of Proble	m and Remed	ial Action	Taken * Line	deve	loped 1	eak. Leak	was	clamp	ed off an	nd fre	e
·. st	anding	product	was a	racuumed up	o. 1	ine is	being insp	ecte	d for i	potentia.	1	.
	placem		,	or		 .		•				
		•						٠.	:	·		
Describe Area	Affected a	nd Cleanup A	ction Take	n. Affecte	ed ar	ea is n	ear the RO	Uni	t'and t	under pip	e rac	k.
Cr	ew wil	1 remove	conta	minated di	irt w	hich wi	ll be prof	iled	for d	isposal.	Bott	
		will be								-		. !
						. 		•				
I hereby certif	y that the ir	formation giv	en above	is true and comple	te to th	e best of my	knowledge and un	derstan	d that purs	uant to NMOC	D rules ar	nd
regulations all	operators a	re required to	renort and	l/or file certain rel	leáse no	stifications an	d perform correct	ive actio	ons for rela	ases which mi	ay.endang	er
public health of	r the envir	onment. The	cceptance	of a C-141 repor	t by the	NMOCD ma	rked as "Final Re	port" de	es not reli	eve the operati	or of liabil	ity
snould their of	perations ha	ve tailed to ac	equately	investigate and res ance of a C-141 re	mediate	comaminatio	in that pose a trife	at to Etc	una water Lility for ce	, surrace water smoliance with	, แนะเหตุ ก เลกษ othe	CAILLI
federal, state,	r-local law	s and/or regul	accept	ance of a C+141 R	-borr go	rea sport corrects	are operator of re	wpv::010	101 JU			
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Signature:	سلار	will.	ــــنــــنه		_							
Printed Name.	Darre	•		Approved by District Supervisor.								
	•		.+.	. 1	Approval Date		· .	xpiration l	Date:	'· .		
Tule Env.	War I	or water	WES	PLE .		Approvat Dati		. 1,12		· · ·		,
E-mail Addres	<u>Marrel</u>	1.moore@	navaj	-refining	.com	Conditions of	Approval:	.,		Attached]	
Date: 10/.14				505-746 - 521	i			· · · · · ·				: Ì
Attach Addits		o If bloomen				 	· · · ·	 		. :	•	

BILL COPY

District 1
1625 N. French Dr., Hobbs, NM 88240
District II
81 I South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IY
2040 South Pecheco, Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 2040 South Pacheco Santa Fe, NM 87505 Form C-141 Revised March 17,1999 Jubruit 2 Copies to appropriate

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

Release Notification and Corrective Action

	RATOR x Initial Report Final Report								
Name of Company Navajo Refining Co. LLC	Contact Darrell Moore								
Address 7406 S. Main Lovington, NM	Telephone No. 575-746-5281								
Facility Name Lovington Refinery	Facility Type Petroleum Refinery								
Surface Owner Mineral Owne	Lease No.								
LOCATION OF RELEASE									
Unit Letter Section Township Runge Feet from the North	South Line Feet from the East/West Line County								
NATURE O	F RELEASE								
Type of Release Crude Oil	Volume of Release Volume Recovered Unknown 2 bbls								
Source of Release Hole in pipeline	Date and Hour of Occurrence Date and Hour of Discovery Unknown 10/25/07 10:00am								
Was Immediate Notice Given? Yes No Nor Required	If YES, To Whom? Larry Johnson, Hobbs CCD, Wayne Price Santa Fe, CCD								
By Whom? . Darrell Moore	Date and Hour 3:30 pm 10/25/07								
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse.								
If a Watercourse was Impacted, Describe Fully.*									
Describe Cause of Problem and Remedial Action Taken. A pool of o	il was noticed along a pipe run. Upon investigation,								
a hole was discovered in a pipe: The pipe was exc	avaited and clamped.								
Describe Area Affected and Cleanup Action Taken. 20 yds of conta	minated soil has been removed to uncover the pipe.								
The vertical limit has not been reached and the lounder it.	cation within the pipe run makes it difficult to clean								
I hereby certify that the information given above is true and complete to the and regulations all operators are required to report and/or file certain releas endanger public health or the environment. The acceptance of a C-141 rep of liability should their operations have failed to adequately investigate and water, human health or the environment. In addition, NMOCD acceptance compliance with any other federal, state, or local laws and/or regulations.	e notifications and perform corrective actions for releases which may on by the NMOCD marked as "Final Report" does not relieve the operator remediate contamination that pose a threat to ground water, surface								
Signature Dacuel March	OIL CONSERVATION DIVISION								
Printed Name: Dartell Moore.	Approved by District Supervisor.								
Title Env. Mer for Water & Waste :	Approval Date: Expiration Date:								
Date 10/25/07 Phone 575-746-5281	Conditions of Approval								
* Attach Additional Sheets If Necessary									

Chavez, Carl J, EMNRD

From:

Moore, Darrell [Darrell.Moore@hollycorp.com]

Sent:

Thursday, August 06, 2009 9:48 AM

To: Subject: Chavez, Carl J, EMNRD Fire at Lovington

Attachments:

Fire at Lovington.pdf

At about 3:45 pm yesterday (August 5, 2009) we had a small fire at our Lovington facility. While working on a heat exchanger, crude oil dripped down onto a pump and ignited. Fire extinguishers were used to immediately put out the fire.

Darrell Moore

Environmental Manager for Water and Waste Navajo Refining Company, LLC Phone Number 575-746-5281 Cell Number 575-703-5058

Fax Number 575-746-5451

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State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe. NM 87505 Form C-141
Revised October 10, 2003

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1220 S. St. 1 tall	cis Di., Santa	11'6, 14141 6750.	,	Sa	anta Fe	e, NM 875	05				side of form		
	·		Rele	ease Notific	cation	and Co	rrective A	ction					
											Final Report		
Name of Co	ompany l	Navajo Lea I	Refining			~	arrell Moore	ittai kepoit		T mai report			
		in Loving					No. 575-703-50	058					
Facility Nat		ajo Refinin		ea Plant			e Petroleum R						
Surface Ow	ner			Mineral C	lwner			Leas	e No.				
Sarrage o									-	······································			
Unit Letter	Section	Township	Danna	LOCA Feet from the		N OF RE		East/West Lir	Country				
Onit Letter	Section	Township	Range	reet from the	North	South Line	Feet from the	East west Lif	e County				
							<u></u>						
			La	titude		Longitud	le						
				NAT	TIPE	OF REL	FASE						
Type of Rele	ase Fire			1123.1	CICI	Volume of		Volum	e Recovered	N.	Ā		
Source of Re	lease Cru	de oil hitting	pump			Date and I	lour of Occurrence	e Date a	nd Hour of Di	scovery	3:45 pm		
337 1 4:	NI (7' 0				3:45 pm 8/		8/5/09					
Was Immedi	ate Notice C		Yes N	¶ No □ Not R	eauired	If YES, To	wnom?						
By Whom?						Date and Hour							
Was a Water	course Read	hed?				If YES, Volume Impacting the Watercourse.							
			Yes 💆	₫ No									
If a Watercon	urse was Im	pacted, Descr	ibe Fully.	*									
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		em and Reme											
put out the fi		exchanger, c	rude oil d	ripped down onto	a pump	. This ignited	the crude oil and	a small fire star	ted. Fire extin	guishers	were used to		
put out the II	10.										ł		
Describe Are	a Affected	and Cleanup	Action Ta	ken *									
		ea around He											
ţ													
I hereby cert	ify that the i	nformation g	iven abov	e is true and comp	olete to t	he best of my	knowledge and u	inderstand that	oursuant to NN	10CD r	ules and		
regulations a	ll operators	are required	to report a	nd/or file certain	release r	notifications a	nd perform correc	ctive actions for	releases which	h may e	ndanger		
public health	or the envi	ronment. The	acceptan	ce of a C-141 rep	ort by th	e NMOCD m	arked as "Final R	Report" does not	relieve the op	erator o	f liability		
				y investigate and i									
or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.											,		
			1			OIL CONSERVATION DIVISION							
Signature:	1)	.11/	MI										
O'Eliature.	Jan	M.	<u> </u>			Annroyad by	District Supersis	or					
Printed Nam	e: Darrell M	Moore				Approved by District Supervisor.							
Title: Env. M	1gr	· · · · · · · · · · · · · · · · · · ·				Approval Da	te:	Expiration Date:					
E-mail Addr	ess: Darrel	l.moore@holl	lycorp.cor	n		Conditions of	f Approval:		A 1	, —	1		
						Attached Attached				,			

Phone: 575-748-3311

Date: 8/6/09
* Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD

Sent: Monday, July 27, 2009 2:15 PM

To: 'Moore, Darrell'

Cc: Lackey, Johnny; 'Patrick B. McMahon'

Subject: 2/21/2009 100 bbl. Release of Diesel Initial Report Delineation Report/Work Plan

Darrell:

I am in receipt of your July 20, 2009 e-mail w/ attached C-141 Initial Report for the subject release. For cleanup criteria, I am referring to Page 7 of the OCD "Guidelines for Remediation of Leaks, Spills and Releases" at http://www.emnrd.state.nm.us/ocd/documents/7C_spill1.pdf, I use the most stringent criteria for Benzene (10 ppm), BTEX (50 ppm) and TPH (100 ppm). The OCD recommends that Naphthalene and Trimethyl Benzene Isomers be analyzed for in addition to the standard constituents, since these parameters are common to diesel fuel releases. Based on the review of the areas where borings were emplaced, I notice what appears to be over 1500 ft. of separation between the point source of the release and down gradient sampling (Areas 1 and 3).

In the delineation report prepared by Safety & Environmental Solutions, Inc. and the 3 areas with 6 borings total within the 3 areas within the release, I have the following comments and/or recommendations:

- 1) The release was most significant in Areas 1 and 2 in the upper 10 feet.
- 2) Based on the footages between the above areas, it appears that controls for ruń-on and run-off in storm water areas of the refinery are lacking. Are there storm water areas in between the areas that were also impacted, since the release appears to have been uncontrolled and flowed in a preferential path across storm water areas of the facility between areas 1 through 3?
- 3) At least 10 feet of excavation (to be confirmed with field monitoring equipment during excavation) should also be performed in Areas 1 and 2, in addition to Area 3 as contamination was worse concentration wise in the upper 10 feet, and with time, the excavation may be deeper. The excavation shall be investigated following the corrective action requirement in the permit and cleanup criteria shall be as specified in the opening paragraph of this e-mail message.
- 4) NRC informed the OCD during the most recent facility meetings that the ground at the facility consisted of a desert gravel, which was difficult to penetrate; consequently, NRC was reluctant to perform excavations at the facility. However, upon inspection of the six boring logs, While there appears to be as much as 1 foot of surficial fill material (sand, clay, rock), there is at least 8 feet of caliche near ground surface followed by sand. Caliche is know what highly fractured characteristics and the inability to retard the downward migration of contamination or protect ground water. Caliche poses no obstacle to excavation from standard heavy equipment; therefore, NRC shall excavate contaminated sediments, fill, etc. where contamination impacts non-native soils, sediments, etc.

While the OCD appreciates NRC's new protocol for investigating and undertaking corrective action(s) for releases at the facility, the OCD is concerned that NRC is not fully complying with the OCD discharge permit. I think we need discuss what appears to be a lack of control when releases occur, process area controls, etc. that allow the release to move over vast storm water areas within the facility. The refinery may want to consider cementing the process areas and providing process area drainage with containment to reroute spills back to the treatment system to be in compliance with Section 18 of the permit.

Please contact me to discuss. I have copied the City of Lovington on this review in the event it has further comments. 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")

Chavez, Carl J, EMNRD

From:

Moore, Darrell [Darrell.Moore@hollycorp.com]

Sent:

Monday, July 20, 2009 1:45 PM

To:

Chavez, Carl J, EMNRD; 'hsncpbm@leaco.net'; 'mleighton@lovington-nm.org'

Subject:

FW: Navajo Lea Refinery Delineation Report

Attachments:

Lea Refinery Delineation Report and Work Plan.pdf

Carl.

Please find attached the delineation report for a spill at our Lovington facility that was reported to OCD on February 21, 2009. The C-141 is attached.

From: Susana Rodriquez [mailto:office2@sesi-nm.com]

Sent: Friday, June 12, 2009 2:06 PM

To: Moore, Darrell

Subject: Navajo Lea Refinery Delineation Report

Mr. Moore:

Attached please find the delineation report/work plan for the Lea Refinery. This is the first spill in which three separate areas were affected. If you have any comments or concerns please let me know.

Thank you,

Susana Rodriguez
Administrative Assistant
Safety & Environmental Solutions, Inc.

office: 575.397.0510 fax: 575.393.4388 office2@sesi-nm.com

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Navajo Refining Company Lea Refinery Delineation Report/Work Plan Section 36, Township 16S, Range 36E Lea County, New Mexico

May 29, 2009



Prepared for:

Navajo Refining Company P.O. Box 159 Artesia, New Mexico 88211

By:

Safety & Environmental Solutions, Inc. 703 East Clinton Hobbs, New Mexico 88240 (575) 397-0510

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BH#1 15'	390	50	340	ND	0.43	6.8	9:7
BH#1 20'	ND	ND	ND	ND	ND	ND	ND
BH#1 25'	ND	ND	ND	ND	ND	ND	ND
BH#2 Surface	3190	ND	3000	ND	2.4	10	17
BH#2 5'	460	30	430	ND	0.24	1.2	2.5
BH#2 10'	50	ND	50	ND	ND	ND	ND _
BH#2 15'	ND	ND	ND	ND	ND	ND	ND
BH#2 20'	ND	ND	ND	ND	ND	ND	ND
AREA 2							-
BH#3 Surface	20200	ND	12000	ND	0.090	0.60	1.3
BH#3 5'	20	ND	20	ND	ND	ND	ND
BH#3 10'	ND	ND	ND	ND	ND	ND	ND
BH#3 15'	ND	ND	ND	ND	ND	ND	ND
BH#4 Surface	41600	480	34000	ND	4.6	16	26
BH#4 5'	450	ND	360	ND	ND	0.12	2.8
BH#4 10'	ZD	ND	DN	ND	ND	ND	ND
BH#4 15'	ND	ND	ND	ND	ND	ND	ND
BH#5 Surface	24800	ND	20000	ND	ND	2.0	5.7
BH#5 5'	14	ND	14	ND	ND	ND	ND
BH#5 10'	ND	ND	ND	ND	ND	ND	ND
AREA 3 - North							
BH#6 Surface	2110	350	1300	1.8	30	31	42
BH#6 5'	440	50	390	ND	D	ND	1.4
BH#6 10'	24	ND	24	ND	ND	ND	ND
BH#6 15'	ND	ND	ND	ND	ND	ND	ND

All borings were backfilled from total depth to surface with bentonite and hydrated.

The results for all areas indicate there was minimal vertical migration and BTEX readings are below regulatory limits.

VI. Action Plan

It is recommended for both Area 1 and Area 2 to be excavated 6-10" below ground surface for the removal of the most highly contaminated and/or saturated material. For Area 3 the top 4' to 5' of contaminated soil be removed by excavation. The excavated soils will be transported to an NMOCD approved facility for disposal. The excavations will then be backfilled with clean soils.

Upon completion a closure report will be submitted to the NMOCD.

VII. Figures & Appendices

Figure 1 – Vicinity Map

Figure 2 – Site Plan

Figure 3 – Logs of Boring

Appendix A - Analytical Results

Appendix B - C-141

I. Company Contacts

NAME	Company	Telephone	E-mail
Darrell Moore	Navajo Refining	575-748-3311	darrell.moore@navajo-refining.com
Bob Allen	SESI	505-397-0510	ballen@sesi-nm.com

II. Background

Safety and Environmental Solutions, Inc. (SESI) was engaged by Lea Refining Company to perform delineation services at the Lea Refinery. There were three (3) separate areas located inside of the refinery boundary that were affected and all were near operating facilities.

III. Surface and Ground Water

The closest groundwater of record listed with the New Mexico office of the state engineer is located in the same section, range and township. The depth of water in this well was 55'.

IV Soils

The surface soils in the area are predominantly sand and sandy loam.

V. Work Performed

On February 26-27, 2009 SESI installed a total of six (6) soil borings inside the spill areas (three separate areas) to determine the vertical extent of contamination.

AREA 1

Borehole #1 was drilled to a depth of 25', Borehole #2 was drilled to a depth of 20'.

AREA 2

Boreholes #3 and Borehole #4 were drilled to a depth of 15' and Borehole #5 was drilled to a depth of 10'.

AREA 3

Borehole #6 was drilled to a depth of 15'.

Samples were retrieved in 5' intervals from all boreholes. All samples were properly preserved and transported under Chain of Custody to Argon Laboratories of Hobbs, New Mexico for analysis. The samples were analyzed for Total Petroleum Hydrocarbons (EPA Method 8015) and BTEX (EPA Method SW-846-8260).

The results of the analysis are as follows:

Sample ID	TPH (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl Benzene (mg/kg)	Xylenes (mg/kg)
AREA 1 - Sout	h						
BH#1 Surface	3880	ND	3600	ND	0.32	2.6	5.1
BH#1 5'	88	ND	80	ND	0.24	1.5	2.4
BH#1 10'	220	30	190	ND	0.054	1.7	2.2

Wellhead Protection Area

<1000 feet from a water source,or;
<200 feet from private domestic water source
Yes 20
No 0

Distance To Surface Water Body

<200 horizontal feet	20
200 - 1000 horizontal feet	10
>1000 horizontal feet	0

b. Recommended Remediation Action Level

The total ranking score determines the degree of remediation that may be required at any given site. The total ranking score is the sum of all four individual ranking criteria listed in Section IV.A.2.a. The table below lists the remediation action level that may be required for the appropriate total ranking score.

(NOTE: The OCD retains the right to require remediation to more stringent levels than those proposed below if warranted by site specific conditions (ie. native soil type, location relative to population centers and future use of the site or other appropriate site specific conditions.)

Total Ranking Score

	<u>>19</u>	<u> 10 - 19</u>	0 - 9
Benzene(ppm)*	10	10	10
BTEX(ppm)*	50	50	50
<u>TPH(ppm)**</u>	100	1000	5000

^{*} A field soil vapor headspace measurement (Section V.B.1) of 100 ppm may be substituted for a laboratory analysis of the Benzene and BTEX concentration limits.

** The contaminant concentration for TPH is the concentration above background levels.

B. GROUND WATER

Contaminated ground water is defined as ground water of a present or foreseeable beneficial use which contains free phase products, dissolved phase volatile organic constituents or other dissolved constituents in excess of the natural background water quality. Ground water contaminated in excess of the WQCC ground water standards or natural background water quality will require remediation.

V. SOIL AND WATER SAMPLING PROCEDURES

Below are the sampling procedures for soil and ground water contaminant investigations of leaks, spills or releases of RCRA Subtitle C exempt oil field petroleum hydrocarbon wastes. Leaks, spills or releases of non-exempt RCRA wastes must be tested to demonstrate that the wastes are not characteristically hazardous according to RCRA regulations. Sampling for additional constituents may be required based upon the nature of the contaminant which was leaked, spilled or released.

A. HIGHLY CONTAMINATED OR SATURATED SOILS

The following method is used to determine if soils are highly contaminated or saturated:

1. Physical Observations

Study a representative sample of the soil for observable free petroleum hydrocarbons or immiscible phases and gross staining. The immiscible phase may range from a free hydrocarbon to a sheen on any associated aqueous phase. A soil exhibiting any of these characteristics is considered highly contaminated or saturated.

B. UNSATURATED CONTAMINATED SOILS

The following methods may be used for determining the magnitude of contamination in unsaturated soils:

1. Soil Sampling Procedures for Headspace Analysis

A headspace analysis may be used to determine the total volatile organic vapor concentrations in soils (ie. in lieu of a laboratory analysis for benzene and BTEX but not in lieu of a TPH analysis). Headspace analysis procedures should be conducted according to OCD approved industry standards or other OCD-approved procedures. Accepted OCD procedures are as follows:

a) Fill a 0.5 liter or larger jar half full of sample and seal the top tightly with aluminum foil or fill

Figure 1 Vicinity Map

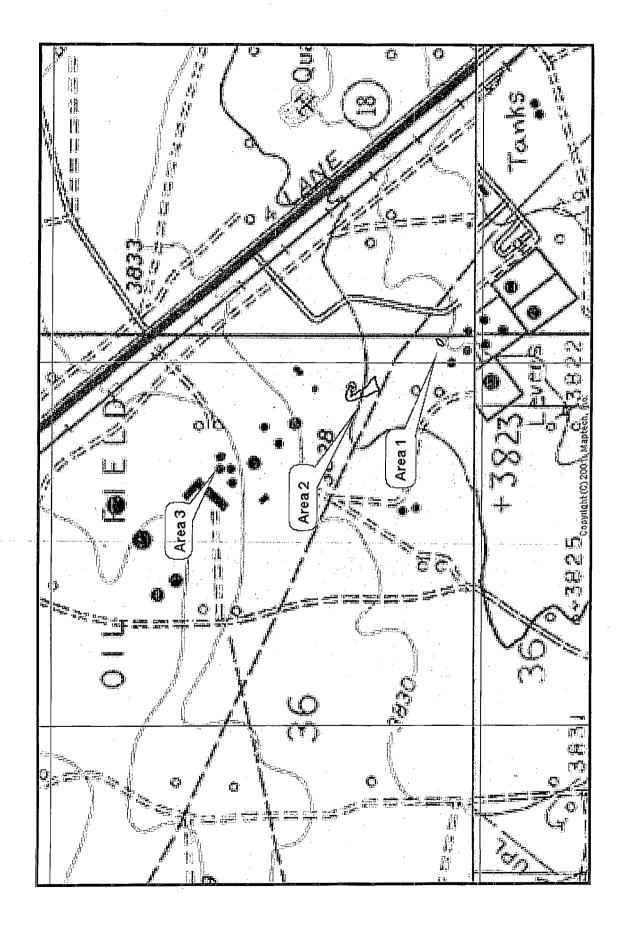


Figure 2 Site Plan

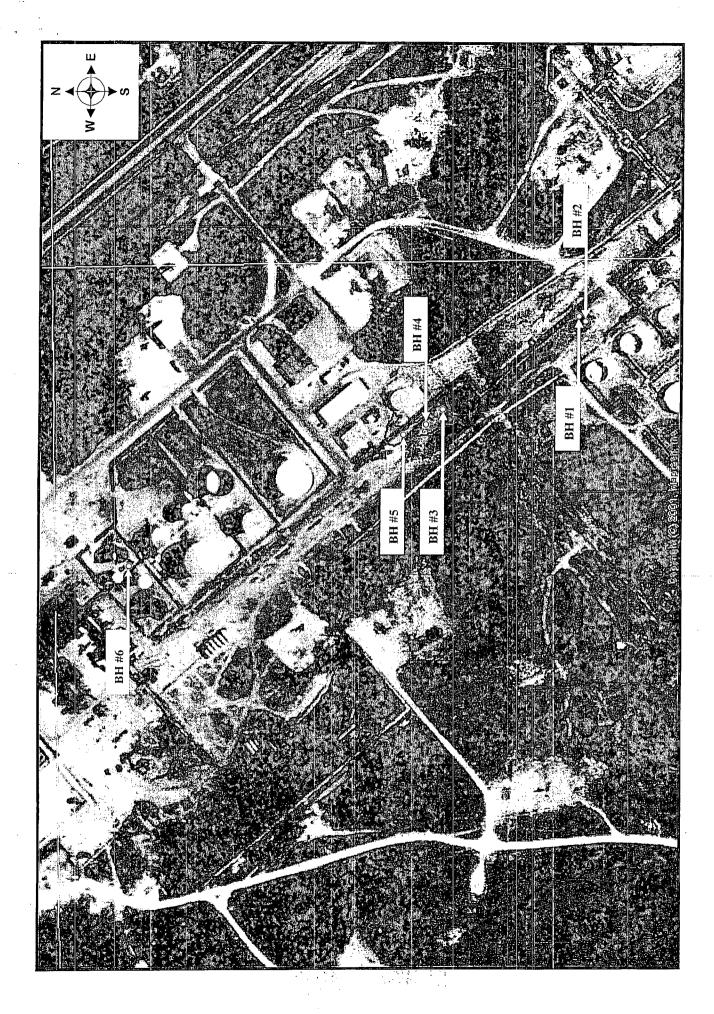


Figure 3 Logs of Boring



Safety & Environmental Solutions, Inc.

LOG OF BORING BH-1

(Page 1 of 1)

Hydrocarbon Release Investigation Navajo Lea Refinery Lovington, New Mexico South Location N32° 52' 33.08", W103° 17' 58.11"

Date, Time Started

: 02/26/09, 0845 Date, Time Complete : 02/26/09, 1030 Drilled By Sampling Method Logged By

: Eco/Enviro Drilling : 5 ft. core barrel

Hole Diameter : 8 1/4 in. : Hollow Stem Auger : Foremost-Mobile B-57 Drilling Method Company Rep. : Isaac Kincald : Steve Terry, Navajo

	N32° 5	2' 33.0	18", W10	03° 17′ 5	58.11" Drilling Equipment : Foremost-Mobile B-57						
Depth in Feet	Sample Type	Recovery (in.)	USCS	GRAPHIC	Sample Type SS Split Spoon (18" or 24") CB Core Barrel (2.5' or 5') CT Auger Cuttings NR No recovery DESCRIPTION	Lab No.	TPH 8015 (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Ethyl Benzene (mg/Kg)
0-		ī	T	V/57/50	0-0.5 ft. Surface sample taken. Dark rock (caliche),	D902014-01	3,880	<0,20	0.32	2.6	2.6
1- 2- 3- 4-	CB	0			staining with H/C odor 0.5-5 ft. CALICHE, white, hard, coarse H/C odor	D902014-02	88	<0.10	0,24	1.5	1.5
5	СВ	14	CA		5-8 ft. CALICHE, H/C odor, no staining						
9					8-10 ft. CALICHE, sandy, white, sand fine grained, with cobblestones, no staining, H/C odor	D902014-03	220	<0.10	0.054	1.7	1.7
11	СВ	14			10-15 ft.SAND, tan-brown, fine grained, with minimal rock fragments, H/C odor, no staining	D902014-04	390	<0.10	0,43	6.8	6.8
15-		i	SP								
17- 18- 19- 20-	СВ	13			15-20 ft. SAND, tan-brown, fine grained, no H/C staining or odor	D902014-05	<10	<0.005	<0.005	<0.005	<0.005
21-	СВ	42	SP/SS		20-25 ft. SAND, tan-brown, fine grained, with sandstone ayers, no H/C staining or odor	D902014-05	<10	<0.005 <	<0.005	<0.005	· <0.005
25-		 									

Notes: Boring backfilled with 9 bags bentonite, hydrated.

	carbon Navaj Lovingto	Release o Lea R on, New uth Loca	/ Mexico	igation	Date, Time Started Date, Time Complete Hole Diameter Drilling Method Drilling Equipment	: 02/26/09, 1230 : 02/26/09, 1400 : 8 1/4 in. : Hollow Stem Auger : Foremost-Mobile B-57	Drilled B Samplin Logged Compan	g Method By); ;; t	5 ft. core	iro Drilli barrel	•
Depth In Eest S	Recovery (in.)	USCS	GRAPHIC		on (18" or 24") rel (2.5' or 5') uttings	TION	Lab No.	TPH 8015 (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Ethyl Benzene
0 - 1 - CB 3 - CB	0.	AR CA/SP		rock <u>, dark</u> si 0.5-5 ft. CAL	aining with odor.	material, sand, clay,	D902014-07	3,190	<0.50	2.4	10	1.2
5	8	СА		5-8 ft. CALIC	HE, hard rock, light b	rown (whitish)						
9-10-11-		SP/CA	KOKOKOKOKO	8-10 ft. SANE fragments.), tan-light brown, coa	arse grained, with rock	D902014-09	50	<0.005	<0,005	<0.005	<0.00
12- - CB 13- 14-	12			10-15 ft. SAN H/C staining o	D, tan-light brown witi r odor.	h rock fragments, no	D902014-10	<10	<0.005	<0.005	<0.005	<0.00
16— 17— CB 18—	15	SF	1	5-20 ft. SANI	D, tan-light brown, no	H/C staining or odor.	D902014-11	<10 <	0.005 <			



LOG OF BORING BH-3

(Page 1 of 1)

Hydrocarbon Release Investigation Navajo Lea Refinery . Lovington, New Mexico Middle Location

Date, Time Started

: 02/28/09, 1425 Date, Time Complete : 02/26/09, 1516 : 8 1/4 in.

Drilled By Sampling Method Logged By

: Eco/Enviro Drilling : 5 ft. core barrel

Hole Diameter Drilling Method

: Hollow Stem Auger

Company Rep.

: Isaac Kincaid : Steve Terry, Navajo

		N32° 5	2' 37.5	4", W10	3° 18'	1.51"	Drilling Equipment	: Foremost-Mobile B-57	Company	кер.		neve re	my, Nava	ajO
	Depth In Feet	Sample Type	Recovery (in.)	USCS	GRAPHIC	1	oon (18" or 24") rrel (2,5' or 5') uttlings	TION	Lab No.	TPH 8015 (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Ethyl Benzene (mg/Kg)
	0-				ПП	0-0.5 Surfac	ce sample.		D902014-12	20,200	<0.050	0.090	0.60	0.60
	1 — 2 — 3 — 4 —	СВ	0			0.5-5 ft. Top H/C odor	o soil (siit) dark black v	with staining and heavy						
	5-			ML					D902014-13	20	<0.005	<0.005	<0.005	<0.005
	6 7 8 9	СВ	16			5-9 ft. Top so		aining with minimal odor	-					
	.10.			Ł		9-10 IL CLAT	r, tea		D902014-14	<10	<0.005	<0.005	<0.005	<0.005
	11-	СВ	60	CL		10-14.5 ft. CL	_AY, red, no H/C stair	ning or odor				-		
	15			CL		14.5-15 ft. SA	NDY CLAY, tan-light	brown, no H/C	D902014-15	<10	0.005	0.005	<0.005	<0.005
	16 - 17 - 18 - 19 -				\	<u>staining or</u> o <u>d</u>	or		.1					
	20-													
N	lotes: Bo	ring bac	kfilled w	ith 6 bag	s bento	nite, hydrated.								

C:Documents and Settings/Dave Boyer/My Documents/Navajo/BH-3.bor

	Lo N32° 5	Navajo ovingto Midd	Lea Ro n, New lle Loca		igation							
in Feet	0.		0,501			Date, Time Started : 02/27/09, 0811 Date, Time Complete : 02/27/09, 0930 Hole Diameter : 8 1/4 in. Drilling Method : Hollow Stem Auger Drilling Equipment : Foremost-Mobile B-57	Drilled By Sampling Logged B Company	Method y	: 8 : E	5 ft. core Brian Cu		
0-	Sample Type	Recovery (in.)	USCS	GRAPHIC		on (18" cr 24") rrel (2.6' or 5') uttings	Lab No.	TPH 8015 (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Ethyl Benzene
1-	,		ML		0-0.5 Surfac 0-2 ft. Sandy odor.	e sample. y loam, light brown, heavy H/C staining and	D902015-01	41,600	<0.50	4.6	16	16
3-	CB	12	CA/CI		2-5 ft. CALIC staining and	CHE with SANDY CLAY, limey white with light moderate odor						
5	СВ	9.5			5-10 ft, CALI	CHE, limey white, very light staining and very	_ D902015-02	450	<0.080	<0.050	0.12	0.12
10			CA			· · · · · · · · · · · · · · · · · · ·	D902015-03	<10	<0,005	<0.005	<0.005	<0.00
12-	СВ				10-15 ft. CAL staining or od	ICHE, limey white, sub angular, no H/C lor						
15							D902015-04	<10 <	0.005	<0.005	<0.005	<0.00
17-												
19-												
lotes: Bor	ing bacl	kfilled w	ith 5 bag	s benton	nite, hydrated.			-				

				Enviro s, Inc	nmental	LOG OF	BORING I	3H-5		, .	43	
									(Pag	e 1 of	1)	
	Lo	Navajo ovingto Midd	Lea Re n, New lle Loca	Mexico		Date, Time Started	Drilled By Sampling Logged E Company	Method ly	: 5 : E	i ft. core Brian Cu		
Depth in Feat	Sample Type	Recovery (in.)	nscs	GRAPHIC		oon (18" or 24") irrel (2.5' or 5') uttlings	Lab No.	TPH 8015 (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Ethyl Benzene (mg/Kg)
0- 1- 2-			ML/CA	(A) (A) (A) (A) (A) (A) (A) (A) (A) (A)	0-0.5 Surfaction 0-2 ft. Sand staining and	y loam and rock, light brown with heavy H/C	D902015-05	24,800	<0.40	<0.40	2.0	2.0
3-	СВ				2-5 ft. CALIC staining and through hard	CHE, limey white, sub-angular, no visible I moderate odor. Rock bit utilized to drill d surface, sample from cuttings.	D902015-06	14	<0.005	<0.005	<0.006	<0.005
6- 7- 8- 9-	CB	16	A C		5-10 ft. CALI staining.	ICHE, limey white, sub-angular, no odor or	D902015-07	<10	<0.005	<0.005	<0.005	<0.005
10-	-			<i>2</i> 15 2151				 : .				
12-												
13												
14-												
15-			,									
16-				•								
17-												
18-												
19-	/											
20-												

LOG OF BORING BH-6 Safety & Environmental Solutions, Inc. (Page 1 of 1) Drilled By : Eco/Enviro Drilling Date, Time Started : 02/27/09, 1300 Hydrocarbon Release Investigation Date, Time Complete : 02/27/09, 1420 Sampling Method : 5 ft. core barrel Navalo Lea Refinery Hole Diameter : 8 1/4 ln. Logged By : Brian Cuellar Lovington, New Mexico North Location : Hollow Stem Auger : Steve Terry, Navajo **Drilling Method** Company Rep. N32° 52' 48.09", W103° 18' 7.76" : Foremost-Mobile B-57 Drilling Equipment Sample Type TPH 8015 (mg/Kg) SS Split Spoon (18" or 24") Benzene (mg/Kg) Toluene (mg/Kg) Ethyl Benzene (mg/Kg) CB Core Barrel (2.5' or 5') Ethyi Benzene (mg/Kg) Recovery (in.) Sample Type CT Auger Cuttings GRAPHIC Depth NR No recovery uscs in Feet Lab No. DESCRIPTION 0 0-0.5 Surface sample. D902015-08 2,110 30 31 31 1.8 0-2 ft. Sandy loam and rock, heavy staining with historic ML/CA staining, heavy odor 0-3 ft. 2-CB 3-3-5 ft. CALICHE, limey white, sub-angular, no staining and light odor. Rock bit utilized to break through rock D902015-09 <0.10 <0.10 <01.0 <01.0 layer. 6 5-10 ft. CALICHE, limey white, sub-angular, no staining or apparent odor. Rock bit utilized. СВ 8 CA 9-<0.005 | <0.005 | <0.005 | <0.005 D902015-10 24 10 11 12 10-14 ft. CALICHE, limey white, sub-angular, no staining or odor. CB а 13-14 14-15 ft. CLAYEY SAND, reddish-brown, no H/C staining SÇ D902015-11 <0.005 | <0.005 | <0.005 | <0.005 15 16-17 18 19 20-

Notes: Boring backfilled with bentonite, hydrated.

Appendix A Analytical Results

06 March 2009

Bob Allen Safety & Environmental Solutions, Inc. 703 E. Clinton Ave Hobbs, NM 88240

RE: Navajo Lea Refinery Delineation Project Data

Enclosed are the results for sample(s) received on 02/27/09 16:00 by Argon Laboratories. The sample(s) were analyzed according to instructions in accompanying chain-of-custody. Results are summarized on the following pages.

Please see quality control report for a summary of QC data pertaining to this project.

The sample(s) will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Sample(s) may be archived by prior arrangement.

Thank you for the opportunity to service the needs of your company.

Sincerely,

Hiram Cueto

Lab Manager

argon Labs

2126 W. Marland Ave Hobbs, NM 88240 (505)397-0295 (505)397-0296 info@argonlabs.com

CHAIN OF CUSTODY

1227

**

Project No: NAN-OG、OO 2 Project Title: Location:			Address: 703 E. Of who was forther and the way of the w	2 - C - C - C - C - C - C - C - C - C -	
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			Bill To:		
Sampler's Signatuge			Client: Atwe		
TURN AROUND TIME	IME		AN	ANALYSIS	
RUSH 24 Hour 48 Hour	other	Standard			
		(5 days)	,EX 8012		
					SINHMUS
Sample ID. Date Time	# Containers	Matrix			
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101					
12,					
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Ru#5,101 1030					
RH#6.5wface 1310			•		
Bitto. 5' 1332					
BHF10. 101 1345					
	⇒	⇒	ラヲ		
Refinaulished By:	Date: 2/21/09	Time:	Received By:	Date: Time: 1 POIN	SPECIAL INSTRUCTIONS:
Relinquished By:	/ Date:	Тіте:	Received By:	Date: Time:	
Relinquished By:	Date:	Time:	Received By:	Date: Time:	

Argon Laboratories Sample Receipt Checklist

Client Name: Sl	ESI				Date & Ti	ime Rece	ived:		02/27/09	3		16:00		
Project Name: N	avajo Lea Ret	finery		_	Client Pro	oject Nun	nber:		N.A	V-09-0	02		_	
Received By: N	F			Mat	trix:	Water		Soil	V					
Sample Carrier: CI	lient []	Lab	oratory	7	Fed Ex		UPS		Other					
Argon Labs Project Nu	ımber:	D90	2015			- -								
Shipper Container in goo	d condition?					Samples	received	in prope	r containe	ers?	Yes	V	No	
N/A	'A	Yes	✓	No		Samples	received	intact?	•		Yes	√	No	
Samples received under	refrigeration?	Yes	V	No		Sufficien	t sample v	volume fo	or request	ed tests	? Yes	7	No	
Chain of custody present	?	Yes	✓	No		Samples	received	within ho	olding time	∍?	Yes	7	No	
Chain of Custody signed	by all parties?	Yes	V	No		Do samp	les contai	in proper	preserva N/A	tive?	Yes		No	
Chain of Custody matche	es all sample lat	bels?				Do VOA v	ials contair	1 zero hea	dspace?					
		Yes	7	No			((None su	bmitted	✓)	Yes		No	
	ANY "N	o" RE	SPONSE	MUST	BE DETA	AILED IN T	HE COM	MENTS	SECTION	BELOW	V 			
Date Client Contacted:	-			_	Per	rson Con	tacted: _							—
Contacted By:					Subject:				······································					
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Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave Hobbs, NM 88240 Project Name: Navajo Lea Refinery Delineation

Project Manager: Bob Allen

Work Order No.: D902015

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH #4 Surface	D902015-01	Soil	02/27/09 08:11	02/27/09 16:00
BH#4 5'	D902015-02	Soil	02/27/09 08:30	02/27/09 16:00
BH #4 10'	D902015-03	Soil	02/27/09 08:45	02/27/09 16:00
BH #4 15'	D902015-04	Soil	02/27/09 09:10	02/27/09 16:00
BH #5 Surface	D902015-05	Soil	02/27/09 09:50	02/27/09 16:00
BH #5 5'	D902015-06	Soil	02/27/09 10:05	02/27/09 16:00
BH #5 10'	D902015-07	Soil	02/27/09 10:30	02/27/09 16:00
BH #6 Surface	D902015-08	Soil	02/27/09 13:10	02/27/09 16:00
BH #6 5'	D902015-09	Soil	02/27/09 13:32	02/27/09 16:00
BH #6 10'	D902015-10	Soil	02/27/09 13:45	02/27/09 16:00
BH #6 15'	D902015-11	Soil	02/27/09 14:10	02/27/09 16:00

QC Officer Approval

Argon Laboratories, Inc.

Safety & Environmental Solutions, Inc.

703 E. Clinton Ave Hobbs, NM 88240 Project Number: NAV-09-002

Project Name: Navajo Lea Refinery Delineation

Project Manager: Bob Allen

Work Order No.: D902015

BTEX EPA Method 8021B

Analyte	Result	Reporting Limit	Units	Dilution	. Analyzed	Method	Notes
					. Allalyzeu	Modicu	140103
BH #4 Surface (D902015-01) So	oil Sampled: 02/27/09 0	8:11 Rece	ived: 02/	27/09 16:00			
Benzene	ND	0.50	mg/kg	100	03/03/09	8021B	
Toluene	4.6	0.50	11	U	n	n	
Ethylbenzene	16	0.50	н	H	H	"	
Xylenes (total)	26	1.0	11	Н	0)1	
Surr. Rec.:		103 %			n .	"	
BH #4 5 ' (D902015-02) Soil S	ampled: 02/27/09 08:30	Received:	02/27/09	16:00			
Benzene	ND	0.050	mg/kg	10	03/03/09	8021B	
Toluene	ND	0.050	11	H	μ	n	
Ethylbenzene	0.12	0.050	ti	n	n		
Xylenes (total)	2.8	0.10	11	I)	II	u	
Surr. Rec.:		104 %			ıı	11	
BH #4 10 ' (D902015-03) Soil	Sampled: 02/27/09 08:45	Received	: 02/27/0	9 16:00			
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	n	n	tt	tt.	
Ethylbenzene	ND	0.005	II.	11	u	n	
Xylenes (total)	ND	0.010	п	u	· ·	p	
Surr. Rec.:		86 %			n n	n .	
BH #4 15 ' (D902015-04) Soil	Sampled: 02/27/09 09:10	Received	: 02/27/0	9 16:00		ب يوني د	
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	"	н	11	11	
Ethylbenzene	ND	0.005	IF	II .	11	11	
Xylenes (total)	ND	0.010	u	II	II	n	
Surr. Rec.:		88 %			н	n	

QC Officer Approval

Argon Laboratories, Inc.

2126 W. Marland Ave., Hobbs, NM 88240 • Phone (505) 397-0295 • Fax (505) 397-0296

email: info@argonlabs.com Page 2

Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave Hobbs, NM 88240 Project Name: Navajo Lea Refinery Delineation

Project Manager: Bob Allen

Work Order No.: D902015

BTEX EPA Method 8021B

Analyte	Result	Reporting Limit	Units	Dilution		Analyzed	Method	Nata
BH #5 Surface (D902015-05) Soi					· · · · · · · · · · · · · · · · · · ·	Allalyzed	Melliod	Notes
								
Benzene	ND	0.40	mg/kg	80		03/03/09	8021B	
Toluene	ND	0.40	н			н	n	
Ethylbenzene	2.0	0.40	II.	n '		11	н	
Xylenes (total)	5.7	0.80		11			11	
Surr. Rec.:		84 %				11	"	
BH #5 5 ' (D902015-06) Soil Sa	ampled: 02/27/09 10:05	Received:	02/27/09	16:00				
Benzene	ND	0.005	mg/kg	1		03/03/09	8021B	
Toluene	ND	0.005	Ð	н		U	ff	
Ethylbenzene	· ND	0.005	11	n		15	II	
Xylenes (total)	ND	0.010	н	u	•	41	"	
Surr. Rec.:		106 %				н .	"	
BH #5 10 ' (D902015-07) Soil S	Sampled: 02/27/09 10:30	Received	: 02/27/09	9 16:00				
Benzene	ND	0.005	mg/kg	1 .		03/03/09	8021B	
Toluene	ND	0.005	II .	0		ır	и	
Ethylbenzene	ND	0.005	n	11		ır	Ir	
Xylenes (total)	ND	0.010	11	Ħ		Ħ	п	
Surr. Rec.:		86 %				"	11	
BH #6 Surface (D902015-08) Soi	I Sampled: 02/27/09 13	3:10 Rece	ived: 02/2	27/09 16:00				
Benzene	1.8	0.50	mg/kg	100	· · · · · · · · · · · · · · · · · · ·	03/03/09	8021B	
Toluene	30	0.50	"	"		n	u	
Ethylbenzene	31	0.50	11	n		n	и .	
Xylenes (total)	42	1.0	IF	11		n	n.	
Surr. Rec.:		112 %			***************************************	"	n .	

QC Officer Approval

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Safety & Environmental Solutions, Inc.

703 E. Clinton Ave

Hobbs, NM 88240 Project Number: NAV-09-002

Project Name: Navajo Lea Refinery Delineation

Project Manager: Bob Allen

Work Order No.: D902015

BTEX EPA Method 8021B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
BH #6 5 ' (D902015-09) Soil	Sampled: 02/27/09 13:32	Received:	02/27/09	16:00			
Benzene	ND	0.10	mg/kg	20	03/03/09	8021B	
Toluene	ND	0.10	11	11	79	n	
Ethylbenzene	ND	0.10	11	11	47	u	
Xylenes (total)	1.4	0.20	n	ti	11	ti .	
Surr. Rec.:		96 %			"	n	
BH #6 10 ' (D902015-10) Soil	Sampled: 02/27/09 13:45	Received	: 02/27/0	9 16:00			
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	II.	n	u	H	
Ethylbenzene	ND	0.005	н	H	H	It	
Xylenes (total)	ND	0.010	11			н	
Surr. Rec.:		100 %			n	"	
BH #6 15 ' (D902015-11) Soil	Sampled: 02/27/09 14:10	Received	: 02/27/0	9 16:00			
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	и	16	п	n	
Ethylbenzene	ND	0.005	II.	n	tt	tr.	
Xylenes (total)	ND	0.010	u	11	¥	n	
Surr. Rec.:		85 %			tt	"	

QC Officer Approval

Argon Laboratories, Inc.

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Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave

Project Name: Navajo Lea Refinery Delineation

Work Order No.: D902015

Hobbs, NM

Project Manager: Bob Allen

Total Petroleum Hydrocarbons EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution		Analyzed	Method	Notes
BH #4 Surface (D902015-01) Soi)	71111.7200	- Indiana	S-09
Gasoline Range Organics	480	200	mg/kg	20		03/03/09	EPA 8015M	· , · , · . · · · · · · · · · · · · · ·
Diesel Range Organics	34000	200	"	11		11	н	
C29 - C35 Range Organics	7100	400	11	II.		н	lt.	
Total Petroleum Hydrocarbons	41600	200	0	11		II	H	
BH #4 5 ' (D902015-02) Soil Sa	mpled: 02/27/09 08:30	Received:	02/27/09	16:00				
Gasoline Range Organics	ND	10	mg/kg	1		03/03/09	EPA 8015M	
Diesel Range Organics	360	10	n	tt		n	U	
C29 - C35 Range Organics	90 ′	20	n n	n		α,	n	
Total Petroleum Hydrocarbons	450	10	н	W		11	n	
Surr. Rec.:		106%				"	"	
BH #4 10 ' (D902015-03) Soil S	ampled: 02/27/09 08:45	Received	: 02/27/0	9 16:00				
Gasoline Range Organics	ND	10	mg/kg	1		03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	n	11		Ħ	II.	
C29 - C35 Range Organics	ND	20	n	. 11		11	н	
Total Petroleum Hydrocarbons	ND	10	ti	н		đ	п	
Surr. Rec.:		111%				п	"	
BH #4 15 ' (D902015-04) Soil S	ampled: 02/27/09 09:10	Received	: 02/27/0	9 16:00				
Gasoline Range Organics	ND	10	mg/kg	1		03/03/09	EPA 8015M	
Diesel Range Organics	ND	10		#1		tr	п	
C29 - C35 Range Organics	ND	20	n	If		•	at .	
Total Petroleum Hydrocarbons	ND	10	¥	n		ti	n	
Surr. Rec.:		104 %				"	n .	

QC Officer Approval

Argon Laboratories, Inc.

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Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave Hobbs, NM 88240 Project Name: Navajo Lea Refinery Delineation

Project Manager: Bob Allen

Work Order No.: D902015

Total Petroleum Hydrocarbons EPA Method 8015M

Anglisto	Result	eporting Limit	Units	Dilution	Apaliand	Method	Noted
Analyte					Analyzed	Menion	Notes
BH #5 Surface (D902015-05) Soil	Sampled: 02/27/09 09:5	0 Rece	eived: 02/	27/09 16:00			S-09
Gasoline Range Organics	ND	200	mg/kg	20	03/03/09	EPA 8015M	
Diesel Range Organics	20000	200	U	п	н	n	
C29 - C35 Range Organics	4700	400	н	0	II.	ıı	
Total Petroleum Hydrocarbons	24800	200	"	н	И	11	
BH #5 5 ' (D902015-06) Soil Sam	npled: 02/27/09 10:05 R	eceived:	02/27/09	16:00			
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	14	10	11	n	11	· n	
C29 - C35 Range Organics	ND	20	11	"	н	U	
Total Petroleum Hydrocarbons	14	10	n	tr	н	it	
Surr. Rec.:		94 %			п	H	
BH #5 10 ' (D902015-07) Soil Sa	mpled: 02/27/09 10:30 F	Received	l: 02/27/0	9 16:00			
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	11	n	tı	0	
C29 - C35 Range Organics	ND	20	II.	a	ıı	11	
Total Petroleum Hydrocarbons	ND	10	ti .	11	II	lt	
Surr. Rec.:		99 %			n	"	
BH #6 Surface (D902015-08) Soil	Sampled: 02/27/09 13:1	0 Rece	ived: 02/2	27/09 16:00			
Gasoline Range Organics	350	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	1300	10	II.	u	11	Ħ	
C29 - C35 Range Organics	460	20	n	и	ţi.	n	
Total Petroleum Hydrocarbons	2110	10	Ħ	'n	II	II .	
Surr. Rec.:		106 %			"	n	

QC Officer Approval

Argon Laboratories, Inc.

Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave Hobbs, NM 88240 Project Name: Navajo Lea Refinery Delineation

Project Manager: Bob Allen

Work Order No.: D902015

Total Petroleum Hydrocarbons EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
BH #6 5 ' (D902015-09) Soil	Sampled: 02/27/09 13:32	Received:	02/27/09	16:00			
Gasoline Range Organics	50	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	390	10	Ħ	ш	II	II .	
C29 - C35 Range Organics	ND	20	H	H	u	t:	
Total Petroleum Hydrocarbons	s 440	10		Ir,	 11	11	
Surr. Rec.:		93 %			"	n	
BH #6 10 ' (D902015-10) Soil	Sampled: 02/27/09 13:45	Received	: 02/27/0	9 16:00			
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	24	10	II .	n	. 11	U	
C29 - C35 Range Organics	· ND	20	II .	n	11	11	
Total Petroleum Hydrocarbons	24	10	17	11	11	n	
Surr. Rec.:		97 %			n	"	
BH #6 15 ' (D902015-11) Soil	Sampled: 02/27/09 14:10	Received	: 02/27/0	9 16:00			
Gasoline Range Organics	ND	10	mg/kg	I	03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	ti .	п	' n '	n :	
C29 - C35 Range Organics	ND	20	n	11	n	н	
Total Petroleum Hydrocarbons	ND	10	U	tt	ti .	п	
Surr. Rec.:		98 %			11	"	

QC Officer Approval

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Safety & Environmental Solutions, Inc.

703 E. Clinton Ave Hobbs, NM 88240 Project Number: NAV-09-002

Project Name: Navajo Lea Refinery Delineation

Project Manager: Bob Allen

Work Order No.:

D902015

BTEX EPA Method 8021B - Quality Control

Argon Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	RPD	Notes_
Batch DS00038 - EPA 5030B								
Blank (DS00038-BLK1)				Prepared o	& Analyze	ed: 03/03/09		
Surrogate: a,a,a-Trifluorotoluene	0.0410		mg/kg	0.0500		82		
Benzene	ND	0.005	11					
Toluene	ND	0.005	ir.					
Ethylbenzene	ND	0.005	и					
Xylenes (total)	ND	0.010	11					
LCS (DS00038-BS1)				Prepared &	& Analyze	d: 03/03/09		
Benzene	0.047		mg/kg	0.0500		94		
LCS Dup (DS00038-BSD1)				Prepared &	& Analyze	d: 03/03/09		
Benzene	0.050		mg/kg	0.0500		100	6	
Matrix Spike (DS00038-MS1)				Prepared &	k Analyze	d: 03/03/09		
Toluene	0.047		mg/kg	0.0500		94		
Matrix Spike Dup (DS00038-MSD1)				Prepared &	k Analyze	d: 03/03/09		
Toluene	0.046		mg/kg	0.0500		92	2	

QC Officer Approval

Argon Laboratories, Inc.

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Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave

Project Name: Navajo Lea Refinery Delineation

Work Order No.:

Hobbs, NM 8824

Project Manager: Bob Allen

D902015

Total Petroleum Hydrocarbons EPA Method 8015M - Quality Control

Argon Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	RPD	Notes
Batch DS00039 - EPA 3550B								
Blank (DS00039-BLK1)				Prepared	& Analyze	ed: 03/03/09		
Surrogate: p-Terphenyl	0.0970		mg/kg	0.100		97		
Gasoline Range Organics	ND	10	n					
Diesel Range Organics	ND	10	n					
C29 - C35 Range Organics	ND	20	n					
Total Petroleum Hydrocarbons	ND	10	н .					
LCS (DS00039-BS1)				Prepared	& Analyze	:d: 03/03/09		
Total Petroleum Hydrocarbons	· 234		mg/kg	250		94		
LCS Dup (DS00039-BSD1)				Prepared of	& Analyze	d: 03/03/09		
Total Petroleum Hydrocarbons	228		mg/kg	250		91 .	3	
Matrix Spike (DS00039-MS1)				Prepared a	& Analyze	d: 03/03/09		
Total Petroleum Hydrocarbons	240		mg/kg	250		96		
Matrix Spike Dup (DS00039-MSD1)				Prepared &	& Analyze	ed: 03/03/09		
Total Petroleum Hydrocarbons	244		mg/kg	250		98	2	
Total Petroleum Hydrocarbons	244		mg/kg	250		98	2	

QC Officer Approval

Argon Laboratories, Inc.

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laboratories

Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave

Project Name: Navajo Lea Refinery Delineation

Work Order No.: D902015

Hobbs, NM 88240 Project Manager: Bob Allen

Notes and Definitions

S-09 Surrogate diluted out of range due to sample dilution.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dгу Sample results reported on a dry weight basis

RPD Relative Percent Difference

QC Officer Approval

Argon Laboratories, Inc.

06 March 2009

Bob Allen Safety & Environmental Solutions, Inc. 703 E. Clinton Ave Hobbs, NM 88240

RE: Navajo Lea Refinery Delineation Project Data

Enclosed are the results for sample(s) received on 02/27/09 16:00 by Argon Laboratories. The sample(s) were analyzed according to instructions in accompanying chain-of-custody. Results are summarized on the following pages.

Please see quality control report for a summary of QC data pertaining to this project.

The sample(s) will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Sample(s) may be archived by prior arrangement.

Thank you for the opportunity to service the needs of your company.

Sincerely,

Hiram Cueto Lab Manager

2126 W. Marland Ave., Hobbs, NM 88240 • Phone (505) 397-0295 • Fax (505) 397-0296 email: info@argonlabs.com

Argon Labs

(505)397-0295 (505)397-0296 info@argonlabs.com 2126 W. Marland Ave Hobbs, NM 88240

CHAIN OF CUSTODY

D90301226 COMMENTS SPECIAL INSTRUCTIONS: Time: Les letrory le motivations: 765 = 61, 1160 sector Makalle Banco 2-27-09 **ANALYSIS** Contact: #05 6 5, 717 Phope: 5 5 399 - 5 5 6 Bill To: Samo Received By Cons Received By: タ Client: Address: Standard (5 days) Date: Solves Time: 人とのなけ Matrix 20, Time: Date: 1 1/09 # Containers other TXX ac 1020 locata 1300 0345 0300 0930 1345 48 Hour 5550 1745 Time Project No: Nav 09-00 Z Project Title: Nava Jo Los 24 Hour RH#2 Sullare Sampler's Signature: 1811 #2 10 3 4#7 20 Sampler's Name: (print) 3/14/25 Relinquished By: Relinquished By: RUSH inguis

ATGON LADS 2126 W. Mariand Ave Hobbs, NM 88240

(505)397-0295 (505)397-0296 info@argonlabs.com

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D902014225

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Project No: Project Title: Location:	Navozoos garajo Lea	iea Reci	Margo Les Refinery Deliveration Address.	finalian	Client: Address:	Address: 70 \$ E Clivia Still	John J.	3143/2		-			
Sampler's Name: (print)	H	Isaac	Kinaid	2.74	Phope: 7-7	0250-255(2	S. 71.	1200					
	Ĭ	,				Bill To:							
Sampler's Signature:	<i>ii</i>				Client: Address:	Samo					•		
		TURN AROUND TIME	ME			d	ANALYSIS			\mid			
RUSH	24 Hour	48 Hour	other		2								
					X 7								
			•	·	F. L. S. 14.45-								
Sample ID.	Date	Time	# Containers	Matrix	<u> </u>			-		1	5	COMMENTS	
BYS SHAP	5			5051	X								
1 .		\ .			X								
RH#3 101		CS HI	-		X								
BHIBIS	70	1500			ス ア								
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Relinquished By:			Date/ (0)	Time:	Received Bye	Born	Date:	13/07 Tim	405 5M	SPECIAL IN	SPECIAL INSTRUCTIONS:		
Relinquished By:	43.0		Date: / Date: 7	Time:	Received By:	SAMO		Date: Time: 4 P M	E. J. P. M.	-			
Relinquished By:			Date:	Time:	Received By:	Į.	1	Time:	ia i	: •			
		Prince Control					-						lugi.

Argon Laboratories Sample Receipt Checklist

Client Name:	SESI			Date & T	ime Received:		02/27/09	16:00		
Project Name:	Navajo Lea Re	efinery		Client Pr	oject Number:		NAV-09-0	002		
Received By:	NF		Ма	trix:	Water	Soil	V			
Sample Carrier:	Client []	Laboratory	V	Fed E	x 🗌 UF	rs 🗆	Other \square			
Argon Labs Projec	t Number:	D902014			_					
Shipper Container in	good condition?				Samples receiv	ed in prop	er containers?	Yes 🗸	No	
	N/A	Yes 🗸	No		Samples receiv	ed intact?		Yes 🗸	No	
Samples received un	der refrigeration?	Yes 🗸	No		Sufficient samp	ole volume	for requested tests	s? Yes 🗸	No	
Chain of custody pres	sent?	Yes 🗸	No		Samples receiv	ed within h	olding time?	Yes 🗸	No	
Chain of Custody sign	ned by all parties?	Yes 🗸	No		Do samples cor	ntain prope	r preservative? N/A	Yes 🗌	No	
Chain of Custody ma	tches all sampie la	abels?			Do VOA vials con	ntain zero he	adspace?		•	
		Yes 🗸	No			(None s	ubmitted 🗹)	Yes 🗌	No	
	ΔΝΥ "Α	io" RESPONSE	MUST	BE DETA	All ED IN THE CO	OMMENTS	SECTION BELO	\w/		
Date Client Contact	ted:		_	Pe	rson Contacted	:				
Contacted By:				Subject:	·			•		
Comments:										_
										- - -
		-				·	······································			•

Action Taken:		, <u>.</u>								
										,
		A	DDITIO	NAL TES	T(S) REQUEST /	OTHER		 		
Contacted By:	·			_	Date:			Time:		
Call Received By: _				-						
Comments:										•
								· · · · · · · · · · · · · · · · · · ·		

Safety & Environmental Solutions, Inc.

703 E. Clinton Ave Hobbs, NM 88240 Project Number: NAV-09-002

Project Name: Navajo Lea Refinery Delineation

Project Manager: Bob Allen

Work Order No.: D902014

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH#1 Surface	D902014-01	Soil	02/26/09 08:45	02/27/09 16:00
BH#1 5'	D902014-02	Soil	02/26/09 09:00	02/27/09 16:00
BH#1 10'	D902014-03	Soil	02/26/09 09:30	02/27/09 16:00
BH#1 15'	D902014-04	Soil	02/26/09 09:55	02/27/09 16:00
BH#1 20'	D902014-05	Soil	02/26/09 10:05	02/27/09 16:00
BH #1 25'	D902014-06	Soil	02/26/09 10:20	02/27/09 16:00
BH #2 Surface	D902014-07	Soil	02/26/09 10:45	02/27/09 16:00
BH #2 5'	D902014-08	Soil	02/26/09 12:45	02/27/09 16:00
BH #2 10'	D902014-09	Soil	02/26/09 13:00	02/27/09 16:00
BH #2 15'	D902014-10	Soil	02/26/09 13:45	02/27/09 16:00
BH #2 20'	D902014-11	Soil	02/26/09 13:55	02/27/09 16:00
BH #3 Surface	D902014-12	Soil	02/26/09 14:30	02/27/09 16:00
BH #3 5'	D902014-13	Soil	02/26/09 14:35	02/27/09 16:00
BH #3 10'	D902014-14	Soil	02/26/09 14:50	02/27/09 16:00
ВН #3 15'	D902014-15	Soil	02/26/09 15:00	02/27/09 16:00

QC Officer Approval

Argon Laboratories, Inc.

Safety & Environmental Solutions, Inc.

703 E. Clinton Ave Hobbs, NM 88240 Project Number: NAV-09-002

Project Name: Navajo Lea Refinery Delineation

Project Manager: Bob Allen

Work Order No.: D902014

BTEX EPA Method 8021B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
BH #1 Surface (D902014-01) So	il Sampled: 02/26/09 08	3:45 Rece	eived: 02/2	27/09 16:00			
Benzene	ND	0.20	mg/kg	40	03/03/09	8021B	
Toluene	0.32	0.20	п	II.	11	11	
Ethylbenzene	2.6	0.20	0	11	u	11	
Xylenes (total)	5.1	0.40	H	11	ıt	11	
Surr. Rec.:		96 %			v	"	
BH #1 5 ' (D902014-02) Soil Sa	ampled: 02/26/09 09:00	Received:	02/27/09	16:00			
Benzene	ND	0.10	mg/kg	20	03/03/09	8021B	
Toluene	0.24	0.10	H	u	и	II.	
Ethylbenzene	1.5	0.10	11	II .	n	u	
Xylenes (total)	2.4	0.20	11	u	U	U	
Surr. Rec.:		94 %			"	"	
BH #1 10 ' (D902014-03) Soil S	Sampled: 02/26/09 09:30	Received	: 02/27/09	9 16:00			
Benzene	ND	0.025	mg/kg	5	03/03/09	8021B	
Toluene	0.054	0.025	n	11	u	ıı .	
Ethylbenzene	1.7	0.025	U	U	u	. 11	
Xylenes (total)	2.2	0.050	D	n	n	11	
Surr. Rec.:		89 %			"	"	
BH #1 15 ' (D902014-04) Soil S	Sampled: 02/26/09 09:55	Received	: 02/27/09	9 16:00			
Benzene	ND	0.20	mg/kg	40	03/03/09	8021B	
Toluene	0.43	0.20	11	n	н	n	
Ethylbenzene	6.8	0.20	ir	ti	11	н	
Xylenes (total)	9.7	0.40	ti	II.	n	11	
Surr. Rec.:		81%			n	n .	

QC Officer Approval

Argon Laboratories, Inc.

Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave Hobbs, NM 88240

Project Name: Navajo Lea Refinery Delineation Project Manager: Bob Allen

Work Order No.: D902014

BTEX EPA Method 8021B

		Reporting						
Analyte	Result	Limit	Units	Dilution	1	Analyzed	Method	Note
BH #1 20 ' (D902014-05) Soil	Sampled: 02/26/09 10:05	Received	1: 02/27/0	9 16:00				
Benzene	ND	0.005	mg/kg	1		03/03/09	8021B	
Toluene	ND	0.005	0	11		P	н	
Ethylbenzene	ND	0.005	11	11		11	11	
Xylenes (total)	ND	0.010	ii .	11		11		
Surr. Rec.:		88 %				n .	11	
BH #1 25 ' (D902014-06) Soil	Sampled: 02/26/09 10:20	Received	1: 02/27/0	9 16:00				
Benzene	ND	0.005	mg/kg	1		03/03/09	8021B	
Toluene	ND	0.005	II	n		H	11	
Ethylbenzene	. ND	0.005	11	и		n	n	
Xylenes (total)	ND	0.010	. **	II.		и	u ·	
Surr. Rec.:		88 %				"	"	
BH #2 Surface (D902014-07)	Soil Sampled: 02/26/09 10	:45 Rece	ived: 02/2	27/09 16:00)			
Benzene	ND	0.50	mg/kg	100		03/03/09	8021B	
Toluene	2.4	0.50	n	H		11	11	
Ethylbenzene	10	0.50	tı	f1		11	11	
Xylenes (total)	17	1.0	If	ti .		I)	11	
Surr. Rec.:		92 %				• "	"	
BH #2 5 ' (D902014-08) Soil	Sampled: 02/26/09 12:45	Received:	02/27/09	16:00				
Benzene	ND	0.10	mg/kg	20		03/03/09	8021B	
Toluene	0.24	0.10	u	u		n	n	,
Ethylbenzene	1.2	0.10	ŧI	11		II II	tf	
Xylenes (total)	2.5	0.20	11	n .		n	n	
Surr. Rec.:		77 %				"	n	

QC Officer Approval

Argon Laboratories, Inc.

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laboratories

Safety & Environmental Solutions, Inc.

703 E. Clinton Ave

Hobbs, NM 88240 Project Number: NAV-09-002

Project Name: Navajo Lea Refinery Delineation

Project Manager: Bob Allen

Work Order No.: D902014

BTEX EPA Method 8021B

Analyte	Result	Reporting Limit	Units	Dilution		Analyzed	Method	Note
BH #2 10 ' (D902014-09) Soil	Sampled: 02/26/09 13:00	Received	1: 02/27/0	9 16:00				
Benzene	ND	0.005	mg/kg	1		03/03/09	8021B	
Toluene	ND	0.005	н	n		н	11	
Ethylbenzene	ND	0.005	n	н		n	u	
Xylenes (total)	ND	0.010	11	И		n	II .	
Surr. Rec.:		87 %				"	n .	
BH #2 15 ' (D902014-10) Soil	Sampled: 02/26/09 13:45	Received	: 02/27/0	9 16:00				
Benzene	ND	0.005	mg/kg	1	•	03/03/09	8021B	
Toluene	ND	0.005	11	11		11	lf .	
Ethylbenzene	ND	0.005	11	11		15	и	
Xylenes (total)	ND	0.010	11	0		0		
Surr. Rec.:		90 %				"	" .	
BH #2 20 ' (D902014-11) Soil	Sampled: 02/26/09 13:55	Received	: 02/27/0	9 16:00				
Benzene	ND	0.005	mg/kg	1		03/03/09	8021B	
Toluene	ND	0.005	и	į p		¥	п	
Ethylbenzene	ND	0.005	н	11		H	Tr .	
Xylenes (total)	ND	0.010	n	**		11	II	
Surr. Rec.:		94 %				"	н	
BH #3 Surface (D902014-12) S	oil Sampled: 02/26/09 14:	30 Rece	ived: 02/2	7/09 16:00				
Benzene	ND	0.050	ıng/kg	10		03/03/09	8021B	
Foluene	0.090	0.050	11	n		n	и	
Ethylbenzene	0.60	0.050	U	H		n	н	
Xylenes (total)	1.3	0.10	II	н		(I	ıı	
Surr. Rec.:		92 %				"	"	

QC Officer Approval

Argon Laboratories, Inc.

Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave Hobbs, NM 88240

Project Name: Navajo Lea Refinery Delineation Project Manager: Bob Allen

Work Order No.:

D902014

BTEX EPA Method 8021B

Analyte	Result	Reporting Limit	Units	Dilution		Analyzed	Method	Notes
BH #3 5 ' (D902014-13) Soil	Sampled: 02/26/09 14:35	Received:	02/27/09	16:00	,			
Benzene	ND	0.005	mg/kg	1		03/03/09	8021B	
Toluene	ND	0.005	17	u .		11	H.	
Ethylbenzene	ND	0.005	n	II.		II .	Ħ	
Xylenes (total)	ND	0.010	п	u .	•	ti	II .	
Surr. Rec.:		98 %				"	"	
BH #3 10 ' (D902014-14) Soil	Sampled: 02/26/09 14:50	Received	: 02/27/0	9 16:00				
Benzene	ND	0.005	mg/kg	1		03/03/09	8021B	
Toluene	ND	0.005	11	u		II	11	
Ethylbenzene	ND	0.005	11	IS		#1	п	
Xylenes (total)	ND	0.010	"	n		it	11	
Surr. Rec.:		93 %				n.	"	
BH #3 15 ' (D902014-15) Soil	Sampled: 02/26/09 15:00	Received	: 02/27/0	9 16:00				
Benzene	ND	0.005	mg/kg	1		03/03/09	8021B	
Toluene	ND	0.005	If	Ħ		11		
Ethylbenzene	ND	0.005	n	tr	•	11	n	
Xylenes (total)	ND	0.010	n	II		If	n	
Surr. Rec.:		89 %				11	n .	

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Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave

Project Name: Navajo Lea Refinery Delineation

Work Order No.: D902014

Hobbs, NM 88240

Project Manager: Bob Allen

Total Petroleum Hydrocarbons EPA Method 8015M

		Penorting					
Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
BH #1 Surface (D902014-01) Soi	1 Sampled: 02/26/09 08	8:45 Rece	ived: 02/	27/09 16:00			S-09
Gasoline Range Organics	ND	200	mg/kg	20	03/03/09	EPA 8015M	
Diesel Range Organics	3600	200	H	41	11	U	
C29 - C35 Range Organics	ND	400	II	И	If	н	
Total Petroleum Hydrocarbons	. 3880	200	"	u	И	11	
BH #1 5 ' (D902014-02) Soil Sa	mpled: 02/26/09 09:00	Received:	02/27/09	16:00			
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	80	10	n	11	tt	· n	
C29 - C35 Range Organics	ND	20	n		п	tt	
Total Petroleum Hydrocarbons	88	10	ti .	fl	11	11	
Surr. Rec.:		99 %			"	и	
BH #1 10 ' (D902014-03) Soil S	ampled: 02/26/09 09:30	Received	: 02/27/0	9 16:00			
Gasoline Range Organics	30	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	190	10	Ir	II	11	II .	
C29 - C35 Range Organics	ND	20	в.	и	ti .	11	
Total Petroleum Hydrocarbons	220	10	11	11		n	
Surr. Rec.:		91 %			"	п	
BH #1 15 ' (D902014-04) Soil S	ampled: 02/26/09 09:55	Received	: 02/27/09	16:00			
Gasoline Range Organics	50	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	340	10		11			
C29 - C35 Range Organics	ND	20	II	It	11	II .	
Total Petroleum Hydrocarbons	390	10	u 	II	11	11	
Surr. Rec.:		98 %			n	"	

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Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave Hobbs, NM 88240 Project Name: Navajo Lea Refinery Delineation

Project Manager: Bob Allen

Work Order No.: D902014

Total Petroleum Hydrocarbons EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed Method Note
BH #1 20 ' (D902014-05) Soil	Sampled: 02/26/09 10:05	Received	d: 02/27/0	9 16:00	
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09 EPA 8015M
Diesel Range Organics	ND	10	Ħ	и	n . H
C29 - C35 Range Organics	ND	20	n	n	H 11
Total Petroleum Hydrocarbons	ND	10	II	n	II II
Surr. Rec.:		104 %			' и и
BH #1 25 ' (D902014-06) Soil	Sampled: 02/26/09 10:20	Received	1: 02/27/0	9 16:00	
Gasoline Range Organics	ND .	10	mg/kg	1	03/03/09 EPA 8015M
Diesel Range Organics	ND	10	11	n	11 (1
C29 - C35 Range Organics	ND	20	п	n	II II
Total Petroleum Hydrocarbons	ND	10	п	17	11
Surr. Rec.:		101 %			и и
BH #2 Surface (D902014-07) S	oil Sampled: 02/26/09 10:	45 Rece	eived: 02/2	27/09 16:00	S-0
Gasoline Range Organics	ND	200	mg/kg	20	03/03/09 EPA 8015M
Diesel Range Organics	3000	200	н	n	n n
C29 - C35 Range Organics	ND	400	п	n	11 11
Total Petroleum Hydrocarbons	3190	200	11	II	и и
BH #2 5 ' (D902014-08) Soil S	Sampled: 02/26/09 12:45 F	Received:	02/27/09	16:00	
Gasoline Range Organics	30	10	mg/kg	1	03/03/09 EPA 8015M
Diesel Range Organics	430	01		ii	, , , , , , , , , , , , , , , , , , , ,
C29 - C35 Range Organics	ND	20	N	ш	41 11
Total Petroleum Hydrocarbons	460	10		u	n n
Surr. Rec.:		102 %			u u

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Safety & Environmental Solutions, Inc.

88240

Project Number: NAV-09-002

703 E. Clinton Ave

Hobbs, NM

Project Name: Navajo Lea Refinery Delineation

Project Manager: Bob Allen

Work Order No.: D902014

Total Petroleum Hydrocarbons EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
BH #2 10 ' (D902014-09) Soil	Sampled: 02/26/09 13:00	Received	: 02/27/0	9 16:00	· · · · · · · · · · · · · · · · · · ·		
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	50	10	11	u	11	11	
C29 - C35 Range Organics	ND	20	n	II	15	IJ	
Total Petroleum Hydrocarbons	50	10	11		 II.		
Surr. Rec.:		104 %			"	"	
BH #2 15 ' (D902014-10) Soil	Sampled: 02/26/09 13:45	Received	: 02/27/0	9 16:00			
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	11	n	TI	п	
C29 - C35 Range Organics	ND	20	II .	11	н	п	
Total Petroleum Hydrocarbons	ND	10	1)	#	 и	H .	
Surr. Rec.:		105 %			n	"	
3H #2 20 ' (D902014-11) Soil	Sampled: 02/26/09 13:55	Received	: 02/27/09	16:00		•	
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	u	"	n	u u	
C29 - C35 Range Organics	ND	20	u	11	tt	11	
Total Petroleum Hydrocarbons	ND	10	1 1	11	 11	U	
Surr. Rec.:		105 %			 11	"	
BH #3 Surface (D902014-12) So	oil Sampled: 02/26/09 14:	30 Recei	ived: 02/2	7/09 16:00	. ~		S-09
Basoline Range Organics	ND	200	mg/kg	20	 03/03/09	EPA 8015M	
Diesel Range Organics	12000	200	tt .	и	u	И	
C29 - C35 Range Organics	8100	400	н	u	n	ıı	
otal Petroleum Hydrocarbons	20200	200	Ħ	IT	u	n .	

QC Officer Approval

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Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave Hobbs, NM 88240 Project Name: Navajo Lea Refinery Delineation

Project Manager: Bob Allen

Work Order No.: D902014

Total Petroleum Hydrocarbons EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
BH #3 5 ' (D902014-13) Soil	Sampled: 02/26/09 14:35	Received:	02/27/09	16:00			
Gasoline Range Organics	ND	10	mg/kg	1	 03/03/09	EPA 8015M	
Diesel Range Organics	. 20	10	"	tt.	u	41	
C29 - C35 Range Organics	ND	20	u	n	11	п	
Total Petroleum Hydrocarbon:	s 20	10	. 0	11	 	п	
Surr. Rec.:		104 %			 "	11	
BH #3 10 ' (D902014-14) Soil	Sampled: 02/26/09 14:50	Received	: 02/27/0	9 16:00			
Gasoline Range Organics	ND	10	mg/kg	1	 03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	. 14	11	u	II	
C29 - C35 Range Organics	ND	20	n	11	n	я	
Total Petroleum Hydrocarbons	ND	10	IT	ii	11	n .	
Surr. Rec.:		104 %			 "	· n	
BH #3 15 ' (D902014-15) Soil	Sampled: 02/26/09 15:00	Received	: 02/27/0	9 16:00			
Gasoline Range Organics	ND	10	mg/kg	1	 03/03/09	EPA 8015M	
Diesel Range Organics	ИD	10	n	a	н	II	
C29 - C35 Range Organics	ND	20	\$1	II	u	li .	
Total Petroleum Hydrocarbons	ND	10	u	II .	н	н	
Surr. Rec.:		99 %			n	II	··········

QC Officer Approval

Argon Laboratories, Inc.

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Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave

Project Name: Navajo Lea Refinery Delineation

Work Order No.:

Hobbs, NM 88240 Project Manager: Bob Allen

D902014

BTEX EPA Method 8021B - Quality Control

Argon Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	RPD	Notes
Batch DS00038 - EPA 5030B	·							
Blank (DS00038-BLK1)				Prepared	& Analyze	ed: 03/03/09		
Surrogate: a,a,a-Trifluorotoluene	0.0410		mg/kg	0.0500		82		
Benzene	ND	0.005	ш					
Toluene	П	0.005	II					
Ethylbenzene	ND	0.005	u					
Xylenes (total)	ND	0.010	11					
LCS (DS00038-BS1)				Prepared a	& Analyze	d: 03/03/09		
Benzene	0.047		mg/kg	0.0500		94		
LCS Dup (DS00038-BSD1)				Prepared o	& Analyze	d: 03/03/09		
Benzene	0.050		mg/kg	0.0500		100	6	
Matrix Spike (DS00038-MS1)				Prepared a	& Analyze	d: 03/03/09		
Toluene	0.047		mg/kg	0.0500		94		
Matrix Spike Dup (DS00038-MSD1)				Prepared &	& Analyze	d: 03/03/09		
Toluene	0.046		mg/kg	0.0500		92	2	
•								

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Argon Laboratories, Inc.

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Safety & Environmental Solutions, Inc.

Project Number: NAV-09-002

703 E. Clinton Ave Hobbs, NM

Project Name: Navajo Lea Refinery Delineation 88240

Work Order No.:

Project Manager: Bob Allen D902014

Total Petroleum Hydrocarbons EPA Method 8015M - Quality Control

Argon Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	RPD	Notes
Batch DS00039 - EPA 3550B		· · · · · · · · · · · · · · · · · · ·	···					
Blank (DS00039-BLK1)				Prepared	& Analyze	d: 03/03/09		
Surrogate: p-Terphenyl	0.0970		mg/kg	0.100	,	97		<u> </u>
Gasoline Range Organics	ND	10	11		•		•	
Diesel Range Organics	ND	10	n					
C29 - C35 Range Organics	ND	20	11					
Total Petroleum Hydrocarbons	ND	10	u					
LCS (DS00039-BS1)				Prepared	& Analyze	d: 03/03/09		
Total Petroleum Hydrocarbons	234		mg/kg	250		94		
LCS Dup (DS00039-BSD1)				Prepared a	& Analyze	d: 03/03/09		
Total Petroleum Hydrocarbons	228		mg/kg	250		91	3	
Matrix Spike (DS00039-MS1)		_		Prepared a	& Analyze	d: 03/03/09		
Total Petroleum Hydrocarbons	240		mg/kg	250		96		
Matrix Spike Dup (DS00039-MSD1)	-			Prepared a	& Analyze	d: 03/03/09		
Total Petroleum Hydrocarbons	244		mg/kg	250		98	2	

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Argon Laboratories, Inc.

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Safety & Environmental Solutions, Inc.

88240

Project Number: NAV-09-002

703 E. Clinton Ave

Hobbs, NM

Project Name: Navajo Lea Refinery Delineation

Work Order No.:

D902014

Notes and Definitions

Project Manager: Bob Allen

S-09 Surrogate diluted out of range due to sample dilution.

Analyte DETECTED DET

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

Sample results reported on a dry weight basis dry

RPD Relative Percent Difference

QC Officer Approval

Argon Laboratories, Inc.

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Appendix B C-141

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

5281

* Attach Additional Sheets If Necessary

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised October 10, 2003

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

			Rel	ease Notific	catio	on and Co	orrective A	ction		. <u> </u>				
						OPERA'	TOR		X Init	ial Report		Fina	al Repor	
		Vavajo Lea F		Co.			arrell Moore							
		ain Loving	on, NM			Telephone No. 575-746-5281								
Facility Na	me Lea Re	fining Co.				Facility Type Petroleum Refinery								
Surface Ow	ner			Mineral (Owner		,		Lease	No.				
				LOCA	ATIC	N OF REI	LEASE							
Unit Letter	Section	Township	Range	Feet from the	Nort	h/South Line	Feet from the	East/W	est Line	County		· <u>-</u>		
		·	La	titude		Longitud	le							
				NAT	URE	OF RELI								
Type of Rele		riesel					Release 100 bbls			Recovered 8			70.0	
Source of Re	lease Blee	der lett open		•		Date and H 2/21/09 7:	lour of Occurrenc 30 am	e	Date and 7:45 am	Hour of Dis	cover	y 2/21/	/09	
Was Immedia	ite Notice (Yes [No 🔲 Not Re	equired	If YES, To	Whom?							
By Whom? J							our 2/21/09	7:50 an						
Was a Watero	ourse Read		Yes 🗷	No		If YES, Vo	lume Impacting t	he Water	course.					
The plant has	been in tur	m and Remed naround so it led.	as been d	lown. When starti	ng up t	he plant, rundo	own lines were be	ing filled	. A bleed	ler was inadv	ertent	ly left	opén	
	ted is 150'	long by 30' w	ide on the	en.* west side of the j c. We have sched							vacuui	ned up	o and	
regulations all public health of should their of	operators a or the environations ha ment. In ad-	are required to conment. The a tve failed to a didition, NMO	report and acceptance lequately D accept	is true and compl d/or file certain re e of a C-141 repor investigate and re ance of a C-141 r	elease not by the mediate	otifications an e NMOCD ma e contamination	d perform correct rked as "Final Re on that pose a thre	ive action port" don at to grow	ns for release not related und water	eases which leve the oper r, surface wa	may e ator o ter, hu	ndange f liabili man h	er ity ealth	
Signature	Dam	el Ma	u				OIL CONS	ERVA	TION	DIVISIO	N			
Printed Name:	Darrell Mo	oore				Approved by I	District Superviso	r:						
Title; Environ	mental Mar	ager for Wate	r and Was	ste		Approval Date	×	Ex	piration l	Date:				
E-mail Addres	s: Darrell.	noore@hollyc	orp.com			Conditions of	Approval:		Attached					
Dates Febr	10 N 24 20	ΛO		Dhone: 575 746	ŀ					ı				

Chavez, Carl J, EMNRD

From:

Moore, Darrell [Darrell.Moore@hollycorp.com]

Sent:

Monday, July 27, 2009 9:22 AM

To:

Chavez, Carl J, EMNRD; 'hsncpbm@leaco.net'; 'mleighton@lovington-nm.org'

Cc:

Strange, Aaron; Lackey, Johnny

Subject:

Spill at Lovington

Carl,

On July 26, 2009 at about 2 pm, Tank 1214 at our Lovington facility was overrun and spilled 25 bbls of Gas Oil. We mobilized clean up crews and have picked up about 100 yds of contaminated soil. We have contacted Safety and Environmental Solutions to do a delineation study including drilling borings and sampling. A C-141 will be sent to you shortly.

Please note that the City of Lovington and Patrick McMahon have been copied on this notification.

Darrell Moore Environmental Manager for Water and Waste Navajo Refining Company, LLC Phone Number 575-746-5281 Cell Number 575-703-5058 Fax Number 575-746-5451

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This inbound email has been scanned by the MessageLabs Email Security System.

Chavez, Carl J, EMNRD

From:

Moore, Darrell [Darrell.Moore@hollycorp.com]

Sent:

Tuesday, June 02, 2009 1:10 PM

To:

Chavez, Carl J, EMNRD

Cc:

Lackey, Johnny

Subject:

RE: Discharge Permit GW-014 Annual Report Dated April 15, 2009

Attachments:

Lovington Caustic Spill Final.pdf

Carl

We have no photos of this spill or any manifests that definitively show this waste. Ive attached the bottom hole sample we took. This spill occurred during a heavy rain fall event and the material was floating on the water and was sucked up by vacuum truck and put back in the refinery wastewater system. The attached analysis shows some hits of metals but these are total metals not TCLP. They would be well below TCLP haz levels if a TCLP was run. Safety and Environmental Solutions has done some borings in the area to delineate the spill. As you know, with the rock in this area almost at the surface, it is difficult to dig. Once that sampling and report are finished, we will forward that to you. That should happen by the end of June, 2009. With the adoption of the new discharge permit, we are now taking photos and tracking manifests and bottom hole samples on ALL spills.

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

Sent: Wednesday, May 13, 2009 2:21 PM

To: Moore, Darrell **Cc:** Lackey, Johnny

Subject: Discharge Permit GW-014 Annual Report Dated April 15, 2009

Darrell:

I am currently reviewing Navajo Refining Company's Annual Report for the above subject facility. I have a request and/or question provided below.

- 1) Please provide me with the final C-141 for the July 10, 2008 release with manifests for disposal of contaminated soils; soil remediation samples results at the bottom of the excavation; and photos documenting corrective action.
- 2) Why does the refinery want to get rid of working sumps that will help with drainage and/or containment from releases? There are minimum requirements in the discharge permit for testing lines, etc. Can you tell me what you pressured up to once you filled the sump lines, etc. to see if there was any leakage?

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/index.htm

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Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Monday, July 27, 2009 12:03 PM

To:

'Moore, Darrell'

Cc:

Lackey, Johnny; 'Patrick B. McMahon'

Subject:

(GW-014) Sumps Western Refining Southwest's message below, clarification of storm water,

process areas and releases occurring at the refinery

Darrell:

Section 18 of your permits is provided below.

18. **Storm Water**: The owner/operator shall implement and maintain run-on and run-off plans and controls. The owner/operator shall separate or isolate chemical contact from non-contact storm water drainage areas at the plant. The owner/operator shall not discharge any water contaminant that exceeds the WQCC standards specified in 20.6.2.3101 NMAC or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams) including any oil sheen in any non-contact storm water run-off drainage area. The owner/operator shall notify the OCD within 24 hours of discovery of any releases and shall take immediate corrective action(s) to mitigate and remediate any discharge.

I understand that Navajo Refining Company (NRC) has emplaced a dike around the facility to prevent drainage off—property. I believe NRC views this as its storm water control. However, I think it is important to point out that any rain drop or precipitation that falls outside of the process areas (bermed units or controls where chemicals may be released and prevented from migrating into storm water areas) at the refinery and within the bermed areas is considered storm water drainage by the OCD and EPA.

Within process areas of your refinery, these sumps may serve a controls for the purpose of preventing spills from overtopping the berms or as a collection point for spills in process areas that provides some means of containment? If you remove sumps in process areas, aren't you removing controls? Is NRC planning to install process drains to route spills to the treatment system at the facility? I understand that the sumps are closed sumps, not connected to sewer or the treatment system; however, the permit and above referenced section above requires that you maintain run-on and run-off plans and controls. In addition, you are required to separate or isolate chemical contact from non-contact storm water drainage areas at the plant.

The OCD views any sumps within process areas of the refinery to be controls for releases, and removing them may constitute a violation to your permit. Further, if you lack liners or containment within your process areas then you have no controls whatsoever for spills within process or bermed areas. An additional concern based on the concept of storm water discussed above, the OCD is noticing that several of your spills are migrating several hundred feet into your storm water areas and across your facility. I think NRC is having problems keeping process and non-process area drainage separated? Does NRC need to replace those sumps in the process areas with process drains to its treatment system so chemicals aren't overflowing into non-process or storm drainage areas of the facility? The permit may require that containment be emplaced where several spills begin running off onto storm water areas of your facility, bone yard, etc. I'm concerned that NRC is in violation of Section 18 of the discharge permit.

Please contact me to discuss and communicate about your run-on and run-off controls and the sump drains that appear to be located in process and non-process areas across the facility. I am reviewing the C-141 release reports from the facility and this issue is becoming of more concern. 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")

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Sent: Tuesday, June 02, 2009 1:10 PM

To: Chavez, Carl J, EMNRD

Cc: Lackey, Johnny

Subject: RE: Discharge Permit GW-014 Annual Report Dated April 15, 2009

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ANALYTICAL CHEMISTRY & TESTING SERVICES



Environmental Division

31-Jul-08

Darrell Moore Navajo Refining Company PO Box 159 Artesia, NM 88211

Tel: (575) 746-5281 Fax: (505) 746-5421

Re: Lovington Caustic Spill

Work Order: 0807553

Dear Darrell,

ALS Laboratory Group received 3 samples on 7/24/2008 09:10 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 14.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Electronically approved by: Glenda H. Ramos

Jeffrey L Croston Project Manager inelaci:

Certificate No: T104704231-08-TX

ALS Group USA, Corp.
Part of the ALS Laboratory Group

10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338
Phone: (281) 530-5656 Fax: (281) 530-5887
www.alsglobal.com www.elabi.com
A Campbell Brothers Limited Company

Date: 31-Jul-08

Client:

Navajo Refining Company

Project:

Lovington Caustic Spill

Work Order:

0807553

Work Order Sample Summary

Lab Samp II	Client Sample ID	1	<u>Matrix</u>	Tag Number	Collection Date	Date Received	Hold
0807553-01	Caustic Spill (East)	S	Solid		7/23/2008 09:00	7/24/2008 09:10	
0807553-02	Caustic Spill (South)	S	Solid		7/23/2008 09:00	7/24/2008 09:10	

Date: 31-Jul-08

Client:

Navajo Refining Company

Project:

Lovington Caustic Spill

Work Order:

0807553

Case Narrative

Batch 31018 Metals MS/MSD was an unrelated sample.

Client:

Navajo Refining Company

Project:

Lovington Caustic Spill

Sample ID:

Caustic Spill (East)

Collection Date: 7/23/2008 09:00 AM

Date: 31-Jul-08

Work Order: 0807553

Lab ID: 0807553-01

Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH		<u> </u>	TX1005		Prep Date: 7/25/2	2008 Analyst: KMB
nC6 to nC12	ND		50	mg/Kg	1	7/26/2008 08:56 PM
>nC12 to nC28	ND		50	mg/Kg	1.	7/26/2008 08:56 PM
>nC28 to nC35	ND		50	mg/Kg	1	7/26/2008 08:56 PM
Total Petroleum Hydrocarbon	ND		50	mg/Kg	1	7/26/2008 08:56 PM
Surr: 2-Fluorobiphenyl	80.1		70-130	%REC	1	7/26/2008 08:56 PM
Surr: Trifluoromethyl benzene	94.0		70-130	%REC	1	7/26/2008 08:56 PM
MERCURY, TOTAL - SW7471B			SW7471	Δ.	Prep Date: 7/30/2	2008 Analyst: JCJ
Mercury	0.0229		0.0129	mg/Kg	1	7/30/2008 02:30 PM
ICP METALS - SW6020A			SW6020		Prep Date: 7/25/2	2008 Analyst: IGF
Arsenic	3.80		0.450	mg/Kg	1	7/26/2008 01:40 AM
Barium	118		0.450	mg/Kg	1	7/26/2008 01:40 AM
Cadmium	ND		0.450	mg/Kg	1	7/26/2008 01:40 AM
Chromium	15.0		0.450	mg/Kg	1	7/26/2008 01:40 AM
Lead	14.0		0.450	mg/Kg	1	7/26/2008 01:40 AM
Selenium	ND		0.450	mg/Kg	1	7/26/2008 01:40 AM
Silver	ND		0.450	mg/Kg	1	7/26/2008 01:40 AM
PH IN SOLID			SW90451	В		Analyst: MAM
рН	9.22		0.100	pH Units	1	7/28/2008 06:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

a - Not accredited

S - Spike Recovery outside accepted recovery limits

P - Dual Column results percent difference > 40%

E - Value above quantitation range

H - Analyzed outside of Hold Time

n - Not offered for accreditation

AR Page 1 of 2

Client: Navajo Refining Company

Project: Lovington Caustic Spill
Sample ID: Caustic Spill (South)

Collection Date: 7/23/2008 09:00 AM

Date: 31-Jul-08

Work Order: 0807553

Lab ID: 0807553-02

Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TEXAS TPH			TX1005		Prep Date:	7/25/2008 Analyst: KMB
nC6 to nC12	ND		49	mg/Kg	1	7/26/2008 09:47 PM
>nC12 to nC28	210		49	mg/Kg	1	7/26/2008 09:47 PM
>nC28 to nC35	310		49	mg/Kg	1	7/26/2008 09:47 PM
Total Petroleum Hydrocarbon	520		49	mg/Kg	1	7/26/2008 09:47 PM
Surr: 2-Fluorobiphenyl	83.4		70-130	%REC	1	7/26/2008 09:47 PM
Surr: Trifluoromethyl benzene	101		70-130	%REC	1	7/26/2008 09:47 PM
MERCURY, TOTAL - SW7471B			SW7471	A	Prep Date:	7/30/2008 Analyst: JCJ
Mercury	ND		0.0132	mg/Kg	1	7/30/2008 02:13 PM
ICP METALS - SW6020A			SW6020		Prep Date:	7/25/2008 Analyst: IGF
Arsenic	11.4		0.472	mg/Kg	1	7/26/2008 01:46 AM
Barium	209		4.72	mg/Kg	10	7/28/2008 05:55 PM
Cadmium	ND		0.472	. mg/Kg	1	7/26/2008 01:46 AM
Chromium	6.62		0.472	mg/Kg	1	7/26/2008 01:46 AM
Lead	11.1		0.472	mg/Kg	1	7/26/2008 01:46 AM
Selenium	ND		0.472	mg/Kg	1	7/26/2008 01:46 AM
Silver	ND		0.472	mg/Kg	1	7/26/2008 01:46 AM
PH IN SOLID			SW9045	В		Analyst: MAM
pH	8.61		0.100	pH Units	1	7/28/2008 06:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

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a - Not accredited

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AR Page 2 of 2

Client:

Navajo Refining Company

Work Order:

0807553

Project:

Lovington Caustic Spill

Date: 31-Jul-08

Batch ID: 31012	Instrument	ID FID-8		Metho	d: TX100 !	5						
MBLK Sample	ID: FBLK\$1-080	725-31012				L	Jnits: mg /l	Kg	Analys	is Date: 7 /	26/2008 0	9:55 AM
Client ID:		Run il	D: FID-8_ (080725B		Se	qNo: 1451	1927	Prep Date: 7/25	5/2008	DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
nC6 to nC12		ND	50			_				707.11.2		
>nC12 to nC28		ND ND	50							_		
>nC28 to nC35		ND	50									
Total Petroleum Hydro	carbon	ND	50									
Surr: 2-Fluorobiphe		36.88	0	50		0	73.8	70-130	0			
Surr: Trifluoromethy		43.95	0	50		0	87.9	70-130	0			
LCS Sample	ID: FLCSS1-080	725-31012				l	Jnits: rng/	Kg	Analys	is Date: 7/	26/2008 1	0:45 AN
Client ID:		Run II	D: FID-8_ 0	080725B		Se	qNo: 145 '	1928	Prep Date: 7/25	5/2008	DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
nC6 to nC12		256,7	50	250		0	103	75-125	0			
>nC12 to nC28		239.4	50	250		0	95.8	75-125	0			
Surr: 2-Fluorobiphe	nyl	39.85	0	50		0	79.7	70-130	0			
Surr: Trifluoromethy	l benzene	49.44	0	50		0	98.9	70-130	0	······································		
LCSD Sample	ID: FLCSDS1-08	0725-31012				Ĺ	Jnits: rng/	Kg	Analys	is Date: 7/	26/2008 1	1:36 AN
Client ID:		Run II	D: FID-8_ (080725B		Se	qNo: 145	1929	Prep Date: 7/25	5/2008	DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	, Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
nC6 to nC12		261.5	50	250		0	105	75-125	256.7	1.87	20	
>nC12 to nC28		246.2	50	250		0	98.5	75-125	239.4	2.79	20	
Surr: 2-Fluorobiphe	nyl	43.47	0	50		0	86.9	70-130	39.85	8.69	20	
Surr: Trifluoromethy	l benzene	51.62	0	50		0	103	70-130	49.44	4.33	20	
MS Sample	ID: 0807558-01B	BMS				ι	Jnits: mg /	Kg	Analys	is Date: 7/	26/2008 0	1:17 PM
Client ID:		Run II	D: FID-8_ (080725B		Se	qNo: 145	1931	Prep Date: 7/25	5/2008	DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
nC6 to nC12		234.6	50	248.8		0	94.3	75-125	0			
>nC12 to nC28		216.3	50	248.8		0	87	75-125	0			
Surr: 2-Fluorobiphe	nyl	37.23	0	49.75		0	74.8	70-130	0			
		51.88	0	49.75		0		70-130	0			

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

Navajo Refining Company

Work Order:

0807553

Project:

Lovington Caustic Spill

MSD Sample ID: 0807558-01	BMSD				Ur	nits: mg/	Kg	Analysi	s Date: 7/	26/2008 0	2:08 PM
Client ID:	Run II	D: FID-8_ (080725B		Seq	No: 145	1932	Prep Date: 7/25	/2008	DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
nC6 to nC12	241	50	248.3		0	97.1	75-125	234.6	2.72	20	
>nC12 to nC28	219	50	248.3		0	88.2	75-125	216.3	1.23	20	
Surr: 2-Fluorobiphenyl	38.2	0	49.65		0	76.9	70-130	37.23	2.58	20	
Surr: Trifluoromethyl benzene	52.61	0	49.65		0	106	70-130	51.88	1.4	20	

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

Navajo Refining Company

Work Order:

0807553

Work Ord Project:		ngton Caustic Spill										
Batch ID: 31	018	Instrument ID ICPMS02		Metho	d: SW602	20						
MBLK	Sample ID:	MBLKS1-072508-31018				U	nits: mg/ l	Kg	Analy	sis Date: 7	//25/2008 0)4:33 PM
Client ID:		Ru	ın ID: ICPMS	02_080725	A	Se	qNo: 145 1	1037	Prep Date: 7/2	5/2008	DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic		ND	0.50	_								
Barium		0.0867	0.50									J
Cadmium		ND	0.50									
Chromium		ND	0.50									
Lead		ND	0.50									
Selenium		ND	0.50			_						
Silver		· ND	0.50									
LCS	Sample ID:	MLCSS1-072508-31018	**			U	nits: mg/ l	Kg	Analy	sis Date: 7	/25/2008 0)4:39 PM
Client ID:		Ru	ın ID: ICPMS	02_080725/	4	Se	qNo: 1 45 1	1038	Prep Date: 7/2	5/2008	DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic		9.563	0.50	10		0	95.6	80-120	()		
Barium		9.257	0.50	10		0	92.6	80-120		0		
Cadmium		9.456	0.50	10		0	94.6	80-120	1	0		
Chromium		9.068	0.50	10		0	90.7	80-120		0		
Lead		9.27	0.50	10		0	92.7	80-120	(0		
Selenium		9.341	0.50	10		0	93.4	80-120		0		
Silver		9.458	0.50	10		0	94.6	80-120		0		
MS	Sample ID:	0807558-03CMS		- Arte	-	l	nits: rng /l	Kg	Analy	sis Date: 7	/25/2008 ()9:49 PM
Client ID:		Ru	un ID: ICP750	0_080725A		Se	qNo: 145 1	1777	Prep Date: 7/2	5/2008	DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	16.62	0.47	9.346	5.669	117	75-125	()		
Barium	588.5	0.47	9.346	615	-284	75-125	()		SEO
Cadmium	8.772	0.47	9.346	0.756	85.8	75-125	()		
Chromium	26.3	0.47	9.346	16	110	75-125	()		
Lead	129.3	0.47	9.346	117.6	126	75-125	()		so
Selenium	8.118	0.47	9.346	0.2737	83.9	75-125	()		
Silver	7.618	0.47	9.346	0.02025	81.3	75-125	()		

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

Navajo Refining Company

Work Order:

0807553

Project:

Lovington Caustic Spill

Batch ID: 31018 Instrument ID ICPMS02 Method: SW6020 MSD Sample ID: 0807558-03CMSD Units: mg/Kg Analysis Date: 7/25/2008 09:55 PM Client ID: SegNo: 1451779 Prep Date: 7/25/2008 DF: 1 Run ID: ICP7500_080725A RPD SPK Ref Control RPD Ref Limit Value Value Limit %RPD Qual **PQL** SPK Val %REC Analyte Result 13.69 0.47 9.346 5.669 85.8 75-125 16.62 19.3 25 Arsenic **SEO** Barium 610 0.47 9.346 615 -54 75-125 588.5 3.59 25 Cadmium 8.605 0.47 9.346 0.756 84 75-125 8.772 1.93 25 Chromium 24.09 0.47 9.346 16 86.6 75-125 26.3 8.75 25 0.47 75-125 129.3 25 Lead 124.4 9.346 117.6 73 3.9 SO 81.8 75-125 8.118 2.53 25 Selenium 7.915 0.47 9.346 0.2737 0.02025 7.618 3.22 25 Silver 7.377 0.47 9.346 78.7 75-125 DUP Sample ID: 0807558-03CDUP Units: mg/Kg Analysis Date: 7/25/2008 09:43 PM Client ID: SeqNo: 1451776 Prep Date: 7/25/2008 DF: 1 Run ID: ICP7500_080725A RPD SPK Ref RPD Ref Control Limit Value Limit Value Analyte Result SPK Val %REC %RPD Qual **PQL** Arsenic 5.72 0.47 0 0 0 0-0 5.669 0.886 25 0 0 0 Cadmium 0.9132 0.47 0-0 0.756 18.8 25 17.57 0.47 0 0 0 0-0 16 9.35 25 Chromium 0.47 0 0 0 0-0 117.6 1.85 25 Lead 115.4 Selenium 0.1936 0.47 0 0 0 0-0 0.2737 0 25 J 0 Silver 0.02681 0.47 0 0 0-0 0.02025 0 25 DUP Sample ID: 0807558-03CDUP Units: mg/Kg Analysis Date: 7/28/2008 04:43 PM Client ID: Run ID: ICPMS02_080728A SeqNo: 1452764 Prep Date: 7/25/2008 DF: 50 RPD SPK Ref Control RPD Ref Limit Value Limit Value Analyte Result **PQL** SPK Val %REC %RPD Qual Barium 496.7 23 0 0 0 0-0 513.6 3.33 25 0807553-01A 0807553-02A The following samples were analyzed in this batch:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

Navajo Refining Company

Work Order:

Batch ID: 31077

0807553

Project:

MBLK

Client ID:

Analyte

Mercury

Client ID:

Analyte

LCS

Lovington Caustic Spill

Sample ID: GBLK\$1-073008-31077

Sample ID: GLCSS1-073008-31077

Instrument ID Mercury

Result

Result

ND

QC BATCH REPORT Analysis Date: 7/30/2008 02:04 PM Prep Date: 7/30/2008 DF: 1 RPD Ref RPD Control Limit Value Limit %RPD Qual Analysis Date: 7/30/2008 02:06 PM Prep Date: 7/30/2008 DF: 1 RPD Ref RPD Control Limit Value Limit Qual %RPD

Client ID: Analyte Mercury	aple ID: GLCSDS1-07300 aple ID: 0807553-02AMS Spill (South)	Run I Result 355.3	D: MERCL PQL 13 D: MERCL	SPK Val 333.3	SPK Ref Value	Seq 0	nits: µg/K qNo: 1455 %REC 107	_	Analys Prep Date: 7/30 RPD Ref Value 355.3	0/2008 %RPD	DF: 1 RPD Limit	2:08 PM
Analyte Mercury MS Sam Client ID: Caustic		Result 355.3	PQL 13	SPK Val	SPK Ref	0	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
MS Sam Client ID: Caustic		355.3	13	333.3		-		Limit	Value		Limit	Qual
MS Sam Client ID: Caustic			<u></u>	· · ·		-	107	85-115	355.3	, C	20	
Client ID: Caustic			D: MERCL			116						
	Spill (South)	Run I	D: MERCU			J	nits: µg/K	(g	Analys	sis Date: 7	/30/2008 0	2:19 PM
Analyte				JRY_08073	DA	Sec	No: 1 45 5	5025	Prep Date: 7/3	0/2008	DF: 1	
		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD_	RPD Limit	Qual
Mercury		339.2	13	326.8	12.9	98	99.8	85-115	0			
MSD Sam	ple ID: 0807553-02AMS	D	•	<u></u>		Ui	nits: µg/k	ίg	Analys	sis Date: 7	/30/2008 0	2:21 PM
Client ID: Caustic	Spill (South)	Run I	D: MERCL	JRY_08073)A	Sec	No: 145 5	5026	Prep Date: 7/30	0/2008	DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		334.8	13	332.8	12.9	98	96.7	85-115	339.2	1.32	20	
DUP Sam	nple ID: 0807553-02ADU	Р				U	nits: µg/P	ζg	Analys	is Date: 7	/30/2008 0	2:15 PM
Client (D: Caustic	Spill (South)	Runi	D: MERCL	JRY_08073	DA .	Sec	No: 145	5024	Prep Date: 7/3	0/2008	DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD_	RPD Limit	Qual
Mercury		13.05	13	0		0	0		12.98		20	J _
The following sar	mples were analyzed in	this batch:	08	307553-01A	08	0755	53-02A	,				

Method: SW7471A

SPK Ref

Value

SPK Ref

Value

Run ID: MERCURY 080730A

SPK Val

SPK Val

PQL

13

Run ID: MERCURY_080730A

PQL

Units: µg/Kg

SeqNo: 1455020

%REC

Units: µg/Kg

SeqNo: 1455021

%REC

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

Navajo Refining Company

Work Order:

0807553

Project:

Lovington Caustic Spill

Batch ID: R	65988 Instrument ID \	WetChem		Method	d: SW904	15B						
LCS	Sample ID: WLCSS1-072808	8-R65988			,	l	Jnits: pH l	Jnits	Analys	is Date: 7/	28/2008 0	6:00 PM
Client ID:		Run I	D: WETCH	HEM_08072	ВЈ	Se	qNo: 145 2	2827	Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
рН		6.02	0.10	6		0	100	90-110	0			
DUP	Sample ID: 0807478-01ADU	P				L	Jnits: pH l	Jnits	Analys	is Date: 7/	28/2008 0	6:00 PM
Client ID:		Run II	D: WETCH	HEM_08072	BJ	Se	qNo: 145 2	2845	Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
рН		8.44	0.10	0		0	0	0-0	8.52	0.943	20	
DUP	Sample ID: 0807553-02ADU	Р				U	Jnits: pH l	Jnits	Analys	is Date: 7/	28/2008 0	6:00 PM
Client ID: Ca	austic Spill (South)	Run II	: WETCH	IEM_08072	BJ	Se	qNo: 145 2	2846	Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
рН		8.64	0.10	0		0	0	0-0	8.61	0.348	20	
The following	ng samples were analyzed in	this batch:	08	807553-01A	30	075	53-02A					

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range



70450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887

Chain of Custody Form

□ ALS Laboratory Group

Holland, MI 49424-9263 Tel: +1 616 399 6070 Fax: +1 616 399 6185 3352 128th Ave.

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1255-77C XE	A STATE OF THE STA	746-542	2/	(<u>a.</u> 4 %) (a. 8 %)							
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No. 1 No. 1	m	S. Matrix	Pres. # Bottles	A	, B . (C)	D	ů.	P 9	(1) 10 10 10 10 10 10 10 10 10 10 10 10 10	100 P	PloH
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Sampler(s) Please Print & Sign () Sampler(s) Pleas	Shipment Method	ra a fil a sa sa sa	Required Turnaround Time: (Check Box)	Sheck Box k Days	l . □ Other □ 2 Wk Day	4		Results Due Date:	Due Dat		在表面的工工工程 在基础的有效的 是有效的有效的 是有效的有效的
8922.60 miles	Times - 50 Received by:		1949 100 100 100 100 100 100 100 100 100 10	Notes:		,* * 4					
	Time: Received	Silved by Responsion of Co.	3236	Cooler ID	Coaler Temp	музает пр	OC Package: (Che	OC Package: (Check One Box Below)	Box Below	WOOD Charliet	ng de rej
Logged by (Laboratory)	Time	eked by (Abboratory):		を作品 である を作品 である。 を作品 である。 を作品 である。 をできる。 をできる。 とい。 といる。	TOTAL CALL		☐ Level III Std OC/Raw ☐ Level IV SW846/CLP	☐ Level III Std OC/Raw Date ☐ Level IV SW846/CLP	1.2.4	TRRP Level IV	wet IV
Preservative Keyr 11HCL 2-HNO- 3-H2SO 4-NaOH	5-Na ₂ S ₂ O ₃	6-NaHSO. 7-Other 8-4°C 9-5035	8-4°C 9-5035	ラルルの 大変の 100mm 1	がある の研究 の研究 の研究 の研究 の研究 の研究 の研究 の研究	TO CAME	Outher				

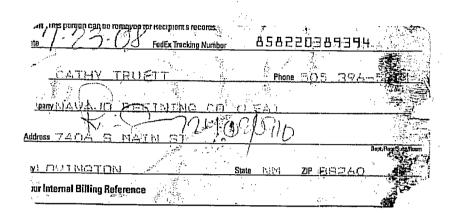
Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.

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ALS Group USA, Corp.

Sample Receipt Checklist

Client Name NAVAJO REFINING		Date/Time Received: 7/24/2008 09:10
Work Order Number <u>0807553</u>		Received by: RSZ
Checklist completed by Loral evilth	7 24 08	Reviewed by Tologo
		1.00
Matrix: S S	arrier name: <u>FedEx</u>	
Shipping container/cooler in good condition?	Yes 🔽	No Not Present
Custody seals intact on shipping container/cooler?	Yes 🗹	No Not Present
Custody seals intact on sample bottles?	Yes 🗌	No ☐ Not Present ☑
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 🗆
Container/Temp Blank temperature in compliance?	Yes 🗹	No 🗆
Temperature(s)/Thermometer(s):	3.4	002
Cooler(s)/Kit(s):	1438	
Water - VOA vials have zero headspace?	Yes 🔽	No ☐ No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes	No □ N/A ☑
Adjuste	cd? Chec	cked by
Login Notes:	c (South). Assi	on ad same.
NO 1843 assigned to	C (BOWLY). 13 83 (green since
Login Notes: No tests assigned for tests as (East)		
Client contacted Date or	ontacted:	Person contacted
Contacted by: Regard	ling:	
Comments:		
Corrective Action		

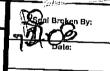




ALS e-Lab Analytical 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. 281.530.5656 Fax. 218.530.5887

oar 'i (e: _______ ' .ame: ___ Company

TODY SEAL



Chavez, Carl J. EMNRD

From: Chavez, Carl J, EMNRD

Sent: Thursday, July 10, 2008 3:38 PM

To: 'Moore, Darrell': Johnson, Larry, EMNRD

Cc: Price, Wayne, EMNRD

Subject: RE: Lea Refinery (GW-14) Caustic Scrubber Spill

Darrell:

The OCD wants 2 bottom hole samples (analyses; pH and metals) and waste manifest for disposal. The locations of bottom hole samples E and S of the Caustic Scrubber.

Also, for all C-141 releases, a manifest for disposal to confirm excavation removal, etc. is needed to confirm physical action was taken at the release. A photo before and after should also be submitted.

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) 476-3491 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: Moore, Darrell [mailto:Darrell.Moore@hollycorp.com]

Sent: Thursday, July 10, 2008 3:07 PM

To: Johnson, Larry, EMNRD; Chavez, Carl J, EMNRD

Subject: Caustic Scrubber Spill

Gentlemen,

Attached, please find a C-141 for a caustic spill that occurred at our Lovington facility today. Bottom Hole samples for TPH and pH will be forwarded as soon as we get them. If you have any questions, please call me at 575-746-5281.

Darrell Moore Environmental Manager for Water and Waste Navajo Refining Company, L.P. P.O. Box 159 Artesia, NM 88211-0159 Darrell.moore@navajo-refining.com phone: 505.746.5281 cell: 505.703.5058

fax: 505.746 5451

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This inbound email has been scanned by the MessageLabs Email Security System.

Chavez, Carl J, EMNRD

From:

Moore, Darrell [Darrell.Moore@hollycorp.com]

Sent:

Thursday, July 10, 2008 3:07 PM

To:

Johnson, Larry, EMNRD; Chavez, Carl J, EMNRD

Subject:

Caustic Scrubber Spill

Attachments: Caustic Scrubber Spill.pdf

Gentlemen,

Attached, please find a C-141 for a caustic spill that occurred at our Lovington facility today. Bottom Hole samples for TPH and pH will be forwarded as soon as we get them. If you have any questions, please call me at 575-746-5281.

Darrell Moore
Environmental Manager for Water and Waste
Navajo Refining Company, L.P.
P.O. Box 159
Artesia, NM 88211-0159
Darrell.moore@navajo-refining.com

phone: 505.746.5281 cell: 505.703.5058 fax: 505.746.5451

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This inbound email has been scanned by the MessageLabs Email Security System.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 2040 South Pacheco Santa Fe, NM 87505 Form C-141 Revised March 17, 1999

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

Release Notification and Corrective Action

	RATOR		X Init	al Repo	ort Fina	l Report
Name of Company Navajo Lea Refining Co. LLC	Contact	Darrell Mod	ore			
Address	Telephon	e No.				· · · · · · · · · · · · · · · · · · ·
7406 Sl Main Lovington, NM 88260		505-703-50 <u>!</u>			 ,	
Facility Name	Facility 1	ype Petrole	ım Ref	inery	•	
Surface Owner Mineral Owne	r			Lease	e No.	
				<u> </u>		· ,
LOCATION						
Unit Letter Section Township Range Feet from the North	South Line	Feet from the	East/We	st Line	County	
		<u> </u>	<u> </u>		<u> </u>	
NATURE O	F RELE	ASE				
Type of Release	Volume of	Release 150 B	hla :	Volum	e Recovered O Bbls	
Caustic Source of Release	Date and I	Hour of Occurrence 8 5:30 am	e		nd Hour of Disc /0866:00	overy
Caustic Scrubber				7/10	/0866:00	am *
Was Immediate Notice Given? ☐ Yes No ☐ Not Required	If YES, To	o Whom?	ú.			
By Whom?	Date and I	lour	··· <u>·</u>			
Was a Watercourse Reached? Yes No	If YES, V	olume Impacting	the Waterc	ourse.	· . ·	
If a Watercourse was Impacted, Describe Fully.*	<u> </u>			· · ·		
Describe Cause of Problem and Remedial Action Taken.* Relief v sump. Which then over flowed. Valv				ositi	on and fi	11ed
Describe Area Affected and Cleanup Action Taken,* Area affect						
scrubber. Happened during a rain ev						
water. Vacuum truck sucked up spill	materi	al. Conta	ninate	d soi	l will be	remove
I hereby certify that the information given above is true and complete to the and regulations all operators are required to report and/or file certain releasendanger public health or the environment. The acceptance of a C-141 result of liability should their operations have failed to adequately investigate an water, human health or the environment. In addition, NMOCD acceptance compliance with any other federal, state, or local laws and/or regulations.	se notificatio port by the N id remediate (ns and perform co MOCD marked a contamination tha	rrective ac rFinal Re t pose a th	tions for port" do eat to gr	r releases which es not relieve th ound water, sur	may e operator face
Signature Daull Mary		OIL CONS	ERVAT	ION I	DIVISION	
Printed Name: Darrell Moore	Approved District Su		—т	:		
Title: Env. Mgr. for Water & Waste	Approval	Date:		Expiratio	on Date:	
Date: 7/10/08 Phone: 575-703-5058 * Attach Additional Sheets If Necessary	Conditions	of Approval:			Attached	