GW - 014

ANNUAL REPORT

GW Monitor Wells

2009

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, April 16, 2010 11:39 AM
To: 'Moore, Darrell'
Subject: Navajo Refining Company- Artesia (GW-028) & Lovington (GW-014) Refineries Annual Reports and "Ground Water & Treatment System Annual Monitoring Report for Lea Refinery (Lovington)

Darrell:

The OCD is in receipt of the above subject reports.

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")

REFINING COMPANY, LLC

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April 15, 2010

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

RE: 2009 ANNUAL REPORT FOR LOVINGTON (GW-014)
NAVAJO REFINING COMPANY, LLC

Dear Carl,

Enclosed, please find the annual report for Navajo Lea Refining Company Discharge Permit GW-014. If there are any questions concerning these submissions, please call me at 575-746-5281. Thank you for your attention to this matter.

Sincerely,
NAVAJO REFINING COMPANY, LLC

Darrell Moore
Environmental Manager for Water and Waste

Encl:

Cc: Michael Leighton, City of Lovington (w/encl), Steve Terry (w/encl)

File: Lovington OCD Discharge Permit 4A1D

2009 ANNUAL REPORT
NAVAJO REFINING COMPANY- LEA REFINERY
DISCHARGE PERMIT GW-014

EXECUTIVE SUMMARY

This report is being written as a requirement of Lea Refining Company's Discharge Permit GW-014 which states that an Annual Report will be written by April 15 of each year and will include at a minimum :

A. A summary of all major refinery activities or events.

B. Results of all sampling or monitoring events.

C. Summary of all waste and wastewater disposed of, sold or treated on-site.

D. Summary of the sump and underground wastewater lines tested.

E. Summary of all leaks, spills, and releases and or contamination or threat to the City of Lovington Well Head Protection Area.

F. Summary of discovery of new groundwater contamination.

G. Summary and copy of all City of Lovington and OCD Activity.

In 2009, Lea Refining had a full year running at its 75,000 bbl per day capacity. There has been ongoing piping upgrades and tie-ins along with minor plant modifications. During 2009, we upgraded all the sanitary sewer systems and installed three new septic systems.

We also installed new monitor wells and deepened them so that we are able to sample groundwater. We have a full year of sample data available from the new wells that show no PSH anywhere at the facility on the groundwater.

Lovington shipped a total of 3056 yards of non hazardous waste to CRI. This included trash and debris, blast sand, asphalt, charcoal filter, and contaminated soil. We also shipped 80 tanker loads of Spent Caustic to Lotus LTD.

As part of our ongoing work, we test 20% of the sumps and underground wastewater lines every year. By doing this, we ensure that all lines are tested every 5 years. A spreadsheet and analysis is included later in this report that summarizes those test results and any repairs that were necessary.

During 2009, Lea Refining had two (2) recordable spills and one (1) fire. The spills occurred on February 21, 2009 when we spilled 100 barrels of diesel and on July 26, 2009 when we spilled 25 barrels of gas oil. The fire occurred on August 5, 2009 when crude oil fell onto a pump and flashed. The C-141's from those incidents are included.

We found no new groundwater contamination during 2009. The only contamination attributable to the refinery above WQCC standards is the benzene in MW-11.

MAJOR REFINERY ACTIVITIES

In 2009, Lea Refining became a 75,000 bbl per day Crude Unit. This upgrade included charge pumps to meet this demand, two new exchangers, a new boiler, pumps and piping to recycle water from the Desalter, a coalescer between the desalter and the sour water stripper to catch oil before the sour water stripper, and several new fin fans to help with cooling. The unit was restarted in March 2009 and was sending topped hydrocarbons to the Artesia plant for further processing. We also finished adding new pipelines that are shown on the facility map. (Figure 1)

RESULTS OF SAMPLING AND MONITORING EVENTS

Water levels in the vicinity of the refinery are declining due to withdrawal of water for refinery use from wells on the property and from the City's water wells. The average yearly water level decline through 2004-05 for monitor wells in the refinery process area was about 1.2 feet per year. That increased during the time period 2005-2008 to 1.3-1.4 feet per year. However, measurements of the replacement wells from April to September 2009 show a possible loss of up to 2.4 feet per year. Further, MW-1, MW-6, MW-7 and RW-1 experienced a 0.5 foot decline during the two month period July to September 2009. The average seven-month decline from June 16, 2009 to January 13, 2010 was -1.02 feet with MW-5 having the greatest decline at -1.18 feet.

City of Lovington water wells surround the refinery to the southwest, west, northwest and to the east on the east side of NM Highway 18. The closest water well to the Refinery is LW-9 approximately 200 feet upgradient from the refinery's north east property boundary. Wells to the west of the refinery are located 2,400 feet (LW-12, 0.45 miles) or greater from the property fence. The distances to the west range from 2,400 feet to 4,600 feet (0.9 miles). To the east, the closest well (LW-3) is about 1,100 feet (0 2 miles) and the distance from the refinery ranges from 1,100 feet to 4,000 feet.

The following activities were conducted to measure groundwater levels and document the groundwater quality conditions in accordance with the OCD Groundwater Discharge Plan. The locations of the referenced wells are shown on Figure 2.

- Measured depth to groundwater in monitoring wells MW-1 through MW-14 and RW-1. (Table1)

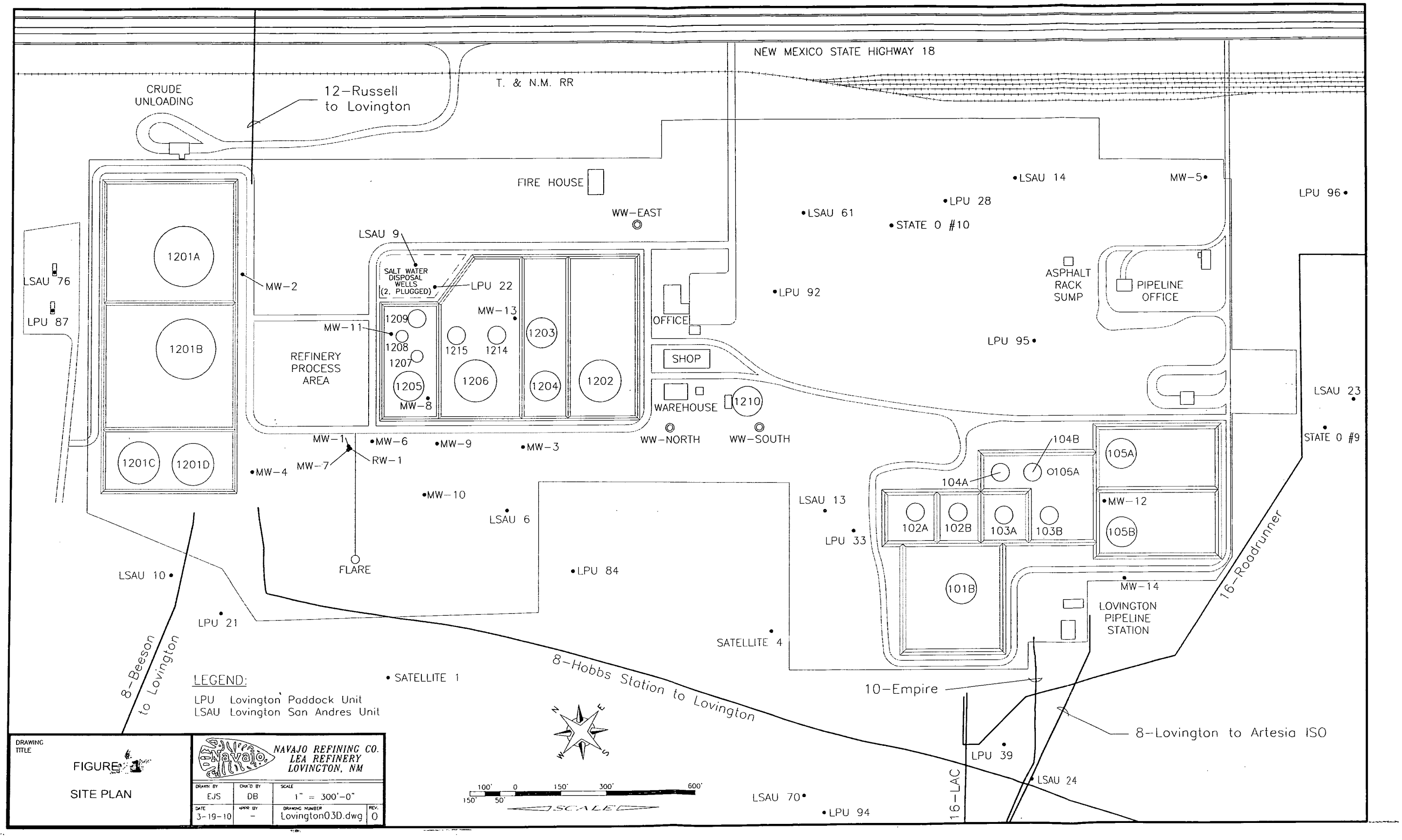

NEW MEXICO STATE HIGHWAY 18
T. & N.M. RR
CRUDE UNLOADING
12–Russell to Lovington
FIRE HOUSE
WW–EAST
LSAU 9
SALT WATER DISPOSAL WELLS (2. PLUGGED)
LPU 22
MW–2
MW–11
MW–13
1209
1208
1207
1205
1215
1214
1206
1203
1204
1202
1201A
1201B
1201C
1201D
LSAU 76
LPU 87
REFINERY PROCESS AREA
OFFICE
SHOP
WAREHOUSE
1210
MW–8
WW–NORTH
WW–SOUTH
MW–1
MW–6
MW–9
MW–3
MW–4
MW–7
RW–1
MW–10
LSAU 6
FLARE
LSAU 10
LPU 21
LPU 84
SATELLITE 4
SATELLITE 1
LSAU 61
LPU 92
LPU 95
LSAU 14
MW–5
LPU 28
STATE 0 #10
LPU 96
ASPHALT RACK SUMP
PIPELINE OFFICE
LSAU 23
STATE 0 #9
104B
105A
104A
0105A
MW–12
105B
LSAU 13
LPU 33
102A
102B
103A
103B
101B
MW–14
LOVINGTON PIPELINE STATION
16–Roadrunner
8–Beeson to Lovington
8–Hobbs Station to Lovington
10–Empire
8–Lovington to Artesia ISO
LPU 39
LSAU 24
LSAU 70
LPU 94
16–LAC
LEGEND:
LPU Lovington Paddock Unit
LSAU Lovington San Andres Unit
N
E
S
W
100' 0 150' 300' 600'
150' 50'
SCALE
DRAWING TITLE
FIGURE
SITE PLAN
NAVAJO REFINING CO.
LEA REFINERY
LOVINGTON, NM
DRAWN BY EJS
CHK'D BY DB
SCALE 1" = 300'-0"
DATE 3-19-10
APPR BY –
DRAWING NUMBER Lovington03D.dwg
REV. 0

Table 1. 2009 Water Level Elevation Measurements, Navajo Refining Company, Lea Refinery, Lovington, NM

Monitor Well, Depth Below TOC (feet)	Elevation Top of Casing (TOC, feet)	Measure-ment Date	Depth to Product (feet)	Depth to Water Below TOC (feet)	Product Thickness (feet)	Corrected Depth to Water (feet)	Corrected Water Level Elev. (feet)	Saturated Water Thickness (feet)	Change from previous (feet)
MW-1	3,838.40	04/30/09	- -	106.35	0	106.35	3,732.05	22.8	- -
129.11		06/10/09	- -	106.49	0	106.49	3,731.91	22.6	-0.14
		06/19/09	- -	106.68	0	106.68	3,731.72	22.4	-0.19
		07/02/09	- -	106.75	0	106.75	3,731.65	22.4	-0.07
		07/24/09	- -	106.84	0	106.84	3,731.56	22.3	-0.09
		09/24/09	- -	107.31	0	107.31	3,731.09	21.8	-0.47
		10/27/09	- -	107.44	0	107.44	3,730.96	21.7	-0.13
		01/13/10	- -	107.57	0	107.57	3,730.83	21.5	-0.13
MW-2	3,837.35	06/22/09	- -	104.32	0	104.32	3,733.03	22.4	- -
126.68		01/13/10	- -	105.44	0	105.44	3,731.91	21.2	-1.12
MW-3	3,831.65	06/18/09	- -	102.65	0	102.65	3,729.00	28.0	- -
130.69		01/13/10	- -	103.29	0	103.29	3,728.36	27.4	-0.64
MW-4	3,839.89	06/16/09	- -	106.79	0	106.79	3,733.10	21.2	- -
127.94		01/13/10	- -	107.72	0	107.72	3,732.17	20.2	-0.93
MW-5	3,819.15	06/16/09	- -	90.84	0	90.84	3,728.31	27.5	- -
118.30		01/13/10	- -	92.02	0				-3728.31
MW-5 before plugging, 3.2 feet water 3/17/09									
MW-6	3,838.16	06/18/09	- -	106.64	0	106.64	3,731.52	23.1	- -
129.71		07/24/09	- -	106.92	0	106.92	3,731.24	22.8	-0.28
		09/24/09	- -	107.44	0	107.44	3,730.72	22.3	-0.52
		10/27/09	- -	107.55	0	107.55	3,730.61	22.2	-0.11
		01/13/10	- -	107.64	0	107.64			-3730.61
MW-6R before plugging, 4.0 feet water 3/17/09									

Table 1. 2009 Water Level Elevation Measurements, Navajo Refining Company, Lea Refinery, Lovington, NM

Monitor Well, Depth Below TOC (feet)	Elevation Top of Casing (TOC, feet)	Measure-ment Date	Depth to Product (feet)	Depth to Water Below TOC (feet)	Product Thickness (feet)	Corrected Depth to Water (feet)	Corrected Water Level Elev. (feet)	Saturated Water Thickness (feet)	Change from previous (feet)
MW-7	3,838.42	04/30/09	- -	106.37	0	106.37	3,732.05	23.2	- -
129.55		06/10/09	- -	106.48	0	106.48	3,731.94	23.1	-0.11
		06/19/09	- -	106.68	0	106.68	3,731.74	22.9	-0.20
		07/02/09	- -	106.75	0	106.75	3,731.67	22.8	-0.07
		07/24/09	- -	106.84	0	106.84	3,731.58	22.7	-0.09
		09/24/09	- -	107.33	0	107.33	3,731.09	22.2	-0.49
		10/27/09	- -	107.46	0	107.46	3,730.96	22.1	-0.13
		01/13/10	- -	107.60	0	107.60	3,730.82	22.0	-0.14
MW-8	3,839.98	06/18/09	- -	109.37	0	109.37	3,730.61	23.2	- -
132.56		01/13/10	- -	110.47	0	110.47	3,729.51	22.1	-1.10
MW-9	3,835.22	06/16/09	- -	104.58	0	104.58	3,730.64	24.9	- -
129.48		01/13/10	- -	105.61	0	105.61	3,729.61	23.9	-1.03
MW-10	3,833.66	06/18/09	- -	102.57	0	102.57	3,731.09	24.9	- -
127.42		01/13/10	- -	103.51	0	103.51	3,730.15	23.9	-0.94
MW-11	3,839.56	03/17/09	- -	107.91	0	107.91	3,731.65	9.9	- -
117.77		06/18/09	- -	108.65	0	108.65	3,730.91	9.1	-0.74
		01/13/10	- -	109.81	0	109.81	3,729.75	8.0	-1.16
MW-12	3,822.73	03/17/09	- -	93.75	0	93.75	3,728.98	7.0	- -
100.71		06/16/09	- -	93.83	0	93.83	3,728.90	6.9	-0.08
		01/13/10	- -	94.78	0	94.78	3,727.95	5.9	-0.95
MW-13	3,837.06	03/17/09	- -	108.36	0	108.36	3,728.70	11.6	- -
119.95		06/16/09	- -	108.58	0	108.58	3,728.48	11.4	-0.22
		01/13/10	- -	109.68	0	109.68	3,727.38	10.3	-1.10
MW-14	3,823.03	03/17/09	- -	93.84	0	93.84	3,729.19	11.5	- -
105.30		06/16/09	- -	93.92	0	93.92	3,729.11	11.4	-0.08
		01/13/10	- -	94.80	0	94.80	3,728.23	10.5	-0.88

Table 1. 2009 Water Level Elevation Measurements, Navajo Refining Company, Lea Refinery, Lovington, NM

Monitor Well, Depth Below TOC (feet)	Elevation Top of Casing (TOC, feet)	Measure-ment Date	Depth to Product (feet)	Depth to Water Below TOC (feet)	Product Thickness (feet)	Corrected Depth to Water (feet)	Corrected Water Level Elev. (feet)	Saturated Water Thickness (feet)	Change from previous (feet)
RW-1	3,838.48	04/30/09	- -	106.45	0	106.45	3,732.03	22.8	- -
129.29		06/10/09	- -	106.59	0	106.59	3,731.89	22.7	-0.14
		06/19/09	- -	106.61	0	106.61	3,731.87	22.7	-0.02
		07/02/09	- -	106.82	0	106.82	3,731.66	22.5	-0.21
		07/24/09	- -	106.92	0	106.92	3,731.56	22.4	-0.10
		09/24/09	- -	107.42	0	107.42	3,731.06	21.9	-0.50
		10/27/09	- -	107.53	0	107.53	3,730.95	21.8	-0.11
		01/13/10	- -	107.67	0	107.67	3,730.81	21.6	-0.14
Notes:									
1. Monitoring wells MW-1 through MW-7 installed September 1995; plugged and redrilled April 2009.									
2. Monitoring wells MW-8 through MW-10 installed March and April 1996; plugged and redrilled April 2009.									
3. Monitoring wells MW-6R, MW-11, MW-12 installed April and May 2002; MW-6R plugged April 2009.									
4. Monitoring wells MW-13 and MW-14 installed January 2004.									

- Measured free product thickness in monitoring wells RW-1, MW-1 and MW-7. No free product or even a hydrocarbon sheen was noted.
- Collected semi-annual groundwater samples from all monitor wells plus RW-1. (Tables 2 and 3)
- Collected groundwater samples from the refinery's North, South and East water wells. (Tables 2 and 3)

Depth to groundwater occurs at approximately 105 to 110 feet below ground surface in the refinery process area. To the southeast, depth to water is 92 to 94 feet. The regional direction of flow is southeast. However, groundwater flow direction is influenced by the refinery pumping wells and possibly by City of Lovington wells across the highway to the northeast of the refinery. The forthcoming installation of additional monitoring wells will provide better water level data and groundwater flow direction information in the southern area of the refinery.

Measurements made in June, July, September and October 2009 and January 2010 in the vicinity of the API separator where Phase Separated Hydrocarbons (PSH) were previously present prior to installation of the new monitor wells in the spring of 2009 continue to show no PSH and no hydrocarbon sheen. In fact, MW-11 is the only well that shows a detection of benzene that exceeds the WQCC standard of 0.010 mg/l.

Finally, there are several instances where chlorides have impacted Navajo's monitor wells. The refinery is not a source of chlorides. Over the decades, there have been numerous oil and gas wells and injection wells situated in and around the area the refinery now occupies. Chlorides is a big part of the exploration and production business and we suspect that these operations are where this chloride is coming from.

SUMMARY OF WASTE DISPOSAL

Lovington shipped 3,056 yards of non hazardous waste to CRI in 2009. This included contaminated soil from two spills, construction debris, charcoal filter media, asphalt, and trash. Lea Refining also shipped 80 tanker loads of spent caustic from the Caustic Scrubber. This caustic is sent to Lotus Limited (Lotus) which is a facility in Andrews County, Texas that sends the caustic down injection wells.

SUMMARY OF SUMP AND UNDERGROUND WASTEWATER LINES TESTED

As part of Lovington's Discharge Permit, we are required to test all sumps and underground process/wastewater lines. It is Navajo's policy to fill the sump or line with water, mark a level, and then wait 4 hours and note any drop in water level. Enclosed, is a spreadsheet, titled **NAVAJO REFINING COMPANY LOVINGTON REFINERY LISTING OF ALL SUMPS (Table 4)**. This spreadsheet details test date, test method, pass/fail, tested by, and any repairs that were needed or made to the

Table 2. Organic Constituent Concentrations in Groundwater, Navajo Refining Company, Lea Refinery, Lovington, NM

Monitor Well	Sample Date	Benzene (mg/L)	Ethyl-benzene (mg/L)	Toluene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Total Naphthalene (8260, mg/L)	Total Naphthalene (8270, mg/L)	Other volatiles? (see notes)	Other semi-volatiles? (see notes)	Type?
MW-1	06/19/09	<0.0050	0.012	<0.0050	0.031	<0.0050	<0.0050	<0.0050	Yes	Yes	Phthaletes, phenol
	01/19/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	0.00106	No	Yes	Phthaletes, caprolactam
MW-2	06/22/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/19/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes, caprolactam
MW-3	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/14/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
(duplicate)	01/14/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes, caprolactam
MW-4	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/13/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
MW-5	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/18/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes, caprolactam
MW-6	06/18/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.0075	0.0041	Yes	Yes	Phthaletes, phenols, others
(duplicate)	06/18/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.0074	0.0040	Yes	Yes	Phthaletes, phenols, others
	02/02/10	<0.0050	0.013	<0.0050	<0.015	<0.0050	0.0099	0.0232	Yes	Yes	Phthaletes, phenols, others
MW-7	06/19/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	Yes	Yes	Phthaletes
	02/02/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
MW-8	06/18/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/18/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes, caprolactam
MW-9	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	0.00087	No	Yes	Phthaletes
	01/14/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
MW-10	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/13/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
MW-11	06/18/09	0.10	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/18/10	0.20 E	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes, caprolactam

Table 2. Organic Constituent Concentrations in Groundwater, Navajo Refining Company, Lea Refinery, Lovington, NM

Monitor Well	Sample Date	Benzene (mg/L)	Ethyl-benzene (mg/L)	Toluene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Total Naphthalene (8260, mg/L)	Total Naphthalene (8270, mg/L)	Other volatiles? (see notes)	Other semi-volatiles? (see notes)	Type?
MW-12	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/18/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes, caprolactam
MW-13	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/18/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes, caprolactam
MW-14	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/18/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes, caprolactam
RW-1	06/19/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	Yes	Yes	Phthaletes, phenol
	02/02/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
North Well	06/18/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/14/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
South Well	06/22/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/14/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
East Well	06/18/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/14/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
Trip Blanks	6, 06/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	--	No	--	--
Trip Blanks	8, 01-02/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	--	No	--	--
NM WQCC Groundwater Standards (mg/L):		**0.010**	**0.75**	**0.75**	**0.62**	--	**0.03**	**0.03**	--	--	

Table 2. Organic Constituent Concentrations in Groundwater, Navajo Refining Company, Lea Refinery, Lovington, NM

Monitor Well	Sample Date	Benzene (mg/L)	Ethyl-benzene (mg/L)	Toluene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Total Naphthalene (8260, mg/L)	Total Naphthalene (8270, mg/L)	Other volatiles? (see notes)	Other semi-volatiles? (see notes)	Type?
Notes:											
Yellow, constituent detected. **Bold,** exceeds NM WQCC standard											
E - Value above quantitation range											
MW-1, 06/19/09: Low level detections for 1,2,4-Trimethylbenzene (0.0067 mg/L), and 2-Butanone (0.060 mg/L)											
MW-6, 06/18/09: Low level detections for 1,2,4-Trimethylbenzene (0.0058 mg/L), 2-Butanone (0.30 mg/L) and Acetone (0.059 mg/l)											
MW-6, Duplicate 06/18/09: Low level detections for 1,2,4-Trimethylbenzene (0.0061 mg/L), 2-Butanone (0.28 mg/L) and Acetone (0.057 mg/l)											
MW-6, 02/02/10: Detections for 1,2,4-Trimethylbenzene (0.016 mg/L), 2-Butanone (0.066 mg/L), Acetone (0.19 mg/l), Isopropylbenzene (0.0088 mg/L),											
	and n-Propylbenzene (0.0066 mg/L)										
MW-7, 06/19/09: Low level detection for 2-Butanone (0.030 mg/L)											
RW-1, 06/19/09: Low level detection for 2-Butanone (0.038 mg/L)											
Semi-volatile concentrations for current sampling shown in the appendix.											
Analyses performed by ALS Laboratory Group, Houston, Texas											

Table 3. Inorganic Constituent Concentrations in Groundwater, Navajo Refining Company, Lovington Refinery

Monitor Well	Sample Date	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)
NM WQCC Groundwater Standards:		**250**	**1.6**	**10**	**600**	**1,000**	**5.0**	**0.1**	**1.0**	**0.75**	**0.01**	**0.05**	**0.05**	**1.0**
MW-1	06/19/09	131	0.827	3.75	123	694	<0.0100	0.00914	0.147	0.175	<0.00200	<0.00500	<0.00500	<0.00500
	01/19/10	**266**	0.249	5.84	145	**1,240**	0.0202	0.00634	0.164	0.236	<0.00200	<0.00500	<0.00500	<0.00500
MW-2	06/22/09	**252**	0.765	2.69	66.8	988	0.0657	0.0386	0.0803	0.190	<0.00200	<0.00500	<0.00500	0.00621
	01/19/10	246	0.672	3.39	55.1	966	<0.0100	<0.00500	0.00500	0.191	<0.00200	<0.00500	<0.00500	<0.00500
MW-3	06/16/09	29.1	**3.38**	2.19	64.6	504	0.308	0.00815	0.115	0.160	<0.00200	0.00709	<0.00500	<0.00500
	01/14/10	49.9	**3.18**	2.11	76.5	540	0.144	0.00703	0.119	0.148	<0.00200	0.00977	<0.00500	0.121
(duplicate)	01/14/10	49.8	**3.18**	2.11	75.0	552	0.142	0.00798	0.125	0.167	<0.00200	0.0105	<0.00500	0.148
MW-4	06/16/09	28.9	0.841	1.84	61.5	422	0.180	<0.00500	0.174	0.160	<0.00200	0.00534	<0.00500	<0.00500
	01/13/10	29.3	1.10	1.67	66.7	416	0.0345	<0.00500	0.0932	0.177	<0.00200	<0.00500	<0.00500	<0.00500
MW-5	06/16/09	186	1.39	3.31	131	952	0.796	0.0233	0.0639	0.116	<0.00200	<0.00500	<0.00500	<0.00500
	01/18/10	26.4	0.781	4.91	80.6	508	<0.0100	<0.00500	0.0966	0.135	<0.00200	<0.00500	<0.00500	<0.00500
MW-6	06/18/09	188	0.113	0.678	101	844	<0.0100	0.0201	0.186	0.175	<0.00200	<0.00500	<0.00500	<0.00500
(duplicate)	06/18/09	168	<0.100	0.682	90.4	812	<0.0100	0.0221	0.200	0.192	<0.00200	<0.00500	<0.00500	<0.00500
	02/02/10	**334**	<0.100	0.822	90.2	**1,400**	<0.0200	0.0250	0.499	0.234	<0.00200	<0.00500	<0.00500	<0.00500
MW-7	06/19/09	30.6	1.12	1.66	67.2	384	<0.0100	0.00923	0.169	0.161	<0.00200	<0.00500	<0.00500	<0.00500
	02/02/10	28.0	0.854	1.72	62.2	350	<0.0200	0.00869	0.199	0.169	<0.00200	<0.00500	<0.00500	<0.00500
MW-8	06/18/09	219	0.730	3.46	73.3	798	<0.0100	0.00501	0.181	0.228	<0.00200	<0.00500	<0.00500	<0.00500
	01/18/10	151	0.493	3.80	67.6	742	<0.0100	0.00726	0.157	0.215	<0.00200	<0.00500	<0.00500	<0.00500
MW-9	06/16/09	23.0	**1.69**	0.748	73.2	380	0.0468	0.0373	0.0911	0.122	<0.00200	<0.00500	<0.00500	<0.00500
	01/14/10	23.9	**1.78**	1.72	74.4	450	0.0164	0.0351	0.0676	0.139	<0.00200	<0.00500	<0.00500	<0.00500
MW-10	06/16/09	32.2	0.878	1.83	76.5	378	<0.0200	<0.00500	0.113	0.138	<0.00200	<0.00500	<0.00500	<0.00500
	01/13/10	33.4	1.05	1.84	77.9	436	<0.0100	<0.00500	0.0815	0.162	<0.00200	<0.00500	<0.00500	<0.00500
MW-11	06/18/09	204	0.579	1.23	43.1	994	<0.0100	<0.00500	0.194	0.199	<0.00200	<0.00500	<0.00500	<0.00500
	01/18/10	164	0.527	1.37	71.4	842	<0.0100	<0.00500	0.147	0.238	<0.00200	<0.00500	<0.00500	<0.00500
MW-12	06/16/09	23.0	1.16	1.98	49.6	354	<0.0200	0.00516	0.0775	0.200	<0.00200	<0.00500	<0.00500	<0.00500
	01/18/10	26.1	1.05	2.31	49.8	398	<0.0100	<0.00500	0.0755	0.235	<0.00200	<0.00500	<0.00500	<0.00500

Table 3. Inorganic Constituent Concentrations in Groundwater, Navajo Refining Company, Lovington Refinery

Monitor Well	Sample Date	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
NM WQCC Groundwater Standards:		**1.0**	**0.05**	**0.20**	**0.002**	**1.0**	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
MW-1	06/19/09	<0.200	<0.00500	**0.974**	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.0124
	01/19/10	<0.200	<0.00500	**2.72**	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00615	0.00989
MW-2	06/22/09	<0.200	<0.00500	0.00583	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.110
	01/19/10	<0.200	<0.00500	0.00538	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0166
MW-3	06/16/09	<0.200	<0.00500	<0.00500	<0.000200	0.0151	<0.00500	<0.00500	<0.00500	- -	<0.0100
	01/14/10	<0.200	<0.00500	0.00597	<0.000200	0.0200	0.00842	<0.00500	<0.00500	0.000625	0.0195
(duplicate)	01/14/10	<0.200	<0.00500	0.00699	<0.000200	0.0216	0.0096	<0.00500	<0.00500	0.000721	0.0230
MW-4	06/16/09	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.0120
	01/13/10	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00102	<0.00500
MW-5	06/16/09	0.399	<0.00500	0.0067	<0.000200	0.0103	<0.00500	<0.00500	<0.00500	- -	<0.0100
	01/18/10	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
MW-6	06/18/09	0.418	<0.00500	**2.86**	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.00996
(duplicate)	06/18/09	0.219	<0.00500	**2.76**	<0.000200	<0.00500	0.00653	<0.00500	<0.00500	- -	0.0141
	02/02/10	**2.08**	<0.00500	**4.51**	<0.000200	<0.00500	0.00634	<0.00500	<0.00500	0.0113	<0.00500
MW-7	06/19/09	<0.200	<0.00500	0.127	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.0137
	02/02/10	<0.200	<0.00500	0.125	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
MW-8	06/18/09	<0.200	<0.00500	0.00919	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.0458
	01/18/10	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00545
MW-9	06/16/09	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	<0.0100
	01/14/10	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.000656	<0.00500
MW-10	06/16/09	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.0127
	01/13/10	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.000911	0.0133
MW-11	06/18/09	0.571	<0.00500	**0.387**	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.0212
	01/18/10	<0.200	<0.00500	0.0559	<0.000200	<0.00500	0.0126	<0.00500	<0.00500	0.00635	<0.00500
MW-12	06/16/09	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	<0.0100
	01/18/10	<0.200	<0.00500	0.0219	<0.000200	<0.00500	0.0182	<0.00500	<0.00500	<0.00500	<0.00500

Table 3. Inorganic Constituent Concentrations in Groundwater, Navajo Refining Company, Lovington Refinery

Monitor Well	Sample Date	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)
MW-13	06/16/09	**425**	0.220	2.65	138	**1,790**	<0.0200	<0.00500	0.0692	0.253	<0.00200	<0.00500	0.0285	<0.00500
	01/18/10	**604**	0.17	1.08	79.8	**2,210**	<0.0100	<0.00500	0.111	0.231	<0.00200	0.00728	0.00624	<0.00500
MW-14	06/16/09	93.0	0.851	5.16	60.9	540	<0.0200	<0.00500	0.0770	0.132	<0.00200	<0.00500	<0.00500	<0.00500
	01/18/10	103	0.810	6.03	59.0	598	<0.0100	<0.00500	0.0767	0.157	<0.00200	0.00544	<0.00500	<0.00500
RW-1	06/19/09	34.8	1.21	- -	70.8	398	<0.0100	0.010	0.160	0.161	<0.00200	<0.00500	<0.00500	<0.00500
	02/02/10	34.2	0.913	1.52	66.0	388	<0.0200	0.00857	0.190	0.166	<0.00200	<0.00500	<0.00500	<0.00500
North Well	06/18/09	140	0.933	2.72	80.6	664	<0.0100	0.00536	0.0997	0.151	<0.00200	0.0104	<0.00500	<0.00500
	01/14/10	143	0.793	2.90	74.2	638	<0.0100	<0.00500	0.107	0.172	<0.00200	<0.00500	<0.00500	<0.00500
South Well	06/22/09	**497**	0.665	3.02	106	**1,450**	<0.0100	<0.00500	0.154	0.189	<0.00200	<0.00500	<0.00500	<0.00500
	01/14/10	**498**	0.686	3.27	113	**1,520**	0.0176	<0.00500	0.138	0.229	<0.00200	<0.00500	<0.00500	<0.00500
East Well	06/18/09	107	0.980	2.59	84.0	554	0.0131	<0.00500	0.0820	0.143	<0.00200	<0.00500	<0.00500	<0.00500
	01/14/10	138	0.991	2.70	72.7	676	<0.0100	<0.00500	0.0941	0.154	<0.00200	0.0119	<0.00500	0.00953
NM WQCC Groundwater Standards:		**250**	**1.6**	**10**	**600**	**1,000**	**5.0**	**0.1**	**1.0**	**0.750**	**0.01**	**0.05**	**0.05**	**1.0**
		Notes:												
		Bold highlighted, exceeds NM WQCC standard												
		Samples field filtered except for Total Mercury												
		Uranium not analyzed for 06/09 sample set												
		Analyses performed by ALS Laboratory Group, Houston, Texas												

Table 3. Inorganic Constituent Concentrations in Groundwater, Navajo Refining Company, Lovington Refinery

Monitor Well	Sample Date	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
MW-13	06/16/09	<0.200	<0.00500	0.0176	<0.000200	<0.00500	0.0126	<0.00500	<0.00500	- -	0.0269
	01/18/10	<0.200	<0.00500	0.0591	<0.000200	<0.00500	0.0110	<0.00500	<0.00500	0.0119	0.00769
MW-14	06/16/09	<0.200	<0.00500	0.0199	<0.000200	0.0215	<0.00501	<0.00500	<0.00500	- -	0.0255
	01/18/10	<0.200	<0.00500	0.0709	<0.000200	0.0120	0.0458	<0.00500	<0.00500	0.00513	<0.00500
RW-1	06/19/09	<0.200	<0.00500	0.0380	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.00548
	02/02/10	<0.200	<0.00500	0.0467	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
North Well	06/18/09	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	<0.00500
	01/14/10	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00134	<0.00500
South Well	06/22/09	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.0195
	01/14/10	<0.200	<0.00500	0.0224	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00236	<0.00500
East Well	06/18/09	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	- -	0.0172
	01/14/10	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00111	0.0291
NM WQCC Groundwater Standards:		**1.0**	**0.05**	**0.20**	**0.002**	**1.0**	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**

NAVAJO REFINING COMPANY
LOVINGTON REFINERY
LISTING OF ALL SUMPS

REVISION #6 — TABLE 4 — APRIL 13, 2010

NO. OF SUMPS	SUMP ID #	LOCATION	DESCRIPTION	APPROX DIMENSIONS	LAST TEST DATE	NEXT TEST DUE	TEST PASS / FAIL	TESTED BY	TEST METHOD	REPAIR METHOD	COMMENT
	83SUMP01	EAST OF COOLING TOWER, NORTH OF RACK @ E-436	CONCRETE BOX	CONCRETE CAP	N/A	N/A					(OUT OF SERVICE) OLD HDU SEWER HUB OR LIFT STATION, SUMP FILLED WITH CONCRTETE, CLOSED 10/22/09
	83SUMP02	AT OLD BUNDLE CLEANING PAD	CONCRETE BOX	4' X 4' X 4', 3' X 32'-6" X 4'	11/19/2008	N/A	PASS	GILES, INC.	HYDRO/CHECK LEVEL		(OUT OF SERVICE) 2 SUMPS; SUMPS FILLED WITH CONCRETE; CLOSED 10/22/09
1	83SUMP03	AT CHEMICAL STORAGE PAD	CONCRETE BOX	4' x 4' x 4'	6/9/2009	6/9/2014	PASS	GILES, INC.	HYDRO/CHECK LEVEL		TEST - SUMP NEW IN 2004
2	83SUMP04	(NAPHTHA SUMP) NORTH OF CONTROL ROOM	CONCRETE BOX	4' DIAMETER	11/21/2007	11/20/2012	PASS	GILES, INC.	HYDRO/CHECK LEVEL		TEST - SUMP
3	83SUMP05	SOUTH OF 400 & 401 CAUSTIC TANKS	CONCRETE BOX	4' x 4' x 4'	11/21/2007	11/20/2012	PASS	GILES, INC.	HYDRO/CHECK LEVEL		TEST - SUMP
4	83SUMP06	AT NON-HAZ PAD	CONCRETE BOX	4' x 4' x 4'	11/21/2007	11/20/2012	PASS	GILES, INC.	HYDRO/CHECK LEVEL		TEST - SUMP
5	83SUMP07	AT BUNDLE CLEANING PAD	FIBERGLASS DRUM	ROUND DRUM	11/21/2007	11/20/2012	PASS	GILES, INC.	HYDRO/CHECK LEVEL		TEST - SUMP
	83SUMP08	WEST OF API SEPARATOR	CONCRETE BOX	10' X 20' X3'	11/20/2008	11/20/2013	PASS	GILES, INC.	HYDRO/CHECK LEVEL		(OUT OF SERVICE) SUMP FILLED WITH CONCRETE, CLOSED 10/22/09
	83SUMP10	SOUTH OF TANK 1208	METAL BOX	8' X 6' X 6'	11/22/2008	11/22/2013	PASS	GILES, INC.	HYDRO/CHECK LEVEL		(OUT OF SERVICE) SUMP FILLED WITH CONCRETE, CLOSED 10/22/09
	83SUMP11	NORTH OF TANK 1215	METAL BOX	3' X 3' X 2'	11/24/2008	11/24/2013	PASS	GILES, INC.	HYDRO/CHECK LEVEL		(OUT OF SERVICE) SUMP FILLED WITH CONCRETE, CLOSED 10/22/09
	83SUMP13	WEST OF MAIN OFFICE BUILDING (OLD A/C CONDENSATE SUMP)	CONCRETE BOX	CONCRETE CAP	11/24/2008	11/24/2013	PASS	GILES, INC.	HYDRO/CHECK LEVEL		(OUT OF SERVICE) SUMP REMOVED DURING SEPTIC SYSTEM CAPITAL PROJECT, 2009
6	83SUMP14	NW CORNER OF MAIN BUILDING (OLD A/C CONDENSATE SUMP)	CONCRETE BOX	3' X 5' X 2'	11/25/2008	11/25/2013	PASS	GILES, INC.	HYDRO/CHECK LEVEL		TEST - SUMP
7	83SUMP15	TRUCK UNLOADING EAST OF TANK 1201A	CONCRETE BOX	4' X4' X 3'-10" H	6/9/2009	6/9/2014	PASS	GILES, INC.	HYDRO/CHECK LEVEL		TEST - SUMP
8	83SUMP16	SOUTH OF TANK 1201D, CRUDE METER STA.	CONCRETE BOX	3' DIAMETER	11/25/2008	11/25/2013	PASS	GILES, INC.	HYDRO/CHECK LEVEL		TEST - SUMP
9	83SUMP17	SOUTH AND WEST OF TANK 1201D, BEESON SUMP	METAL BOX	6' DIA x 6' D	6/9/2009	6/9/2014	PASS	GILES, INC.	HYDRO/CHECK LEVEL		TEST - SUMP
	83SUMP18	AT RAILROAD LOADING SPUR ALONG HIGHWAY	CONCRETE BOX	6' X 6' X 4'		N/A					(OUT OF SERVICE) SUMP FILLED WITH CONCRETE, CLOSED 10/22/09
10	83SUMP19	SUMP LOCATED NORTH OF TRUCK RACK, COVERED	CONCRETE BOX	36' X 36' X 5'	6/9/2009	6/9/2014	PASS	GILES, INC.	HYDRO/CHECK LEVEL		TEST - SUMP
11	83SUMP20	AT TRUCK LOADING RACK	CONCRETE BOX	3' X 3' X 5'	6/9/2009	6/9/2014	PASS	GILES, INC.	HYDRO/CHECK LEVEL		TEST - SUMP
	83SUMP21	OLD JET "A" LOADING RACK	CONCRETE BOX	5' X 5' X 4' & 3' X 2' X 2'	11/25/2008	11/25/2013	PASS	GILES, INC.	HYDRO/CHECK LEVEL		(OUT OF SERVICE) SUMP FILLED WITH CONCRETE, CLOSED 10/22/09
12	83SUMP22	LEA 8"/10"P/L SUMP	METAL BOX	4' X 4' X 8'	6/9/2009	2010	PASS	GILES, INC.	HYDRO/CHECK LEVEL		TEST - SUMP
13	83SUMP23	AT PROVER MANIFOLD SOUTH AND EAST OF TANK 1201A , RUSSEL STA.	METAL BOX	4' X 4' X 4'	6/9/2009	6/9/2014	PASS	GILES, INC.	HYDRO/CHECK LEVEL		TEST - SUMP
	83SUMP24	Abandoned Phillips blend area	CONCRETE BOX	6' X 6' X 6'	11/25/2008	11/25/2013	PASS	GILES, INC.	HYDRO/CHECK LEVEL		(OUT OF SERVICE) SUMP FILLED WITH CONCRETE, CLOSED 10/22/09
	83SUMP25	Abandoned Phillips blend area	CONCRETE BOX	6' X 6' X 6'	11/25/2008	11/25/2013	PASS	GILES, INC.	HYDRO/CHECK LEVEL		(OUT OF SERVICE) SUMP FILLED WITH CONCRETE, CLOSED 10/22/09
14	83SUMP26	South of 1201D at meters (has electric sump pump in hole)	METAL BOX	3' DIAMETER		2010					TEST - SUMP
15	83SUMP27	Sump at spent caustic loading pumps	CONCRETE BOX	8' X 2' X 3'		MAR. 2012					INSTALL NEW IN MARCH 2007
16	83SUMP28	LOV/ART CRUDE P/L SUMP	METAL BOX	6' DIA x 6' D		2010					TEST - SUMP
17	83SUMP30	NORTH CHEMICAL STORAGE PAD	CONCRETE BOX	4' X 4' X 4'		MAY 2013					INSTALL NEW IN MAY 2008
						Test in 2010					

applicable sump or sewer. This spreadsheet is just the summary of the testing we do. The actual test pages, sign off sheets, etc. are kept in a file at the refinery for inspection by OCD as our permit requires.

SUMMARY OF ALL LEAKS, SPILLS, FIRES AND RELEASES

Lovington had two spills in 2009. On February 21, 2009, approximately 100 bbls of diesel was released. The plant had been in turn-around and when starting up the plant, rundown lines were being filled. A bleeder was inadvertently left open and diesel was spilled. 80 bbls was recovered by vacuum truck. The C-141 from that event is included as Attachment 1 along with other documents including the delineation report from Safety and Environmental Solutions Inc (SESI) that was sent to OCD on May 29, 2009.

On July 26, 2009, 25 barrels of gas oil was spilled when TK 1214 was overfilled. All fluid stayed inside the tank berm. The vacuum truck recovered 15 barrels and contaminated soil was removed. The C-141 from that event is included in Appendix 1 along with other documents from that event.

On August 5, 2009, while working on a heat exchanger, crude oil dripped down onto a pump. This ignited the crude oil and a fire started. Hand held extinguishers were used to put the fire out. No one was injured and there were no damages. The C-141 from that incident is included in Appendix 1.

SUMMARY OF NEW GROUNDWATER CONTAMINATION

We are in the process of finalizing, with OCD, the locations of 14-15 new monitor wells to delineate any contamination and to learn the groundwater flow direction locally within the plant at the Lovington facility. As of today, based on the monitoring and sampling we did in 2009, there is no new groundwater contamination at the facility. The only contamination that has been found that can be attributed to the refinery is the hit of benzene in MW-11.

SUMMARY AND COPY OF ALL CITY OF LOVINGTON AND OCD ACTIVITY

Though not required by any permit, Navajo samples our wastewater to the City of Lovington POTW monthly. Those 12 monthly sampling analysis' are included in Attachment 2. In addition, the City of Lovington received a copy of *Navajo Refining Company Lea Refinery Delineation Report/Workplan* that was emailed on July 20, 2009. A copy of that report is in Appendix 1. On July 21, 2009 we sent the City and OCD copies of the NMED approved permits for the three septic systems we installed at Lovington. A copy of those permits are included in Appendix 2. The C-141's from both

- spill reports mentioned above along with the C-141 for the fire were forwarded to the City along with OCD. Finally, Navajo sends a representative to every Lovington City Council meeting.

APPENDIX 1

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Navajo Lea Refining Co.	Contact Darrell Moore
Address 7406 S Main Lovington, NM	Telephone No. 575-746-5281
Facility Name Lea Refining Co.	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

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release Diesel	Volume of Release 100 bbls	Volume Recovered 80 bbls
Source of Release Bleeder left open	Date and Hour of Occurrence 2/21/09 7:30 am	Date and Hour of Discovery 2/21/09 7:45 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Larry Johnson	
By Whom? Johnny Lackey	Date and Hour 2/21/09 7:50 am	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
The plant has been in turnaround so it has been down. When starting up the plant, rundown lines were being filled. A bleeder was inadvertently left open and the product was spilled.

Describe Area Affected and Cleanup Action Taken.*
The area affected is 150' long by 30' wide on the west side of the plant southwest of the office building. The product was immediately vacuumed up and contaminated soil was removed and put on plastic. We have scheduled a drilling rig for Thursday to delineate vertical extent of spill.

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: Darrell Moore	OIL CONSERVATION DIVISION	
Printed Name: Darrell Moore	Approved by District Supervisor:	
Title: Environmental Manager for Water and Waste	Approval Date:	Expiration Date:
E-mail Address: Darrell.moore@hollycorp.com	Conditions of Approval:	Attached ☐
Date: February 24, 2009 Phone: 575-746-5281		

* Attach Additional Sheets If Necessary

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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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							
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	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'	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							
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

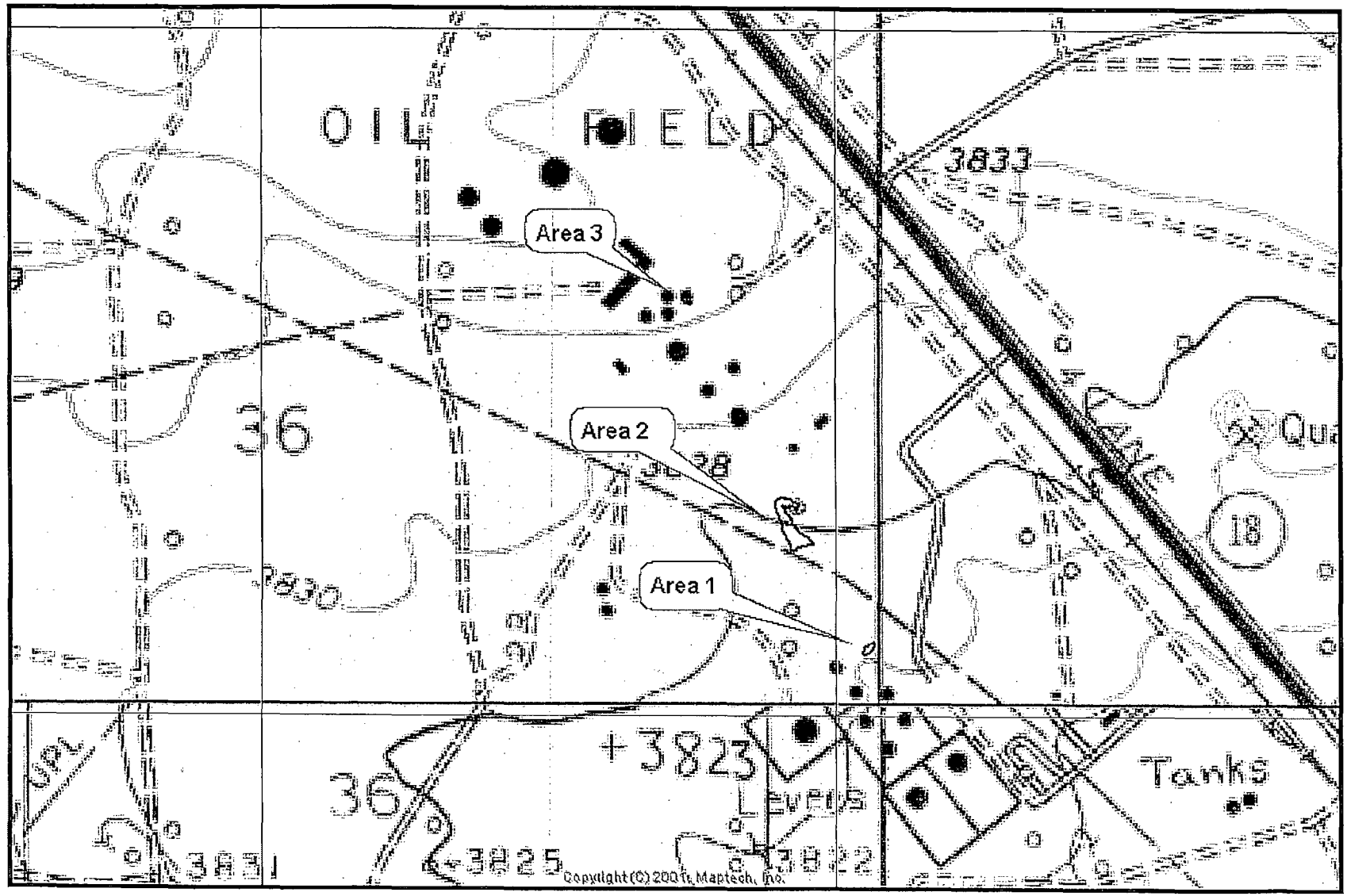

OIL FIELD
Area 3
Area 2
Area 1
36
3833
3830
3823
3825
Tanks
Levels
18
Copyright (C) 2001 Maptech, Inc.

Figure 2
Site Plan

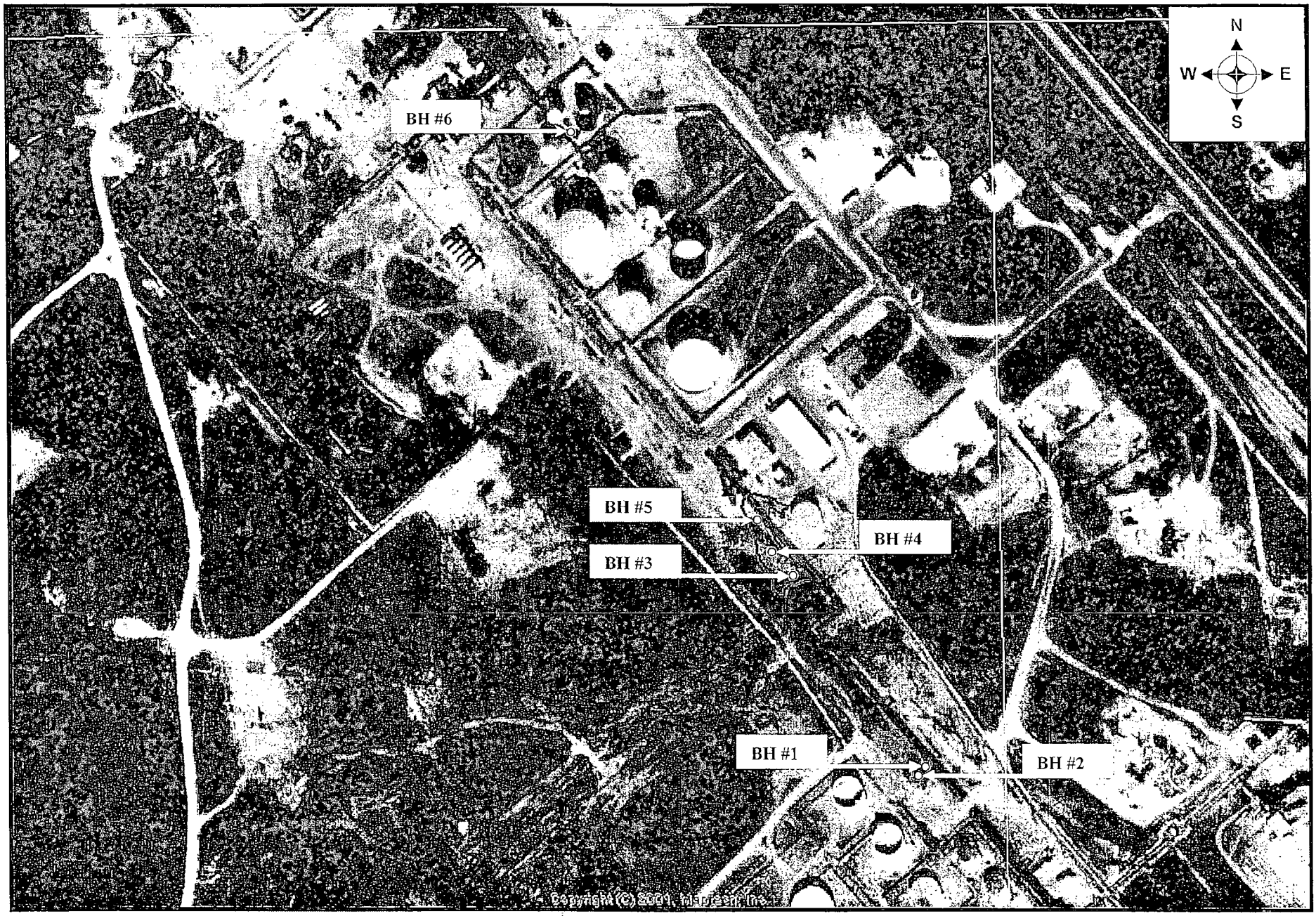

N
W
E
S
BH #6
BH #5
BH #4
BH #3
BH #1
BH #2
Copyright (c) 2001, Mapquest, Inc.

Figure 3
Logs of Boring

Safety & Environmental Solutions, Inc.

LOG OF BORING BH-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	Drilled By	: Eco/Enviro Drilling
Date, Time Complete	: 02/26/09, 1030	Sampling Method	: 5 ft. core barrel
Hole Diameter	: 8 1/4 in.	Logged By	: Isaac Kincaid
Drilling Method	: Hollow Stem Auger	Company Rep.	: Steve Terry, Navajo
Drilling Equipment	: Foremost-Mobile B-57		

Sample Type
SS Split Spoon (18" or 24")
CB Core Barrel (2.5' or 5')
CT Auger Cuttings
NR No recovery

Depth in Feet	Sample Type	Recovery (in.)	USCS	GRAPHIC	DESCRIPTION	Lab No.	TPH 8015 (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Ethyl Benzene (mg/Kg)
0-5	CB	0	CA		0-0.5 ft. Surface sample taken. Dark rock (caliche), staining with H/C odor 0.5-5 ft. CALICHE, white, hard, coarse H/C odor	D902014-01	3,880	<0.20	0.32	2.6	2.6
						D902014-02	88	<0.10	0.24	1.5	1.5
5-10	CB	14			5-8 ft. CALICHE, H/C odor, no staining 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
10-15	CB	14	SP		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
15-20	CB	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
20-25	CB	42	SP/SS		20-25 ft. SAND, tan-brown, fine grained, with sandstone layers, no H/C staining or odor	D902014-05	<10	<0.005	<0.005	<0.005	<0.005

Notes: Boring backfilled with 9 bags bentonite, hydrated.

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

Safety & Environmental Solutions, Inc.

LOG OF BORING BH-2

Hydrocarbon Release Investigation
Navajo Lea Refinery
Lovington, New Mexico
South Location
N32° 52' 32.88", W103° 17' 58.32"

Date, Time Started	: 02/26/09, 1230	Drilled By	: Eco/Enviro Drilling
Date, Time Complete	: 02/26/09, 1400	Sampling Method	: 5 ft. core barrel
Hole Diameter	: 8 1/4 in.	Logged By	: Isaac Kincaid
Drilling Method	: Hollow Stem Auger	Company Rep.	: Steve Terry, Navajo
Drilling Equipment	: Foremost-Mobile B-57		

Sample Type
SS Split Spoon (18" or 24")
CB Core Barrel (2.5' or 5')
CT Auger Cuttings
NR No recovery

Depth In Feet	Sample Type	Recovery (in.)	USCS	GRAPHIC	DESCRIPTION	Lab No.	TPH 8015 (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Ethyl Benzene (mg/Kg)
0			AR		0-0.5 ft. Surface sample taken; fill material, sand, clay, rock, dark staining with odor.	D902014-07	3,190	<0.50	2.4	10	10
5	CB	0	CA/SP		0.5-5 ft. CALICHE and SAND, tan- light brown, coarse, heavy H/C odor, no staining	D902014-08	460	<0.10	0.24	1.2	1.2
8	CB	8	CA		5-8 ft. CALICHE, hard rock, light brown (whitish)						
10	CB	12	SP/CA		8-10 ft. SAND, tan-light brown, coarse grained, with rock fragments.	D902014-09	50	<0.005	<0.005	<0.005	<0.005
15	CB	15	SP		10-15 ft. SAND, tan-light brown with rock fragments, no H/C staining or odor.	D902014-10	<10	<0.005	<0.005	<0.005	<0.005
20					15-20 ft. SAND, tan-light brown, no H/C staining or odor.	D902014-11	<10	<0.005	<0.005	<0.005	<0.005

Notes: Boring backfilled with 9 bags bentonite, hydrated.

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Safety & Environmental Solutions, Inc.

LOG OF BORING BH-3

(Page 1 of 1)

Hydrocarbon Release Investigation
Navajo Lea Refinery
Lovington, New Mexico
Middle Location
N32° 52' 37.54", W103° 18' 1.51"

Date, Time Started	: 02/26/09, 1425	Drilled By	: Eco/Enviro Drilling
Date, Time Complete	: 02/26/09, 1515	Sampling Method	: 5 ft. core barrel
Hole Diameter	: 8 1/4 in.	Logged By	: Isaac Kincaid
Drilling Method	: Hollow Stem Auger	Company Rep.	: Steve Terry, Navajo
Drilling Equipment	: Foremost-Mobile B-57		

Sample Type
SS Split Spoon (18" or 24")
CB Core Barrel (2.5' or 5')
CT Auger Cuttings
NR No recovery

Depth In Feet	Sample Type	Recovery (in.)	USCS	GRAPHIC	DESCRIPTION	Lab No.	TPH 8015 (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Ethyl Benzene (mg/Kg)
0					0-0.5 Surface sample.	D902014-12	20,200	<0.050	0.090	0.60	0.60
1											
2											
3	CB	0			0.5-5 ft. Top soil (silt) dark black with staining and heavy H/C odor						
4			ML								
5						D902014-13	20	<0.005	<0.005	<0.005	<0.005
6											
7	CB	16			5-9 ft. Top soil (silt) dark black, staining with minimal odor						
8											
9					9-10 ft. CLAY, red						
10						D902014-14	<10	<0.005	<0.005	<0.005	<0.005
11			CL								
12	CB	60			10-14.5 ft. CLAY, red, no H/C staining or odor						
13											
14											
15			CL		14.5-15 ft. SANDY CLAY, tan-light brown, no H/C staining or odor	D902014-15	<10	<0.005	<0.005	<0.005	<0.005
16											
17											
18											
19											
20											

Notes: Boring backfilled with 6 bags bentonite, hydrated.

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Safety & Environmental Solutions, Inc.

LOG OF BORING BH-4

(Page 1 of 1)

Hydrocarbon Release Investigation
Navajo Lea Refinery
Lovington, New Mexico
Middle Location
N32° 52' 38.06", W103° 16' 2.30"

Date, Time Started	: 02/27/09, 0811	Drilled By	: Eco/Enviro Drilling
Date, Time Complete	: 02/27/09, 0930	Sampling Method	: 5 ft. core barrel
Hole Diameter	: 8 1/4 in.	Logged By	: Brian Cuellar
Drilling Method	: Hollow Stem Auger	Company Rep.	: Steve Terry, Navajo
Drilling Equipment	: Foremost-Mobile B-57		

Sample Type
SS Split Spoon (18" or 24")
CB Core Barrel (2.5' or 5')
CT Auger Cuttings
NR No recovery

Depth in Feet	Sample Type	Recovery (in.)	USCS	GRAPHIC	DESCRIPTION	Lab No.	TPH 8015 (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Ethyl Benzene (mg/Kg)
0					0-0.5 Surface sample.	D902015-01	41,600	<0.50	4.6	16	16
1			ML		0-2 ft. Sandy loam, light brown, heavy H/C staining and odor.						
2	CB	12									
3			CA/CI		2-5 ft. CALICHE with SANDY CLAY, limey white with light staining and moderate odor						
4											
5						D902015-02	450	<0.050	<0.050	0.12	0.12
6											
7	CB	9.5			5-10 ft. CALICHE, limey white, very light staining and very light odor						
8											
9											
10			CA			D902015-03	<10	<0.005	<0.005	<0.005	<0.005
11											
12											
13	CB	--			10-15 ft. CALICHE, limey white, sub angular, no H/C staining or odor						
14											
15						D902015-04	<10	<0.005	<0.005	<0.005	<0.005
16											
17											
18											
19											
20											

Notes: Boring backfilled with 5 bags bentonite, hydrated.

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Safety & Environmental Solutions, Inc.

LOG OF BORING BH-5

(Page 1 of 1)

Hydrocarbon Release Investigation
Navajo Lea Refinery
Lovington, New Mexico
Middle Location
N32° 52' 39.22", W103° 18' 2.93"

Date, Time Started	: 02/27/09, 0940	Drilled By	: Eco/Enviro Drilling
Date, Time Complete	: 02/27/09, 1055	Sampling Method	: 5 ft. core barrel
Hole Diameter	: 8 1/4 in.	Logged By	: Brian Cuellar
Drilling Method	: Hollow Stem Auger	Company Rep.	: Steve Terry, Navajo
Drilling Equipment	: Foremost-Mobile B-57		

Sample Type
SS Split Spoon (18" or 24")
CB Core Barrel (2.5' or 5')
CT Auger Cuttings
NR No recovery

Depth in Feet	Sample Type	Recovery (in.)	USCS	GRAPHIC	DESCRIPTION	Lab No.	TPH 8015 (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Ethyl Benzene (mg/Kg)
0					0-0.5 Surface sample.	D902015-05	24,800	<0.40	<0.40	2.0	2.0
1			ML/CA		0-2 ft. Sandy loam and rock, light brown with heavy H/C staining and odor						
2	CB	--									
3					2-5 ft. CALICHE, limey white, sub-angular, no visible staining and moderate odor. Rock bit utilized to drill through hard surface, sample from cuttings.						
4											
5						D902015-06	14	<0.005	<0.005	<0.005	<0.005
6			CA								
7	CB	16			5-10 ft. CALICHE, limey white, sub-angular, no odor or staining.						
8											
9											
10						D902015-07	<10	<0.005	<0.005	<0.005	<0.005
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											

Notes: Boring backfilled with 5 bags bentonite, hydrated.

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Safety & Environmental Solutions, Inc.

LOG OF BORING BH-6

(Page 1 of 1)

Hydrocarbon Release Investigation
Navajo Lea Refinery
Lovington, New Mexico
North Location
N32° 52' 48.09", W103° 18' 7.76"

Date, Time Started	: 02/27/09, 1300	Drilled By	: Eco/Enviro Drilling
Date, Time Complete	: 02/27/09, 1420	Sampling Method	: 5 ft. core barrel
Hole Diameter	: 8 1/4 in.	Logged By	: Brian Cuellar
Drilling Method	: Hollow Stem Auger	Company Rep.	: Steve Terry, Navajo
Drilling Equipment	: Foremost-Mobile B-57		

Sample Type
SS Split Spoon (18" or 24")
CB Core Barrel (2.5' or 5')
CT Auger Cuttings
NR No recovery

Depth in Feet	Sample Type	Recovery (in.)	USCS	GRAPHIC	DESCRIPTION	Lab No.	TPH 8015 (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Ethyl Benzene (mg/Kg)
0	CB	--	ML/CA		0-0.5 Surface sample.	D902015-08	2,110	1.8	30	31	31
1					0-2 ft. Sandy loam and rock, heavy staining with historic staining, heavy odor 0-3 ft.						
2											
3											
4					3-5 ft. CALICHE, limey white, sub-angular, no staining and light odor. Rock bit utilized to break through rock layer.	D902015-09	440	<0.10	<0.10	<01.0	<01.0
5											
6	CB	--	CA		5-10 ft. CALICHE, limey white, sub-angular, no staining or apparent odor. Rock bit utilized.						
7											
8											
9											
10						D902015-10	24	<0.005	<0.005	<0.005	<0.005
11	CB	9			10-14 ft. CALICHE, limey white, sub-angular, no staining or odor.						
12											
13											
14			SC		14-15 ft. CLAYEY SAND, reddish-brown, no H/C staining or odor	D902015-11	<10	<0.005	<0.005	<0.005	<0.005
15											
16											
17											
18											
19											
20											

Notes: Boring backfilled with bentonite, hydrated.

C:\Documents and Settings\Dave Boyer\My Documents\Navajo\BH-6.bor

Appendix A
Analytical Results

argon laboratories

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

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(505)397-0295 (505)397-0296 info@argonlabs.com

CHAIN OF CUSTODY

1227

D902015

Project No: NAN-09-002
Project Title:
Location:

Sampler's Name: (print) Brian Cuellar

Sampler's Signature:

Client: SESI
Address: 703 E. Clinton
Contact: Hobbs, NM 88240
Phone:
Fax:

Bill To:

Client:
Address: SAME

TURN AROUND TIME

RUSH	24 Hour	48 Hour	other	Standard (5 days)
☐	☐	☐	☐	☐

ANALYSIS

Sample ID.	Date	Time	# Containers	Matrix	TPH 8015	BTEX	COMMENTS
BH#4. Surface	2/27/09	0811	1	Soil	X	X	
BH#4. 5'		0830					
BH#4. 10'		0845					
BH#4. 15'		0910					
BH#5. Surface		0950					
BH#5. 5'		1005					
BH#5. 10'		1030					
BH#6. Surface		1310					
BH#6. 5'		1332					
BH#6. 10'		1345					
BH#6. 15		1410					

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
	2/27/09		Natalie Franco	2-27-09	4pm
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

SPECIAL INSTRUCTIONS:

Argon Laboratories Sample Receipt Checklist

Client Name: SESI Date & Time Received: 02/27/09 16:00

Project Name: Navajo Lea Refinery Client Project Number: NAV-09-002

Received By: NF Matrix: Water ☐ Soil ☑

Sample Carrier: Client ☐ Laboratory ☑ Fed Ex ☐ UPS ☐ Other ☐

Argon Labs Project Number: D902015

Shipper Container in good condition?	N/A____	Yes ☑	No ☐	Samples received in proper containers?		Yes ☑	No ☐
				Samples received intact?		Yes ☑	No ☐
Samples received under refrigeration?		Yes ☑	No ☐	Sufficient sample volume for requested tests?		Yes ☑	No ☐
Chain of custody present?		Yes ☑	No ☐	Samples received within holding time?		Yes ☑	No ☐
Chain of Custody signed by all parties?		Yes ☑	No ☐	Do samples contain proper preservative?	N/A ☑	Yes ☐	No ☐
Chain of Custody matches all sample labels?		Yes ☑	No ☐	Do VOA vials contain zero headspace?	(None submitted ☑)	Yes ☐	No ☐

ANY "No" RESPONSE MUST BE DETAILED IN THE COMMENTS SECTION BELOW

Date Client Contacted: _____ Person Contacted: _____

Contacted By: _____ Subject: _____

Comments: _____

Action Taken: _____

ADDITIONAL TEST(S) REQUEST / OTHER

Contacted By: _____ Date: _____ Time: _____

Call Received By: _____

Comments: _____

argon laboratories

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

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.

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

argon laboratories

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) Soil Sampled: 02/27/09 08:11 Received: 02/27/09 16:00							
Benzene	ND	0.50	mg/kg	100	03/03/09	8021B	
Toluene	**4.6**	0.50	"	"	"	"	
Ethylbenzene	**16**	0.50	"	"	"	"	
Xylenes (total)	**26**	1.0	"	"	"	"	
Surr. Rec.:		*103 %*			"	"	
BH #4 5 ' (D902015-02) Soil Sampled: 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	"	"	"	"	
Ethylbenzene	**0.12**	0.050	"	"	"	"	
Xylenes (total)	**2.8**	0.10	"	"	"	"	
Surr. Rec.:		*104 %*			"	"	
BH #4 10 ' (D902015-03) Soil Sampled: 02/27/09 08:45 Received: 02/27/09 16:00							
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	
Surr. Rec.:		*86 %*			"	"	
BH #4 15 ' (D902015-04) Soil Sampled: 02/27/09 09:10 Received: 02/27/09 16:00							
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	
Surr. Rec.:		*88 %*			"	"	

QC Officer Approval

Argon Laboratories, Inc.

argon laboratories

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 #5 Surface (D902015-05) Soil Sampled: 02/27/09 09:50 Received: 02/27/09 16:00							
Benzene	ND	0.40	mg/kg	80	03/03/09	8021B	
Toluene	ND	0.40	"	"	"	"	
Ethylbenzene	**2.0**	0.40	"	"	"	"	
Xylenes (total)	**5.7**	0.80	"	"	"	"	
Surr. Rec.:		*84 %*			"	"	
BH #5 5 ' (D902015-06) Soil Sampled: 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	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	
Surr. Rec.:		*106 %*			"	"	
BH #5 10 ' (D902015-07) Soil Sampled: 02/27/09 10:30 Received: 02/27/09 16:00							
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	
Surr. Rec.:		*86 %*			"	"	
BH #6 Surface (D902015-08) Soil Sampled: 02/27/09 13:10 Received: 02/27/09 16:00							
Benzene	**1.8**	0.50	mg/kg	100	03/03/09	8021B	
Toluene	**30**	0.50	"	"	"	"	
Ethylbenzene	**31**	0.50	"	"	"	"	
Xylenes (total)	**42**	1.0	"	"	"	"	
Surr. Rec.:		*112 %*			"	"	

QC Officer Approval

Argon Laboratories, Inc.

argon laboratories

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 #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	"	"	"	"	
Ethylbenzene	ND	0.10	"	"	"	"	
Xylenes (total)	**1.4**	0.20	"	"	"	"	
Surr. Rec.:		*96 %*			"	"	
BH #6 10 ' (D902015-10) Soil Sampled: 02/27/09 13:45 Received: 02/27/09 16:00							
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	
Surr. Rec.:		*100 %*			"	"	
BH #6 15 ' (D902015-11) Soil Sampled: 02/27/09 14:10 Received: 02/27/09 16:00							
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	
Surr. Rec.:		*85 %*			"	"	

QC Officer Approval

Argon Laboratories, Inc.

argon laboratories

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 #4 Surface (D902015-01) Soil Sampled: 02/27/09 08:11 Received: 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	"	"	"	"	
C29 - C35 Range Organics	**7100**	400	"	"	"	"	
Total Petroleum Hydrocarbons	**41600**	200	"	"	"	"	
BH #4 5 ' (D902015-02) Soil Sampled: 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	"	"	"	"	
C29 - C35 Range Organics	**90**	20	"	"	"	"	
Total Petroleum Hydrocarbons	**450**	10	"	"	"	"	
Surr. Rec.:		*106 %*			"	"	
BH #4 10 ' (D902015-03) Soil Sampled: 02/27/09 08:45 Received: 02/27/09 16:00							
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	"	"	"	"	
C29 - C35 Range Organics	ND	20	"	"	"	"	
Total Petroleum Hydrocarbons	ND	10	"	"	"	"	
Surr. Rec.:		*111 %*			"	"	
BH #4 15 ' (D902015-04) Soil Sampled: 02/27/09 09:10 Received: 02/27/09 16:00							
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	"	"	"	"	
C29 - C35 Range Organics	ND	20	"	"	"	"	
Total Petroleum Hydrocarbons	ND	10	"	"	"	"	
Surr. Rec.:		*104 %*			"	"	

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	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 #5 Surface (D902015-05) Soil Sampled: 02/27/09 09:50 Received: 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	"	"	"	"	
C29 - C35 Range Organics	**4700**	400	"	"	"	"	
Total Petroleum Hydrocarbons	**24800**	200	"	"	"	"	
BH #5 5 ' (D902015-06) Soil Sampled: 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	"	"	"	"	
C29 - C35 Range Organics	ND	20	"	"	"	"	
Total Petroleum Hydrocarbons	**14**	10	"	"	"	"	
Surr. Rec.:		*94 %*			"	"	
BH #5 10 ' (D902015-07) Soil Sampled: 02/27/09 10:30 Received: 02/27/09 16:00							
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	"	"	"	"	
C29 - C35 Range Organics	ND	20	"	"	"	"	
Total Petroleum Hydrocarbons	ND	10	"	"	"	"	
Surr. Rec.:		*99 %*			"	"	
BH #6 Surface (D902015-08) Soil Sampled: 02/27/09 13:10 Received: 02/27/09 16:00							
Gasoline Range Organics	**350**	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	**1300**	10	"	"	"	"	
C29 - C35 Range Organics	**460**	20	"	"	"	"	
Total Petroleum Hydrocarbons	**2110**	10	"	"	"	"	
Surr. Rec.:		*106 %*			"	"	

QC Officer Approval

Argon Laboratories, Inc.

argon laboratories

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	"	"	"	"	
C29 - C35 Range Organics	ND	20	"	"	"	"	
Total Petroleum Hydrocarbons	**440**	10	"	"	"	"	
Surr. Rec.:		*93 %*			"	"	
BH #6 10 ' (D902015-10) Soil Sampled: 02/27/09 13:45 Received: 02/27/09 16:00							
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	**24**	10	"	"	"	"	
C29 - C35 Range Organics	ND	20	"	"	"	"	
Total Petroleum Hydrocarbons	**24**	10	"	"	"	"	
Surr. Rec.:		*97 %*			"	"	
BH #6 15 ' (D902015-11) Soil Sampled: 02/27/09 14:10 Received: 02/27/09 16:00							
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	"	"	"	"	
C29 - C35 Range Organics	ND	20	"	"	"	"	
Total Petroleum Hydrocarbons	ND	10	"	"	"	"	
Surr. Rec.:		*98 %*			"	"	

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

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 - Quality Control

Argon Laboratories

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

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	Work Order No.:
Hobbs, NM 88240	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 & Analyzed: 03/03/09				
Surrogate: p-Terphenyl	*0.0970*		*mg/kg*	*0.100*		*97*		
Gasoline Range Organics	ND	10	"					
Diesel Range Organics	ND	10	"					
C29 - C35 Range Organics	ND	20	"					
Total Petroleum Hydrocarbons	ND	10	"					
LCS (DS00039-BS1)				Prepared & Analyzed: 03/03/09				
Total Petroleum Hydrocarbons	234		mg/kg	250		94		
LCS Dup (DS00039-BSD1)				Prepared & Analyzed: 03/03/09				
Total Petroleum Hydrocarbons	228		mg/kg	250		91	3	
Matrix Spike (DS00039-MS1)				Prepared & Analyzed: 03/03/09				
Total Petroleum Hydrocarbons	240		mg/kg	250		96		
Matrix Spike Dup (DS00039-MSD1)				Prepared & Analyzed: 03/03/09				
Total Petroleum Hydrocarbons	244		mg/kg	250		98	2	

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	Work Order No.:
Hobbs, NM 88240	Project Manager: Bob Allen	D902015

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.

argon laboratories

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

2126 W. Marland Ave Hobbs, NM 88240
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CHAIN OF CUSTODY

1226

D902014

Project No: Nav 09-002
Project Title:
Location: Navajo Lea Refinery Delineation Lea Co, NM

Sampler's Name: (print) Isaac Kincaid
Sampler's Signature:

Client: SFSF
Address: 703 E Clinton Hobbs, NM 88240
Contact:
Phone: (575)397-0510
Fax:

Bill To:
Client:
Address: Same

TURN AROUND TIME

RUSH	24 Hour	48 Hour	other	Standard (5 days)
☐	☐	☐	☐	☐

ANALYSIS

Sample ID.	Date	Time	# Containers	Matrix	TPH 8015	BTEX	COMMENTS
BH #1 Surface	2/26/09	0845	1	Soil	X	X	
BH #1 5'		0900	1				
BH #1 10'		0930	1				
BH #1 15'		0955	1				
BH #1 20'		1000 TK	1				
BH #1 25'		1020	1				
BH #2 Surface		1230 1095 TK	1				
BH #2 5'		1245	1				
BH #2 10'		1300	1				
BH #2 15'		1345	1				
BH #2 20'		1355	1		X	X	

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
	2/26/09	5pm		2/26/09	5pm
	2/27/09		Natalie Franco	2-27-09	4pm

SPECIAL INSTRUCTIONS:

Argon Labs

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

CHAIN OF CUSTODY

1225

D902012

Project No: Nav-02-005
Project Title: Navajo Lea Refinery Delineation
Location: Lea Co, NM

Sampler's Name: (print) Isaac Kincaid

Sampler's Signature:

Client: SESI
Address: 703 E Clinton
Hobbs, NM 88240
Contact:
Phone: (575)397-0510
Fax:

Bill To:
Client:
Address: Same

TURN AROUND TIME

RUSH	24 Hour	48 Hour	other	Standard (5 days)
☐	☐	☐	☐	☐

ANALYSIS

Sample ID.	Date	Time	# Containers	Matrix	TPH 418.1	BTEX	COMMENTS
BH#3 surface	2/26/09	1430	1	Soil	X	X	
BH#3 5'		1435	1		X	X	
BH#3 10'		1450	1		X	X	
BH#3 15'		1500	1		X	X	

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
	2/26/09	5 PM		2/26/09	5 PM
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
	2/27/09		Roderick Blanco	2-27-09	4 pm
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

SPECIAL INSTRUCTIONS:

Argon Laboratories Sample Receipt Checklist

Client Name: SESI Date & Time Received: 02/27/09 16:00

Project Name: Navajo Lea Refinery Client Project Number: NAV-09-002

Received By: NF Matrix: Water ☐ Soil ☑

Sample Carrier: Client ☐ Laboratory ☑ Fed Ex ☐ UPS ☐ Other ☐

Argon Labs Project Number: D902014

Shipper Container in good condition?				Samples received in proper containers?	Yes ☑ No ☐
N/A____	Yes ☑	No ☐		Samples received intact?	Yes ☑ No ☐
Samples received under refrigeration?	Yes ☑	No ☐		Sufficient sample volume for requested tests?	Yes ☑ No ☐
Chain of custody present?	Yes ☑	No ☐		Samples received within holding time?	Yes ☑ No ☐
Chain of Custody signed by all parties?	Yes ☑	No ☐		Do samples contain proper preservative?	N/A ☑ Yes ☐ No ☐
Chain of Custody matches all sample labels?	Yes ☑	No ☐		Do VOA vials contain zero headspace?	(None submitted ☑) Yes ☐ No ☐

ANY "No" RESPONSE MUST BE DETAILED IN THE COMMENTS SECTION BELOW

Date Client Contacted: _____ Person Contacted: _____

Contacted By: _____ Subject: _____

Comments: _____

Action Taken: _____

ADDITIONAL TEST(S) REQUEST / OTHER

Contacted By: _____ Date: _____ Time: _____

Call Received By: _____

Comments: _____

argon laboratories

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

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

Argon Laboratories, Inc.

argon laboratories

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

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
BH #1 Surface (D902014-01) Soil Sampled: 02/26/09 08:45 Received: 02/27/09 16:00							
Benzene	ND	0.20	mg/kg	40	03/03/09	8021B	
Toluene	0.32	0.20	"	"	"	"	
Ethylbenzene	2.6	0.20	"	"	"	"	
Xylenes (total)	5.1	0.40	"	"	"	"	
Surr. Rec.:		*96 %*			"	"	
BH #1 5 ' (D902014-02) Soil Sampled: 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	"	"	"	"	
Ethylbenzene	1.5	0.10	"	"	"	"	
Xylenes (total)	2.4	0.20	"	"	"	"	
Surr. Rec.:		*94 %*			"	"	
BH #1 10 ' (D902014-03) Soil Sampled: 02/26/09 09:30 Received: 02/27/09 16:00							
Benzene	ND	0.025	mg/kg	5	03/03/09	8021B	
Toluene	0.054	0.025	"	"	"	"	
Ethylbenzene	1.7	0.025	"	"	"	"	
Xylenes (total)	2.2	0.050	"	"	"	"	
Surr. Rec.:		*89 %*			"	"	
BH #1 15 ' (D902014-04) Soil Sampled: 02/26/09 09:55 Received: 02/27/09 16:00							
Benzene	ND	0.20	mg/kg	40	03/03/09	8021B	
Toluene	0.43	0.20	"	"	"	"	
Ethylbenzene	6.8	0.20	"	"	"	"	
Xylenes (total)	9.7	0.40	"	"	"	"	
Surr. Rec.:		*81 %*			"	"	

QC Officer Approval

Argon Laboratories, Inc.

argon laboratories

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

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
BH #1 20 ' (D902014-05) Soil Sampled: 02/26/09 10:05 Received: 02/27/09 16:00							
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	
Surr. Rec.:		*88 %*			"	"	
BH #1 25 ' (D902014-06) Soil Sampled: 02/26/09 10:20 Received: 02/27/09 16:00							
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	
Surr. Rec.:		*88 %*			"	"	
BH #2 Surface (D902014-07) Soil Sampled: 02/26/09 10:45 Received: 02/27/09 16:00							
Benzene	ND	0.50	mg/kg	100	03/03/09	8021B	
Toluene	**2.4**	0.50	"	"	"	"	
Ethylbenzene	**10**	0.50	"	"	"	"	
Xylenes (total)	**17**	1.0	"	"	"	"	
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	"	"	"	"	
Ethylbenzene	**1.2**	0.10	"	"	"	"	
Xylenes (total)	**2.5**	0.20	"	"	"	"	
Surr. Rec.:		*77 %*			"	"	

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	Work Order No.:
Hobbs, NM 88240	Project Manager: Bob Allen	D902014

BTEX EPA Method 8021B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
BH #2 10 ' (D902014-09) Soil Sampled: 02/26/09 13:00 Received: 02/27/09 16:00							
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	
Surr. Rec.:		*87 %*			"	"	
BH #2 15 ' (D902014-10) Soil Sampled: 02/26/09 13:45 Received: 02/27/09 16:00							
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	
Surr. Rec.:		*90 %*			"	"	
BH #2 20 ' (D902014-11) Soil Sampled: 02/26/09 13:55 Received: 02/27/09 16:00							
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	
Surr. Rec.:		*94 %*			"	"	
BH #3 Surface (D902014-12) Soil Sampled: 02/26/09 14:30 Received: 02/27/09 16:00							
Benzene	ND	0.050	mg/kg	10	03/03/09	8021B	
Toluene	**0.090**	0.050	"	"	"	"	
Ethylbenzene	**0.60**	0.050	"	"	"	"	
Xylenes (total)	**1.3**	0.10	"	"	"	"	
Surr. Rec.:		*92 %*			"	"	

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	Work Order No.:
Hobbs, NM 88240	Project Manager: Bob Allen	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	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	
Surr. Rec.:		*98 %*			"	"	
BH #3 10 ' (D902014-14) Soil Sampled: 02/26/09 14:50 Received: 02/27/09 16:00							
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	
Surr. Rec.:		*93 %*			"	"	
BH #3 15 ' (D902014-15) Soil Sampled: 02/26/09 15:00 Received: 02/27/09 16:00							
Benzene	ND	0.005	mg/kg	1	03/03/09	8021B	
Toluene	ND	0.005	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	
Surr. Rec.:		*89 %*			"	"	

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	Work Order No.:
Hobbs, NM 88240	Project Manager: Bob Allen	D902014

Total Petroleum Hydrocarbons EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
BH #1 Surface (D902014-01) Soil Sampled: 02/26/09 08:45 Received: 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	"	"	"	"	
C29 - C35 Range Organics	ND	400	"	"	"	"	
Total Petroleum Hydrocarbons	**3880**	200	"	"	"	"	
BH #1 5 ' (D902014-02) Soil Sampled: 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	"	"	"	"	
C29 - C35 Range Organics	ND	20	"	"	"	"	
Total Petroleum Hydrocarbons	**88**	10	"	"	"	"	
Surr. Rec.:		*99 %*			"	"	
BH #1 10 ' (D902014-03) Soil Sampled: 02/26/09 09:30 Received: 02/27/09 16:00							
Gasoline Range Organics	**30**	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	**190**	10	"	"	"	"	
C29 - C35 Range Organics	ND	20	"	"	"	"	
Total Petroleum Hydrocarbons	**220**	10	"	"	"	"	
Surr. Rec.:		*91 %*			"	"	
BH #1 15 ' (D902014-04) Soil Sampled: 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	"	"	"	"	
C29 - C35 Range Organics	ND	20	"	"	"	"	
Total Petroleum Hydrocarbons	**390**	10	"	"	"	"	
Surr. Rec.:		*98 %*			"	"	

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	Work Order No.:
Hobbs, NM 88240	Project Manager: Bob Allen	D902014

Total Petroleum Hydrocarbons EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
BH #1 20 ' (D902014-05) Soil Sampled: 02/26/09 10:05 Received: 02/27/09 16:00							
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	"	"	"	"	
C29 - C35 Range Organics	ND	20	"	"	"	"	
Total Petroleum Hydrocarbons	ND	10	"	"	"	"	
Surr. Rec.:		*104 %*			"	"	
BH #1 25 ' (D902014-06) Soil Sampled: 02/26/09 10:20 Received: 02/27/09 16:00							
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	"	"	"	"	
C29 - C35 Range Organics	ND	20	"	"	"	"	
Total Petroleum Hydrocarbons	ND	10	"	"	"	"	
Surr. Rec.:		*101 %*			"	"	
BH #2 Surface (D902014-07) Soil Sampled: 02/26/09 10:45 Received: 02/27/09 16:00							**S-09**
Gasoline Range Organics	ND	200	mg/kg	20	03/03/09	EPA 8015M	
Diesel Range Organics	**3000**	200	"	"	"	"	
C29 - C35 Range Organics	ND	400	"	"	"	"	
Total Petroleum Hydrocarbons	**3190**	200	"	"	"	"	
BH #2 5 ' (D902014-08) Soil 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	"	"	"	"	
C29 - C35 Range Organics	ND	20	"	"	"	"	
Total Petroleum Hydrocarbons	**460**	10	"	"	"	"	
Surr. Rec.:		*102 %*			"	"	

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	Work Order No.:
Hobbs, NM 88240	Project Manager: Bob Allen	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: 02/27/09 16:00							
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	**50**	10	"	"	"	"	
C29 - C35 Range Organics	ND	20	"	"	"	"	
Total Petroleum Hydrocarbons	**50**	10	"	"	"	"	
Surr. Rec.:		*104 %*			"	"	
BH #2 15 ' (D902014-10) Soil Sampled: 02/26/09 13:45 Received: 02/27/09 16:00							
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	"	"	"	"	
C29 - C35 Range Organics	ND	20	"	"	"	"	
Total Petroleum Hydrocarbons	ND	10	"	"	"	"	
Surr. Rec.:		*105 %*			"	"	
BH #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	"	"	"	"	
C29 - C35 Range Organics	ND	20	"	"	"	"	
Total Petroleum Hydrocarbons	ND	10	"	"	"	"	
Surr. Rec.:		*105 %*			"	"	
BH #3 Surface (D902014-12) Soil Sampled: 02/26/09 14:30 Received: 02/27/09 16:00							**S-09**
Gasoline Range Organics	ND	200	mg/kg	20	03/03/09	EPA 8015M	
Diesel Range Organics	**12000**	200	"	"	"	"	
C29 - C35 Range Organics	**8100**	400	"	"	"	"	
Total Petroleum Hydrocarbons	**20200**	200	"	"	"	"	

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	Work Order No.:
Hobbs, NM 88240	Project Manager: Bob Allen	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	"	"	"	"	
C29 - C35 Range Organics	ND	20	"	"	"	"	
Total Petroleum Hydrocarbons	**20**	10	"	"	"	"	
Surr. Rec.:		*104 %*			"	"	
BH #3 10 ' (D902014-14) Soil Sampled: 02/26/09 14:50 Received: 02/27/09 16:00							
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	"	"	"	"	
C29 - C35 Range Organics	ND	20	"	"	"	"	
Total Petroleum Hydrocarbons	ND	10	"	"	"	"	
Surr. Rec.:		*104 %*			"	"	
BH #3 15 ' (D902014-15) Soil Sampled: 02/26/09 15:00 Received: 02/27/09 16:00							
Gasoline Range Organics	ND	10	mg/kg	1	03/03/09	EPA 8015M	
Diesel Range Organics	ND	10	"	"	"	"	
C29 - C35 Range Organics	ND	20	"	"	"	"	
Total Petroleum Hydrocarbons	ND	10	"	"	"	"	
Surr. Rec.:		*99 %*			"	"	

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	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 & Analyzed: 03/03/09				
Surrogate: a,a,a-Trifluorotoluene	*0.0410*		*mg/kg*	*0.0500*		*82*		
Benzene	ND	0.005	"					
Toluene	ND	0.005	"					
Ethylbenzene	ND	0.005	"					
Xylenes (total)	ND	0.010	"					
LCS (DS00038-BS1)				Prepared & Analyzed: 03/03/09				
Benzene	0.047		mg/kg	0.0500		94		
LCS Dup (DS00038-BSD1)				Prepared & Analyzed: 03/03/09				
Benzene	0.050		mg/kg	0.0500		100	6	
Matrix Spike (DS00038-MS1)				Prepared & Analyzed: 03/03/09				
Toluene	0.047		mg/kg	0.0500		94		
Matrix Spike Dup (DS00038-MSD1)				Prepared & Analyzed: 03/03/09				
Toluene	0.046		mg/kg	0.0500		92	2	

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	Work Order No.:
Hobbs, NM 88240	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 & Analyzed: 03/03/09				
Surrogate: p-Terphenyl	*0.0970*		*mg/kg*	*0.100*		*97*		
Gasoline Range Organics	ND	10	"					
Diesel Range Organics	ND	10	"					
C29 - C35 Range Organics	ND	20	"					
Total Petroleum Hydrocarbons	ND	10	"					
LCS (DS00039-BS1)				Prepared & Analyzed: 03/03/09				
Total Petroleum Hydrocarbons	234		mg/kg	250		94		
LCS Dup (DS00039-BSD1)				Prepared & Analyzed: 03/03/09				
Total Petroleum Hydrocarbons	228		mg/kg	250		91	3	
Matrix Spike (DS00039-MS1)				Prepared & Analyzed: 03/03/09				
Total Petroleum Hydrocarbons	240		mg/kg	250		96		
Matrix Spike Dup (DS00039-MSD1)				Prepared & Analyzed: 03/03/09				
Total Petroleum Hydrocarbons	244		mg/kg	250		98	2	

QC Officer Approval

Argon Laboratories, Inc.

argon laboratories

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

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.

Appendix B
C-141

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Navajo Lea Refining Co.	Contact Darrell Moore
Address 7406 S Main Lovington, NM	Telephone No. 575-746-5281
Facility Name Lea Refining Co.	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

Latitude_____ Longitude_____

NATURE OF RELEASE

Type of Release Diesel	Volume of Release 100 bbls	Volume Recovered 80 bbls
Source of Release Bleeder left open	Date and Hour of Occurrence 2/21/09 7:30 am	Date and Hour of Discovery 2/21/09 7:45 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Larry Johnson	
By Whom? Johnny Lackey	Date and Hour 2/21/09 7:50 am	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
The plant has been in turnaround so it has been down. When starting up the plant, rundown lines were being filled. A bleeder was inadvertently left open and the product was spilled.

Describe Area Affected and Cleanup Action Taken.*
The area affected is 150' long by 30' wide on the west side of the plant southwest of the office building. The product was immediately vacuumed up and contaminated soil was removed and put on plastic. We have scheduled a drilling rig for Thursday to delineate vertical extent of spill.

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: Darrell Moore	OIL CONSERVATION DIVISION
Printed Name: Darrell Moore	Approved by District Supervisor:
Title: Environmental Manager for Water and Waste	Approval Date: / Expiration Date:
E-mail Address: Darrell.moore@hollycorp.com	Conditions of Approval: / Attached ☐
Date: February 24, 2009 Phone: 575-746-5281	

* Attach Additional Sheets If Necessary

NON-HAZARDOUS WASTE MANIFEST

30675

PART I: Generator Navajo Refining Lea Plant
Address 7406 south main
City/State lovington new mexico 88260

(575) 396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. NMD360010367

Property Name Lovington
(Well, Tank Battery, Plant, Facility)
S

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES

Diesel Contaminated Soil
12 yds

Bu# 20508 @ 120 A Tank

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

3-10-09
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name Fluid Transport
Address _____
City/State _____

Telephone No.

408
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

3-10-09
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name Controlled Recovery, Inc.
Address P.O. Box 388
City/State Hobbs, N.M. 88241-0388

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

3/10/09
Date and Time Received

THE COLOR PRINTER #7520-A

NON-HAZARDOUS WASTE MANIFEST

30674

PART I: Generator Navajo Refining Lea Plant
Address 7406 South Main
City/State Lovington New mexico

(575) 396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____

Permit No. NMD 360010367

Property Name Lovington
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES

Diesel Contaminated Soil
12 yds
Batt 30536 @ 1301-A Tank

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

3-10-09
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name Fluid Transport
Address _____
City/State _____

Telephone No.

408
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

3-10-09
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

3-10-09
Date and Time Received

THE COLOR PRINTER #7520-A

NON-HAZARDOUS WASTE MANIFEST

30679

PART I: Generator Navajo Refining Lea Plant

Address 7406 South masin

City/State Lovington New Mexico 88260

(575) 396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____

Permit No. NMD 360010367

Property Name Lovington
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids	_____	Tank Bottoms	_____	Exempt Fluids	_____
Completion Fluids	_____	Gas Plant Waste	_____	C117 No.	_____
Contaminated Soil	_____	Other Materials	_____	Pit No.	_____

DESCRIPTION / NOTES

Diesel Contaminated Soil
10 yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

3-29-04
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name Fluid Transport

Address [illegible]

City/State [illegible]

[illegible]
Telephone No.

4/24
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

3-29-04
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**

Address **P.O. Box 388**

City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

3/29/04
Date and Time Received

THE COLOR PRINTER #7520-A

NON-HAZARDOUS WASTE MANIFEST

30680

PART I: Generator Navajo Refininf Lea Plant
Address 7406 South Mains
City/State Lovington New mexico 88260
(575) 396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. ~~NMD 360010357~~

Property Name Lie Lovington
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES

Diesel Contaminated Soil
10 yds

CERTIFICATION: The waste described above is not hazardous ~~pursuant~~ to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name Fluid Transport
Address
City/State

Telephone No.

Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

Date and Time Received

THE COLOR PRINTER #7520-A

NON-HAZARDOUS WASTE MANIFEST 30683

PART I: Generator Navajo Refining Lea Plant
Address 7406 Boouth main
City/State Lovington new Mexico 88260

(575) 396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. NMD 360010367

Property Name Lovington
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES

Diesel Contaminated Soil 10yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

3-25-09
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name Fluid Transport
Address 4647 W. Pl
City/State Jal N. M. 88252

Telephone No.

424
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

3-25-09
Date and Time Received

NON-HAZARDOUS WASTE MANIFEST

30682

PART I: Generator Navajo RefiningLea Plant
Address 7406 South main
City/State Lovington New mexico 88260

(575) 396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. NMD 360010367
Lovington
Property Name _____
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids	_____	Tank Bottoms	_____	Exempt Fluids	_____
Completion Fluids	_____	Gas Plant Waste	_____	C117 No.	_____
Contaminated Soil	_____	Other Materials	_____	Pit No.	_____

DESCRIPTION / NOTES

Diesel Contaminated Soil
10 yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

3-25-07
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name Fluid Transport
Address
City/State

Telephone No.

Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.** **(575) 393-1079**
Address **P.O. Box 388** Telephone No.
City/State **Hobbs, N.M. 88241-0388** **www.crihobbs.com**
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

3-25-07
Date and Time Received

THE COLOR PRINTER #7520-A

NON-HAZARDOUS WASTE MANIFEST

25997

PART I: Generator ~~Navajo Refining Lea Plant~~
Address 7406 South Main
City/State Lovington New Mexico 88260

(575) ~~396-5821~~
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. NMD360010367

Property Name Lovington
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids	_____	Tank Bottoms	_____	Exempt Fluids	_____
Completion Fluids	_____	Gas Plant Waste	_____	C117 No.	_____
Contaminated Soil	_____	Other Materials	_____	Pit No.	_____

DESCRIPTION / NOTES

Diesel Contaminated Soil
10 yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

3-24-09
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name Fluid Transport
Address
City/State

Telephone No.

Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

Date and Time Received

The Print Shop #7520-A

NON-HAZARDOUS WASTE MANIFEST

25914

PART I: Generator Navajo Refining Lea Plant
Address 7406 South Main
City/State Lovington New Mexico 88260
(575) 396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. NMD360010367

Property Name Lovington
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	
DESCRIPTION / NOTES					
Diesel Contaminated Soil 12 yds					

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

3-31-09
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name Solid Transport
Address _____
City/State _____
Telephone No.
426
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

3-31-09
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name Controlled Recovery, Inc.
Address P.O. Box 388
City/State Hobbs, N.M. 88241-0388
(575) 393-1079
Telephone No.
www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

3/31/09
Date and Time Received

The Print Shop #7520-A

NON-HAZARDOUS WASTE MANIFEST

25912

PART I: Generator Navajo Refining Lea Plant
Address 7406 South Main
City/State Lovington New Mexico 88260

(575) 396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. NMD360010867

Property Name Lovington
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids	_____	Tank Bottoms	_____	Exempt Fluids	_____
Completion Fluids	_____	Gas Plant Waste	_____	C117 No.	_____
Contaminated Soil	_____	Other Materials	_____	Pit No.	_____

DESCRIPTION / NOTES

Diesel Contaminated Soil
12 yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

4/1/09
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name Elvid Transports
Address _____
City/State _____

Telephone No.

426
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

4/1/09
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

4/1/09
Date and Time Received

The Print Shop #7520-A

NON-HAZARDOUS WASTE MANIFEST

25911

PART I: Generator Navajo Refining Lea Plant
Address 7405 South Main
City/State Lovington New mexico 88250

(575) 396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. NMD360010367

Property Name Lovington
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids	_____	Tank Bottoms	_____	Exempt Fluids	_____
Completion Fluids	_____	Gas Plant Waste	_____	C117 No.	_____
Contaminated Soil	_____	Other Materials	_____	Pit No.	_____

DESCRIPTION / NOTES

Diesel Contaminated Soil
12 yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name Edmiston Fluid Transports
Address [illegible]
City/State [illegible]

Telephone No.

Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

Date and Time Received

The Print Shop #7520-A

NON-HAZARDOUS WASTE MANIFEST

25990

PART I: Generator Navajo Refining Lea Plant
Address 7406 South Main
City/State Lovington New mexico
(575) 396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. NMD3600100367

Property Name Lovington
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids	_____	Tank Bottoms	_____	Exempt Fluids	_____
Completion Fluids	_____	Gas Plant Waste	_____	C117 No.	_____
Contaminated Soil	_____	Other Materials	_____	Pit No.	_____

DESCRIPTION / NOTES

Diesel Contaminated Soil
12 yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

4/2/09 11:30 am
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name Fluid Transport
Address PO Box 58
City/State Seminole Tx 79360

505/758/5345
Telephone No.

406
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

4/2/09 11:30 am
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

4-2-09
Date and Time Received

The Print Shop #7520-A

NON-HAZARDOUS WASTE MANIFEST

25987

PART I: Generator Navajo Refining Lea Plant
Address 7406 S main
City/State Lovington New Mexico 88240
(575) 396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. NMD360010367

Property Name Lovington
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids	_____	Tank Bottoms	_____	Exempt Fluids	_____
Completion Fluids	_____	Gas Plant Waste	_____	C117 No.	_____
Contaminated Soil	_____	Other Materials	_____	Pit No.	_____

DESCRIPTION / NOTES

Diesel Contaminated Soil
15 yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

4-2-09
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name Fluid Transport
Address 4640 W Hwy 180
City/State Snyder, TX

800 523-5843
Telephone No.

427
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below. BIM 20541

Signature of Transporter's Agent

4-2-09
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

4-2-09
Date and Time Received

The Print Shop #7520-A

NON-HAZARDOUS WASTE MANIFEST

25989

PART I: Generator Navajo Refining Lea Plant
Address 7406 S main
City/State Lovington New Mexico 88260

(575) 396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. NMD360010367

Property Name Lovington
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids	_____	Tank Bottoms	_____	Exempt Fluids	_____
Completion Fluids	_____	Gas Plant Waste	_____	C117 No.	_____
Contaminated Soil	_____	Other Materials	_____	Pit No.	_____

DESCRIPTION / NOTES

Diesel Contaminated Soil
12 yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

4-2-09
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name Fluid Transport
Address 4647 WHWY 180
City/State Snyder TX 79549

800-523-5843
Telephone No.

Truck No. BIN# 20536

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

4-2-09
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

4-2-09
Date and Time Received

The Print Shop #7520-A

NON-HAZARDOUS WASTE MANIFEST

31994

PART I: Generator NAVAJO REFINING LEA PLANT
Address 7406 SOUTH MAIN
City/State LOVINGTON NEW MEXICO

(575) 396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. NMD360010367

Property Name LOVINGTON
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids	_____	Tank Bottoms	_____	Exempt Fluids	_____
Completion Fluids	_____	Gas Plant Waste	_____	C117 No.	_____
Contaminated Soil	_____	Other Materials	_____	Pit No.	_____

DESCRIPTION / NOTES

Dirt Contaminated Soil
12 yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

4/22/09
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name FLUID TRANSPORT
Address _____
City/State _____

Telephone No.
426
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

4/22/09
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.
www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

4/22/09
Date and Time Received

NON-HAZARDOUS WASTE MANIFEST

31991

PART I: Generator NAVAJO REFINING LEA PLANT
Address 7406 SOUTH MAIN
City/State LOVINGTON

(575) 396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. NMD360010367

Property Name LOVINTON
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids	_____	Tank Bottoms	_____	Exempt Fluids	_____
Completion Fluids	_____	Gas Plant Waste	_____	C117 No.	_____
Contaminated Soil	_____	Other Materials	_____	Pit No.	_____

DESCRIPTION / NOTES

Diesel Contaminated Soil
12 yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

4/22/09
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name fluid transport
Address _____
City/State _____

Telephone No.
426
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

4/22/09
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.
www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

Date and Time Received

NON-HAZARDOUS WASTE MANIFEST

31992

PART I: Generator NAVAJO REFINING LEA PLANT
Address 7406 SOUTH MAIN
City/State LOVINGTON NEW MEXICO
(575) 396-3821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. NMD3600010367

Property Name lovington
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	
DESCRIPTION / NOTES					
Diesel Contaminated Soil					
12 yds					

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

4/22/09
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name FLUID TRANSPORT
Address _____
City/State _____

Telephone No.
426
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

4/22/09
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.
www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

Date and Time Received

THE COLOR PRINTER #7520-A

NON-HAZARDOUS WASTE MANIFEST

25998

PART I: Generator Navajo Refining Lea Plant
Address 7406 South Main
City/State Lovington new Mexico 88260

(575) 396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. NM3600010367

Property Name Lovington
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids	_____	Tank Bottoms	_____	Exempt Fluids	_____
Completion Fluids	_____	Gas Plant Waste	_____	C117 No.	_____
Contaminated Soil	_____	Other Materials	_____	Pit No.	_____
DESCRIPTION / NOTES					
Diesel Contaminated Soil					
10 yds					

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

4-23-07
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name Plains Transport
Address _____
City/State _____

Telephone No.

426
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

4-23-07
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

Date and Time Received

The Print Shop #7520-A

NON-HAZARDOUS WASTE MANIFEST 30677

PART I: Generator ~~Navajo Refinging Lovington Plant~~
Address 7406 South main
City/State Lovington New Mexico 88260

(575) 396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. NMD 360010367

Property Name Lovington
(Well, Tank Battery, Plant, Facility)
s

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids	_____	Tank Bottoms	_____	Exempt Fluids	_____
Completion Fluids	_____	Gas Plant Waste	_____	C117 No.	_____
Contaminated Soil	_____	Other Materials	_____	Pit No.	_____

DESCRIPTION / NOTES

Diesel Contaminated Soil. 10 yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

4-28-09
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name Fluid Transport
Address _____
City/State _____

Telephone No.
426
Truck No.

CERTIFICATION: I certify that the waste in quantity above ~~was received by me~~ for shipment to the destination below.

Signature of Transporter's Agent

4-28-09
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.** **(575) 393-1079**
Address **P.O. Box 388** Telephone No.
City/State **Hobbs, N.M. 88241-0388** **www.crihobbs.com**
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

Date and Time Received

THE COLOR PRINTER #7520-A

NON-HAZARDOUS WASTE MANIFEST

30678

PART I: Generator NAVAJO REFINING-LEA

Address 7406 South Main

City/State Lovington New mexico

(575) 396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center Lovington

Permit No. NMD 360010367

Property Name

(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	

DESCRIPTION / NOTES

Diesel Contaminated Soil 10yd

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

4-28-09
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name Fluid Transport

Address

City/State

Telephone No.

426
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

4-28-09
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**

Address **P.O. Box 388**

City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

4-29-09
Date and Time Received

THE COLOR PRINTER #7520-A

NON-HAZARDOUS WASTE MANIFEST

32745

PART I: Generator NAVAJO REFINING LEA PLANT

Address 7406 SOUTH MAIN

City/State LOVINGTON NEW MEXICO 88260

(575)396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. NMD 360010367

Property Name LOVINGTON
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids	_____	Tank Bottoms	_____	Exempt Fluids	_____
Completion Fluids	_____	Gas Plant Waste	_____	C117 No.	_____
Contaminated Soil	_____	Other Materials	_____	Pit No.	_____

DESCRIPTION / NOTES

Diesel Contaminated Soil
12 yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

4/29/09
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name FLUID TRANSPORT

Address PO Box 68

City/State Seminole TX

1800523-5845
Telephone No.

43
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

4/29/09
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**

Address **P.O. Box 388**

City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

4-29-09
Date and Time Received

THE COLOR PRINTER #7520-A

NON-HAZARDOUS WASTE MANIFEST

32792

PART I: Generator Navajo Refining Co. LLC

Address PO Box 159 (575-748-3311 Telephone No.

City/State Artesia, NM 88211-0159

ORGINATION OF WASTE:

Operations Center Artesia Permit No. NMD048918817

Property Name _____ (Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	
DESCRIPTION / NOTES					
Trash & Debris	12yds				
Rockhead Span					

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

5-12-09 Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name S Brothers

Address _____ Telephone No.

City/State _____ Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

5-12-09 Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.** **(575) 393-1079** Telephone No.

Address **P.O. Box 388**

City/State **Hobbs, N.M. 88241-0388** **www.crihobbs.com** E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

5-12-09 Date and Time Received

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

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	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	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 July 26, 2009 2:00 pm	Date and Hour of Discovery July 26, 2009 2:00 pm
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

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 arca 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.

Signature: Darrell Moore	OIL CONSERVATION DIVISION	
Printed Name: Darrell Moore	Approved by District Supervisor:	
Title: Environmental Manager for Water and Waste	Approval Date:	Expiration Date:
E-mail Address: Darrell.moore@hollycorp.com	Conditions of Approval:	Attached ☐
Date: July 28, 2009 Phone: 575-746-5281		

* Attach Additional Sheets If Necessary

NON-HAZARDOUS WASTE MANIFEST

33783

PART I: Generator NAVAJO REFINING LEA PLANT
Address 7406 SOUTH MAIN
City/State LOVINGTON, NEW MEXICO 88260

(575) 396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. NMD360010367

Property Name LOVINGTON
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids		Tank Bottoms		Exempt Fluids	
Completion Fluids		Gas Plant Waste		C117 No.	
Contaminated Soil		Other Materials		Pit No.	
DESCRIPTION / NOTES					
CEMENT & CONTAMINATED SOIL 10 yd.					

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Kevin Crabtree
Signature of Generator's Authorized Agent

7-29-09
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name FEUDT TRANSPORT
Address _____
City/State _____

Telephone No.
426
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

7-29-09
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.
www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

7-30-09
Date and Time Received

THE COLOR PRINTER #7520-A

NON-HAZARDOUS WASTE MANIFEST

33322

PART I: Generator NAVAJO REFINING LEA PLANT
Address 7406 SOUTH MAIN
City/State LOVINGTON NEW MEXICO 88260

(5,,) 396-5821§
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. NMD360010367

Property Name LOVINGTON
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids	_____	Tank Bottoms	_____	Exempt Fluids	_____
Completion Fluids	_____	Gas Plant Waste	_____	C117 No.	_____
Contaminated Soil	_____	Other Materials	_____	Pit No.	_____

DESCRIPTION / NOTES

Contaminated Soil & Cement / 10 yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Steve H Terry
Signature of Generator's Authorized Agent

7-29-09
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name FLUID TRANSPORT
Address _____
City/State _____

_____
Telephone No.
426
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

7-29-09
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.** **(575) 393-1079**
Address **P.O. Box 388** Telephone No.
City/State **Hobbs, N.M. 88241-0388** **www.crihobbs.com**
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

7-29-09
Date and Time Received

NON-HAZARDOUS WASTE MANIFEST

33321

PART I: Generator NAVAJO REFINING LEA PLANT
Address 7406 SOUTH MAIN
City/State LOVINGTON NEW MEXICO 88260
(575) 396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. NMD360010367

Property Name LOVINGTON
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids	_____	Tank Bottoms	_____	Exempt Fluids	_____
Completion Fluids	_____	Gas Plant Waste	_____	C117 No.	_____
Contaminated Soil	_____	Other Materials	_____	Pit No.	_____

DESCRIPTION / NOTES

Contaminated Soil & Cement 10 yd

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

7/29/09
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name FLUID TRANSPORT
Address _____
City/State _____

Telephone No.

426
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

7/29/09
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

Date and Time Received

THE COLOR PRINTER #7520-A

NON-HAZARDOUS WASTE MANIFEST

33320

PART I: Generator NAVAJO REFINING LEA PLANTC

Address 7406 SOUTH MAIN

City/State LOVINGTON NEW MEXICO 88260

(575) 396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. NMD 360010367

Property Name LOVINGTON
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids	_____	Tank Bottoms	_____	Exempt Fluids	_____
Completion Fluids	_____	Gas Plant Waste	_____	C117 No.	_____
Contaminated Soil	_____	Other Materials	_____	Pit No.	_____

DESCRIPTION / NOTES

Contaminated Soil to Cement 10 yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

7/25/09
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name FLUID TRANSPORT

Address _____

City/State _____

Telephone No.

426
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

7/25/09
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.** **(575) 393-1079**
Telephone No.

Address **P.O. Box 388**

City/State **Hobbs, N.M. 88241-0388**

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

Date and Time Received

NON-HAZARDOUS WASTE MANIFEST

33319

PART I: Generator NAVAJO REFINING LEA PLANT

Address 7406 SOUTH MAIN

City/State LOVINGTON NEW MEXICO 88260

(575) 396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. NMD360010367

Property Name LOVINGTON
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids	_____	Tank Bottoms	_____	Exempt Fluids	_____
Completion Fluids	_____	Gas Plant Waste	_____	C117 No.	_____
Contaminated Soil	_____	Other Materials	_____	Pit No.	_____

DESCRIPTION / NOTES

Contaminated Soil & Cement
1 Dyd

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

7/28/09
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name FLUID TRANSPORT

Address _____

City/State _____

Telephone No.

426
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

7/28/09
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name Controlled Recovery, Inc.

Address P.O. Box 388

City/State Hobbs, N.M. 88241-0388

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

Date and Time Received

THE COLOR PRINTER #7520-A

NON-HAZARDOUS WASTE MANIFEST

33318

PART I: Generator NAVAJO REFINING LEA PLANT
Address 7406 SOUTH MAIN
City/State LOVINGTON NEW MEXICO 88260

(575) 396-5821
Telephone No.

ORGINATION OF WASTE:

Operations Center _____ Permit No. NMD360010367

Property Name LOVINGTON
(Well, Tank Battery, Plant, Facility)

WASTE IDENTIFICATION AND AMOUNT (BARRELS, YARDS, TONS, CU.FT., LBS., UNITS, ETC.)					
Drilling Fluids	_____	Tank Bottoms	_____	Exempt Fluids	_____
Completion Fluids	_____	Gas Plant Waste	_____	C117 No.	_____
Contaminated Soil	_____	Other Materials	_____	Pit No.	_____

DESCRIPTION / NOTES

Contaminated Soil & Cement 10 yds

CERTIFICATION: The waste described above is not hazardous pursuant to 40 CFR Part 261 and was consigned to the transporter named below. I certify that the foregoing is true and correct to the best of my knowledge.

Signature of Generator's Authorized Agent

7-28-09
Date and Time of Shipment

PART II: TRANSPORTER: (To be completed in full by Transporter)

Name FLUID TRANSPORT
Address _____
City/State _____

Telephone No.
426
Truck No.

CERTIFICATION: I certify that the waste in quantity above was received by me for shipment to the destination below.

Signature of Transporter's Agent

7-28-09
Date and Time Received

PART III: DISPOSAL OR RECLAMATION SITE:

Name **Controlled Recovery, Inc.**
Address **P.O. Box 388**
City/State **Hobbs, N.M. 88241-0388**

(575) 393-1079
Telephone No.

www.crihobbs.com
E-mail

CERTIFICATION: I certify that the waste described in Part I was received by me via the transporter described in Part II.

Signature of Facility Agent

7-28-09
Date and Time Received

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

State of New Mexico
Energy Minerals and Natural Resources

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

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 Lea Refining	Contact Darrell Moore
Address 7406 S Main Lovington, NM	Telephone No. 575-703-5058
Facility Name Navajo Refining Co – Lea 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

Latitude_____ **Longitude**_____

NATURE OF RELEASE

Type of Release Fire	Volume of Release NA	Volume Recovered NA
Source of Release Crude oil hitting pump	Date and Hour of Occurrence 3:45 pm 8/5/09	Date and Hour of Discovery 3:45 pm 8/5/09
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
While working on a heat exchanger, crude oil dripped down onto a pump. This ignited the crude oil and a small fire started. Fire extinguishers were used to put out the fire.

Describe Area Affected and Cleanup Action Taken.*
Area affected was the area around Heat Exchanger E-101A

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: Darrell Moore	OIL CONSERVATION DIVISION
Printed Name: Darrell Moore	Approved by District Supervisor:
Title: Env. Mgr	Approval Date: / Expiration Date:
E-mail Address: Darrell.moore@hollycorp.com	Conditions of Approval: / Attached ☐
Date: 8/6/09 Phone: 575-748-3311	

* Attach Additional Sheets If Necessary

APPENDIX 2

2/19 - 10:01:53 a.m. 07-21-2009 NM ENVIRONMENT DEPT 15753930906

APPLICATION FOR A LIQUID WASTE PERMIT OR REGISTRATION

Date NMED Received: 7/9/09

NMED Use Only
Call 393-AAA7 to schedule an inspection a minimum of 2 working days prior to the inspection. Permit Fee: $150.00
Permit Approved for (circle one): 1 2 3 4 5 6 Bedrooms ___ Multiple dwellings Other: office/comfort station.

NMED Permit Number: NMED - HOBBS HO-09-0071

SYSTEM OWNER'S NAME: Last, First, MI — Home Phone: — Business Phone:
CITY OF LOVINGTON
NAVAJO REFINING CO LLC — 575-748-3311
MAILING ADDRESS: Street/PO Box, City, State, Zip Code
PO Box 159 ARTESIA, NM 88211-0159
SYSTEM LOCATION: Address, City, ZIP, County - (if needed, attach directions)
7406 South Main Lovington NM COMFORT STATION
SUBDIVISION — UNIT/PHASE — BLOCK — LOT/TRACT

UNIFORM PROPERTY CODE:
TOWNSHIP RANGE SECTION QTR QTR QTR LATITUDE LONGITUDE ELEV

INSTALLER'S NAME & FIRM: — PHONE:
Jim Jeter ABSW — 575-390-2116
MAILING ADDRESS: Street/PO Box — City — State — ZIP
PO Box 731 Hobbs NM 88240
CID License No./Class No.: 34282 — ___ MM-1 X MM-98 ___ MS-1 ___ MS-3 ___ Homeowner

I. PERMIT APPLICATION (instructions available on request)

Application is for: X New Permit ___ Registration - existing unpermitted system
___ Modification of an existing system ___ ATS ownership transfer
Existing Permit No.(if applicable): ___

II. WASTEWATER SOURCES & DESIGN FLOWS IN GALLONS PER DAY (gpd)

A. Proposed liquid waste system use and design flow:

___ Single family residence ___ no. of bedrooms		___ gpd
___ Multiple family units ___ no. of units; ___ no. bedrooms per unit		___ gpd
___ Seasonal residence		___ gpd
X Commercial-Institutional (type): 9 people 20 GPD	180 BW	___ gpd
___ Other (type): Fixture units:	[redacted]	___ gpd
B. Are there other sewage sources on this property? X Yes ___ No	918	___ gpd
TOTAL WASTEWATER FLOW ON PROPERTY:	[redacted]	___ gpd
	1098	

III. SITE INFORMATION

A. Lot Size: 258.5 Acres (nearest 0.01 acre) Date of Record: (Plat Date or Subdivision Date)
Ownership and lot size documentation attached: ___ Warranty deed ___ Property tax receipt
___ Recorded survey ___ Recorded plat ___ Other, specify:

B. Depth from Ground Surface to:
Seasonal High Water Table 100 feet
Bedrock, Caliche, Tight Clay 1 feet
Gravel, Cobbles, Highly permeable soil ___ feet

C. Soil Description:
USDA Soil Class Methodology & Verification Submitted? ___ Yes ___ No
___ Type Ia=1.25 sf/gal/day X Type Ib=2 sf gal day ___ Type II=2 sf gal day
___ Type III=2 sf/gal/day ___ Type IV=5 sf/gal day

D. Domestic Water Source:
X On-site ___ Off-site ___ Private ___ Public ___ Shared
Irrigation well, or flood irrigated area on lot? ___ Yes X No
State Engineer Well Permit #: N/A
Name of Public Water System: ___

IV. SYSTEM DESIGN

___ Experimental System

A. Treatment Unit:
___ Septic tank Manufacturer: CUSTOM MOBILE CONCRETE capacity 1000 gal
Certification No: 98-05-140
___ ATS (Advanced Treatment System) ___ Secondary ___ Tertiary ___ Sand filter
___ Disinfection ___ Other (specify):
Manufacturer: ___ Model: ___
___ Voluntary ATS

B. Disposal System: X Trench ___ Leaching Bed ___ Seepage Pit
___ Privy ___ Holding tank ___ Elevated Bed ___ Wisconsin Mound
___ Vault ___ Lined Evapotranspiration (ET) Bed ___ Unlined ET Bed
___ Irrigation ___ Low pressure dosed ___ Drip ___ Gray water
___ Other (specify):
Materials: X Pipe & Gravel ___ Gravelless (type):
Distribution box ___ Yes ___ No

C. Minimum required absorption area: 180 360
AR 2 x Q [redacted] = [redacted] SQ FT
(AR - Application Rate) (Q - Design Flow)
Trench or Bed width = 2 ft
Gravel depth below pipe = 3 ft
Total Trench or Bed Length = [redacted] 52'
Length of Trenches = (1) ___ (2) ___ (3) ___ (4) ___
Number of Gravelless Units = ___
Proposed Absorption Area of System = 360 SQFT

D. Depth from ground surface to bottom of absorption area = 6 ft

NMED Permit Number: H0-09-0071

V. **SITE PLAN: Attach plat, diagram or picture file of the lot and liquid waste system. Show setback distances from both the tank and disposal field to property lines, buildings, structures, wells, water lines, irrigation ditches, arroyos and surface waters within 200 feet of the system, and the direction of groundwater flow.**

NMED Use: A plat, drawing or picture, including setback distances, in accordance with 20.7.3.302: ✓ IS attached

VI. The foregoing information is correct and true to the best of my knowledge. I understand the issuing of this permit does not relieve me from the responsibility of complying with all applicable provisions of the New Mexico Plumbing Code and the New Mexico Liquid Waste Disposal and Treatment Regulations. Obtaining this permit does not relieve me from the responsibility of obtaining any permit required by state, city or county regulation or ordinance or other requirements of state or federal law.

Signature _____ Date _____

__ Owner ✓ Contractor __ Other, specify: _____

VII. NMED PERMIT TO CONSTRUCT (For Registrations, ATS Ownership Transfer, or Permitting of Existing Unpermitted Systems installed after February 1, 2002 skip this section and go to Section VIII):

A permit for construction of the liquid waste disposal system described herein is hereby:

✓ Granted __ Granted subject to conditions __ Denied

Permit Conditions or Reasons for Denial: _____

NMED Representative _____ Date 7/16/09

NOTE: This permit may be canceled for failure to meet any condition specified; failure to complete the system within one year; for providing inaccurate or incomplete information; or for failure to notify NMED to schedule an inspection, a minimum of 2 working days prior to the inspection.
If you have questions call: _____

VIII. NMED FINAL APPROVAL TO OPERATE LIQUID WASTE SYSTEM:

The system described above: __ was inspected by NMED __ Contractor photo inspection authorized

NMED Inspection History	NMED Representative	Date

A permit for operation of the liquid waste disposal system described herein is hereby:

__ Granted __ Granted subject to conditions __ Denied

Conditions of Approval: _____

NMED Representative _____ **Date** _____

3/19 07-21-2009 10:02:10 a.m. NM ENVIRONMENT DEPT 15753930906

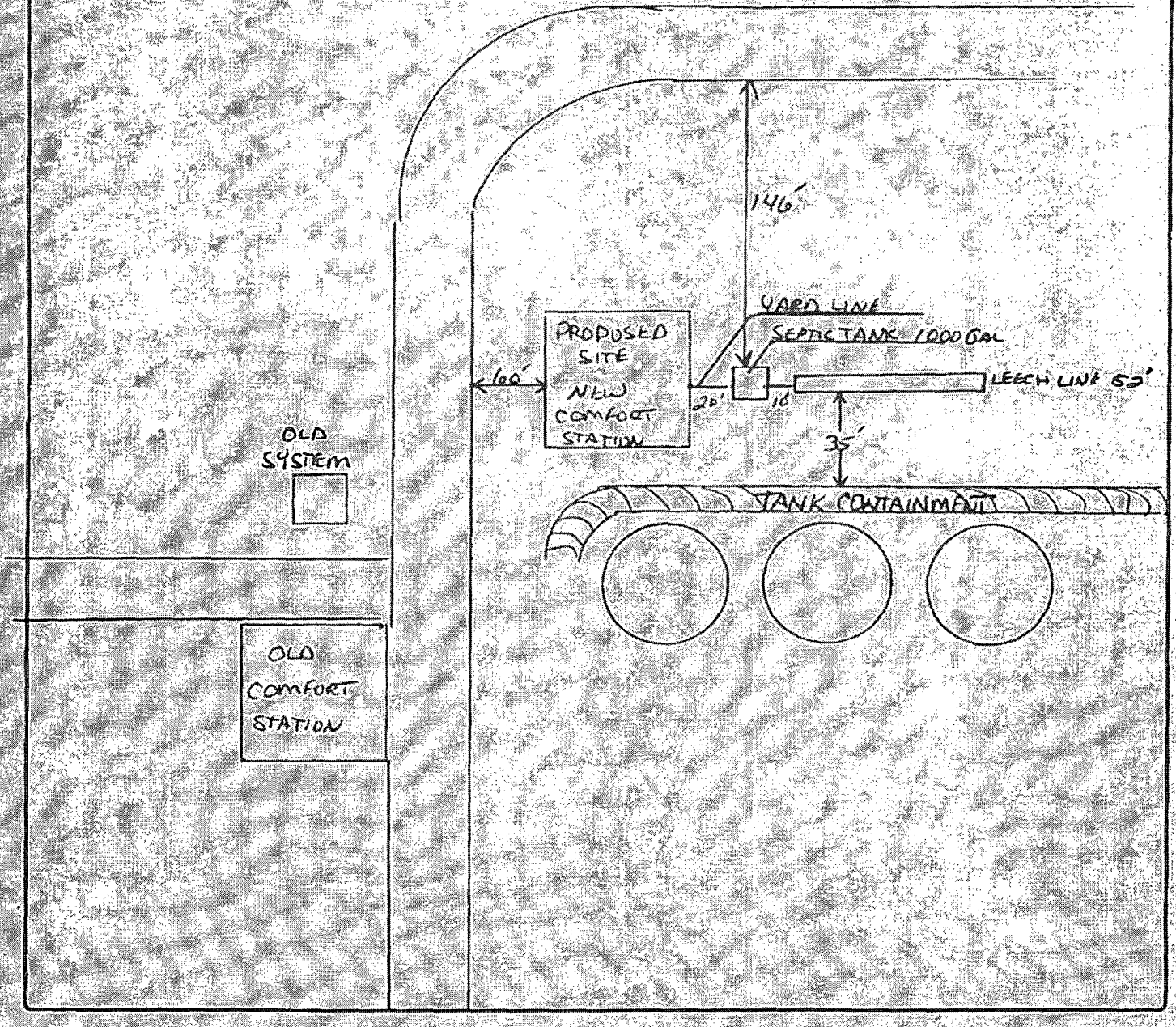
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Colors Available

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COMFORT STATION



7/08/2009 BRUCE **LEA COUNTY ASSESSOR** Page 4
INDIVIDUAL PROPERTY LIST Assessment Year 2009

Owner # 0033902 Dist 010
Non-Rend% 0
CITY OF LOVINGTON

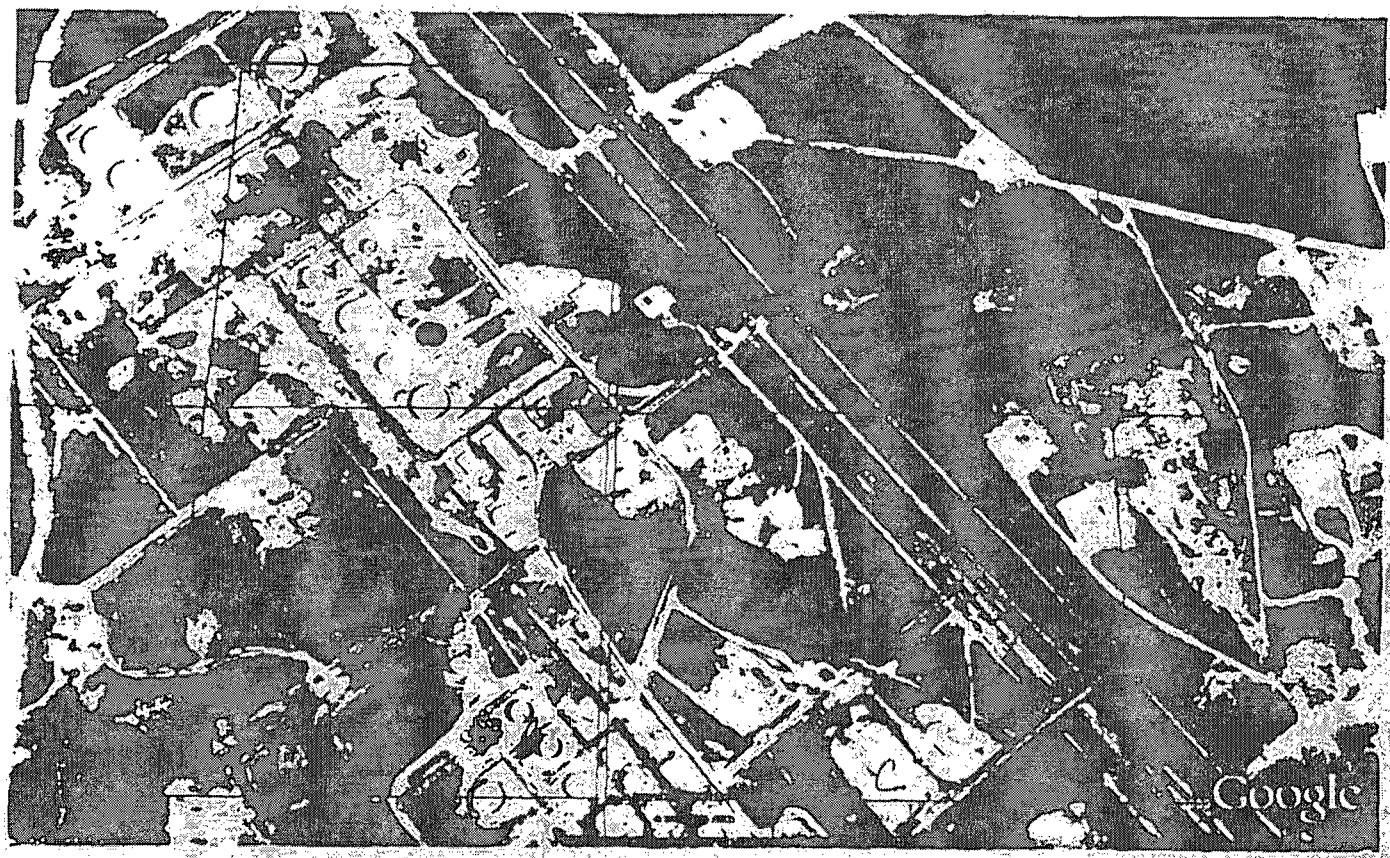
PO BOX 1268

LOVINGTON NM 88260

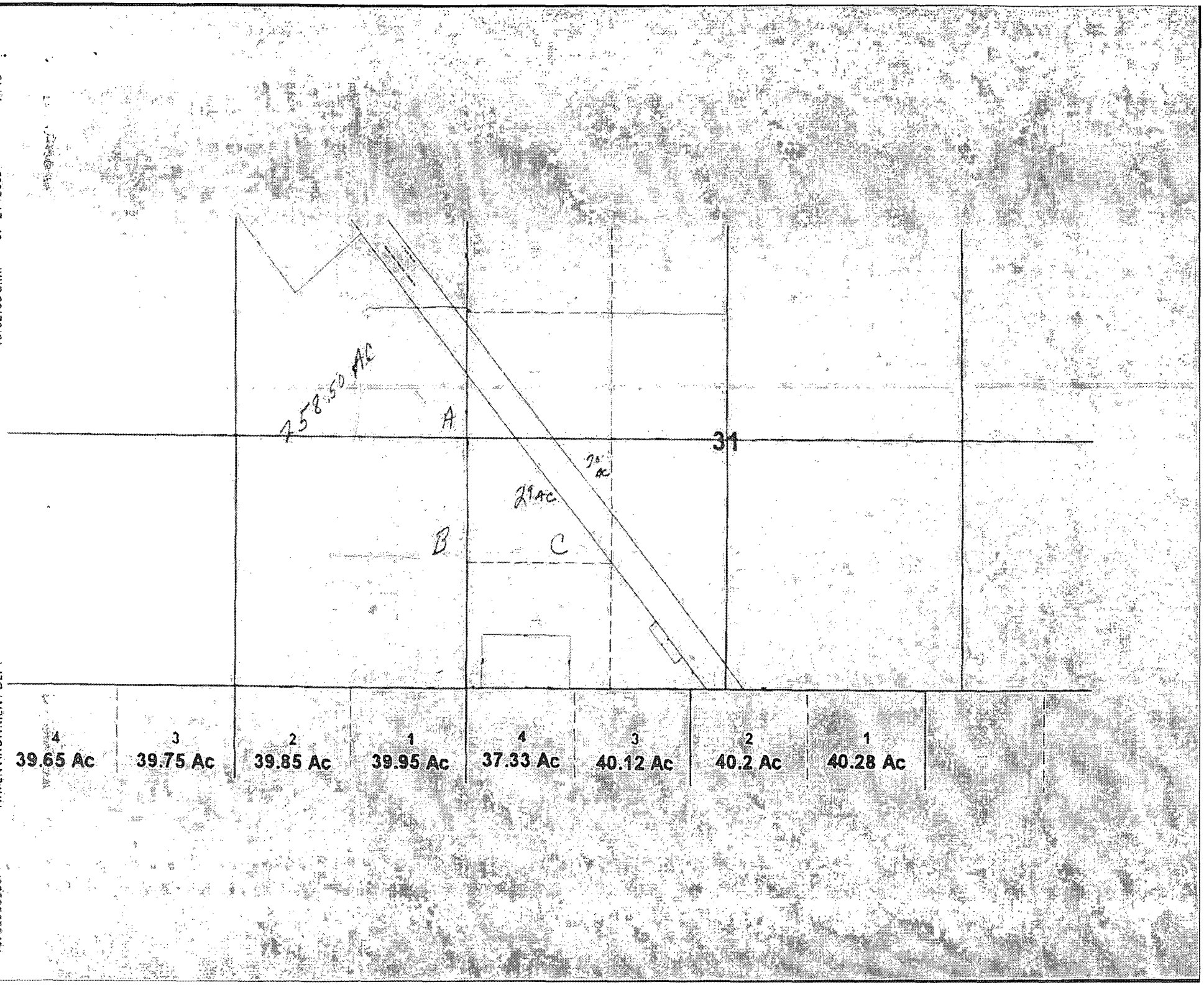
VALUATION RECAP			
0	Central	1227102	Full Value
1118250	Land		
108852	Improvements	409034	Taxable Value
0	Personal Prop	409034	Exemptions
0	Mfg Home		
0	Livestock	0	Net Taxable

Property Description	Code	Value Description	Quantity	Rate	Taxable
S88D30'E 565', S01D30'W 525', N88D30'W 565' TO BEG (6.81 AC) 8/20/04-REDESCRIBED PRT TO #202741 LOVINGTON ECONOMIC DEV CORP					
4 000 339 560 001 SECTION-26 TOWNSHIP-16S RANGE-36E 80.00 AC BEING S2SE4	150X	LAND VALUE	80.00		19500
4 000 339 560 002 SECTION-35 TOWNSHIP-16S RANGE-36E 320.00 AC BEING E2	150X	LAND VALUE	320.00		19500
4 000 339 560 006 SECTION-36 TOWNSHIP-16S RANGE-36E 598.50 AC - ALL *LESS TR BEG N 645' & N39D35' W 1892' FROM E4 CR TH S 50D25' W 990',N 39D35' W 1320' N 50D25' E 990',S 39D35' E 1320' TO BEG LESSAGE OUT OF N2NE4,NE4NW SEC 36 & OUT OF SW4SE4 OF SEC 25, 30.00 AC* *LESS-16.9' M/L TO HWY & RR* *IMPR ONLY #79368 GREENHILL PETR*	150X	LAND VALUE	598.50		19500
4 000 339 550 001 SECTION-06 TOWNSHIP-16S RANGE-37E 66.23 AC BEING LOT 4	150X	LAND VALUE	66.23		19500
4 000 339 530 001 SECTION-30 TOWNSHIP-16S RANGE-37E 89.91 AC BEING LOT 4, SE4SW4	150X 250X 210X	LAND VALUE MISC IMP NON RES SINGLE FAMILY	89.91		19500 63 3169
4 000 339 560 008 SECTION-31 TOWNSHIP-16S RANGE-37E 524.90 AC-LOTS 3-4, E2SW4,E2,SE4NW4 *LESS TR BEG S 89D50' E 178' FROM SW COR SEC 31,S 89D50' E 1000',N 566.28',N 89D50' W 1000',S 566.28' TO BEG *13 AC* & LESS TR BEG S 89D50' E 2636.8' & N 39D46' W 385' OF SW COR SEC 31,N 39D46' W 480',S 50D14' W 100',S 89D46' E 480',N 50D14' E 100' TO BEG 1.10 AC*	150X	LAND VALUE	524.90		19500
4 000 339 530 002 SECTION-31 TOWNSHIP-16S RANGE-37E 126.64 AC BEING LOTS 1-2, NE4NW4 *LESS 12.84 AC TO H/W & RR*	150X	LAND VALUE	126.64		19500
4 000 339 560 003 SECTION-01 TOWNSHIP-17S RANGE-36E 599.17 AC LOC LOTS 1-2-3-4, S2N2, SW4, W2SE4, NE4SE4 3/7/01-REDESCRIBED PRT TO GOFF, BUSTER #200962 B-1066 P-675	150X	LAND VALUE	599.17		19500
4 000 339 560 004 SECTION-02 TOWNSHIP-17S RANGE-36E 319.17 AC LOC LOTS 1-2, S2NE4, SE4 8/20/04-REDESCRIBED PRT TO #202741 LOVINGTON ECONOMIC DEV CORP B-1324 P-455	150X	LAND VALUE	319.17		19500

No Est Tax Res-Values		N/R-Values	Tot-Values
Full	124164	1102938	1227102
Taxable	41388	367646	409034
Exempt	41388	367646	409034
Net	0	0	0


Google

5753930906 NM ENVIRONMENT DEPT 10:02:55 a.m. 07-21-2009 7/19



APPLICATION FOR A LIQUID WASTE PERMIT OR REGISTRATION

Date NMED Received: 7/9/09 ENTERED

NMED - HOBBS

NMED Permit Number: HO-09-0072

NMED Use Only
Call 393-1445 to schedule an inspection a minimum of 2 working days prior to the inspection. Permit Fee: $150.00
Permit Approved for (circle one): 1 2 3 4 5 6 Bedrooms ___ Multiple dwellings ___ Other: OFFICE

SYSTEM OWNER'S NAME: Last, First, MI — Home Phone: — Business Phone:
CITY OF LOVINGTON
NAVAJO REFINING CO. LLC — 575-748-3311
MAILING ADDRESS: Street/PO Box — City — State — Zip Code
PO BOX 159 — ARTESIA — NM — 88211-0159
SYSTEM LOCATION: Address, City, ZIP, County - (if needed, attach directions)
7406 SOUTH MAIN LOVINGTON NM PIPELINE OFFICE
SUBDIVISION — UNIT/PHASE — BLOCK — LOT/TRACT

UNIFORM PROPERTY CODE:
TOWNSHIP — RANGE — SECTION — QTR QTR QTR — LATITUDE — LONGITUDE — ELEV

INSTALLER'S NAME & FIRM: — PHONE:
JIM JETER ABSW — 575-390-2116
MAILING ADDRESS: Street/PO Box — City — State — ZIP
PO BOX 731 — HOBBS — NM — 88240
CID License No./Class No.: ___ MM-1 X MM-98 ___ MS-1 ___ MS-3 ___ Homeowner

I. PERMIT APPLICATION (instructions available on request)

Application is for: X New Permit ___ Registration - existing unpermitted system
___ Modification of an existing system ___ ATS ownership transfer
Existing Permit No.(if applicable):

II. WASTEWATER SOURCES & DESIGN FLOWS IN GALLONS PER DAY (gpd)

A. Proposed liquid waste system use and design flow:
___ Single family residence ___ no. of bedrooms ___ gpd
___ Multiple family units ___ no. of units: ___ no. bedrooms per unit ___ gpd
___ Seasonal residence ___ gpd
X Commercial Institutional (type): ___ gpd
___ Other (type): ___ Fixture units: 5/16 218 gpd
B. Are there other sewage sources on this property? X Yes ___ No 880 gpd
TOTAL WASTEWATER FLOW ON PROPERTY - 1098 gpd

III. SITE INFORMATION

A. Lot Size: 25.85 Acres (nearest 0.01 acre) Date of Record: (Plat Date or Subdivision Date)
Ownership and lot size documentation attached: ___ Warranty deed ___ Property tax receipt
___ Recorded survey ___ Recorded plat ___ Other, specify:

B. Depth from Ground Surface to:
Seasonal High Water Table 100 feet
Bedrock, Caliche, Tight Clay 1 feet
Gravel, Cobbles, Highly permeable soil ___ feet
C. Soil Description:
USDA Soil Class Methodology & Verification Submitted? ___ Yes ___ No
___ Type Ia=1.25 sf/gal/day X Type Ib=2 sf/gal/day ___ Type II=2 sf/gal day
___ Type III=2 sf/gal/day ___ Type IV=5 sf/gal/day
D. Domestic Water Source:
X On-site ___ Off-site ___ Private ___ Public ___ Shared
Irrigation well or flood irrigated area on lot? ___ Yes X No
State Engineer Well Permit #: N/A
Name of Public Water System:

IV. SYSTEM DESIGN

___ Experimental System
A. Treatment Unit:
___ Septic tank Manufacturer: CUSTOM MOBILE CONCRETE Capacity: 6000 GAL
Certification No: 98-05-140
___ ATS (Advanced Treatment System) ___ Secondary ___ Tertiary ___ Sand filter
___ Disinfection ___ Other (specify):
Manufacturer: ___ Model: ___
___ Voluntary ATS
B. Disposal System: X Trench ___ Leaching Bed ___ Seepage Pit
___ Privy ___ Holding tank ___ Elevated Bed ___ Wisconsin Mound
___ Vault ___ Lined Evapotranspiration (ET) Bed ___ Unlined ET Bed
___ Irrigation ___ Low pressure dosed ___ Drip ___ Gray water
___ Other (specify):
Materials: X Pipe & Gravel ___ Gravelless (type):
Distribution box: ___ Yes ___ No
C. Minimum required absorption area:
AR 2 x Q 218 = 436 SQ FT
(AR - Application Rate) (Q - Design Flow)
Trench or Bed width = 2 ft.
Gravel depth below pipe = 3 ft.
Total Trench or Bed Length = 163'
Length of Trenches = (1) ___ (2) ___ (3) ___ (4) ___
Number of Gravelless Units =
Proposed Absorption Area of System = 436 SQFT
D. Depth from ground surface to bottom of absorption area = 6 ft

Revised 7/09

10:03:04 a.m. 07-21-2009 8/19
NM ENVIRONMENT DEPT
1575393090

NMED Permit Number: HO-09-0072

V. **SITE PLAN: Attach plat, diagram or picture file of the lot and liquid waste system. Show setback distances from both the tank and disposal field to property lines, buildings, structures, wells, water lines, irrigation ditches, arroyos and surface waters within 200 feet of the system, and the direction of groundwater flow.**

NMED Use: A plat, drawing or picture, including setback distances, in accordance with 20.7.3.302:
√ IS attached

VI. The foregoing information is correct and true to the best of my knowledge. I understand the issuing of this permit does not relieve me from the responsibility of complying with all applicable provisions of the New Mexico Plumbing Code and the New Mexico Liquid Waste Disposal and Treatment Regulations. Obtaining this permit does not relieve me from the responsibility of obtaining any permit required by state, city or county regulation or ordinance or other requirements of state or federal law.

Signature _____ Date _____

__ Owner √ Contractor __ Other, specify: _____

VII. **NMED PERMIT TO CONSTRUCT (For Registrations, ATS Ownership Transfer, or Permitting of Existing Unpermitted Systems installed after February 1, 2002 skip this section and go to Section VIII):**

A permit for construction of the liquid waste disposal system described herein is hereby:
√ **Granted** __ **Granted subject to conditions** __ **Denied**

Permit Conditions or Reasons for Denial: _____

NMED Representative _____ Date 7/16/09

NOTE: This permit may be canceled for failure to meet any condition specified; failure to complete the system within one year, for providing inaccurate or incomplete information, or for failure to notify NMED to schedule an inspection, a minimum of 2 working days prior to the inspection. If you have questions call: _____

VIII. **NMED FINAL APPROVAL TO OPERATE LIQUID WASTE SYSTEM:**
The system described above: __ **was inspected by NMED** __ ***Contractor photo inspection authorized***

NMED Inspection History | NMED Representative | Date

A permit for operation of the liquid waste disposal system described herein is hereby:
__ **Granted** __ **Granted subject to conditions** __ **Denied**

Conditions of Approval: _____

NMED Representative _____ **Date** _____

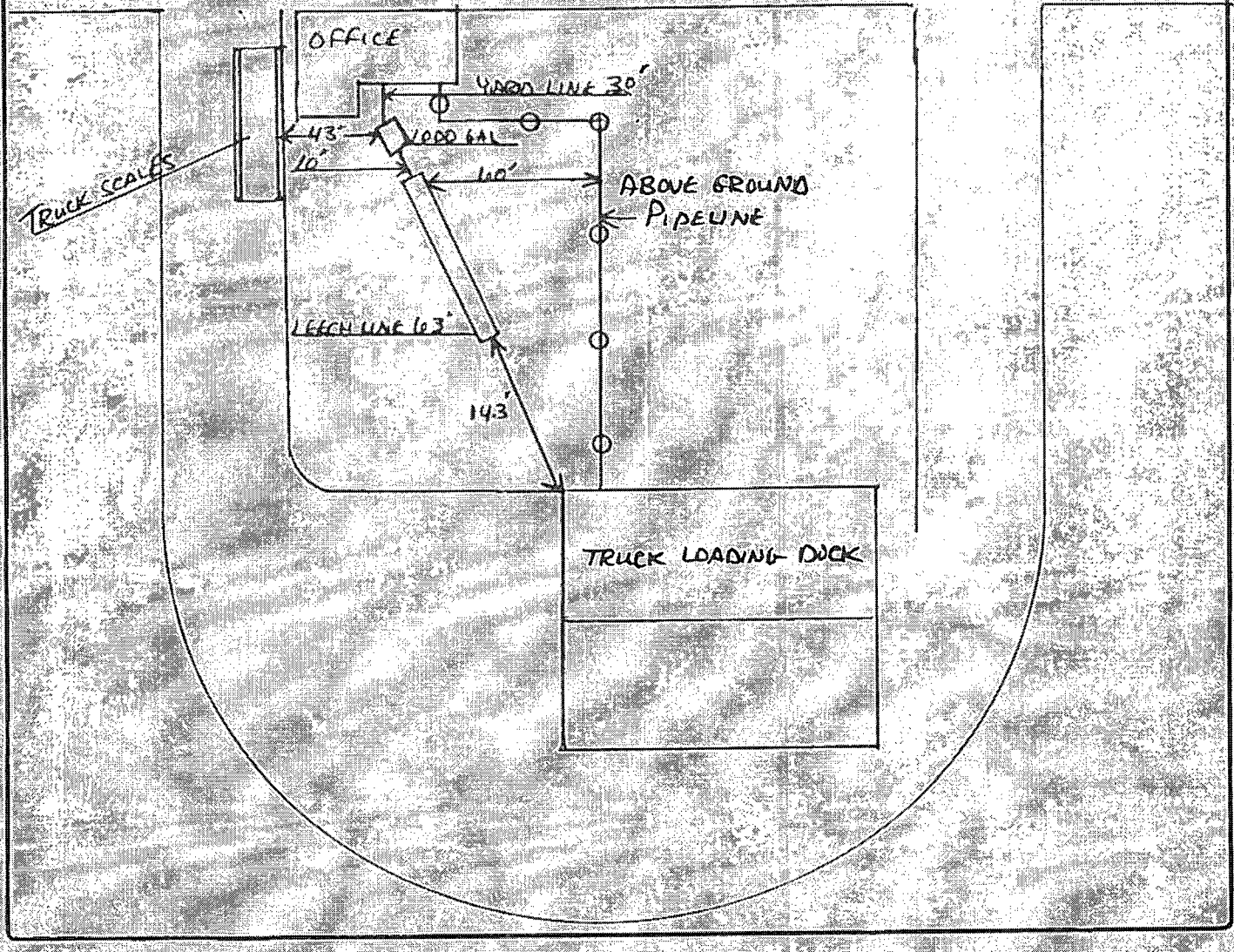
10:03:21 a.m. 07-21-2009 9/19
NM ENVIRONMENT DEPT
15753930906

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Colors Available

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7/08/2009 BRUCE **LEA COUNTY ASSESSOR** Page 4
INDIVIDUAL PROPERTY LIST Assessment Year 2009

Owner # 0033902 Dist 010
Non-Rend% 0
CITY OF LOVINGTON

PO BOX 1268

LOVINGTON NM 88260

VALUATION	RECAP
0 Central	1227102 Full Value
1118250 Land	
108852 Improvements	409034 Taxable Value
0 Personal Prop	409034 Exemptions
0 Mfg Home	
0 Livestock	0 Net Taxable

Property Description	Code	Value Description	Quantity	Rate	Taxable
S88D30'E 565', S01D30'W 525', N88D30'W 565' TO BEG (6.81 AC) 8/20/04-REDESCRIBED PRT TO #202741 LOVINGTON ECONOMIC DEV CORP					
4 000 339 560 001 SECTION-26 TOWNSHIP-16S RANGE-36E 80.00 AC BEING S2SE4	150X	LAND VALUE	80.00		19500
4 000 339 560 002 SECTION-35 TOWNSHIP-16S RANGE-36E 320.00 AC BEING E2	150X	LAND VALUE	320.00		19500
4 000 339 560 006 SECTION-36 TOWNSHIP-16S RANGE-36E 598.50 AC - ALL *LESS TR BEG N 645' & N39D35' W 1892' FROM E4 CR TH S 50D25' W 990', N 39D35' W 1320', N 50D25' E 990', S 39D35' E 1320' TO BEG LESSAGE OUT OF N2NE4,NE4NW SEC 36 & OUT OF SW4SE4 OF SEC 25, 30.00 AC* *LESS-16.9' M/L TO HWY & RR* *IMPR ONLY #79368 GREENHILL PETR*	150X	LAND VALUE	598.50		19500
4 000 339 550 001 SECTION-06 TOWNSHIP-16S RANGE-37E 66.23 AC BEING LOT 4	150X	LAND VALUE	66.23		19500
4 000 339 530 001 SECTION-30 TOWNSHIP-16S RANGE-37E 89.91 AC BEING LOT 4, SE4SW4	150X 250X 210X	LAND VALUE MISC IMP NON RES SINGLE FAMILY	89.91		19500 63 3169
4 000 339 560 008 SECTION-31 TOWNSHIP-16S RANGE-37E 524.90 AC-LOTS 3-4, E2SW4,E2,SE4NW4 *LESS TR BEG S 89D50' E 178' FROM SW COR SEC 31,S 89D50' E 1000', N 566.28',N 89D50' W 1000', S 566.28' TO BEG *13 AC* & LESS TR BEG S 89D50' E 2636.8' & N 39D46' W 385' OF SW COR SEC 31,N 39D46' W 480',S 50D14' W 100',S 89D46' E 480',N 50D14' E 100' TO BEG 1.10 AC*	150X	LAND VALUE	524.90		19500
4 000 339 530 002 SECTION-31 TOWNSHIP-16S RANGE-37E 126.64 AC BEING LOTS 1-2, NE4NW4 *LESS 12.84 AC TO H/W & RR*	150X	LAND VALUE	126.64		19500
4 000 339 560 003 SECTION-01 TOWNSHIP-17S RANGE-36E 599.17 AC LOC LOTS 1-2-3-4, S2N2, SW4, W2SE4, NE4SE4 3/7/01-REDESCRIBED PRT TO GOFF, BUSTER #200962 B-1066 P-675	150X	LAND VALUE	599.17		19500
4 000 339 560 004 SECTION-02 TOWNSHIP-17S RANGE-36E 319.17 AC LOC LOTS 1-2, S2NE4, SE4 8/20/04-REDESCRIBED PRT TO #202741 LOVINGTON ECONOMIC DEV CORP B-1324 P-455	150X	LAND VALUE	319.17		19500

No Est Tax	Res-Values	N/R-Values	Tot-Values
Full	124164	1102938	1227102
Taxable	41388	367646	409034
Exempt	41388	367646	409034
Net	0	0	0


Google

31
1
39.65 Ac
2
39.85 Ac
3
39.75 Ac
4
39.65 Ac
1
39.95 Ac
2
40.2 Ac
3
40.12 Ac
4
37.33 Ac
1
40.28 Ac
A
B
C
154.60 Ac
2nd
2nd

APPLICATION FOR A LIQUID WASTE PERMIT OR REGISTRATION

Date NMED Received: 7/9/09

NMED Permit Number: NMED - HOBBS HO-09-0073

NMED Use Only
Call 505-2307 to schedule an inspection a minimum of 2 working days prior to the inspection.
Permit Approved for (circle one): 1 2 3 4 5 6 Bedrooms Multiple dwellings Other: Office/shop

Permit Fee: $150.00

SYSTEM OWNER'S NAME: Last, First, MI: CITY OF LOVINGTON / NAVAJO REFINING CO. LLC

Home Phone: Business Phone: 575-748-3311

MAILING ADDRESS: Street/PO Box, PO Box 159

City: ARTESIA State: NM Zip Code: 88211-0159

SYSTEM LOCATION: Address, City, ZIP, County - (if needed, attach directions) 7406 South Main Lovington NM (Office/Shop)

SUBDIVISION

UNIFORM PROPERTY CODE:

TOWNSHIP RANGE SECTION QTR QTR QTR LATITUDE LONGITUDE ELEV

UNIT/PHASE BLOCK LOT/TRACT

INSTALLER'S NAME & FIRM: Jim Jeter ABSW

PHONE: 575-390-2116

MAILING ADDRESS: Street/PO Box PO Box 731

City: Hobbs State: NM ZIP: 88240

CID License No./Class No.: __ MM-1 X MM-98 __ MS-1 __ MS-3 __ Homeowner

I. PERMIT APPLICATION (instructions available on request)

Application is for: X New Permit __ Registration - existing unpermitted system

__ Modification of an existing system __ ATS ownership transfer

Existing Permit No.(if applicable):

II. WASTEWATER SOURCES & DESIGN FLOWS IN GALLONS PER DAY (gpd)

A. Proposed liquid waste system use and design flow:

__ Single family residence __ no. of bedrooms ____ gpd

__ Multiple family units __ no. of units __ no. bedrooms per unit ____ gpd

__ Seasonal residence ____ gpd

X Commercial/Institutional (type) FACTORY 20 people Fixture units 700 gpd

__ Other (type) ____ ____ gpd

B. Are there other sewage sources on this property? X Yes __ No 398 gpd

TOTAL WASTEWATER FLOW ON PROPERTY - 1098 gpd

III. SITE INFORMATION

A. Lot Size: 258.5 Acres (nearest 0.01 acre) Date of Record: (Plat Date or Subdivision Date)

Ownership and lot size documentation attached: __ Warranty deed __ Property tax receipt

__ Recorded survey __ Recorded plat __ Other, specify:

B. Depth from Ground Surface to:

Seasonal High Water Table ____ feet

Bedrock, Caliche, Tight Clay 400 feet

Gravel, Cobbles, Highly permeable soil ____ feet

C. Soil Description

USDA Soil Class Methodology & Verification Submitted? __ Yes __ No

__ Type Ia=1.25 sf/gal/day X Type Ib=2 sf/gal/day __ Type II=3 sf/gal/day

__ Type III=4 sf/gal/day __ Type IV=5 sf/gal/day

D. Domestic Water Source

X On-site __ Off-site __ Private __ Public __ Shared

Irrigation well, or flood irrigated area on lot? __ Yes X No

State Engineer Well Permit #:

Name of Public Water System: N/A

IV. SYSTEM DESIGN

A. Treatment Unit:

__ Septic tank Manufacturer: Custom Made Concrete Capacity 1000 gal Two TANKS

Certification No: 98-05-140

__ ATS (Advanced Treatment System) __ Secondary __ Tertiary __ Sand filter

__ Disinfection __ Other (specify)

Manufacturer: Model:

__ Voluntary ATS __ Experimental System

B. Disposal System: X Trench __ Leaching Bed __ Seepage Pit

__ Privy __ Holding tank __ Elevated Bed __ Wisconsin Mound

__ Vault __ Lined Evapotranspiration (ET) Bed __ Unlined ET Bed

__ Irrigation __ Low pressure dosed __ Drip __ Gray water

__ Other (specify):

Materials: X Pipe & Gravel __ Gravelless (type)

Distribution box X Yes __ No

C. Minimum required absorption area:

AR 200 x Q 2 = 1400 SQFT

(AR - Application Rate) (Q - Design Flow)

Trench or Bed width 2 ft.

Gravel depth below pipe 3 ft.

Total Trench or Bed Length = 200'

Length of Trenches (1) 68' (2) 133' (3) ____ (4) ____

Number of Gravelless Units = ____

Proposed Absorption Area of System = 1400 SQFT

D. Depth from ground surface to bottom of absorption area 60 in

NM ENVIRONMENT DEPT 07-21-2009 10:04:16 a.m. 14/19

15/19 07-21-2009 10:04:33 a.m. NM ENVIRONMENT DEPT 15753930906

NMED Permit Number: HO-09-0073

V. **SITE PLAN: Attach plat, diagram or picture file of the lot and liquid waste system. Show setback distances from both the tank and disposal field to property lines, buildings, structures, wells, water lines, irrigation ditches, arroyos and surface waters within 200 feet of the system, and the direction of groundwater flow.**

NMED Use: A plat, drawing or picture, including setback distances, in accordance with 20.7.3.302: √ IS attached

VI. The foregoing information is correct and true to the best of my knowledge. I understand the issuing of this permit does not relieve me from the responsibility of complying with all applicable provisions of the New Mexico Plumbing Code and the New Mexico Liquid Waste Disposal and Treatment Regulations. Obtaining this permit does not relieve me from the responsibility of obtaining any permit required by state, city or county regulation or ordinance or other requirements of state or federal law.

Signature _____ Date _____

__ Owner √ Contractor __ Other, specify: _____

VII. **NMED PERMIT TO CONSTRUCT (For Registrations, ATS Ownership Transfer, or Permitting of Existing Unpermitted Systems installed after February 1, 2002 skip this section and go to Section VIII):**

A permit for construction of the liquid waste disposal system described herein is hereby:

√ **Granted** __ **Granted subject to conditions** __ **Denied**

Permit Conditions or Reasons for Denial: _____

NMED Representative _____ Date 7/16/09

NOTE: This permit may be canceled for failure to meet any condition specified; failure to complete the system within one year; for providing inaccurate or incomplete information; or for failure to notify NMED to schedule an inspection, a minimum of 2 working days prior to the inspection. If you have questions call: _____

VIII. **NMED FINAL APPROVAL TO OPERATE LIQUID WASTE SYSTEM:**

The system described above: __ **was inspected by NMED** __ **Contractor photo inspection authorized**

NMED Inspection History

	NMED Representative	Date

A permit for operation of the liquid waste disposal system described herein is hereby:

__ **Granted** __ **Granted subject to conditions** __ **Denied**

Conditions of Approval: _____

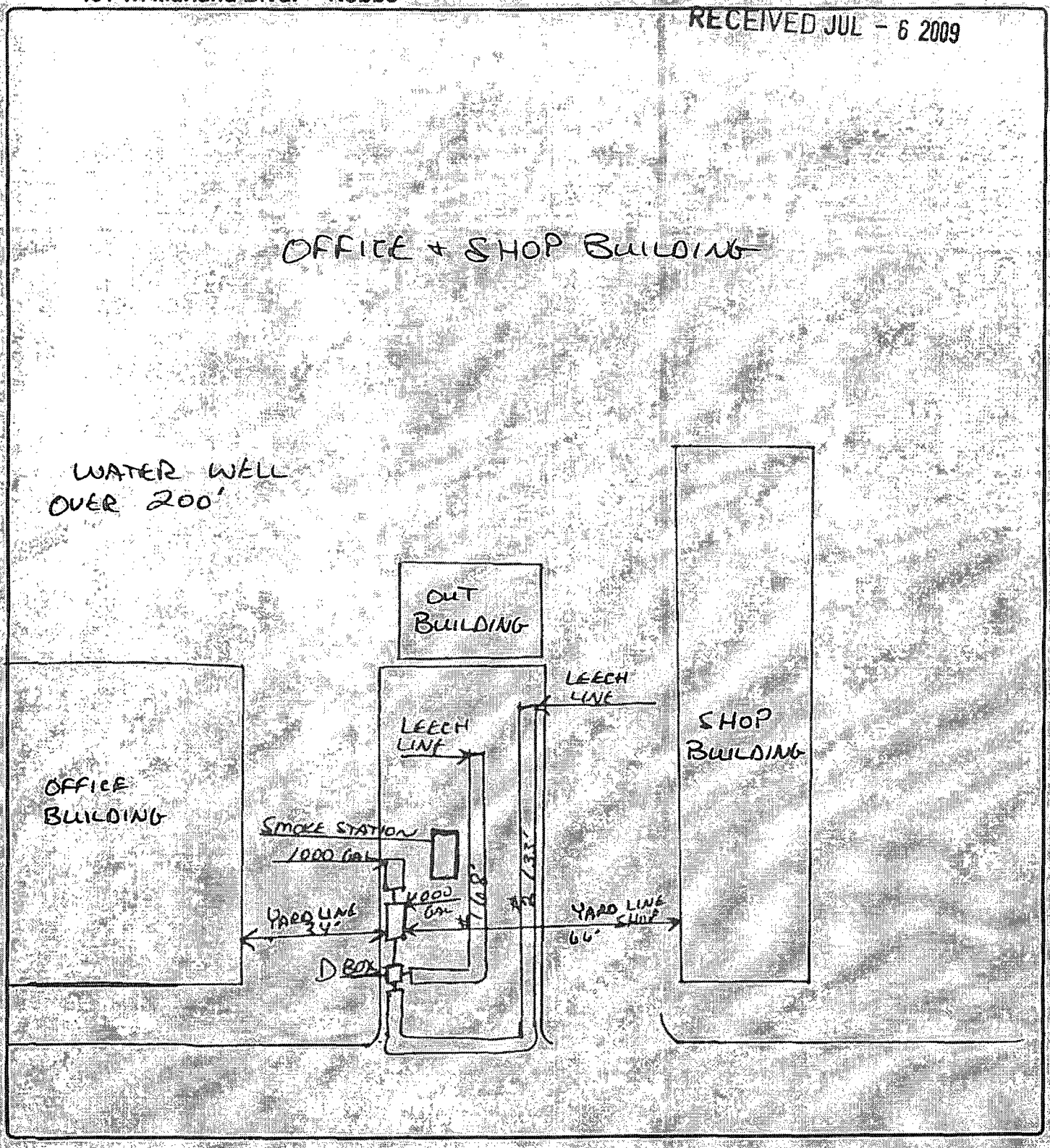
NMED Representative _____ **Date** _____

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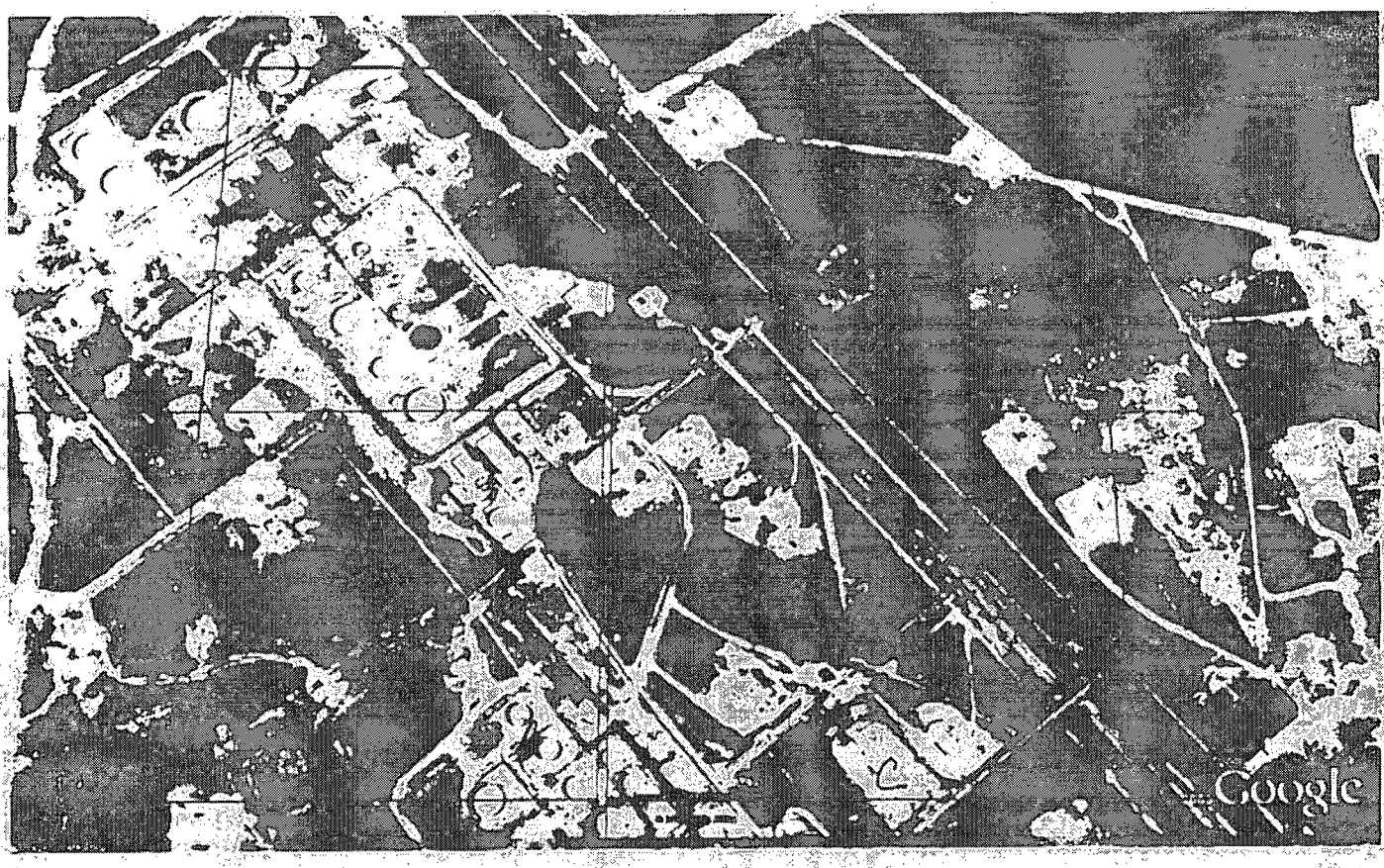
7/08/2009 BRUCE **LEA COUNTY ASSESSOR** Page 4
INDIVIDUAL PROPERTY LIST Assessment Year 2009

Owner # 0033902 Dist 010
Non-Rend% 0
CITY OF LOVINGTON
PO BOX 1268
LOVINGTON NM 88260

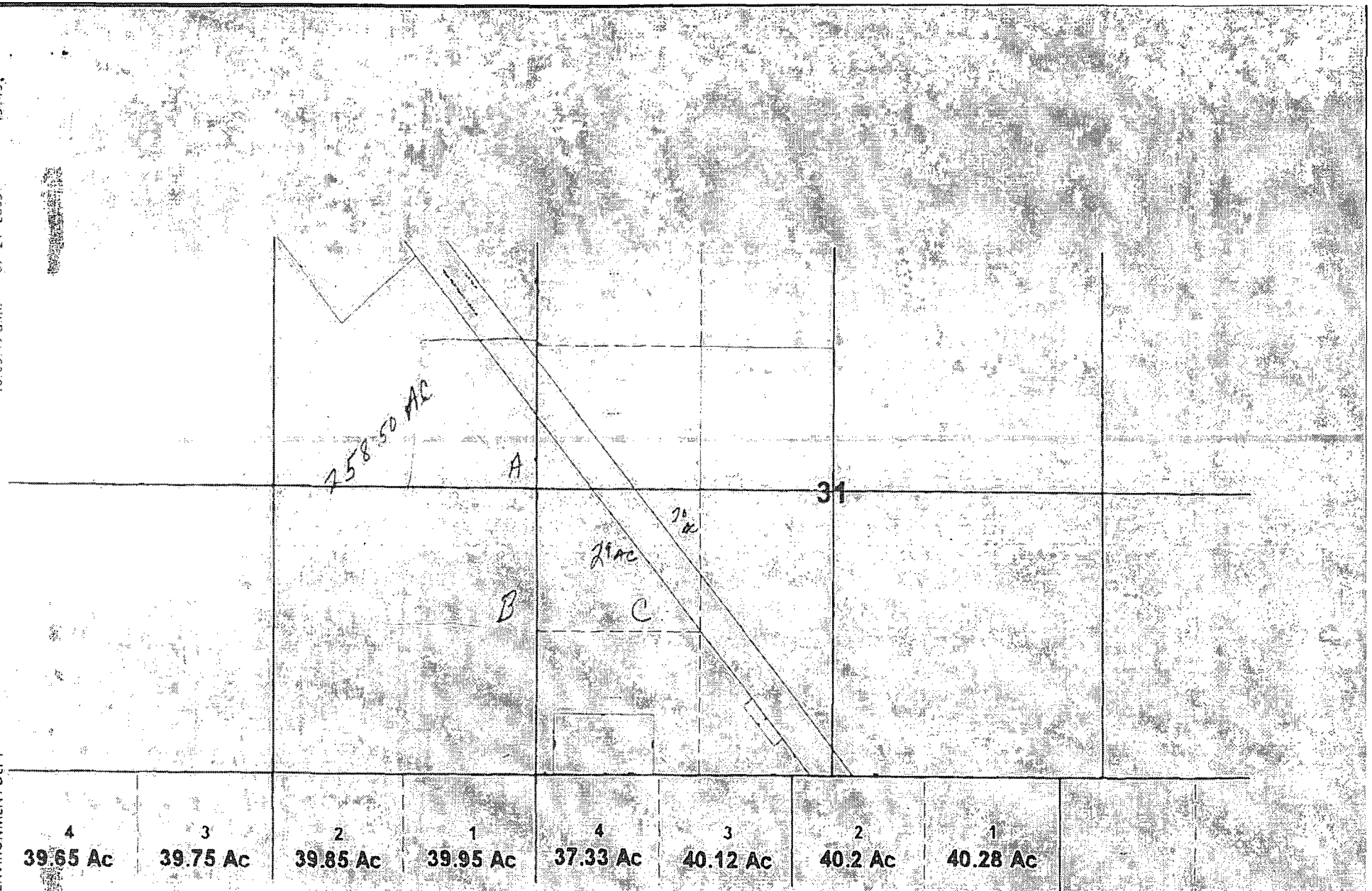
VALUATION RECAP		
0	Central	1227102 Full Value
1118250	Land	
108852	Improvements	409034 Taxable Value
0	Personal Prop	409034 Exemptions
0	Mfg Home	
0	Livestock	0 Net Taxable

Property Description	Code	Value Description	Quantity	Rate	Taxable
S88D30'E 565', S01D30'W 525', N88D30'W 565' TO BEG (6.81 AC) 8/20/04-REDESCRIBED PRT TO #202741 LOVINGTON ECONOMIC DEV CORP					
4 000 339 560 001 SECTION-26 TOWNSHIP-16S RANGE-36E 80.00 AC BEING S2SE4	150X	LAND VALUE	80.00		19500
4 000 339 560 002 SECTION-35 TOWNSHIP-16S RANGE-36E 320.00 AC BEING E2	150X	LAND VALUE	320.00		19500
4 000 339 560 006 SECTION-36 TOWNSHIP-16S RANGE-36E 598.50 AC - ALL *LESS TR BEG N 645' & N39D35' W 1892' FROM E4 CR TH S 50D25' W 990',N 39D35' W 1320' N 50D25' E 990',S 39D35' E 1320' TO BEG LESSAGE OUT OF N2NE4,NE4NW SEC 36 & OUT OF SW4SE4 OF SEC 25, 30.00 AC* *LESS-16.9' M/L TO HWY & RR* *IMPR ONLY #79368 GREENHILL PETR*	150X	LAND VALUE	598.50		19500
4 000 339 550 001 SECTION-06 TOWNSHIP-16S RANGE-37E 66.23 AC BEING LOT 4	150X	LAND VALUE	66.23		19500
4 000 339 530 001 SECTION-30 TOWNSHIP-16S RANGE-37E 89.91 AC BEING LOT 4, SE4SW4	150X 250X 210X	LAND VALUE MISC IMP NON RES SINGLE FAMILY	89.91		19500 63 3169
4 000 339 560 008 SECTION-31 TOWNSHIP-16S RANGE-37E 524.90 AC-LOTS 3-4, E2SW4,E2,SE4NW4 *LESS TR BEG S 89D50' E 178' FROM SW COR SEC 31,S 89D50' E 1000',N 566.28',N 89D50' W 1000',S 566.28' TO BEG .*13 AC* & LESS TR BEG S 89D50' E 2636.8', & N 39D46' W 385' OF SW COR SEC 31,N 39D46' W 480',S 50D14' W 100',S 89D46' E 480',N 50D14' E 100' TO BEG 1.10 AC*	150X	LAND VALUE	524.90		19500
4 000 339 530 002 SECTION-31 TOWNSHIP-16S RANGE-37E 126.64 AC BEING LOTS 1-2, NE4NW4 *LESS 12.84 AC TO H/W & RR*	150X	LAND VALUE	126.64		19500
4 000 339 560 003 SECTION-01 TOWNSHIP-17S RANGE-36E 599.17 AC LOC LOTS 1-2-3-4, S2N2, SW4, W2SE4, NE4SE4 3/7/01-REDESCRIBED PRT TO GOFF, BUSTER #200962 B-1066 P-675	150X	LAND VALUE	599.17		19500
4 000 339 560 004 SECTION-02 TOWNSHIP-17S RANGE-36E 319.17 AC LOC LOTS 1-2, S2NE4, SE4 8/20/04-REDESCRIBED PRT TO #202741 LOVINGTON ECONOMIC DEV CORP B-1324 P-455	150X	LAND VALUE	319.17		19500

No Exc Tax	Res-Values	N/R-Values	Tot-Values
Full	124164	1102938	1227102
Taxable	41388	367646	409034
Exempt	41388	367646	409034
Net	0	0	0


Google

1575393906 NM ENVIRONMENT DEPT 10:05:17 a.m. 07-21-2009 19/19



ALS Laboratory Group

Date: *26-Jan-09*

Client: Navajo Refining Company
Project: Lovington Lea Refining-Monthly
Work Order: 0901245
Sample ID: City Waste Water
Lab ID: 0901245-01
Collection Date: 1/14/2009 08:00 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **WLR**
Benzene	**0.027**		**0.0010**	**mg/L**	1	1/20/2009 08:52 PM
Toluene	**0.017**		**0.0010**	**mg/L**	1	1/20/2009 08:52 PM
Ethylbenzene	**0.015**		**0.0010**	**mg/L**	1	1/20/2009 08:52 PM
Xylenes, Total	**0.038**		**0.0030**	**mg/L**	1	1/20/2009 08:52 PM
Surr: 4-Bromofluorobenzene	*102*		*77-129*	*%REC*	1	1/20/2009 08:52 PM
Surr: Trifluorotoluene	*109*		*75-130*	*%REC*	1	1/20/2009 08:52 PM
ANIONS			**E300**			Analyst: **IGF**
Nitrogen, Nitrate (As N)	ND		0.100	mg/L	1	1/15/2009 01:10 PM
Nitrogen, Nitrite (As N)	**0.117**		**0.100**	**mg/L**	1	1/15/2009 01:10 PM
Surr: Selenate (surr)	*98.7*		*85-115*	*%REC*	1	1/15/2009 01:10 PM
AMMONIA AS N			**SM4500 NH3-B-F**			Analyst: **DM**
Nitrogen, Ammonia (as N)	**4.17**		**0.250**	**mg/L**	10	1/21/2009 03:30 PM
OIL AND GREASE			**E1664**			Analyst: **KKP**
Oil and Grease	**28.2**		**2.00**	**mg/L**	1	1/20/2009 11:00 AM
SULFIDE			**SM4500 S2-F**			Analyst: **KKP**
Sulfide	**5.43**		**1.00**	**mg/L**	1	1/19/2009 04:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**2,430**		**10.0**	**mg/L**	1	1/19/2009 05:00 PM
TOTAL KJELDAHL L NITROGEN			**M4500 NH3 D**			Analyst: **RPM**
Nitrogen, Total Kjeldahl	**8.40**		**1.00**	**mg/L**	1	1/23/2009 08:00 AM

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

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Chain of Custody Form

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Fax: +1 616 399 6185

ALS Project Manager: | ALS Work Order #: 090245

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Lovington Lea Refining-Monthly	A	BTEX (8021)
Work Order		Project Number		B	Anions (300) NO3,NO2
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	Ammonia
Send Report To	Darrell Moore	Invoice Attn	Darrell Moore	D	TKN
Address	509 East Main	Address	509 East Main	E	Oil & Grease
				F	TDS
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	Sulfide
Phone	(505) 748-3311	Phone	(505) 748-3311	H	
Fax	(505) 746-5421	Fax	(505) 746-5421	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	City Waste Water	1-14-09	8:00	W	Y	8	✓		✓		✓		✓				
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Steve Terry / Steve Terry | Shipment Method | Required Turnaround Time: (Check Box) ☑ Std 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour ☐ Other ____ | Results Due Date:

Relinquished by: Steve Terry	Date: 1-14-09	Time: 9:00	Received by:	Notes: 10 Day TAT.	
Relinquished by:	Date: 1/15/09	Time: 09:45	Received by (Laboratory): RJ	Cooler ID	Cooler Temp.
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):		

QC Package: (Check One Box Below)
- ☑ Level II Std QC
- ☐ Level III Std QC/Raw Data
- ☐ Level IV SW846/CLP
- ☐ Other ____
- ☐ TRRP CheckList
- ☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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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ALS Laboratory Group

Date: *10-Mar-09*

Client: Navajo Refining Company
Project: Lovington Lea Refining-Monthly
Sample ID: City Waste Water
Collection Date: 2/26/2009 08:00 AM

Work Order: 0902691
Lab ID: 0902691-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **WLR**
Benzene	ND		0.0010	mg/L	1	3/3/2009 01:22 AM
Toluene	ND		0.0010	mg/L	1	3/3/2009 01:22 AM
Ethylbenzene	ND		0.0010	mg/L	1	3/3/2009 01:22 AM
Xylenes, Total	ND		0.0030	mg/L	1	3/3/2009 01:22 AM
Surr: 4-Bromofluorobenzene	*107*		*77-129*	*%REC*	1	3/3/2009 01:22 AM
Surr: Trifluorotoluene	*120*		*75-130*	*%REC*	1	3/3/2009 01:22 AM
ANIONS			**E300**			Analyst: **KKP**
Nitrogen, Nitrate (As N)	**2.71**		**0.100**	**mg/L**	1	2/27/2009 01:12 PM
Nitrogen, Nitrite (As N)	ND		0.100	mg/L	1	2/27/2009 01:12 PM
Surr: Selenate (surr)	*97.8*		*85-115*	*%REC*	1	2/27/2009 01:12 PM
AMMONIA AS N			**SM4500 NH3-B-F**			Analyst: **KKP**
Nitrogen, Ammonia (as N)	**0.711**		**0.0250**	**mg/L**	1	3/9/2009 04:00 PM
OIL AND GREASE			**E1664**			Analyst: **KKP**
Oil and Grease	**2.67**		**2.00**	**mg/L**	1	3/4/2009 06:00 PM
SULFIDE			**SM4500 S2-F**			Analyst: **KKP**
Sulfide	ND		1.00	mg/L	1	3/3/2009 04:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**1,460**		**10.0**	**mg/L**	1	3/3/2009 04:00 PM
TOTAL KJELDAHL L NITROGEN			**M4500 NH3 D**			Analyst: **RPM**
Nitrogen, Total Kjeldahl	ND		1.00	mg/L	1	3/4/2009 11:45 AM

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

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Chain of Custody Form

Page 1 of 1

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ALS Project Manager: | ALS Work Order #: 902691

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Lovington Lea Refining-Monthly	A	BTEX (8021)
Work Order		Project Number		B	Anions (300) NO3,NO2
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	Ammonia
Send Report To	Darrell Moore	Invoice Attn	Darrell Moore	D	TKN
Address	509 East Main	Address	509 East Main	E	Oil & Grease
				F	TDS
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	Sulfide
Phone	(505) 748-3311	Phone	(505) 748-3311	H	
Fax	(505) 746-5421	Fax	(505) 746-5421	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	City Waste Water	2-26-09	8:00	W	Y	5	✓	✓	✓	✓	✓	✓	✓				
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Steve Terry Steve Terry

Shipment Method:

Required Turnaround Time: (Check Box) ☐ Other ☑ Std 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour

Results Due Date:

Relinquished by: Steve Terry	Date: 2-26-09	Time: 8:00	Received by:	Notes: 10 Day TAT.	
Relinquished by:	Date: 2/27/9	Time: 9:40	Received by (Laboratory):	Cooler ID	Cooler Temp.
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):		

QC Package: (Check One Box Below)
☑ Level II Std QC ☐ Level III Std QC/Raw Data ☐ Level IV SW846/CLP ☐ Other ☐ TRRP CheckList ☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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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.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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Date: *02-Apr-09*

Client: Navajo Refining Company
Project: Lovington Lea Refining-Monthly
Sample ID: City Waste Water
Collection Date: 3/25/2009 08:30 AM

Work Order: 0903659
Lab ID: 0903659-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			SW8021B			Analyst: **WLR**
Benzene	**0.093**		**0.0010**	**mg/L**	1	3/28/2009 09:52 AM
Toluene	**0.071**		**0.0010**	**mg/L**	1	3/28/2009 09:52 AM
Ethylbenzene	**0.039**		**0.0010**	**mg/L**	1	3/28/2009 09:52 AM
Xylenes, Total	**0.059**		**0.0030**	**mg/L**	1	3/28/2009 09:52 AM
Surr: 4-Bromofluorobenzene	*113*		*77-129*	*%REC*	1	3/28/2009 09:52 AM
Surr: Trifluorotoluene	*96.6*		*75-130*	*%REC*	1	3/28/2009 09:52 AM
ANIONS			E300			Analyst: **IGF**
Nitrogen, Nitrate (As N)	ND		0.100	mg/L	1	3/26/2009 04:16 PM
Nitrogen, Nitrite (As N)	ND		0.100	mg/L	1	3/26/2009 04:16 PM
Surr: Selenate (surr)	*97.7*		*85-115*	*%REC*	1	3/26/2009 04:16 PM
AMMONIA AS N			SM4500 NH3-B-F			Analyst: **KKP**
Nitrogen, Ammonia (as N)	**3.32**		**0.625**	**mg/L**	25	4/1/2009 02:00 PM
OIL AND GREASE			E1664			Analyst: **KKP**
Oil and Grease	**13.8**		**2.00**	**mg/L**	1	4/1/2009 08:00 PM
SULFIDE			SM4500 S2-F			Analyst: **KKP**
Sulfide	**8.33**		**1.00**	**mg/L**	1	3/31/2009 11:00 AM
TOTAL DISSOLVED SOLIDS			M2540C			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**2,340**		**10.0**	**mg/L**	1	3/31/2009 01:00 PM
TOTAL KJELDAHL L NITROGEN			M4500 NH3 D			Analyst: **RPM**
Nitrogen, Total Kjeldahl	**4.42**		**1.00**	**mg/L**	1	3/31/2009 11:00 AM

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

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Chain of Custody Form

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Page 1 of 1

ALS Project Manager: | ALS Work Order #: 1203654

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Lovington Lea Refining-Monthly	A	BTEX (8021)
Work Order		Project Number		B	Anions (300) NO3,NO2
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	Ammonia
Send Report To	Darrell Moore	Invoice Attn	Darrell Moore	D	TKN
Address	509 East Main	Address	509 East Main	E	Oil & Grease
				F	TDS
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	Sulfide
Phone	(505) 746-3311	Phone	(505) 746-3311	H	
Fax	(505) 746-5421	Fax	(505) 746-5421	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	City Waste Water		8 30	W	4	8	✓	✓	✓	✓	✓	✓	✓				
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Steve Terry Steve Terry

Shipment Method:

Required Turnaround Time: (Check Box) ☐ Other ☑ Std 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour

Results Due Date:

Relinquished by: Steve Terry Date: Time: Received by:

Relinquished by: Date: Time: Received by (Laboratory): 3-26-09/1045

Logged by (Laboratory): Date: Time: Checked by (Laboratory):

Notes: 10 Day TAT.

Cooler ID | Cooler Temp: | QC Package: (Check One Box Below)

☑ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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Date: *13-May-09*

Client: Navajo Refining Company
Project: Lovington Lea Refining-Monthly
Sample ID: City Waste Water
Collection Date: 4/28/2009 08:45 AM

Work Order: 0904644
Lab ID: 0904644-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			SW8021B			Analyst: **WLR**
Benzene	0.23		0.010	mg/L	10	5/1/2009 11:38 AM
Toluene	0.075		0.0010	mg/L	1	4/29/2009 06:11 PM
Ethylbenzene	0.070		0.0010	mg/L	1	4/29/2009 06:11 PM
Xylenes, Total	0.064		0.0030	mg/L	1	4/29/2009 06:11 PM
Surr: 4-Bromofluorobenzene	*104*		*77-129*	*%REC*	10	5/1/2009 11:38 AM
Surr: 4-Bromofluorobenzene	*118*		*77-129*	*%REC*	1	4/29/2009 06:11 PM
Surr: Trifluorotoluene	*107*		*75-130*	*%REC*	10	5/1/2009 11:38 AM
Surr: Trifluorotoluene	*115*		*75-130*	*%REC*	1	4/29/2009 06:11 PM
ANIONS			E300			Analyst: **IGF**
Nitrate/Nitrite (as N)	2.12		0.100	mg/L	1	4/29/2009 01:50 PM
Surr: Selenate (surr)	*99.1*		*85-115*	*%REC*	1	4/29/2009 01:50 PM
AMMONIA AS N			SM4500 NH3-B-F			Analyst: **KKP**
Nitrogen, Ammonia (as N)	8.39		0.250	mg/L	10	5/5/2009 12:00 PM
OIL AND GREASE			E1664			Analyst: **KKP**
Oil and Grease	18.2		2.00	mg/L	1	5/11/2009 06:00 PM
SULFIDE			SM4500 S2-F			Analyst: **KKP**
Sulfide	1.10		1.00	mg/L	1	5/4/2009 07:00 PM
TOTAL DISSOLVED SOLIDS			M2540C			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	2,090		10.0	mg/L	1	5/1/2009 03:00 PM
TOTAL KJELDAHL L NITROGEN			M4500 NH3 D			Analyst: **RPM**
Nitrogen, Total Kjeldahl	7.80		1.00	mg/L	1	5/1/2009 11:00 AM

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

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RS 4290 9

ALS Project Manager: | ALS Work Order #: 0900 0904644

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Lovington Lea Refining-Monthly	A	BTEX (8021)
Work Order		Project Number		B	Anions (300) NO3,NO2
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	Ammonia
Send Report To	Darrell Moore	Invoice Attn	Darrell Moore	D	TKN
Address	509 East Main	Address	509 East Main	E	Oil & Grease
				F	TDS
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	Sulfide
Phone	(505) 748-3311	Phone	(505) 748-3311	H	
Fax	(505) 746-5421	Fax	(505) 746-5421	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	City Waste Water	4-28-09	8:45	W	4	8	L										
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Steve Terry Steve Terry

Shipment Method:

Required Turnaround Time: (Check Box) ☐ Other ☑ Std 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour

Results Due Date:

Relinquished by: Steve Terry Date: 4-28-09 Time: 8145

Received by:

Notes: 10 Day TAT.

Relinquished by: Date: Time:

Received by (Laboratory): 4/29/09 0900

Cooler ID | Cooler Temp.

QC Package: (Check One Box Below)
☑ Level II Std QC ☐ TRRP CheckList
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other

Logged by (Laboratory): Date: Time: Checked by (Laboratory):

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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Date: *09-Jun-09*

Client: Navajo Refining Company
Project: Lovington Lea Refining-Monthly
Sample ID: City Waste Water
Collection Date: 5/28/2009 08:30 AM

Work Order: 0905647
Lab ID: 0905647-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			SW8021B			Analyst: **WLR**
Benzene	**0.024**		**0.0010**	mg/L	1	6/8/2009 11:18 PM
Toluene	**0.013**		**0.0010**	mg/L	1	6/8/2009 11:18 PM
Ethylbenzene	**0.018**		**0.0010**	mg/L	1	6/8/2009 11:18 PM
Xylenes, Total	**0.031**		**0.0030**	mg/L	1	6/8/2009 11:18 PM
Surr: 4-Bromofluorobenzene	*86.9*		*77-129*	*%REC*	1	6/8/2009 11:18 PM
Surr: Trifluorotoluene	*99.3*		*75-130*	*%REC*	1	6/8/2009 11:18 PM
ANIONS			E300			Analyst: **IGF**
Nitrogen, Nitrate (As N)	ND		0.100	mg/L	1	5/29/2009 02:26 PM
Nitrogen, Nitrite (As N)	**5.06**		**0.100**	mg/L	1	5/29/2009 02:26 PM
Surr: Selenate (surr)	*97.5*		*85-115*	*%REC*	1	5/29/2009 02:26 PM
AMMONIA AS N			SM4500 NH3-B-F			Analyst: **KKP**
Nitrogen, Ammonia (as N)	**9.22**		**0.625**	mg/L	25	6/5/2009 03:00 PM
OIL AND GREASE			E1664			Analyst: **KKP**
Oil and Grease	**8.44**		**2.00**	mg/L	1	6/3/2009 07:00 PM
SULFIDE			SM4500 S2-F			Analyst: **KKP**
Sulfide	ND		1.00	mg/L	1	6/3/2009 06:00 PM
TOTAL DISSOLVED SOLIDS			M2540C			Analyst: **RPM**
Total Dissolved Solids (Residue, Filterable)	**2,030**		**10.0**	mg/L	1	6/2/2009 06:00 PM
TOTAL KJELDAHL L NITROGEN			M4500 NH3 D			Analyst: **RPM**
Nitrogen, Total Kjeldahl	**9.60**		**1.00**	mg/L	1	6/6/2009 12:00 PM

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

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ALS Project Manager: | ALS Work Order #: 0905617

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Lovington Lea Refining-Monthly	A	BTEX (8021)
Work Order		Project Number		B	Anions (300) NO3,NO2
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	Ammonia
Send Report To	Darrell Moore	Invoice Attn	Darrell Moore	D	TKN
Address	509 East Main	Address	509 East Main	E	Oil & Grease
				F	TDS
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	Sulfide
Phone	(505) 748-3311	Phone	(505) 748-3311	H	
Fax	(505) 746-5421	Fax	(505) 746-5421	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	City Waste Water	5-28-09	8:30	W	Y	8	✓	✓	✓	✓	✓	✓	✓				
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Steve Terry Steve Terry

Shipment Method

Required Turnaround Time: (Check Box) ☐ Other ☑ Std 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour

Results Due Date:

Relinquished by: Steve Terry — Date: 5-28-09 — Time: 5:30

Received by:

Notes: 10 Day TAT.

Relinquished by: — Date: 5/29/09 — Time: 09:25

Received by (Laboratory): DS JD

Logged by (Laboratory): — Date: — Time:

Checked by (Laboratory):

Cooler ID | Cooler Temp.

QC Package: (Check One Box Below)
☑ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other _____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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Date: *07-Jul-09*

Client: Holly Energy Partners
Project: Lovington Lea Refining-Monthly
Sample ID: City Waste Water
Collection Date: 6/25/2009 08:00 AM

Work Order: 0906672
Lab ID: 0906672-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **WLR**
Benzene	**0.17**		**0.010**	**mg/L**	10	7/1/2009 12:48 PM
Toluene	**0.10**		**0.010**	**mg/L**	10	7/1/2009 12:48 PM
Ethylbenzene	**0.034**		**0.0010**	**mg/L**	1	6/30/2009 08:00 PM
Xylenes, Total	**0.058**		**0.0030**	**mg/L**	1	6/30/2009 08:00 PM
Surr: 4-Bromofluorobenzene	*103*		*77-129*	*%REC*	1	6/30/2009 08:00 PM
Surr: 4-Bromofluorobenzene	*102*		*77-129*	*%REC*	10	7/1/2009 12:48 PM
Surr: Trifluorotoluene	*115*		*75-130*	*%REC*	10	7/1/2009 12:48 PM
Surr: Trifluorotoluene	*127*		*75-130*	*%REC*	1	6/30/2009 08:00 PM
METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Chromium	**0.00885**		**0.00500**	**mg/L**	1	6/30/2009 02:14 AM
ANIONS			**E300**			Analyst: **IGF**
Nitrogen, Nitrate (As N)	**0.204**		**0.100**	**mg/L**	1	6/26/2009 11:50 AM
Nitrogen, Nitrite (As N)	**3.74**		**0.100**	**mg/L**	1	6/26/2009 11:50 AM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1	6/26/2009 11:50 AM
AMMONIA AS N			**SM4500 NH3-B-F**			Analyst: **KKP**
Nitrogen, Ammonia (as N)	**11.4**		**0.625**	**mg/L**	25	6/29/2009 04:00 PM
OIL AND GREASE			**E1664**			Analyst: **KKP**
Oil and Grease	**11.1**		**2.00**	**mg/L**	1	6/30/2009 06:00 PM
SULFIDE			**SM4500 S2-F**			Analyst: **KKP**
Sulfide	ND		1.00	mg/L	1	6/30/2009 04:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**2,200**		**10.0**	**mg/L**	1	7/1/2009 05:00 PM
TOTAL KJELDAHL L NITROGEN			**M4500 NH3 D**			Analyst: **RPM**
Nitrogen, Total Kjeldahl	**11.2**		**1.00**	**mg/L**	1	7/6/2009 12:00 PM

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

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ALS Project Manager: | ALS Work Order #: 904572

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Lovington Lea Refining-Monthly	A	BTEX (8021)
Work Order		Project Number		B	Total Metals (6020/7000) Select (Chromium)
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	Anions (300) NO3,NO2
Send Report To	Darrell Moore	Invoice Attn	Darrell Moore	D	Ammonia
Address	509 East Main	Address	509 East Main	E	TKN
				F	Oil & Grease
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	TDS
Phone	(505) 748-3311	Phone	(505) 748-3311	H	Sulfide
Fax	(505) 746-5421	Fax	(505) 746-5421	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	City Waste Water	6-25-09	8:00	W	4	9	✓	✓	✓	✓	✓	✓	✓	✓			
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Steve Terry Steve Terry

Shipment Method:

Required Turnaround Time: (Check Box) ☐ Other ☑ Std 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
	6-25-09	8:30		10 Day TAT.
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler ID / Cooler Temp.
	6/26/09	8:15		
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

QC Package: (Check One Box Below)
☑ Level II Std QC ☐ TRRP CheckList
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other _____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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Date: *31-Jul-09*

Client: Holly Energy Partners
Project: Lovington Lea Refining-Monthly
Sample ID: City Waste Water
Collection Date: 7/21/2009 08:00 AM

Work Order: 0907522
Lab ID: 0907522-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			SW8021B			Analyst: **WLR**
Benzene	**0.098**		**0.010**	**mg/L**	10	7/28/2009 03:04 PM
Toluene	**0.057**		**0.0010**	**mg/L**	1	7/24/2009 02:43 PM
Ethylbenzene	**0.048**		**0.0010**	**mg/L**	1	7/24/2009 02:43 PM
Xylenes, Total	**0.060**		**0.0030**	**mg/L**	1	7/24/2009 02:43 PM
Surr: 4-Bromofluorobenzene	*118*		*77-129*	*%REC*	1	7/24/2009 02:43 PM
Surr: 4-Bromofluorobenzene	*110*		*77-129*	*%REC*	10	7/28/2009 03:04 PM
Surr: Trifluorotoluene	*92.3*		*75-130*	*%REC*	10	7/28/2009 03:04 PM
Surr: Trifluorotoluene	*109*		*75-130*	*%REC*	1	7/24/2009 02:43 PM
ANIONS			E300			Analyst: **IGF**
Nitrogen, Nitrate (As N)	**0.248**		**0.100**	**mg/L**	1	7/22/2009 11:49 AM
Nitrogen, Nitrite (As N)	ND		0.100	mg/L	1	7/22/2009 11:49 AM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	1	7/22/2009 11:49 AM
AMMONIA AS N			SM4500 NH3-B-F			Analyst: **KKP**
Nitrogen, Ammonia (as N)	**21.4**		**0.625**	**mg/L**	5	7/29/2009 04:00 PM
OIL AND GREASE			E1664			Analyst: **KKP**
Oil and Grease	**9.17**		**2.00**	**mg/L**	1	7/30/2009 01:00 PM
SULFIDE			SM4500 S2-F			Analyst: **KKP**
Sulfide	**79.6**		**1.00**	**mg/L**	1	7/24/2009 06:00 PM
TOTAL DISSOLVED SOLIDS			M2540C			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**2,350**		**10.0**	**mg/L**	1	7/22/2009 11:00 AM
TOTAL KJELDAHL L NITROGEN			M4500 NH3 D			Analyst: **RPM**
Nitrogen, Total Kjeldahl	**19.7**		**1.00**	**mg/L**	1	7/24/2009 01:00 PM

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

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ALS Project Manager: | ALS Work Order #: 907522

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Lovington Lea Refining-Monthly	A	BTEX (8021)
Work Order		Project Number		B	Total Metals (6020/7000) Select
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	Anions (300) NO3,NO2
Send Report To	Darrell Moore	Invoice Attn	Darrell Moore	D	Ammonia
Address	509 East Main	Address	509 East Main	E	TKN
				F	Oil & Grease
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	TDS
Phone	(505) 748-3311	Phone	(505) 748-3311	H	Sulfide
Fax	(505) 746-5421	Fax	(505) 746-5421	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	City Waste Water	7/21/09	8:30	W	Y	8	✓		✓		✓	✓	✓	✓			
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Steve Terry / Steve Terry

Shipment Method:

Required Turnaround Time: (Check Box) ☐ Other ☑ Std 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
Steve Terry	7/21/09	9:30		10 Day TAT.
Relinquished by:	Date: 7/22/09	Time: 8:20	Received by (Laboratory):	

Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Cooler ID | Cooler Temp.

QC Package: (Check One Box Below)
- ☑ Level II Std QC
- ☐ Level III Std QC/Raw Data
- ☐ Level IV SW846/CLP
- ☐ Other
- ☐ TRRP Checklist
- ☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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Date: *31-Aug-09*

Client: Holly Energy Partners
Project: Lovington Lea Refining-Monthly
Sample ID: City Waste Water
Collection Date: 8/25/2009 08:00 AM

Work Order: 0908572
Lab ID: 0908572-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **WLR**
Benzene	**0.020**		**0.0010**	**mg/L**	1	8/28/2009 06:05 AM
Toluene	**0.0054**		**0.0010**	**mg/L**	1	8/28/2009 06:05 AM
Ethylbenzene	**0.027**		**0.0010**	**mg/L**	1	8/28/2009 06:05 AM
Xylenes, Total	**0.050**		**0.0030**	**mg/L**	1	8/28/2009 06:05 AM
Surr: 4-Bromofluorobenzene	*107*		*77-129*	*%REC*	1	8/28/2009 06:05 AM
Surr: Trifluorotoluene	*123*		*75-130*	*%REC*	1	8/28/2009 06:05 AM
ANIONS			**E300**			Analyst: **IGF**
Nitrate/Nitrite (as N)	ND		1.00	mg/L	10	8/26/2009 06:47 PM
Surr: Selenate (surr)	*100*		*85-115*	*%REC*	10	8/26/2009 06:47 PM
AMMONIA AS N			**SM4500 NH3-B-F**			Analyst: **KKP**
Nitrogen, Ammonia (as N)	**15.8**		**1.25**	**mg/L**	50	8/28/2009 05:00 PM
OIL AND GREASE			**E1664**			Analyst: **KKP**
Oil and Grease	**11.7**		**2.00**	**mg/L**	1	8/27/2009 03:00 PM
SULFIDE			**SM4500 S2-F**			Analyst: **KKP**
Sulfide	**3.40**		**1.00**	**mg/L**	1	8/28/2009 06:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**2,130**		**10.0**	**mg/L**	1	8/26/2009 03:00 PM
TOTAL KJELDAHL L NITROGEN			**M4500 NH3 D**			Analyst: **RPM**
Nitrogen, Total Kjeldahl	**15.5**		**1.00**	**mg/L**	1	8/29/2009 03:00 PM

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

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ALS Project Manager: | ALS Work Order #: 905572

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Lovington Lea Refining-Monthly	A	BTEX (8021)
Work Order		Project Number		B	[redacted]
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	Anions (300) NO3,NO2
Send Report To	Darrell Moore	Invoice Attn	Darrell Moore	D	Ammonia
Address	509 East Main	Address	509 East Main	E	TKN
				F	Oil & Grease
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	TDS
Phone	(505) 748-3311	Phone	(505) 748-3311	H	Sulfide
Fax	(505) 746-5421	Fax	(505) 746-5421	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	City Waste Water	8.25.09	8:30	W	Y	8	X		X	X	X	X	X	X			
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: STEVE TERRY Steve Terry

Shipment Method:

Required Turnaround Time: (Check Box) ☐ Other ☑ Std 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
Steve Terry	8.25	8:30		10 Day TAT.
Relinquished by:	Date:	Time:	Received by (laboratory):	Cooler ID: / Cooler Temp.:
			[illegible] 8/26/09 08:60	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

QC Package: (Check One Box Below)
- ☑ Level II Std QC
- ☐ Level III Std QC/Raw Data
- ☐ Level IV SW846/CLP
- ☐ Other _____
- ☐ TRRP CheckList
- ☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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Date: *28-Sep-09*

Client: Holly Energy Partners
Project: Lovington Lea Refining-Monthly
Work Order: 0909498
Sample ID: City Waste Water
Lab ID: 0909498-01
Collection Date: 9/22/2009 08:00 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **WLR**
Benzene	**0.0014**		**0.0010**	**mg/L**	1	9/24/2009 08:06 PM
Toluene	**0.0015**		**0.0010**	**mg/L**	1	9/24/2009 08:06 PM
Ethylbenzene	**0.0081**		**0.0010**	**mg/L**	1	9/24/2009 08:06 PM
Xylenes, Total	**0.027**		**0.0030**	**mg/L**	1	9/24/2009 08:06 PM
Surr: 4-Bromofluorobenzene	*95.3*		*77-129*	*%REC*	1	9/24/2009 08:06 PM
Surr: Trifluorotoluene	*120*		*75-130*	*%REC*	1	9/24/2009 08:06 PM
ANIONS			**E300**			Analyst: **IGF**
Nitrate/Nitrite (as N)	**0.291**		**0.100**	**mg/L**	1	9/23/2009 11:58 AM
Surr: Selenate (surr)	*97.2*		*85-115*	*%REC*	1	9/23/2009 11:58 AM
AMMONIA AS N			**SM4500 NH3-B-F**			Analyst: **KKP**
Nitrogen, Ammonia (as N)	**7.92**		**0.250**	**mg/L**	10	9/26/2009 03:00 PM
OIL AND GREASE			**E1664**			Analyst: **JBA**
Oil and Grease	**6.34**		**2.00**	**mg/L**	1	9/25/2009 12:02 PM
SULFIDE			**SM4500 S2-F**			Analyst: **KKP**
Sulfide	ND		1.00	mg/L	1	9/25/2009 04:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**1,810**		**10.0**	**mg/L**	1	9/25/2009 02:00 PM
TOTAL KJELDAHL L NITROGEN			**M4500 NH3 D**			Analyst: **KKP**
Nitrogen, Total Kjeldahl	**8.84**		**1.00**	**mg/L**	1	9/24/2009 11:00 AM

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

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ALS Project Manager: | ALS Work Order #: 0909498

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Lovington Lea Refining-Monthly	A	BTEX (8021)
Work Order		Project Number		B	~~Total Metals (6020/7000)~~ Select
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	Anions (300) NO3,NO2
Send Report To	Darrell Moore	Invoice Attn	Darrell Moore	D	Ammonia
Address	509 East Main	Address	509 East Main	E	TKN
				F	Oil & Grease
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	TDS
Phone	(505) 748-3311	Phone	(505) 748-3311	H	Sulfide
Fax	(505) 746-5421	Fax	(505) 746-5421	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	City Waste Water	9-22-09	8:00	W	Y	8	X		X	X	X	X	X	X			
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Steve Terry Steve Terry

Shipment Method:

Required Turnaround Time: (Check Box) ☑ Std. 10 W.K. Days ☐ 5 W.K. Days ☐ 2 W.K. Days ☐ 24 Hour ☐ other

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
Steve Terry	9.22.09	8:30		10 Day TAT.
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler ID / Cooler Temp.
			9/23/09 08:20	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

QC Package: (Check One Box Below)
☑ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035

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Date: *04-Nov-09*

Client: Holly Energy Partners
Project: Lovington Lea Refining-Monthly
Sample ID: City Water
Collection Date: 10/28/2009 08:30 AM

Work Order: 0910762
Lab ID: 0910762-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **WLR**
Benzene	**0.025**		**0.0010**	**mg/L**	1	10/30/2009 09:05 PM
Toluene	**0.020**		**0.0010**	**mg/L**	1	10/30/2009 09:05 PM
Ethylbenzene	**0.027**		**0.0010**	**mg/L**	1	10/30/2009 09:05 PM
Xylenes, Total	**0.046**		**0.0030**	**mg/L**	1	10/30/2009 09:05 PM
Surr: 4-Bromofluorobenzene	*97.0*		*77-129*	*%REC*	1	10/30/2009 09:05 PM
Surr: Trifluorotoluene	*108*		*75-130*	*%REC*	1	10/30/2009 09:05 PM
ANIONS			**E300**			Analyst: **IGF**
Nitrogen, Nitrate (As N)	**0.169**		**0.100**	**mg/L**	1	10/29/2009 10:05 PM
Nitrogen, Nitrite (As N)	ND		0.100	mg/L	1	10/29/2009 10:05 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1	10/29/2009 10:05 PM
AMMONIA AS N			**SM4500 NH3-B-F**			Analyst: **RPM**
Nitrogen, Ammonia (as N)	**7.82**		**0.625**	**mg/L**	25	11/1/2009 04:30 PM
OIL AND GREASE			**E1664**			Analyst: **JBA**
Oil and Grease	**9.57**		**2.00**	**mg/L**	1	11/3/2009
SULFIDE			**SM4500 S2-F**			Analyst: **RPM**
Sulfide	**13.4**		**1.00**	**mg/L**	1	11/2/2009 11:30 AM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**2,040**		**10.0**	**mg/L**	1	11/3/2009 01:00 PM
TOTAL KJELDAHL L NITROGEN			**M4500 NH3 D**			Analyst: **RPM**
Nitrogen, Total Kjeldahl	**11.2**		**1.00**	**mg/L**	1	11/2/2009 10:00 AM

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

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ALS Project Manager: | ALS Work Order #: 910762

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Lovington Lea Refining-Monthly	A	BTEX (8021)
Work Order		Project Number		B	~~Total Metals (6020/7000) Select~~
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	Anions (300) NO3,NO2
Send Report To	Darrell Moore	Invoice Attn	Darrell Moore	D	Ammonia
Address	501 East Main	Address	501 East Main	E	TKN
				F	Oil & Grease
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	TDS
Phone	(505) 748-3311	Phone	(505) 748-3311	H	Sulfide
Fax	(505) 746-5421	Fax	(505) 746-5421	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	City Water	10-28-09	08:30 Am	W	Y	8	X		X	X	X	X	X	X			
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Kevin Crockett Kevin Crockett

Shipment Method

Required Turnaround Time: (Check Box) ☑ Std. 10 W/C Days ☐ 5 W/C Days ☐ 2 W/C Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
Kevin Crockett	10-28-09	08:30 Am		10 Day TAT.
Relinquished by:	Date:	Time:	Received by (Laboratory):	
			10/29/09 09:10	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

Cooler ID | Cooler Temp.

QC Package: (Check One Box Below)
☑ Level II Std QC ☐ TRRP CheckList
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other _____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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Date: *10-Dec-09*

Client: Holly Energy Partners
Project: Navajo Lea Refining-Monthly
Sample ID: City Waste Water
Collection Date: 11/24/2009 08:00 AM

Work Order: 0911626
Lab ID: 0911626-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **KKP**
Benzene	0.038		0.0010	mg/L	1	11/26/2009 09:20 AM
Toluene	0.021		0.0010	mg/L	1	11/26/2009 09:20 AM
Ethylbenzene	0.025		0.0010	mg/L	1	11/26/2009 09:20 AM
Xylenes, Total	0.040		0.0030	mg/L	1	11/26/2009 09:20 AM
Surr: 4-Bromofluorobenzene	*109*		*77-129*	*%REC*	1	11/26/2009 09:20 AM
Surr: Trifluorotoluene	*114*		*75-130*	*%REC*	1	11/26/2009 09:20 AM
ANIONS			**E300**			Analyst: **IGF**
Nitrogen, Nitrate (As N)	0.140		0.100	mg/L	1	11/25/2009 12:11 PM
Nitrogen, Nitrite (As N)	ND		0.100	mg/L	1	11/25/2009 12:11 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1	11/25/2009 12:11 PM
AMMONIA AS N			**SM4500 NH3-B-F**			Analyst: **RPM**
Nitrogen, Ammonia (as N)	12.5		0.625	mg/L	25	11/28/2009 11:30 AM
OIL AND GREASE			**E1664**			Analyst: **JBA**
Oil and Grease	9.94		2.00	mg/L	1	12/8/2009 11:30 AM
SULFIDE			**SM4500 S2-F**			Analyst: **RPM**
Sulfide	1.54		1.00	mg/L	1	11/26/2009 10:30 AM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	2,340		10.0	mg/L	1	11/30/2009 06:00 PM
TOTAL KJELDAHL L NITROGEN			**M4500 NH3 D**			Analyst: **RPM**
Nitrogen, Total Kjeldahl	15.6		1.00	mg/L	1	11/30/2009 09:00 AM

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

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ALS Project Manager: | ALS Work Order #: 0911626

Customer Information		Project Information		Parameter/Method Request for Analysis
Purchase Order		Project Name	Lovington Lea Refining-Monthly	A . BTEX (8021)
Work Order		Project Number		B Total Metals (6020/7000 Series)
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C . Anions (300) NO3,NO2
Send Report To	Darrell Moore	Invoice Attn	Darrell Moore	D . Ammonia
Address	501 East Main	Address	501 East Main	E . TKN
				F . Oil & Grease
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G . TDS
Phone	(505) 748-3311	Phone	(505) 748-3311	H . Sulfide
Fax	(505) 746-5421	Fax	(505) 746-5421	I
e-Mail Address		e-Mail Address		J

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	City Waste Water	11-24-09	8:10	W	Y	8	X		X	X	X	X	X	X			
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Steve & Terry Steve & Terry | Shipment Method | Required Turnaround Time: (Check Box) Other: Std 10 WK Days, 5 WK Days, 3 WK Days, 2 WK Days, 24 Hour | Results Due Date:

Relinquished by: Steve & Terry	Date: 11-24-09	Time: 8:30	Received by:	Notes: 10 Day TAT.	
Relinquished by:	Date:	Time:	Received by (Laboratory): 11/25/09 09:15	Cooler ID:	Cooler Temp.:
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):		

QC Package: (Check One Box Below)
- [x] Level II Std QC
- [ ] Level III Std QC/Raw Data
- [ ] Level IV SW846/CLP
- [ ] Other
- [ ] TRRP CheckList
- [ ] TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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Date: *12-Jan-10*

Client: Navajo Refining Company
Project: Lovington Lea Refining-Monthly
Work Order: 0912623
Sample ID: City Waste Water
Lab ID: 0912623-01
Collection Date: 12/22/2009 08:30 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
BTEX			**SW8021B**			Analyst: **KKP**
Benzene	0.15		0.010	mg/L	10	1/5/2010 12:05 AM
Toluene	0.069		0.0010	mg/L	1	1/2/2010 05:18 AM
Ethylbenzene	0.034		0.0010	mg/L	1	1/2/2010 05:18 AM
Xylenes, Total	0.064		0.0030	mg/L	1	1/2/2010 05:18 AM
Surr: 4-Bromofluorobenzene	*115*		*77-129*	*%REC*	1	1/2/2010 05:18 AM
Surr: 4-Bromofluorobenzene	*94.6*		*77-129*	*%REC*	10	1/5/2010 12:05 AM
Surr: Trifluorotoluene	*97.3*		*75-130*	*%REC*	10	1/5/2010 12:05 AM
Surr: Trifluorotoluene	*92.2*		*75-130*	*%REC*	1	1/2/2010 05:18 AM
METALS			**SW6020**		Prep Date: **12/23/2009**	Analyst: **ALR**
Chromium	0.0163		0.00500	mg/L	1	12/24/2009 07:22 AM
ANIONS			**E300**			Analyst: **IGF**
Nitrate/Nitrite (as N)	0.137		0.100	mg/L	1	12/23/2009 12:19 PM
Surr: Selenate (surr)	*100*		*85-115*	*%REC*	1	12/23/2009 12:19 PM
AMMONIA AS N			**SM4500 NH3-B-F**			Analyst: **RPM**
Nitrogen, Ammonia (as N)	8.35		0.625	mg/L	25	1/6/2010 12:00 PM
OIL AND GREASE			**E1664**			Analyst: **JLC**
Oil and Grease	8.61		2.00	mg/L	1	1/5/2010 10:00 AM
SULFIDE			**SM4500 S2-F**			Analyst: **JBA**
Sulfide	10.2		1.00	mg/L	1	12/28/2009 01:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	2,070		10.0	mg/L	1	12/28/2009 02:00 PM
TOTAL KJELDAHL L NITROGEN			**M4500 NH3 D**			Analyst: **RPM**
Nitrogen, Total Kjeldahl	12.0		1.00	mg/L	1	1/6/2010 10:00 AM

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

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ALS Project Manager: | ALS Work Order #: 9126123

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Lovington Lea Refining-Monthly	A	BTEX (8021)
Work Order		Project Number		B	Total Metals (6020/7000) Select (Chromium)
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	Anions (300) NO3,NO2
Send Report To	Darrell Moore	Invoice Attn	Darrell Moore	D	Ammonia
Address	501 East Main	Address	501 East Main	E	TKN
				F	Oil & Grease
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	TDS
Phone	(505) 746-3311	Phone	(505) 746-3311	H	Sulfide
Fax	(505) 746-5421	Fax	(505) 746-5421	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	City Waste Water	12-22-09	8:30	W	Y	9	✓	✓	✓	✓	✓	✓	✓	✓			
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Steve Terry Steve Terry | Shipment Method | Required Turnaround Time: (Check Box) | Results Due Date:

Relinquished by: Steve Terry	Date: 12-22-09	Time: 9:00	Received By:	Notes:	
Relinquished by:	Date:	Time:	Received by (Laboratory): 12-23-09 1040	Cooler ID	Cooler Temp.
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):		

QC Package: (Check One Box Below)
- ☑ Level II Std QC
- ☐ Level III Std QC/Raw Data
- ☐ Level IV SW846/CLP
- ☐ Other
- ☐ NJDEP Checklist
- ☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note:
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Ground Water and Treatment System
Annual Monitoring Report

Navajo Refining Company, Lea Refinery
Lovington, New Mexico

April 15, 2010

Prepared for:

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Appendix B Refinery Water Well Drilling and Completion Logs

Appendix C Copies of June 2009 and January 2010 Water Quality Sampling Analytical Reports

I. Introduction

The Navajo Refining Company, Lea Refinery in Lovington, New Mexico operates under a Groundwater Discharge Plan (GW-014) issued by the New Mexico Oil Conservation Division (OCD). The location of the refinery is shown in Figure 1. The discharge plan addresses water and fluid discharges to the subsurface; spills and leaks to the ground surface; pits, ponds and below grade tanks and sumps; waste handling and other activities that have the potential to contaminate groundwater or adversely impact public health and the environment.

A condition of the discharge plan is that an annual monitoring report be submitted to the OCD by April 15th of each year. A copy of the report is also to be submitted to the City of Lovington. The information that is to be submitted with the report includes:

1. A description of the monitoring and remediation activities that occurred during the year including conclusions and recommendations.
2. Summary tables listing laboratory analytical results of all water quality sampling for each monitoring point and plots of concentration vs. time for contaminants of concern from each monitoring point*. Any WQCC constituent found to exceed the groundwater standard shall be highlighted. Copies of the most recent year's laboratory data sheets supporting plots shall also be submitted.
3. Water table (piezometric) and/or potentiometric surface elevation iso-concentration maps utilizing static water level data shall be included in the annual report to assess local and/or regional ground water flow direction(s). A corrected water table elevation shall be determined from all wells containing phase-separated hydrocarbons. Map shall show all monitoring, recovery, PSH and City of Lovington water supply wells, pertinent site features (i.e., pipelines, effluent lines, etc.) and the direction and magnitude of the hydraulic gradient. All maps shall be to scale. Chemical iso-concentration maps of any contaminants exceeding water quality standards are required.
4. Plots of water table elevation vs. time for each ground water monitoring point from monitoring data is required to assess water table fluctuations and potential for PSH smear zone development or dormancy*.
5. Monthly and cumulative flow rates and volumes from PSH and recovery wells and the total recovered to date.
6. Product thickness maps from monitoring based on the thickness of Phases-Separated Hydrocarbons (PSH) or product on ground water in all refinery recovery and monitoring wells shall be included in the report. Maps shall include isopleths to the nearest 0.5 feet or iso-concentration lines to the nearest 10 ppb for organics, 10-100 ppm for metals, TDS, etc., for product and contaminants of concern detected during monitoring.

* Plots of concentration versus time and groundwater elevation versus time are not included with this report as there are only two points of information for the newly installed wells.

7. File this report in an acceptable electronic format along with hard copies to the City of Lovington and OCD Santa Fe.

The current report is organized to first generally describe activities that occurred during the past year. This is followed by is presentation of the results of water level measurements and changes during the past year, including a graph of water level declines for the one well for which continuous water level measurements are available. Then summary tables of water quality sampling are presented together with isopleth maps of constituents exceeding water quality standards. Finally a discussion of ongoing investigation activities is presented together with report conclusions and recommendations.

II. 2009 Monitoring and Remediation Activities

A condition of the discharge plan was that a separate monitoring and remediation Environmental Status Report (ESR) be provided the agency within 9 months of permit issuance to provide an update on contaminate hydrogeology with emphasis on threats to the City of Lovington water supply from the facility. A 2009 monitoring report was presented to the agency and the City of Lovington in a meeting on October 8, 2009. The agency in an email dated October 22, 2009 evaluated the report as deficient in satisfying the permit conditions. Further communication with the agency extended the date for resubmittal of required information to November 6, 2009. Accordingly, on that date Navajo resubmitted the ESR together with separate information required by the agency.

The ESR report documented site lithology, proximity to City of Lovington and other water wells, groundwater conditions and the results of sampling conducted at the site during June 2009. The report also includes information on the area hydrogeology, the replacement of the original monitoring wells, lack of hydrocarbon product detected and possible reasons for such. Sections of that report on area hydrogeology and details of the monitor well replacement are not included in the current monitoring report.

Also submitted with the ESR was a separate document entitled "Hydrocarbon Release Investigation, Navajo Refining Company, Lea Refinery, Lovington, New Mexico." That report details investigation of spills and releases that were the subject of C-141 reports to the agency and included as an attachment to the Discharge Plan document. The status of each investigation was detailed including removal of affected soil, borehole drilling and results of soil analyses. The report provided recommendations as to further action.

The OCD responded to the submitted reports with a letter dated December 10, 2009, listing deficiencies with the submitted material and requiring additional investigation including further investigatory borings, installation of additional monitoring wells, mapping of pipelines and additional actions required to be taken to protect groundwater. Navajo is currently undertaking many of these tasks as will be described later in this report.

City of Lovington water wells surround the refinery to the southwest, west, northwest and to the east on the east side of NM Highway 18. The locations of the City's wells were shown on previously submitted Plate 1 together with other wells with information on file with the NM Office of the State Engineer. The closest water well to the Refinery is LW-9 approximately 200 feet upgradient from the refinery's north east property boundary. Wells to the west of the refinery are located 2,400 feet (LW-12, 0.45 miles) or greater from the property fence. The distances to the west range from 2,400 feet to 4,600 feet (0.9 miles). To the east, the closest well (LW-3) is about 1,100 feet (0.2 miles) and the distance from the refinery ranges from 1,100 feet to 4,000 feet. This plate is being up dated to include pipelines operated by Holly Energy Partners and Navajo and to field check all locations. This work is ongoing; therefore; updating of Plate 1, submitted with the ESR, has not been completed and is not included with this report.

III. Water Level Measurements

Water levels in the vicinity of the refinery are declining due to withdrawal of water for refinery use from wells on the property and from the City's water wells. A detailed site plan showing the location of the refinery monitoring wells is provided in Figure 2. The water level declines for two of the original monitoring wells are shown on Figure 3*. The average yearly water level decline through 2004-05 for monitor wells in the refinery process area was about 1.2 feet per year. That increased during the time period 2005-2008 to 1.3-1.4 feet per year. However, measurements of the replacement wells from April to September 2009 show a possible loss of up to 2.4 feet per year. Further, MW-1, MW-6, MW-7 and RW-1 experienced a 0.5 foot decline during the two month period July to September 2009. The average seven-month decline from June 16, 2009 to January 13, 2010 was -1.02 feet with MW-5 having the greatest decline at -1.18 feet.

The most recent water level measurements through January 13, 2010 are shown in Table 1. Maps showing water level elevations (measurements relative to mean sea level) and groundwater contours are shown in Figures 4 through 7.

IV. Groundwater Sampling

The following activities were conducted to measure groundwater levels and document the groundwater quality conditions in accordance with the OCD Groundwater Discharge Plan. The locations of the referenced wells are shown on Figure 2.

- Measured depth to groundwater in monitoring wells MW-1 through MW-14 and RW-1.
- Measured free product thickness in monitoring wells RW-1, MW-1 and MW-7. No free product or even a hydrocarbon sheen was noted.
- Collected semi-annual groundwater samples from all monitor wells plus RW-1.

* Water levels for this well are available for use as it was previously replaced and had not yet gone dry as did the other wells in the refinery process area. However, as water levels were again approaching total depth it was replaced.

- Collected groundwater samples from the refinery's North, South and East water wells.

Groundwater measurements were made on January 13. The commencement of sampling activities was delayed from late December due to illness of a key person. Sampling was conducted during the period from January 13 through January 19. However multiple sample pump failures delayed sampling of MW-6, MW-7 and RW-1 until February 2.
The monitoring wells at the Lea Refinery were gauged for depth to groundwater and total depth using a Solinst Model 101 water level meter. Monitor wells where phase-separated hydrocarbons may have been present were measured using an oil/water interface probe (Solinst Model 122).

Immediately prior to collecting groundwater samples, the monitoring wells were purged of a minimum of three well casing volumes of water using a Proactive model SS-Monsoon stainless steel pump and new, dedicated vinyl tubing. The pump was decontaminated with Alconox detergent and clean water between samples. Groundwater parameters of conductivity, temperature and pH were measured during purging operations. Multiple pump failures involving the pump and control box resulted in the three remaining wells being purged with a Grundfos Redi-Flow 2 pump and control box.

Samples taken for benzene, toluene, ethylbenzene, and total xylene (BTEX) and other volatiles analyses were transferred into air-tight, septum-sealed, 40-milliliter (ml) glass volatile organic analyte (VOA) sample vials with zero head space and preserved with HCl. Samples were placed in an ice-filled cooler immediately after collection and shipped to ALS Laboratory Group in Houston, Texas. The samples were analyzed for BTEX using EPA method SW8260. Chain of custody (COC) forms documenting sample identification numbers, collection times, and delivery times to the laboratory were completed for each set of samples.

Samples collected for semi-volatiles analysis were placed in one-liter amber glass bottles, placed on ice and shipped to the laboratory for analysis by EPA method SW8270.

Samples collected for metals and anion/Total Dissolved Solids (TDS) analyses were collected in separate containers. With the exception of mercury, metals were field filtered with a 0.45 micron filter and placed in a 250-ml plastic bottle and preserved with HNO_3. Samples for anion/TDS analysis were collected in liter plastic bottles and placed on ice. The samples were analyzed using methods EPA methods SW6020 for metals, and methods E300, SM2320B, and M2540C, respectively, for anions, alkalinity and TDS.

V. Groundwater Elevations, Flow Direction, and Hydraulic Gradient

Groundwater elevations for the current year are summarized in Table 1. Water table elevation maps (potentiometric surface) and direction of groundwater flow for June 2009 and January 2010 are depicted in Figures 4 through 7. Figures 4 and 5 cover the entire refinery while Figures 6 and 7 show water level contour details in the refinery process area.

As discussed previously, based on past measurements, the water table elevation has been declining at the rate of approximately 1.2 to 1.4 feet per year with an accelerated decline shown for the current year. Final measurements for 2009 show that the decline continued in that range with the decline in the wells not replaced averaging -1.15 feet. The reduction in the rate of decline from measurements made in early autumn 2009 may be due to reduction in area-wide pumping as withdrawals from City of Lovington and other nearby area wells typically are reduced during winter months as the demand for water in winter is less than in the summer.

Depth to groundwater occurs at approximately 105 to 110 feet below ground surface in the refinery process area. To the southeast, depth to water is 92 to 94 feet. The regional direction of flow is southeast. However, as seen in Figures 4 and 5, groundwater flow direction is influenced by the refinery pumping wells and possibly by City of Lovington wells across the highway to the northeast of the refinery. In the vicinity of MW-12, the direction is northerly. It is more easterly in the area of the north and south water wells and east-southeasterly in the refinery process area. The forthcoming installation of additional monitoring wells will provide better water level data and groundwater flow direction information in the southern area of the refinery.

In addition to a change in flow direction across the site, the hydraulic gradient also steepens in proximity to the pumping wells. In the vicinity of MW-12, the June gradient was 0.0012 ft/ft. and in January it was 0.0015 ft/ft. These values are only estimates due to the lack of good groundwater contours in that area. In the refinery process area, better water level contour data is available. In the area between MW-4 and MW-1 the gradient in June was 0.0040 ft/ft. and 0.0026 ft/ft in January. Near MW-13 the gradient was 0.0065 ft/ft in June and 0.0059 ft/ft in January. A comparison of the gradients indicates slightly flatter gradients in January which could reflect less demand for water in winter.

VI. Distribution of Hydrocarbons in Groundwater

Phase Separated Hydrocarbon (PSH) was previously present in the vicinity of the wastewater separator (figure 2). Measurements made subsequent to installation in the spring of 2009 of the new monitor wells show no PSH and no hydrocarbon sheen. These measurements were made in June, July, September and October 2009, and January and early February 2010.

Analytical results for BETX and other SW 8260 volatiles in groundwater for the current sampling event are summarized in Table 2. SW8260 naphthalene and 8270 total naphthalenes are also shown. Constituents having detectable concentrations are shown in yellow with concentrations above the New Mexico Water Quality Control Commission (WQCC) standards highlighted in boldface type. The laboratory reports and COC documentation for samples obtained by SESI are included in Appendix C.

Based on the most recent analytical data for samples collected by SESI in January 2010*, the distribution of volatile hydrocarbons at the Lea Refinery is described below:

- Volatile hydrocarbon concentrations were below the laboratory detection limit and below WQCC standards in upgradient monitoring wells MW-2 and MW-4, process area wells MW-8, MW-9 and MW-10, down-gradient wells MW-3 and MW-13, and off-gradient wells MW-5, MW-12 and MW-14. The method reporting limit for BTEX and most other volatile constituents is 0.0050 mg/L; the reporting limit for total xylenes is 0.015 mg/L.

- Volatile hydrocarbons were detected only in wells MW-6 (downgradient from the wastewater separator) and in MW-11 directly downgradient from the refinery process area. In June 2009 volatile hydrocarbons were detected in these wells plus MW-1, MW-7 and RW-1.

- Benzene concentration maps of the entire refinery area and the refinery process area are provided in Figures 8 through 11. Benzene was detected only in MW-11 (0.10 mg/L in June and 0.20 in January). Of those volatiles detected, only benzene in MW-11 exceeded a WQCC standard (0.010 mg/L).

- Naphthalene and/or methyl-naphthalene was detected in wells MW-1 and MW-6, the well directly downgradient from the wastewater separator. In the January semi-volatiles analysis for MW-1, both 1- and 2-methyl-naphthalene were detected for total naphthalenes of 0.00106 mg/L which is below the WQCC standard of 0.03 mg/L. Naphthalene was not detected in the MW-1 volatiles analysis.

  The January volatiles analysis for MW-6 detected naphthalene at 0.0099 mg/L which is a slight increase from the June concentration of 0.0075 mg/L. January semi-volatile analysis for MW-6 showed a detection of naphthalene at 0.0080 mg/L and both 1- and 2-methylnaphthalene for a total of 0.0232 mg/L which also is below the WQCC standard. This is also an increase from the June 2009 concentration of 0.0041 mg/L. Other semi-volatiles detected in MW-6 included 4-chloroaniline and acetophenone; there is not a listed water quality standard for these two constituents and the various phenols and phthalates. Phenol was not detected in MW-1, MW-6 and RW-1; however various phenolic derivatives were detected in MW-6.

- Various semi-volatile phthalates were seen in all samples, including those from the water wells. The likely source in the monitor wells was the PVC casing or the dedicated tubing. The low levels in the water wells were likely laboratory contamination. Phthalates or phthalate esters, are esters of phthalic acid and are mainly used as plasticizers (substances added to plastics to increase their flexibility, transparency, durability, and longevity). In January the semi-volatile caprolactam was detected in many samples. Caprolactam is the precursor to nylon-6; nylon-6 is widely used in fibers and plastics. The detection in January of this constituent is puzzling

* The data included with this report also includes results of sampling of three wells on February 2, 2010.

because it was not found in samples taken in June. It will be investigated during the next sampling event as we will switch from vinyl to polypropylene tubing for some of the wells.

VII. Sampling Results for Inorganic Constituents

Sampling was conducted for major cations and anions, total dissolved solids (TDS) and WQCC metals. The results of the sampling are shown in Table 3 and on constituent concentration maps presented in Figures 12 through 21. The results highlighted below:

- Results of major anion and TDS sampling in January (and February 2) showed exceedances of the chloride standard in four wells (MW-1, MW-6, MW-13 and the south water well) and a value just below the standard in MW-2. TDS exceeded the standard in MW-1, MW-6, MW-13 and the south water well, and was just below the standard in MW-2. Fluoride exceeded the WQCC standard in MW-3 and slightly exceeded the standard in MW-9. These results are only slightly different from the June 2009 sampling results.

- Analytical results of sampling for WQCC metals showed no detections in excess of WQCC standards except for manganese in wells MW-1, MW-6 and MW-11 and iron in MW-6. Manganese exceeded the standard (0.02 mg/L) in MW-1 and MW-6 in both the June and January samplings and in MW-11 only in June. Iron in MW-6 exceeded the standard (1.0 mg/L) only in the February 2 sample. These wells also have dissolved phase hydrocarbon impacts which most likely have changed the groundwater environment in the immediate proximity of the wells from aerated to anoxic conditions. Manganese and iron in the environment commonly becomes soluble in the absence of oxygen.

Chloride concentration maps of the refinery and refinery process area are shown in Figures 12 through 15. The maps show chloride concentrations exceeding 200 mg/L in the vicinity of the refinery process area. Within the process area, Navajo has replaced and tested the wastewater sewer system and the oil desalter sumps. However, well MW-2 with concentrations approaching or slightly exceeding the standard of 250 mg/L is upgradient of the process area but downgradient from several older oil and gas production areas located just to the northwest and outside the refinery boundary.

The chloride and total dissolved solids exceedances at both MW-1 and MW-6 are puzzling. These values have significantly increased from sampling conducted in June 2009 (Table 3). Adjacent wells MW-7 and RW-1 (located within 15-20 of MW-1) do not show similar concentrations. All wells were completed in the same manner and are screened over the same interval. However, a clue may be that a nearby injection well failed an OCD mechanical integrity test in May of 2009 (Appendix A) and plugging and abandonment was completed in February 2010. The well, Chevron LSAU #10, is located approximately 480 feet upgradient from these monitor wells (a location map for this and other oil and gas wells located within and on the periphery of the refinery is shown at

Figure 22). This well was found to have a pressure of 420 psi on the intermediate casing and, when blown down, salt water came to the surface. The well was first drilled in 1939 and the integrity of outer annular cement is unknown. However, if there was a leak to the surface, it may be that the elevated chlorides are just now impacting monitor wells in the vicinity of the wastewater separator. A new monitor well is planned for installation between the now-plugged well and the wastewater separator.

MW-13, with chloride concentration of 604 mg/L and TDS of 2,210 mg/L, is downgradient from a now-inactive oil and gas production site within the refinery itself. Both concentrations have increased from the June 2009 sampling (Table 3). In recent years the two wells, LSAU 9 and LPU 22, injected waste salt water and could be a potential source of contamination if the well casings had diminished integrity. Both of these wells are now plugged.

Information on these two oil wells and possible integrity problems was researched and summarized in Appendix D of the November 6 ESR. The south well, Lovington Paddock Unit #22, reported a tubing leak in 1997 downhole at a depth of approximately 3,120 feet. The tubing joint and adjacent joints were replaced and it passed an integrity test. However, it appears from aerial photographs presented in the ESR that the drilling mud pit was located in the vicinity of MW-13 which could be a source for chlorides seen in the well. Two new monitoring wells are being planned for this area to locate the source of the chlorides.

Lastly, the south water well continues to have just under 500 mg/L of chloride. The groundwater flow direction at that location is from southwest to northeast and numerous oil and gas production facilities exist to the south and southwest of the refinery property. There are two nearby active injection wells (LSAU 13 and LPU 33, Figure 22) and mechanical integrity reports for both wells are being researched in OCD files.

The refinery itself is not believed to be the source of the chlorides detected. There are numerous oil and gas wells on and in the vicinity of the refinery. Though the OCD has banned pits in the area since at least 1967 older discharges to unlined impoundments had the potential to migrate to groundwater and cause elevated levels of chloride and TDS. This and possible leaks in saltwater injection wells are likely the explanation for the elevated chloride and TDS concentrations seen in the vicinity of the process area and at the south water well.

VIII. Groundwater Temperature

Measurement of groundwater temperature in the vicinity of the wastewater separator has shown elevated levels as high as 28.4° centigrade (83.1° Fahrenheit) in MW-9 in August 2001. The elevated temperatures compared to normal summer temperatures of 20-22° C (68-72° F) were considered evidence of a leak in the wastewater system as the separator contained hot water.

Navajo completed emptying, cleaning and sealing the wastewater separator system in 2003. The sumps were sandblasted and coated with oil and waterproof sealants and static tested. Sampling subsequent to that time showed a decline in temperatures though measurement was difficult as water levels declined and wells dried up.

Sampling of the new wells conducted in January 2010 showed no significant difference in temperatures between monitor wells. Upgradient well MW-4 had a temperature of 20.0° C (68.0° F) at the conclusion of January purging. Temperatures in MW-1, MW-7, and RW1 (located adjacent to the separator) averaged 21.1° C (69.9° F). Following purging, downgradient wells MW-6, MW-9 and MW-3 had temperatures of 21.5, 22.6 and 21.8°C respectively (70.7, 72.7 and 71.2° F). In June 2009 the north and east water wells had temperatures of 22.5° C (72.5° F) and 20.6° C (69.1° F) respectively when sampled (temperatures were not measured in January 2010). The lack of significantly elevated temperatures in the wells at the wastewater separator leads to the conclusion that the retrofitting of the wastewater separator performed by Navajo has stopped leakage of fluids from the unit and groundwater temperatures have returned to background.

IX. Oil Recovery

Hydrocarbon product had been detected in groundwater in the vicinity of the wastewater separator at the Lea Refinery since installation of the first monitor wells in September 1995. A recovery well and an air sparge/soil vapor extraction system was installed at the facility in November 1996. The system included seven air sparge/vapor extraction wells and a Xitech oil recovery pump in RW-1 to remove the source of contamination. A total of 160 gallons of free product was recovered along with 8,870 lbs of TVHC (Total volatile hydrocarbons). The system was shut down in September 1999 because the most recent BTEX and TVHC samplings showed concentrations below detection limits and product had been mostly removed from the monitor wells.

However in 2000-2001 product again increased in the two nearby monitor wells (located within 15-20 feet of the recovery well). The Xitech pump recovered product from the RW-1 which was transferred to a storage container for further recycling to the refinery. The total volume recovered is somewhat in excess of 250 gallons (6 barrels).

In 2001 the depth to product varied depending on pump operation. Product thickness varied from less than 0.01 feet to 4.5 feet. Depth to water was 96.5 feet. However, a downgradient monitor well about 50 feet away on the other side of the wastewater separator did not detect measurable hydrocarbon and very little dissolved phase hydrocarbon.

By 2007 the water table in the vicinity of the recovery well had declined so that product and water in the two monitor wells (MW-1 and MW-7) was not detected (i.e. they were dry). In 2008 the water and product levels in the recovery well (RW-1) had declined so that the installed recovery pump could no longer recover product. At the time of the last measurements of the old wells on March 17, 2009, MW-1 and MW-7 remained dry and

in recovery well RW-1 product was 0.6 feet thick and there was slightly over 3 feet of fluid in the well.

Groundwater measurements made in April, June, July, September and October 2009, and January and early February 2010 have not shown any hydrocarbon product in any of the three replacement wells. These measurements are shown Table 1. Measurements for these three wells are planned to be made quarterly for the foreseeable future.

A plausible reason for the absence of product in the wells is that the leak had been stopped and what was seen in the old wells was oil from the leak seeping through the intervening sandy material to the water table. By drilling new wells adjacent to the old ones, oil in the formation was removed in the drilling process and what is left there is mainly held by capillary forces and little or none will drain by gravity. The design of the wells is such that any further leaks will be detected during quarterly measurements to allow early remedial action and product recovery.

X. Potential Receptors

Neither hydrocarbon product nor a dissolved phase hydrocarbon plume has been detected during the current investigation. However, if a plume was detected, the nearest receptor is the refinery's north water supply well located about 1,000 feet downgradient of the release previously described in Section IX above. The water supply is monitored quarterly for drinking water parameters but is not used for drinking water. A current rate of pumpage was not available for inclusion in this report but will be researched for future submittals.

Locations of the City of Lovington water supply wells were supplied with the ESR (Plate 1). The nearest well, Lovington #9 is about 1,330 feet from MW-11 and 1,430 feet from the area of the wastewater separator release. This well is not considered a potential receptor as localized groundwater flow is southeast toward the Navajo pumping water wells. The other identified water supply wells are not presently considered potential receptors based on their distance from the refinery and current information on groundwater flow direction. This information and conclusion will be reevaluated following the installation of additional monitoring wells and plotting of groundwater flow directions.

XI. Conclusions

- With the exception of MW-11, benzene concentrations in all wells are below method reporting levels and below WQCC and EPA drinking water standards. The January 2010 level in MW-11 is 20 times the WQCC standard and is likely due to past releases in the refinery process area. Navajo is retrofitting the process units during refinery expansion and to comply with other provisions of the discharge plan to prevent spills and leaks.

- No hydrocarbon product has been found or hydrocarbon sheens detected in the replacement monitor wells adjacent to the wastewater separator. Groundwater

temperatures in these wells are comparable to temperatures in monitor wells away from the area. This leads to the conclusion that the retrofitting completed by Navajo at the separator seven years ago has solved the problem of wastewater fluids and oil leaking to the groundwater. Remaining oil may be present in the vadose zone and this possibility is to be investigated with a boring program scheduled for later this spring.

- Minor dissolved concentrations of ethylbenzene and various naphthalene compounds were found in the three replacement wells located adjacent to the northwest side of the wastewater separator, and in the downgradient monitor well on the southeast side. However concentrations of these constituents are well below WQCC standards.

- No volatile organic compounds were found in the refinery water supply wells. Chloride and TDS in the south well exceed WQCC standards. Because water from the wells is used by the refinery for hand washing, showering, etc., the wells are now monitored for BETX on at least a semi-annual basis.

- Based on the groundwater flow map and sample results, it appears that the elevated concentrations of chloride and TDS in monitor wells and the south water well are from non-refinery sources. The likely source of chlorides in the process area is migration from upgradient oil production areas northwest of the refinery boundary. The likely source of chlorides in MW-13 is the now inactive oil production/injection well (including a possible drilling pit) site southeast of MW-11. The likely source of chlorides in the south water well is from oil production areas to the south and southwest of the refinery boundary. A possible source or sources for these contaminants are expected to become clearer as additional monitor wells are installed and sampled.

XII. Ongoing Investigatory Work

The following work is being performed in response to discharge plan requirements and in response to OCD's December 10, 2009 letter.

1. Mapping and identification of 23 active, inactive and plugged and abandoned oil and gas production and injection wells within the refinery and on the periphery. This work has been completed and a map showing the location and status of these well is included with this report (Figure 22).
2. Mapping and identification of all pipelines within the facility and on the periphery including crude lines, product lines and effluent lines operated by Navajo, Holly or other entities. This work is mostly completed and maps are being prepared.
3. Mapping and identification of all Navajo and Holly Energy Partners incoming and outgoing crude and product lines through the City of Lovington's well field. Included are pipelines of other operators that enter, leave or pass through the refinery. This work is mostly completed and maps are being prepared.
4. Obtaining and reviewing City of Lovington water well records for drilling and well completion information. This work is partially complete. Records of most

water wells to the north and west of the refinery have been located. Records of the three water supply wells at the refinery have been located and are included as Appendix B to this report.

5. Obtaining and reviewing pumping volumes, rates and pumping schedules for all pumping water wells previously identified. This work has not yet begun.
6. Field checking of non-City of Lovington water wells shown on Plate 1 of the Environmental Status Report. This work has not yet begun.
7. Locating and preparing to drill the monitor wells requested by OCD in their December 10 letter. Final locations are being determined after consultation by Navajo, OCD and the City of Lovington.
8. Preparing to drill investigatory boreholes at locations in the area to the wastewater separator and at other locations as specified in the December 10 letter.
9. The next semi-annual monitoring event will be scheduled for late June 2010. OCD will be notified two weeks in advance of the date of the sampling.

XIV. Report Tables and Figures

Table 1. 2009 Water Level Elevation Measurements, Navajo Refining Company, Lea Refinery, Lovington, NM

Monitor Well, Depth Below TOC (feet)	Elevation Top of Casing (TOC, feet)	Measure-ment Date	Depth to Product (feet)	Depth to Water Below TOC (feet)	Product Thickness (feet)	Corrected Depth to Water (feet)	Corrected Water Level Elev. (feet)	Change from previous (feet)	Semi-annual change (feet)
MW-1	3,838.40	04/30/09	- -	106.35	0	106.35	3,732.05	- -	
129.11		06/10/09	- -	106.49	0	106.49	3,731.91	-0.14	
		06/19/09	- -	106.68	0	106.68	3,731.72	-0.19	
		07/02/09	- -	106.75	0	106.75	3,731.65	-0.07	
		07/24/09	- -	106.84	0	106.84	3,731.56	-0.09	
		09/24/09	- -	107.31	0	107.31	3,731.09	-0.47	
		10/27/09	- -	107.44	0	107.44	3,730.96	-0.13	
		01/13/10	- -	107.57	0	107.57	3,730.83	-0.13	-0.89
MW-2	3,837.35	06/22/09	- -	104.32	0	104.32	3,733.03	- -	
126.68		01/13/10	- -	105.44	0	105.44	3,731.91	-1.12	-1.12
MW-3	3,831.65	06/18/09	- -	102.65	0	102.65	3,729.00	- -	
130.69		01/13/10	- -	103.29	0	103.29	3,728.36	-0.64	-0.64
MW-4	3,839.89	06/16/09	- -	106.79	0	106.79	3,733.10	- -	
127.94		01/13/10	- -	107.72	0	107.72	3,732.17	-0.93	-0.93
MW-5	3,819.15	06/16/09	- -	90.84	0	90.84	3,728.31	- -	
118.30		01/13/10	- -	92.02	0	92.02	3,727.13	-1.18	-1.18
MW-5 before plugging, 3.2 feet water 3/17/09									
MW-6	3,838.16	06/18/09	- -	106.64	0	106.64	3,731.52	- -	
129.71		07/24/09	- -	106.92	0	106.92	3,731.24	-0.28	
		09/24/09	- -	107.44	0	107.44	3,730.72	-0.52	
		10/27/09	- -	107.55	0	107.55	3,730.61	-0.11	
		01/13/10	- -	107.64	0	107.64	3,730.52	-0.09	-1.00
MW-6R before plugging, 4.0 feet water 3/17/09									

Table 1. 2009 Water Level Elevation Measurements, Navajo Refining Company, Lea Refinery, Lovington, NM

Monitor Well, Depth Below TOC (feet)	Elevation Top of Casing (TOC, feet)	Measure-ment Date	Depth to Product (feet)	Depth to Water Below TOC (feet)	Product Thickness (feet)	Corrected Depth to Water (feet)	Corrected Water Level Elev. (feet)	Change from previous (feet)	Semi-annual change (feet)
MW-7	3,838.42	04/30/09	- -	106.37	0	106.37	3,732.05	- -	
129.55		06/10/09	- -	106.48	0	106.48	3,731.94	-0.11	
		06/19/09	- -	106.68	0	106.68	3,731.74	-0.20	
		07/02/09	- -	106.75	0	106.75	3,731.67	-0.07	
		07/24/09	- -	106.84	0	106.84	3,731.58	-0.09	
		09/24/09	- -	107.33	0	107.33	3,731.09	-0.49	
		10/27/09	- -	107.46	0	107.46	3,730.96	-0.13	
		01/13/10	- -	107.60	0	107.60	3,730.82	-0.14	-0.92
MW-8	3,839.98	06/18/09	- -	109.37	0	109.37	3,730.61	- -	
132.56		01/13/10	- -	110.47	0	110.47	3,729.51	-1.10	-1.10
MW-9	3,835.22	06/16/09	- -	104.58	0	104.58	3,730.64	- -	
129.48		01/13/10	- -	105.61	0	105.61	3,729.61	-1.03	-1.03
MW-10	3,833.66	06/18/09	- -	102.57	0	102.57	3,731.09	- -	
127.42		01/13/10	- -	103.51	0	103.51	3,730.15	-0.94	-0.94
MW-11	3,839.56	03/17/09	- -	107.91	0	107.91	3,731.65	- -	
117.77		06/18/09	- -	108.65	0	108.65	3,730.91	-0.74	
		01/13/10	- -	109.81	0	109.81	3,729.75	-1.16	-1.16
MW-12	3,822.73	03/17/09	- -	93.75	0	93.75	3,728.98	- -	
100.71		06/16/09	- -	93.83	0	93.83	3,728.90	-0.08	
		01/13/10	- -	94.78	0	94.78	3,727.95	-0.95	-0.95
MW-13	3,837.06	03/17/09	- -	108.36	0	108.36	3,728.70	- -	
119.95		06/16/09	- -	108.58	0	108.58	3,728.48	-0.22	
		01/13/10	- -	109.68	0	109.68	3,727.38	-1.10	-1.10
MW-14	3,823.03	03/17/09	- -	93.84	0	93.84	3,729.19	- -	
105.30		06/16/09	- -	93.92	0	93.92	3,729.11	-0.08	
		01/13/10	- -	94.80	0	94.80	3,728.23	-0.88	-0.88

Table 1. 2009 Water Level Elevation Measurements, Navajo Refining Company, Lea Refinery, Lovington, NM

Monitor Well, Depth Below TOC (feet)	Elevation Top of Casing (TOC, feet)	Measure-ment Date	Depth to Product (feet)	Depth to Water Below TOC (feet)	Product Thickness (feet)	Corrected Depth to Water (feet)	Corrected Water Level Elev. (feet)	Change from previous (feet)	Semi-annual change (feet)
RW-1	3,838.48	04/30/09	- -	106.45	0	106.45	3,732.03	- -	
129.29		06/10/09	- -	106.59	0	106.59	3,731.89	-0.14	
		06/19/09	- -	106.61	0	106.61	3,731.87	-0.02	
		07/02/09	- -	106.82	0	106.82	3,731.66	-0.21	
		07/24/09	- -	106.92	0	106.92	3,731.56	-0.10	
		09/24/09	- -	107.42	0	107.42	3,731.06	-0.50	
		10/27/09	- -	107.53	0	107.53	3,730.95	-0.11	
		01/13/10	- -	107.67	0	107.67	3,730.81	-0.14	-1.06
Notes:									
1. Monitoring wells MW-1 through MW-7 installed September 1995; plugged and redrilled April 2009.									
2. Monitoring wells MW-8 through MW-10 installed March and April 1996; plugged and redrilled April 2009.									
3. Monitoring wells MW-6R, MW-11, MW-12 installed April and May 2002; MW-6R plugged April 2009.									
4. Monitoring wells MW-13 and MW-14 installed January 2004.									

Table 2. Organic Constituent Concentrations in Groundwater, Navajo Refining Company, Lea Refinery, Lovington, NM

Monitor Well	Sample Date	Benzene (mg/L)	Ethyl-benzene (mg/L)	Toluene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Total Naphthalene (8260, mg/L)	Total Naphthalene (8270, mg/L)	Other volatiles? (see notes)	Other semi-volatiles? (see notes)	Type?
MW-1	06/19/09	<0.0050	0.012	<0.0050	0.031	<0.0050	<0.0050	<0.0050	Yes	Yes	Phthaletes, phenol
	01/19/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	0.00106	No	Yes	Phthaletes, caprolactam
MW-2	06/22/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/19/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes, caprolactam
MW-3	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/14/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
(duplicate)	01/14/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes, caprolactam
MW-4	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/13/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
MW-5	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/18/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes, caprolactam
MW-6	06/18/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.0075	0.0041	Yes	Yes	Phthaletes, phenols, others
(duplicate)	06/18/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	0.0074	0.0040	Yes	Yes	Phthaletes, phenols, others
	02/02/10	<0.0050	0.013	<0.0050	<0.015	<0.0050	0.0099	0.0232	Yes	Yes	Phthaletes, phenols, others
MW-7	06/19/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	Yes	Yes	Phthaletes
	02/02/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
MW-8	06/18/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/18/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes, caprolactam
MW-9	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	0.00087	No	Yes	Phthaletes
	01/14/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
MW-10	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/13/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
MW-11	06/18/09	**0.10**	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/18/10	**0.20 E**	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes, caprolactam

Table 2. Organic Constituent Concentrations in Groundwater, Navajo Refining Company, Lea Refinery, Lovington, NM

Monitor Well	Sample Date	Benzene (mg/L)	Ethyl-benzene (mg/L)	Toluene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Total Naphthalene (8260, mg/L)	Total Naphthalene (8270, mg/L)	Other volatiles? (see notes)	Other semi-volatiles? (see notes)	Type?
MW-12	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/18/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes, caprolactam
MW-13	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/18/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes, caprolactam
MW-14	06/16/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/18/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes, caprolactam
RW-1	06/19/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	Yes	Yes	Phthaletes, phenol
	02/02/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
North Well	06/18/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/14/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
South Well	06/22/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/14/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
East Well	06/18/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
	01/14/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	<0.0050	No	Yes	Phthaletes
Trip Blanks	6, 06/09	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	- -	No	- -	- -
Trip Blanks	8, 01-02/10	<0.0050	<0.0050	<0.0050	<0.015	<0.0050	<0.0050	- -	No	- -	- -
NM WQCC Groundwater Standards (mg/L):		**0.010**	**0.75**	**0.75**	**0.62**	- -	**0.03**	**0.03**	- -	- -	

Table 2. Organic Constituent Concentrations in Groundwater, Navajo Refining Company, Lea Refinery, Lovington, NM

Monitor Well	Sample Date	Benzene (mg/L)	Ethyl-benzene (mg/L)	Toluene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Total Naphthalene (8260, mg/L)	Total Naphthalene (8270, mg/L)	Other volatiles? (see notes)	Other semi-volatiles? (see notes)	Type?
Notes:											
Yellow, constituent detected. **Bold**, exceeds NM WQCC standard											
E - Value above quantitation range											
MW-1, 06/19/09: Low level detections for 1,2,4-Trimethylbenzene (0.0067 mg/L), and 2-Butanone (0.060 mg/L)											
MW-6, 06/18/09: Low level detections for 1,2,4-Trimethylbenzene (0.0058 mg/L), 2-Butanone (0.30 mg/L) and Acetone (0.059 mg/l)											
MW-6, Duplicate 06/18/09: Low level detections for 1,2,4-Trimethylbenzene (0.0061 mg/L), 2-Butanone (0.28 mg/L) and Acetone (0.057 mg/l)											
MW-6, 02/02/10: Detections for 1,2,4-Trimethylbenzene (0.016 mg/L), 2-Butanone (0.066 mg/L), Acetone (0.19 mg/l), Isopropylbenzene (0.0088 mg/L), and n-Propylbenzene (0.0066 mg/L)											
MW-7, 06/19/09: Low level detection for 2-Butanone (0.030 mg/L)											
RW-1, 06/19/09: Low level detection for 2-Butanone (0.038 mg/L)											
Semi-volatile concentrations for current sampling shown in the appendix.											
Analyses performed by ALS Laboratory Group, Houston, Texas											

Table 3. Inorganic Constituent Concentrations in Groundwater, Navajo Refining Company, Lovington Refinery

Monitor Well	Sample Date	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)
NM WQCC Groundwater Standards:		**250**	**1.6**	**10**	**600**	**1,000**	**5.0**	**0.1**	**1.0**	**0.75**	**0.01**	**0.05**	**0.05**	**1.0**
MW-1	06/19/09	131	0.827	3.75	123	694	<0.0100	0.00914	0.147	0.175	<0.00200	<0.00500	<0.00500	<0.00500
	01/19/10	**266**	0.249	5.84	145	**1,240**	0.0202	0.00634	0.164	0.236	<0.00200	<0.00500	<0.00500	<0.00500
MW-2	06/22/09	**252**	0.765	2.69	66.8	988	0.0657	0.0386	0.0803	0.190	<0.00200	<0.00500	<0.00500	0.00621
	01/19/10	246	0.672	3.39	55.1	966	<0.0100	<0.00500	0.00500	0.191	<0.00200	<0.00500	<0.00500	<0.00500
MW-3	06/16/09	29.1	**3.38**	2.19	64.6	504	0.308	0.00815	0.115	0.160	<0.00200	0.00709	<0.00500	<0.00500
	01/14/10	49.9	**3.18**	2.11	76.5	540	0.144	0.00703	0.119	0.148	<0.00200	0.00977	<0.00500	0.121
(duplicate)	01/14/10	49.8	**3.18**	2.11	75.0	552	0.142	0.00798	0.125	0.167	<0.00200	0.0105	<0.00500	0.148
MW-4	06/16/09	28.9	0.841	1.84	61.5	422	0.180	<0.00500	0.174	0.160	<0.00200	0.00534	<0.00500	<0.00500
	01/13/10	29.3	1.10	1.67	66.7	416	0.0345	<0.00500	0.0932	0.177	<0.00200	<0.00500	<0.00500	<0.00500
MW-5	06/16/09	186	1.39	3.31	131	952	0.796	0.0233	0.0639	0.116	<0.00200	<0.00500	<0.00500	<0.00500
	01/18/10	26.4	0.781	4.91	80.6	508	<0.0100	<0.00500	0.0966	0.135	<0.00200	<0.00500	<0.00500	<0.00500
MW-6	06/18/09	188	0.113	0.678	101	844	<0.0100	0.0201	0.186	0.175	<0.00200	<0.00500	<0.00500	<0.00500
(duplicate)	06/18/09	168	<0.100	0.682	90.4	812	<0.0100	0.0221	0.200	0.192	<0.00200	<0.00500	<0.00500	<0.00500
	02/02/10	**334**	<0.100	0.822	90.2	**1,400**	<0.0200	0.0250	0.499	0.234	<0.00200	<0.00500	<0.00500	<0.00500
MW-7	06/19/09	30.6	1.12	1.66	67.2	384	<0.0100	0.00923	0.169	0.161	<0.00200	<0.00500	<0.00500	<0.00500
	02/02/10	28.0	0.854	1.72	62.2	350	<0.0200	0.00869	0.199	0.169	<0.00200	<0.00500	<0.00500	<0.00500
MW-8	06/18/09	219	0.730	3.46	73.3	798	<0.0100	0.00501	0.181	0.228	<0.00200	<0.00500	<0.00500	<0.00500
	01/18/10	151	0.493	3.80	67.6	742	<0.0100	0.00726	0.157	0.215	<0.00200	<0.00500	<0.00500	<0.00500
MW-9	06/16/09	23.0	**1.69**	0.748	73.2	380	0.0468	0.0373	0.0911	0.122	<0.00200	<0.00500	<0.00500	<0.00500
	01/14/10	23.9	**1.78**	1.72	74.4	450	0.0164	0.0351	0.0676	0.139	<0.00200	<0.00500	<0.00500	<0.00500
MW-10	06/16/09	32.2	0.878	1.83	76.5	378	<0.0200	<0.00500	0.113	0.138	<0.00200	<0.00500	<0.00500	<0.00500
	01/13/10	33.4	1.05	1.84	77.9	436	<0.0100	<0.00500	0.0815	0.162	<0.00200	<0.00500	<0.00500	<0.00500
MW-11	06/18/09	204	0.579	1.23	43.1	994	<0.0100	<0.00500	0.194	0.199	<0.00200	<0.00500	<0.00500	<0.00500
	01/18/10	164	0.527	1.37	71.4	842	<0.0100	<0.00500	0.147	0.238	<0.00200	<0.00500	<0.00500	<0.00500
MW-12	06/16/09	23.0	1.16	1.98	49.6	354	<0.0200	0.00516	0.0775	0.200	<0.00200	<0.00500	<0.00500	<0.00500
	01/18/10	26.1	1.05	2.31	49.8	398	<0.0100	<0.00500	0.0755	0.235	<0.00200	<0.00500	<0.00500	<0.00500

Table 3. Inorganic Constituent Concentrations in Groundwater, Navajo Refining Company, Lovington Refinery

Monitor Well	Sample Date	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
NM WQCC Groundwater Standards:		**1.0**	**0.05**	**0.20**	**0.002**	**1.0**	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
MW-1	06/19/09	<0.200	<0.00500	**0.974**	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.0124
	01/19/10	<0.200	<0.00500	**2.72**	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00615	0.00989
MW-2	06/22/09	<0.200	<0.00500	0.00583	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.110
	01/19/10	<0.200	<0.00500	0.00538	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0166
MW-3	06/16/09	<0.200	<0.00500	<0.00500	<0.000200	0.0151	<0.00500	<0.00500	<0.00500	--	<0.0100
	01/14/10	<0.200	<0.00500	0.00597	<0.000200	0.0200	0.00842	<0.00500	<0.00500	0.000625	0.0195
(duplicate)	01/14/10	<0.200	<0.00500	0.00699	<0.000200	0.0216	0.0096	<0.00500	<0.00500	0.000721	0.0230
MW-4	06/16/09	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.0120
	01/13/10	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00102	<0.00500
MW-5	06/16/09	0.399	<0.00500	0.0067	<0.000200	0.0103	<0.00500	<0.00500	<0.00500	--	<0.0100
	01/18/10	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
MW-6	06/18/09	0.418	<0.00500	**2.86**	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.00996
(duplicate)	06/18/09	0.219	<0.00500	**2.76**	<0.000200	<0.00500	0.00653	<0.00500	<0.00500	--	0.0141
	02/02/10	**2.08**	<0.00500	**4.51**	<0.000200	<0.00500	0.00634	<0.00500	<0.00500	0.0113	<0.00500
MW-7	06/19/09	<0.200	<0.00500	0.127	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.0137
	02/02/10	<0.200	<0.00500	0.125	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
MW-8	06/18/09	<0.200	<0.00500	0.00919	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.0458
	01/18/10	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00545
MW-9	06/16/09	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	<0.0100
	01/14/10	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.000656	<0.00500
MW-10	06/16/09	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.0127
	01/13/10	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.000911	0.0133
MW-11	06/18/09	0.571	<0.00500	**0.387**	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.0212
	01/18/10	<0.200	<0.00500	0.0559	<0.000200	<0.00500	0.0126	<0.00500	<0.00500	0.00635	<0.00500
MW-12	06/16/09	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	<0.0100
	01/18/10	<0.200	<0.00500	0.0219	<0.000200	<0.00500	0.0182	<0.00500	<0.00500	<0.00500	<0.00500

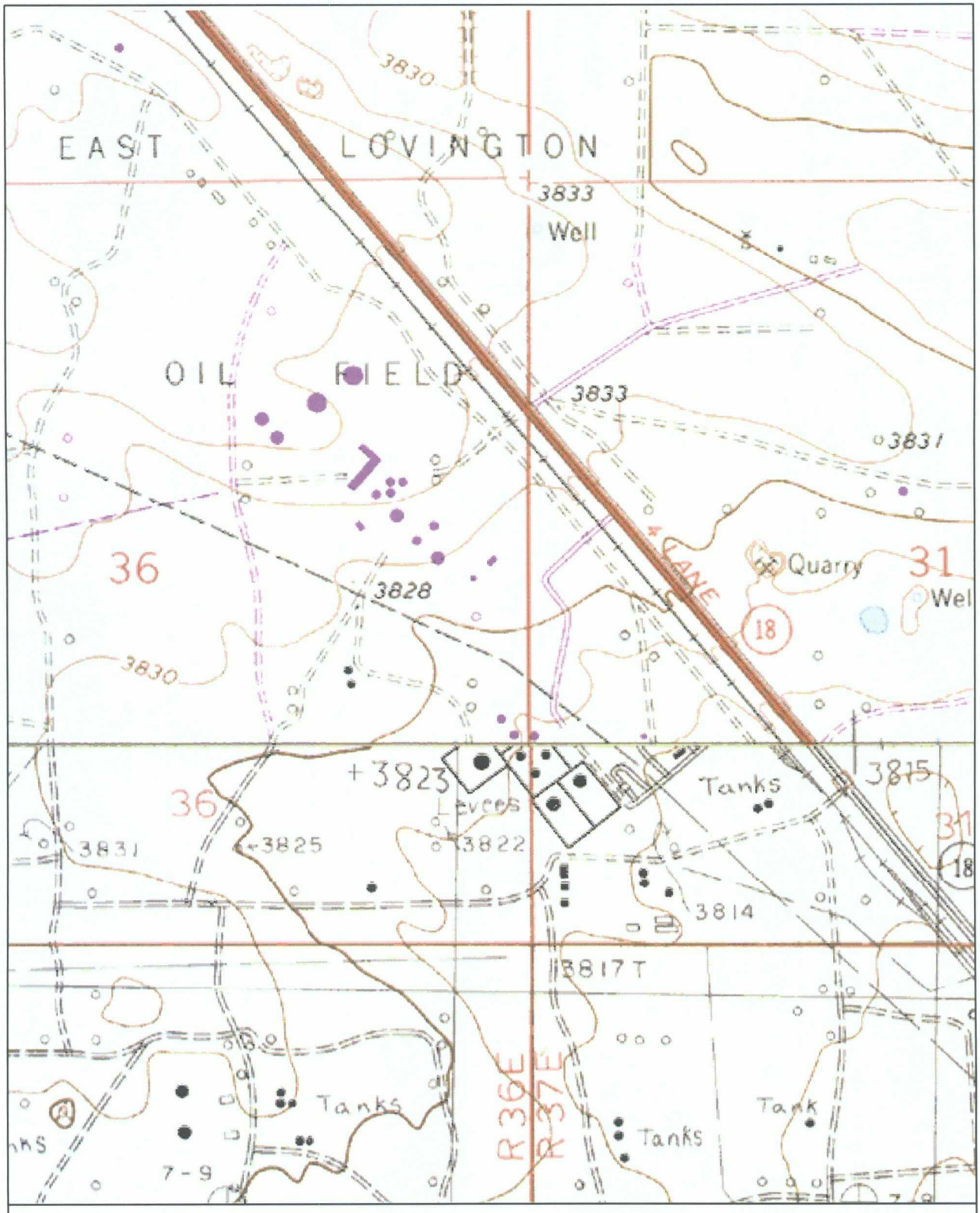
Table 3. Inorganic Constituent Concentrations in Groundwater, Navajo Refining Company, Lovington Refinery

Monitor Well	Sample Date	Chloride (mg/L)	Fluoride (mg/L)	Nitrate-Nitrite (as N, mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)
MW-13	06/16/09	**425**	0.220	2.65	138	**1,790**	<0.0200	<0.00500	0.0692	0.253	<0.00200	<0.00500	0.0285	<0.00500
	01/18/10	**604**	0.170	1.08	79.8	**2,210**	<0.0100	<0.00500	0.111	0.231	<0.00200	0.00728	0.00624	<0.00500
MW-14	06/16/09	93.0	0.851	5.16	60.9	540	<0.0200	<0.00500	0.0770	0.132	<0.00200	<0.00500	<0.00500	<0.00500
	01/18/10	103	0.810	6.03	59.0	598	<0.0100	<0.00500	0.0767	0.157	<0.00200	0.00544	<0.00500	<0.00500
RW-1	06/19/09	34.8	1.21	--	70.8	398	<0.0100	0.010	0.160	0.161	<0.00200	<0.00500	<0.00500	<0.00500
	02/02/10	34.2	0.913	1.52	66.0	388	<0.0200	0.00857	0.190	0.166	<0.00200	<0.00500	<0.00500	<0.00500
North Well	06/18/09	140	0.933	2.72	80.6	664	<0.0100	0.00536	0.0997	0.151	<0.00200	0.0104	<0.00500	<0.00500
	01/14/10	143	0.793	2.90	74.2	638	<0.0100	<0.00500	0.107	0.172	<0.00200	<0.00500	<0.00500	<0.00500
South Well	06/22/09	**497**	0.665	3.02	106	**1,450**	<0.0100	<0.00500	0.154	0.189	<0.00200	<0.00500	<0.00500	<0.00500
	01/14/10	**498**	0.686	3.27	113	**1,520**	0.0176	<0.00500	0.138	0.229	<0.00200	<0.00500	<0.00500	<0.00500
East Well	06/18/09	107	0.980	2.59	84.0	554	0.0131	<0.00500	0.0820	0.143	<0.00200	<0.00500	<0.00500	<0.00500
	01/14/10	138	0.991	2.70	72.7	676	<0.0100	<0.00500	0.0941	0.154	<0.00200	0.0119	<0.00500	0.00953
NM WQCC Groundwater Standards:		**250**	**1.6**	**10**	**600**	**1,000**	**5.0**	**0.1**	**1.0**	**0.750**	**0.01**	**0.05**	**0.05**	**1.0**
		Notes:												
		Bold highlighted, exceeds NM WQCC standard												
		Samples field filtered except for Total Mercury												
		Uranium not analyzed for 06/09 sample set												
		Analyses performed by ALS Laboratory Group, Houston, Texas												

Table 3. Inorganic Constituent Concentrations in Groundwater, Navajo Refining Company, Lovington Refinery

Monitor Well	Sample Date	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Total Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
MW-13	06/16/09	<0.200	<0.00500	0.0176	<0.000200	<0.00500	0.0126	<0.00500	<0.00500	--	0.0269
	01/18/10	<0.200	<0.00500	0.0591	<0.000200	<0.00500	0.0110	<0.00500	<0.00500	0.0119	0.00769
MW-14	06/16/09	<0.200	<0.00500	0.0199	<0.000200	0.0215	<0.00501	<0.00500	<0.00500	--	0.0255
	01/18/10	<0.200	<0.00500	0.0709	<0.000200	0.0120	0.0458	<0.00500	<0.00500	0.00513	<0.00500
RW-1	06/19/09	<0.200	<0.00500	0.0380	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.00548
	02/02/10	<0.200	<0.00500	0.0467	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
North Well	06/18/09	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	<0.00500
	01/14/10	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00134	<0.00500
South Well	06/22/09	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.0195
	01/14/10	<0.200	<0.00500	0.0224	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00236	<0.00500
East Well	06/18/09	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	--	0.0172
	01/14/10	<0.200	<0.00500	<0.00500	<0.000200	<0.00500	<0.00500	<0.00500	<0.00500	0.00111	0.0291
NM WQCC Groundwater Standards:		**1.0**	**0.05**	**0.20**	**0.002**	**1.0**	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**

Figure 1. Location Map, Lea Refinery, Navajo Refining Company Lovington, New Mexico

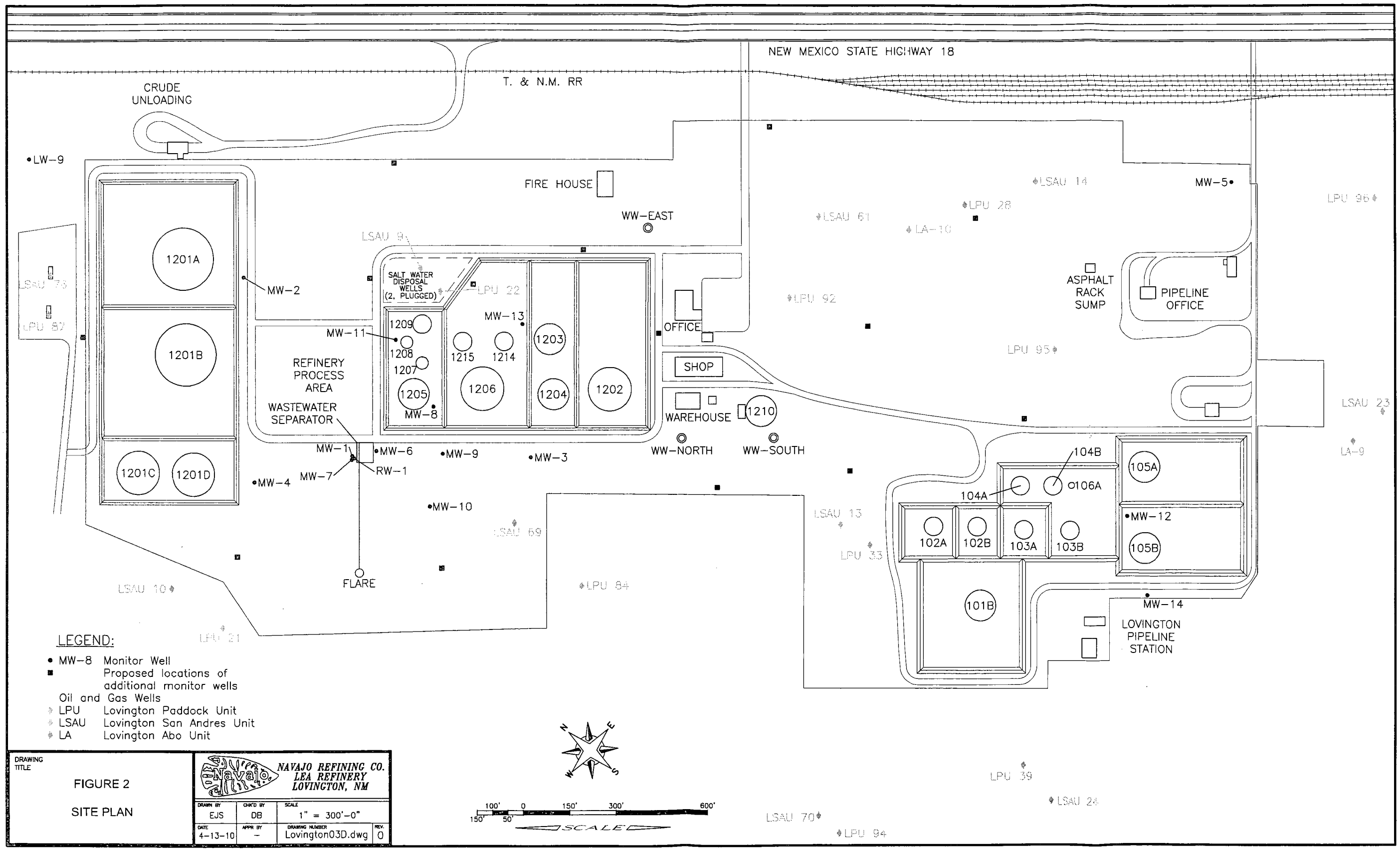


Name: LOVINGTON
Date: 4/15/2010
Scale: 1 inch equals 1000 feet

Location: 032.8777681° N 103.3002121° W NAD83
Caption: Figure 1. Location Map, Lea Refinery, Navajo Refining Company, Lovington, New Mexico

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Figure 2. Site Plan, Navajo Refining Company, Lea Refinery, Lovington, New Mexico


NEW MEXICO STATE HIGHWAY 18
T. & N.M. RR
CRUDE UNLOADING
LW-9
FIRE HOUSE
WW-EAST
LSAU 9
LSAU 14
MW-5
LPU 96
LPU 28
LSAU 61
LA-10
1201A
1201B
1201C
1201D
MW-2
LSAU 73
LPU 87
SALT WATER DISPOSAL WELLS (2, PLUGGED)
LPU 22
MW-13
MW-11
1209
1208
1207
1205
MW-8
1215
1214
1203
1206
1204
1202
REFINERY PROCESS AREA
WASTEWATER SEPARATOR
OFFICE
LPU 92
ASPHALT RACK SUMP
PIPELINE OFFICE
LPU 95
SHOP
WAREHOUSE
1210
LSAU 23
LA-9
WW-NORTH
WW-SOUTH
MW-1
MW-6
MW-9
MW-3
RW-1
MW-7
MW-4
MW-10
FLARE
LSAU 59
LSAU 13
LPU 33
104B
105A
104A
0106A
MW-12
102A
102B
103A
103B
105B
101B
MW-14
LOVINGTON PIPELINE STATION
LSAU 10
LPU 84
LPU 21
LPU 39
LSAU 24
LSAU 70
LPU 94
LEGEND:
MW-8 Monitor Well
Proposed locations of additional monitor wells
Oil and Gas Wells
LPU Lovington Paddock Unit
LSAU Lovington San Andres Unit
LA Lovington Abo Unit
N
E
S
W
100' 0 150' 300' 600'
150' 50'
SCALE
DRAWING TITLE
FIGURE 2
SITE PLAN
NAVAJO REFINING CO.
LEA REFINERY
LOVINGTON, NM
DRAWN BY EJS
CHK'D BY DB
SCALE 1" = 300'-0"
DATE 4-13-10
APPR BY -
DRAWING NUMBER Lovington03D.dwg
REV. 0

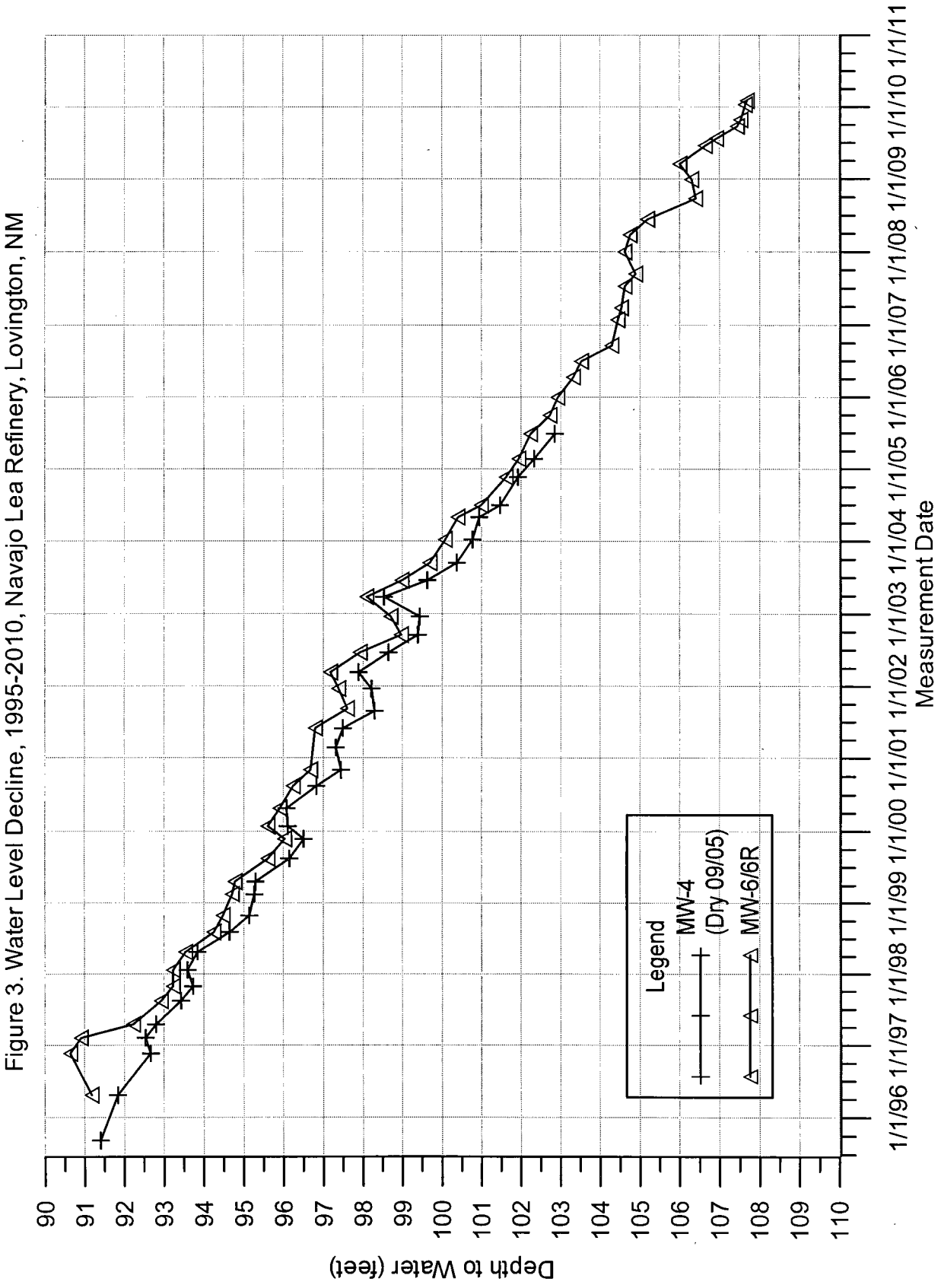
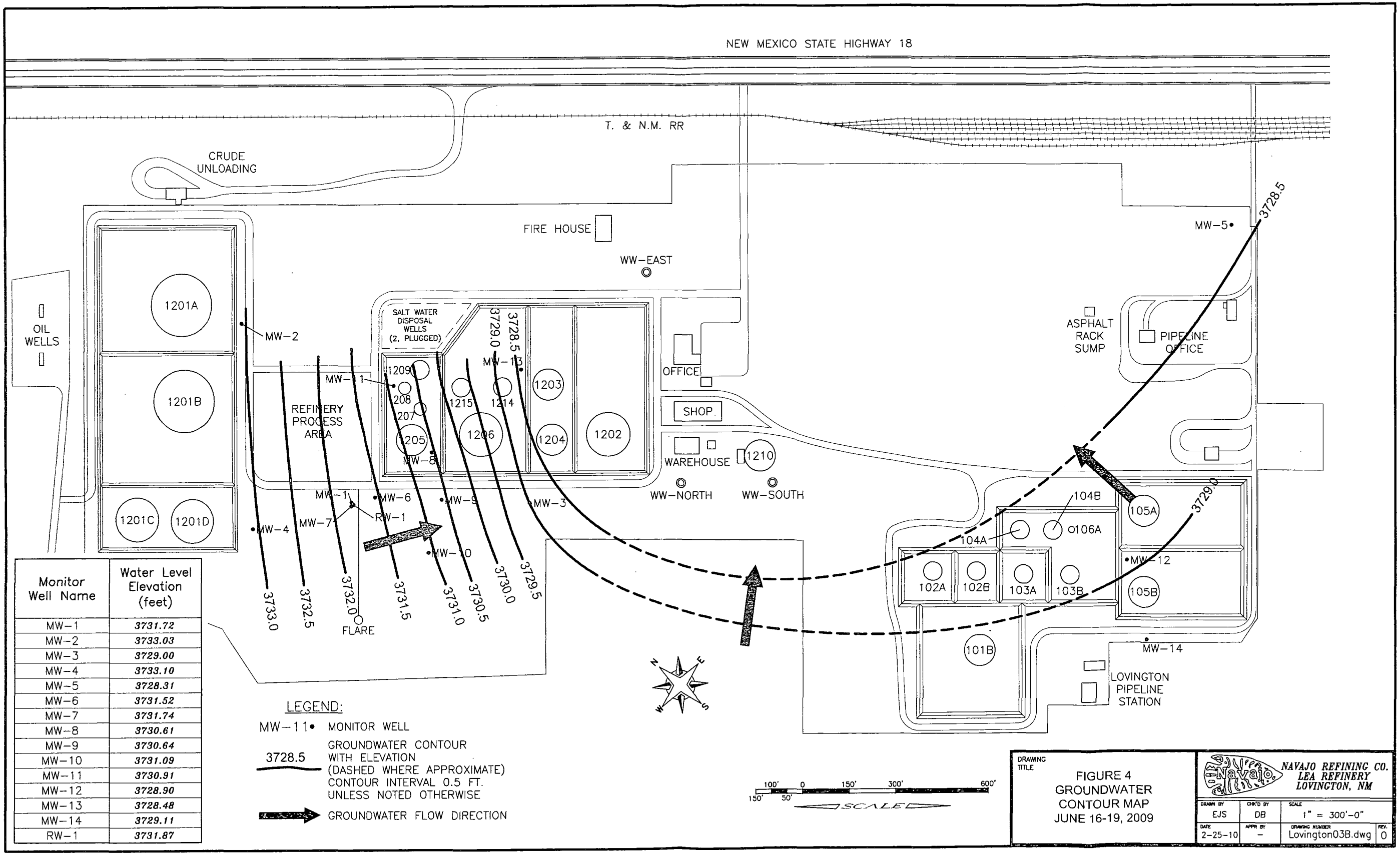

Figure 3. Water Level Decline, 1995-2010, Navajo Lea Refinery, Lovington, NM
Depth to Water (feet)
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
1/1/96 1/1/97 1/1/98 1/1/99 1/1/00 1/1/01 1/1/02 1/1/03 1/1/04 1/1/05 1/1/06 1/1/07 1/1/08 1/1/09 1/1/10 1/1/11
Measurement Date
Legend
MW-4
(Dry 09/05)
MW-6/6R

Figure 4. Groundwater Contour Map, June 16-19, 2009, Navajo Refining Company, Lea Refinery Lovington, New Mexico



Monitor Well Name	Water Level Elevation (feet)
MW-1	*3731.72*
MW-2	*3733.03*
MW-3	*3729.00*
MW-4	*3733.10*
MW-5	*3728.31*
MW-6	*3731.52*
MW-7	*3731.74*
MW-8	*3730.61*
MW-9	*3730.64*
MW-10	*3731.09*
MW-11	*3730.91*
MW-12	*3728.90*
MW-13	*3728.48*
MW-14	*3729.11*
RW-1	*3731.87*

LEGEND:

MW-11• MONITOR WELL

3728.5 GROUNDWATER CONTOUR WITH ELEVATION (DASHED WHERE APPROXIMATE) CONTOUR INTERVAL 0.5 FT. UNLESS NOTED OTHERWISE

GROUNDWATER FLOW DIRECTION

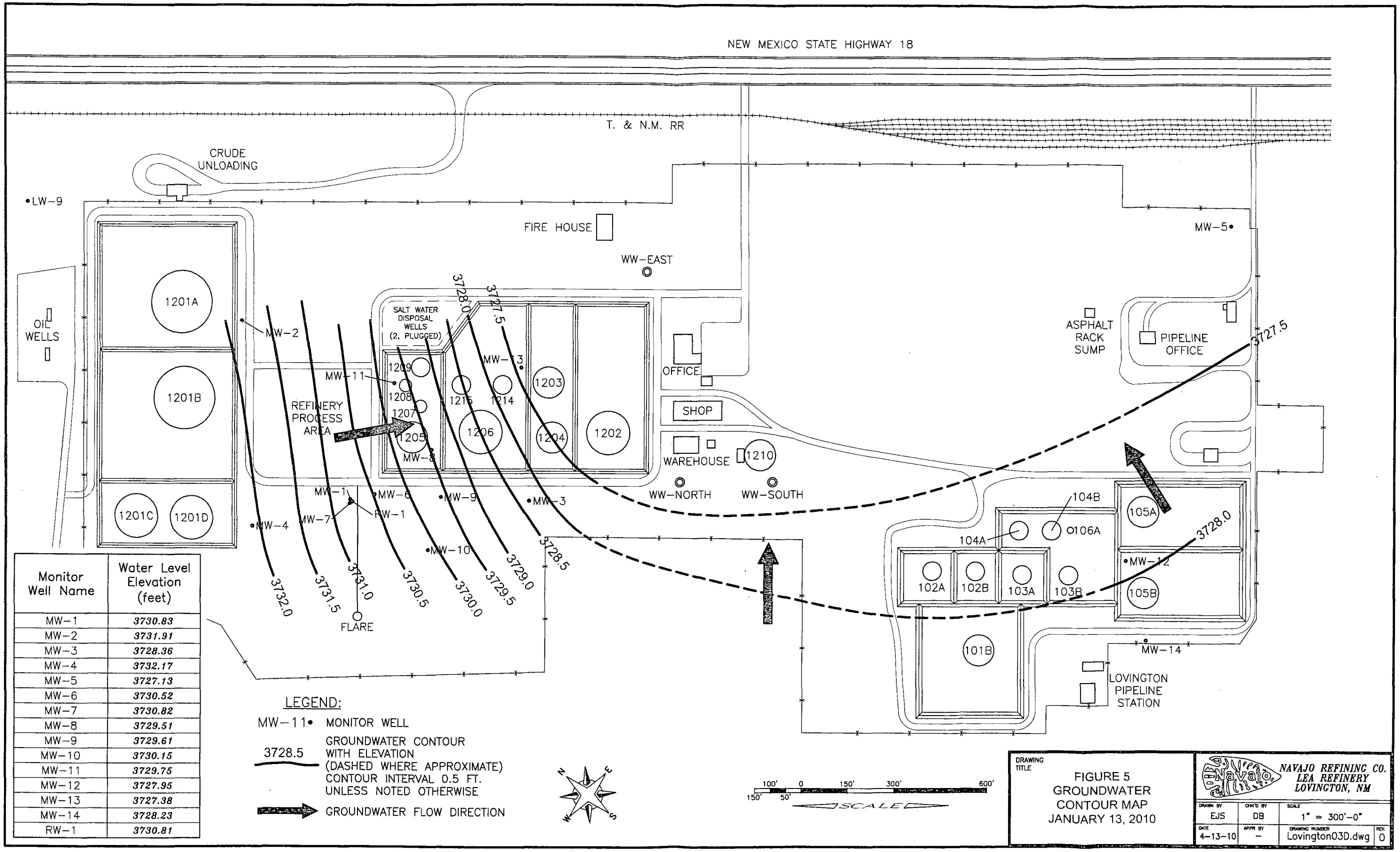
DRAWING TITLE

FIGURE 4
GROUNDWATER CONTOUR MAP
JUNE 16-19, 2009

NAVAJO REFINING CO.
LEA REFINERY
LOVINGTON, NM

DRAWN BY	CHK'D BY	SCALE
EJS	DB	1" = 300'-0"
DATE	APPR BY	DRAWING NUMBER / REV.
2-25-10	–	Lovington03B.dwg / 0

Figure 5. Groundwater Contour Map, January 13, 2010, Navajo Refining Company, Lea Refinery Lovington, New Mexico



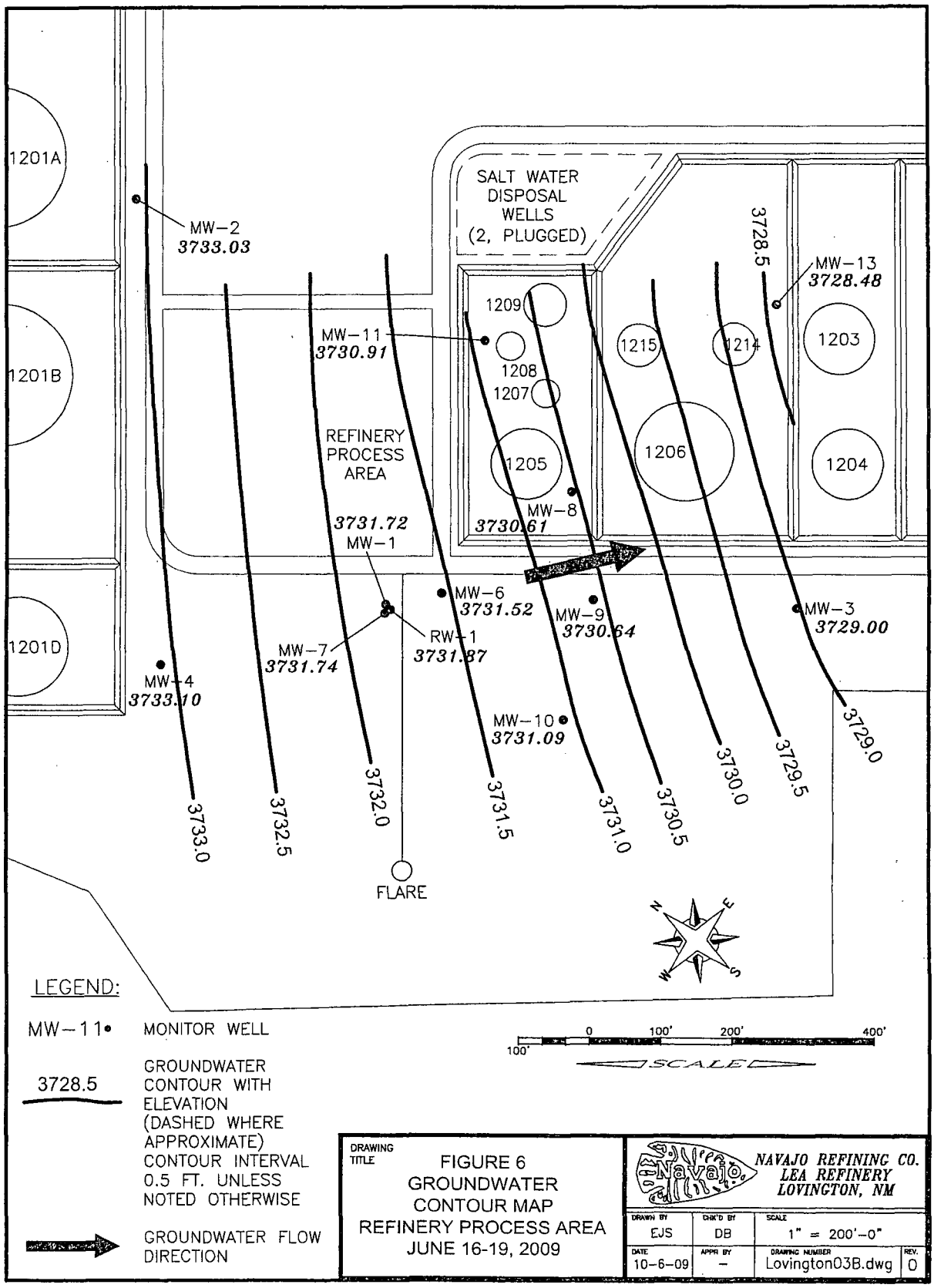
Monitor Well Name	Water Level Elevation (feet)
MW-1	*3730.83*
MW-2	*3731.91*
MW-3	*3728.36*
MW-4	*3732.17*
MW-5	*3727.13*
MW-6	*3730.52*
MW-7	*3730.82*
MW-8	*3729.51*
MW-9	*3729.61*
MW-10	*3730.15*
MW-11	*3729.75*
MW-12	*3727.95*
MW-13	*3727.38*
MW-14	*3728.23*
RW-1	*3730.81*

DRAWING TITLE

FIGURE 5
GROUNDWATER CONTOUR MAP
JANUARY 13, 2010

NAVAJO REFINING CO.
LEA REFINERY
LOVINGTON, NM

DRAWN BY	CHK'D BY	SCALE
EJS	DB	1" = 300'-0"
DATE	APPR BY	DRAWING NUMBER / REV.
4-13-10	–	Lovington03D.dwg / 0


1201A
1201B
1201D
SALT WATER DISPOSAL WELLS (2, PLUGGED)
REFINERY PROCESS AREA
MW-2
3733.03
MW-11
3730.91
MW-1
3731.72
MW-6
3731.52
MW-7
3731.74
RW-1
3731.87
MW-4
3733.10
MW-8
3730.61
MW-9
3730.64
MW-10
3731.09
MW-13
3728.48
MW-3
3729.00
1209
1208
1207
1205
1215
1214
1206
1203
1204
FLARE
3733.0
3732.5
3732.0
3731.5
3731.0
3730.5
3730.0
3729.5
3729.0
3728.5
N
E
S
W
0
100'
200'
400'
100'
SCALE
LEGEND:
MW-11 MONITOR WELL
3728.5 GROUNDWATER CONTOUR WITH ELEVATION (DASHED WHERE APPROXIMATE) CONTOUR INTERVAL 0.5 FT. UNLESS NOTED OTHERWISE
GROUNDWATER FLOW DIRECTION
DRAWING TITLE
FIGURE 6
GROUNDWATER CONTOUR MAP
REFINERY PROCESS AREA
JUNE 16-19, 2009
NAVAJO REFINING CO.
LEA REFINERY
LOVINGTON, NM
DRAWN BY EJS
CHK'D BY DB
SCALE 1" = 200'-0"
DATE 10-6-09
APPR BY -
DRAWING NUMBER Lovington03B.dwg
REV. 0

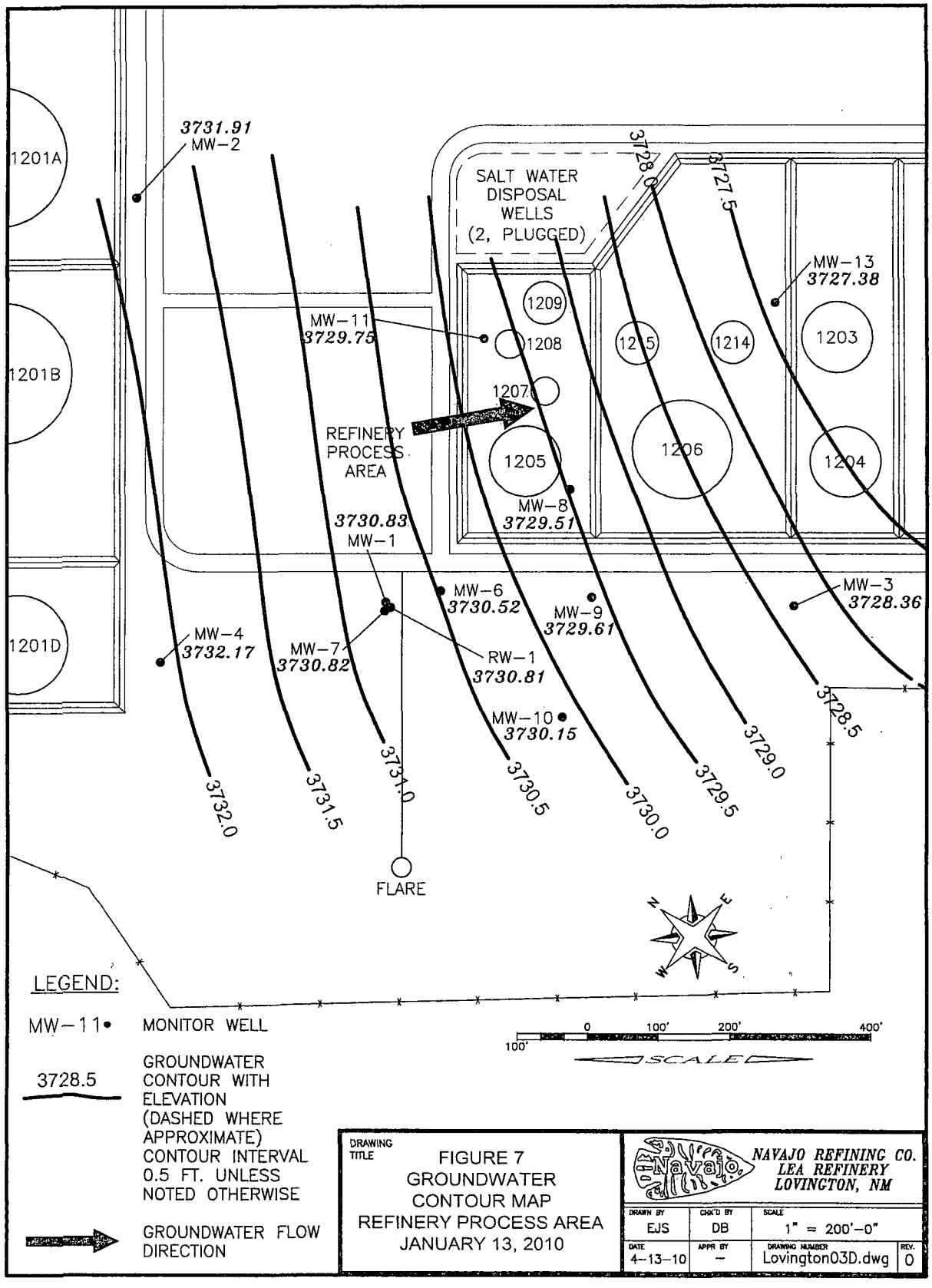
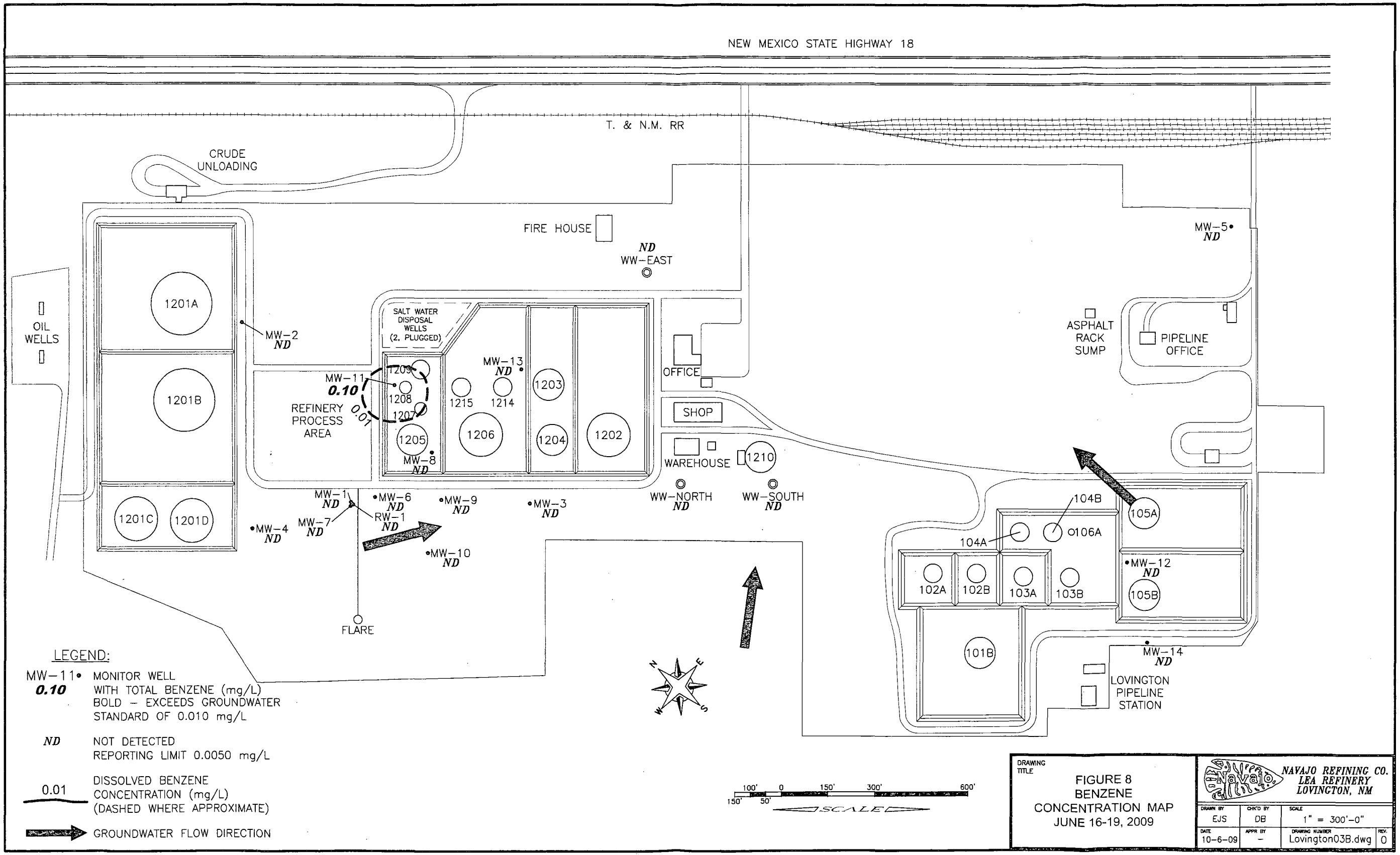

3731.91
MW-2
1201A
1201B
1201D
SALT WATER DISPOSAL WELLS (2, PLUGGED)
3728.0
3727.5
MW-13
3727.38
1209
1208
1215
1214
1203
MW-11
3729.75
1207
REFINERY PROCESS AREA
1205
1206
1204
MW-8
3729.51
3730.83
MW-1
MW-6
3730.52
MW-9
3729.61
MW-3
3728.36
MW-4
3732.17
MW-7
3730.82
RW-1
3730.81
MW-10
3730.15
3728.5
3732.0
3731.5
3731.0
3730.5
3730.0
3729.5
3729.0
FLARE
N
E
S
W
LEGEND:
MW-11• MONITOR WELL
3728.5 GROUNDWATER CONTOUR WITH ELEVATION (DASHED WHERE APPROXIMATE) CONTOUR INTERVAL 0.5 FT. UNLESS NOTED OTHERWISE
GROUNDWATER FLOW DIRECTION
0 100' 200' 400'
100'
SCALE
DRAWING TITLE
FIGURE 7
GROUNDWATER CONTOUR MAP
REFINERY PROCESS AREA
JANUARY 13, 2010
NAVAJO REFINING CO.
LEA REFINERY
LOVINGTON, NM
DRAWN BY EJS
CHK'D BY DB
SCALE 1" = 200'-0"
DATE 4-13-10
APPR BY --
DRAWING NUMBER Lovington03D.dwg
REV. 0

Figure 8. Benzene Concentration Map, June 16-19, 2009, Navajo Refining Company, Lea Refinery Lovington, New Mexico



LEGEND:

MW-11• **0.10**	MONITOR WELL WITH TOTAL BENZENE (mg/L) BOLD – EXCEEDS GROUNDWATER STANDARD OF 0.010 mg/L
ND	NOT DETECTED REPORTING LIMIT 0.0050 mg/L
0.01	DISSOLVED BENZENE CONCENTRATION (mg/L) (DASHED WHERE APPROXIMATE)
	GROUNDWATER FLOW DIRECTION

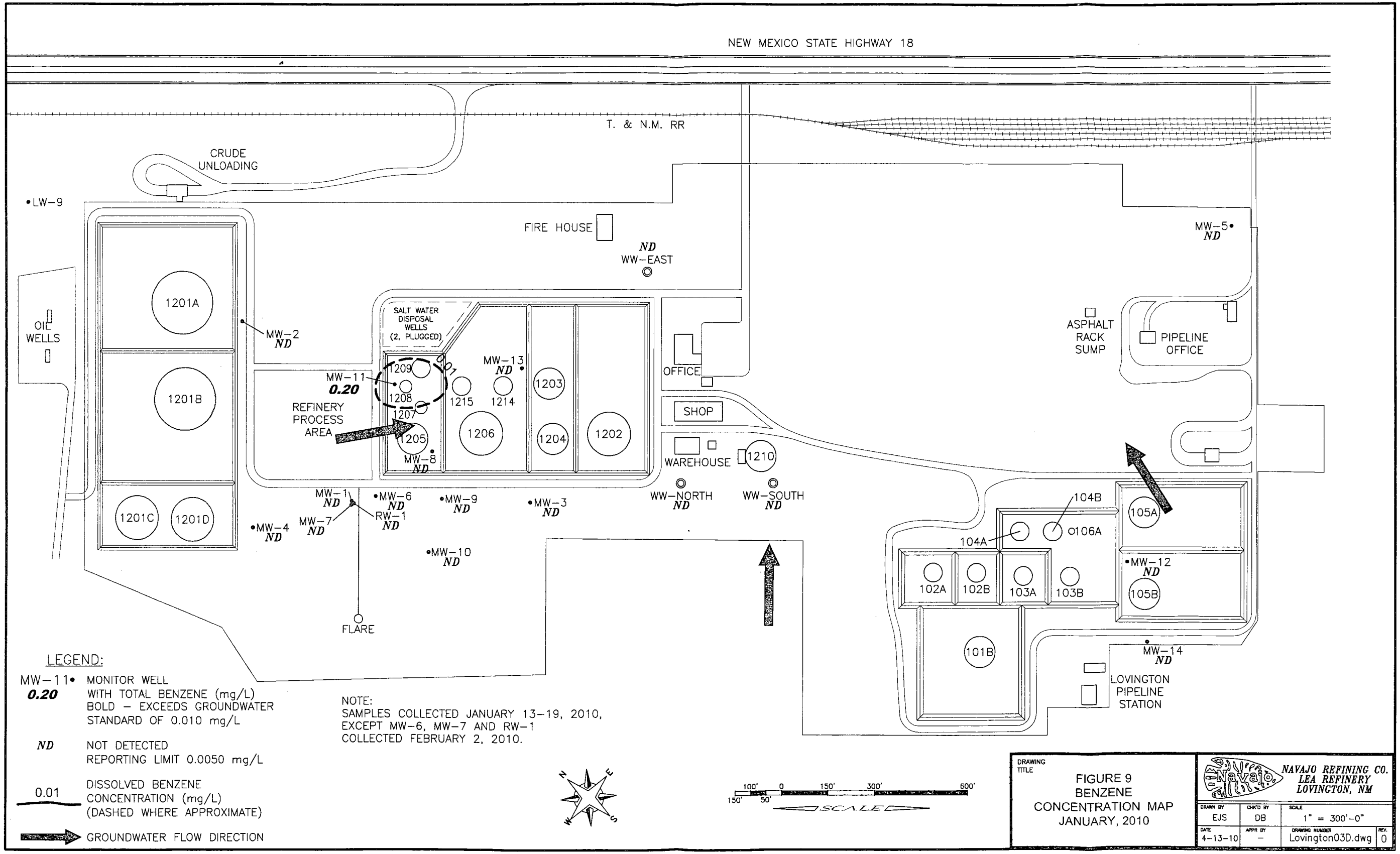
DRAWING TITLE

FIGURE 8
BENZENE
CONCENTRATION MAP
JUNE 16-19, 2009

NAVAJO REFINING CO.
LEA REFINERY
LOVINGTON, NM

DRAWN BY	CHK'D BY	SCALE
EJS	DB	1" = 300'-0"
DATE	APPR BY	DRAWING NUMBER / REV.
10-6-09	–	Lovington03B.dwg / 0

Figure 9. Benzene Concentration Map, January 2010, Navajo Refining Company, Lea Refinery Lovington, New Mexico

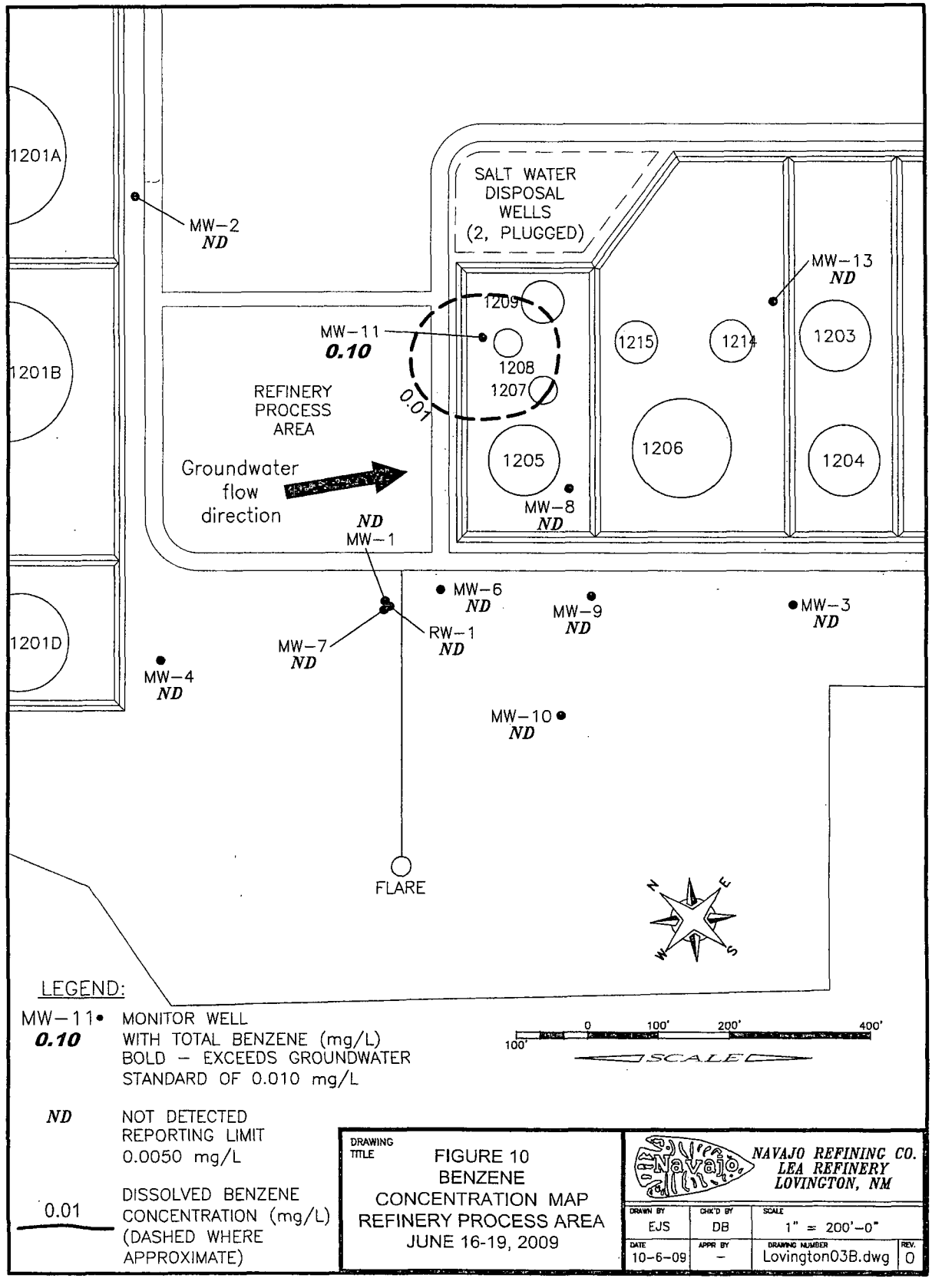


DRAWING TITLE

FIGURE 9
BENZENE
CONCENTRATION MAP
JANUARY, 2010

NAVAJO REFINING CO.
LEA REFINERY
LOVINGTON, NM

DRAWN BY	CHK'D BY	SCALE
EJS	DB	1" = 300'-0"
DATE	APPR BY	DRAWING NUMBER / REV.
4-13-10	–	Lovington03D.dwg / 0


1201A
1201B
1201D
MW-2
ND
SALT WATER DISPOSAL WELLS (2, PLUGGED)
MW-13
ND
1209
MW-11
0.10
1208
1207
1215
1214
1203
REFINERY PROCESS AREA
0.01
1206
1205
1204
Groundwater flow direction
MW-8
ND
ND
MW-1
MW-6
ND
MW-9
ND
MW-3
ND
RW-1
ND
MW-7
ND
MW-4
ND
MW-10
ND
FLARE
N
E
W
S
LEGEND:
MW-11
0.10
MONITOR WELL WITH TOTAL BENZENE (mg/L) BOLD - EXCEEDS GROUNDWATER STANDARD OF 0.010 mg/L
ND
NOT DETECTED REPORTING LIMIT 0.0050 mg/L
0.01
DISSOLVED BENZENE CONCENTRATION (mg/L) (DASHED WHERE APPROXIMATE)
100'
0
100'
200'
400'
SCALE
DRAWING TITLE
FIGURE 10
BENZENE
CONCENTRATION MAP
REFINERY PROCESS AREA
JUNE 16-19, 2009
NAVAJO REFINING CO.
LEA REFINERY
LOVINGTON, NM
DRAWN BY EJS
CHK'D BY DB
SCALE 1" = 200'-0"
DATE 10-6-09
APPR BY -
DRAWING NUMBER Lovington03B.dwg
REV. 0

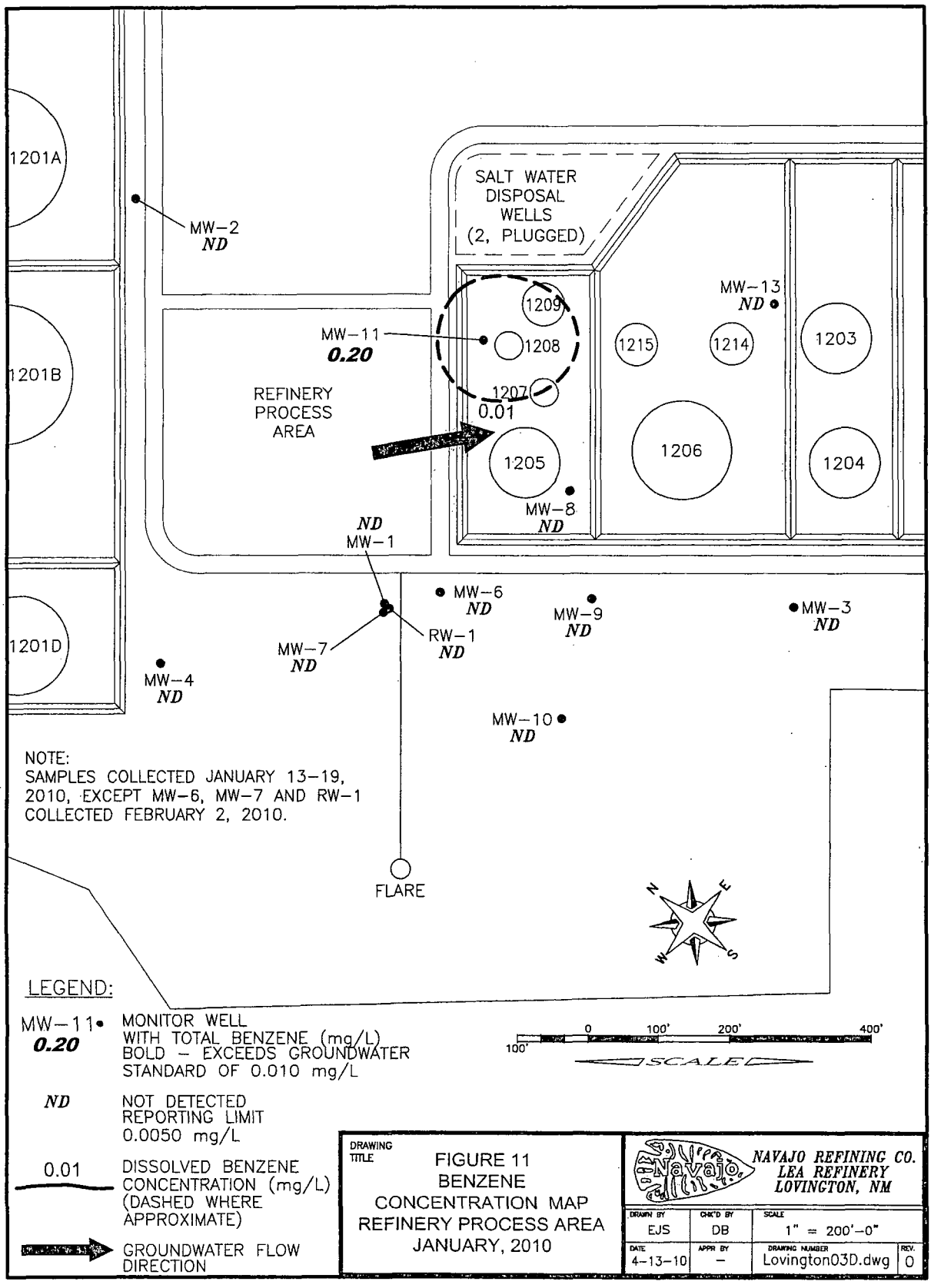

1201A
1201B
1201D
MW-2
ND
SALT WATER DISPOSAL WELLS (2, PLUGGED)
MW-13
ND
1209
MW-11
0.20
1208
1215
1214
1203
REFINERY PROCESS AREA
1207
0.01
1206
1205
1204
MW-8
ND
ND
MW-1
MW-6
ND
MW-9
ND
MW-3
ND
RW-1
ND
MW-7
ND
MW-4
ND
MW-10
ND
NOTE:
SAMPLES COLLECTED JANUARY 13-19, 2010, EXCEPT MW-6, MW-7 AND RW-1 COLLECTED FEBRUARY 2, 2010.
FLARE
N
E
S
W
LEGEND:
MW-11
0.20
MONITOR WELL WITH TOTAL BENZENE (mg/L) BOLD - EXCEEDS GROUNDWATER STANDARD OF 0.010 mg/L
ND
NOT DETECTED REPORTING LIMIT 0.0050 mg/L
0.01
DISSOLVED BENZENE CONCENTRATION (mg/L) (DASHED WHERE APPROXIMATE)
GROUNDWATER FLOW DIRECTION
100'
0
100'
200'
400'
SCALE
DRAWING TITLE
FIGURE 11
BENZENE
CONCENTRATION MAP
REFINERY PROCESS AREA
JANUARY, 2010
NAVAJO REFINING CO.
LEA REFINERY
LOVINGTON, NM
DRAWN BY EJS
CHK'D BY DB
SCALE 1" = 200'-0"
DATE 4-13-10
APPR BY -
DRAWING NUMBER Lovington03D.dwg
REV. 0

Figure 12. Chloride Concentration Map, June 16-19, 2009, Navajo Refining Company, Lea Refinery Lovington, New Mexico

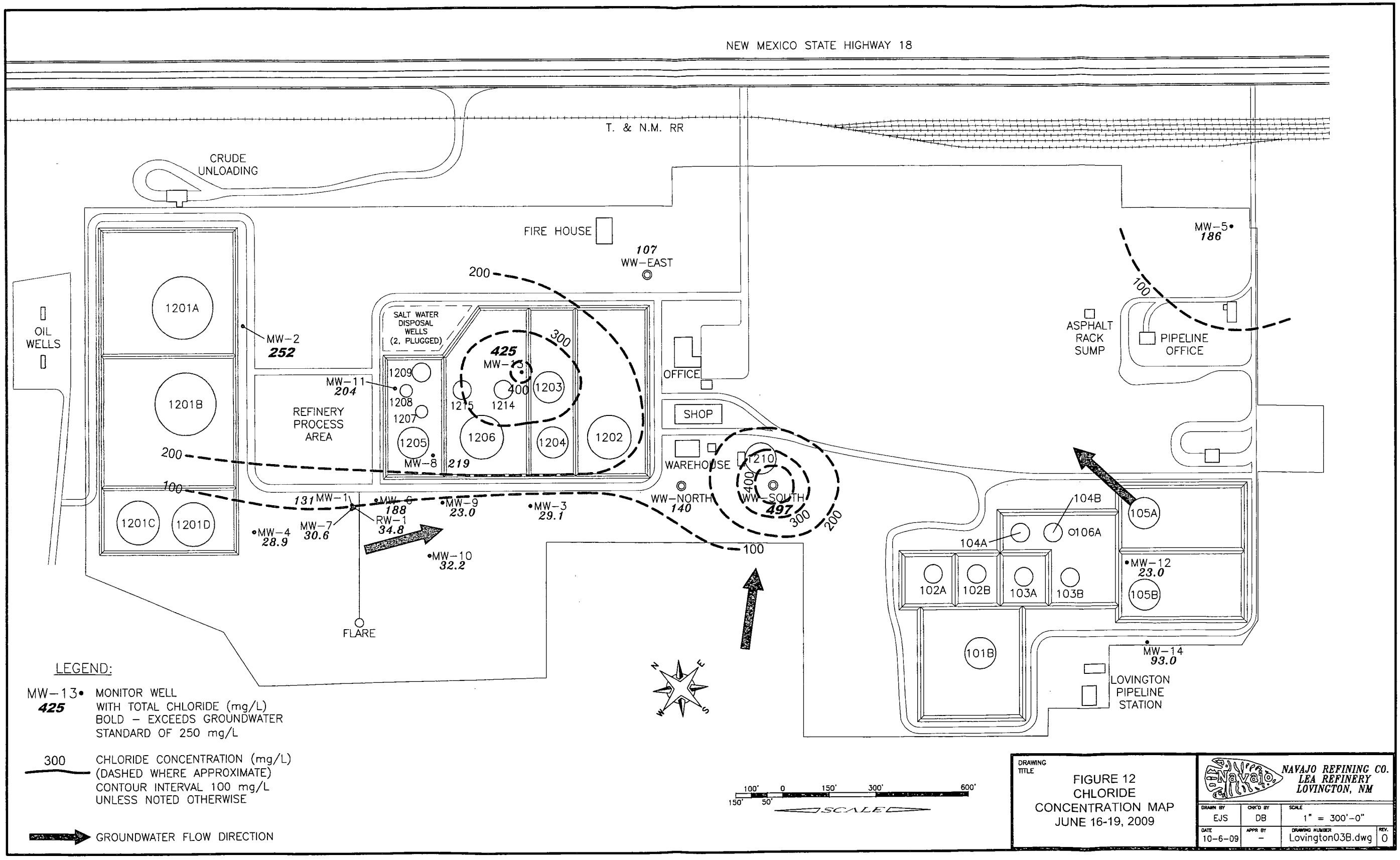
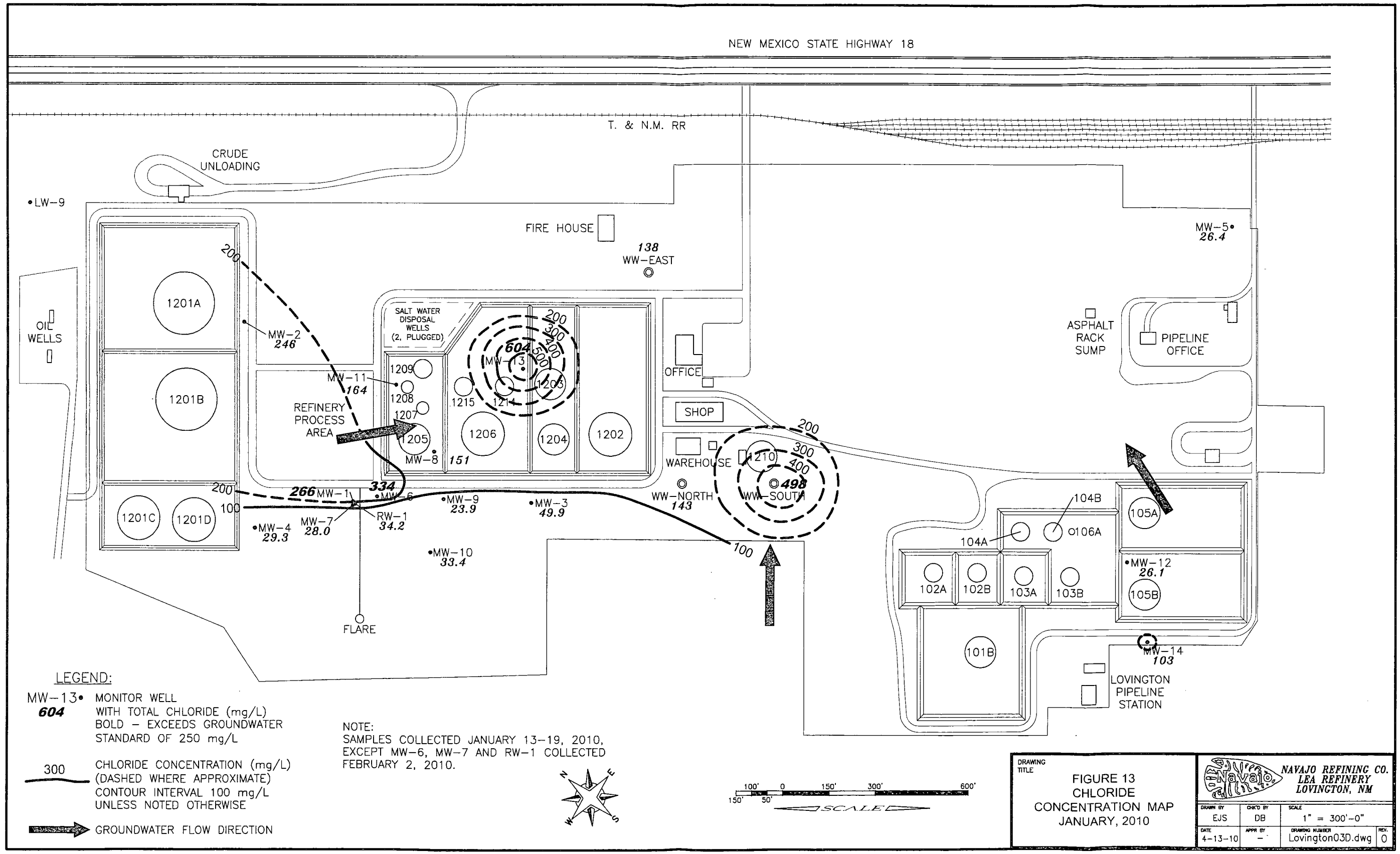
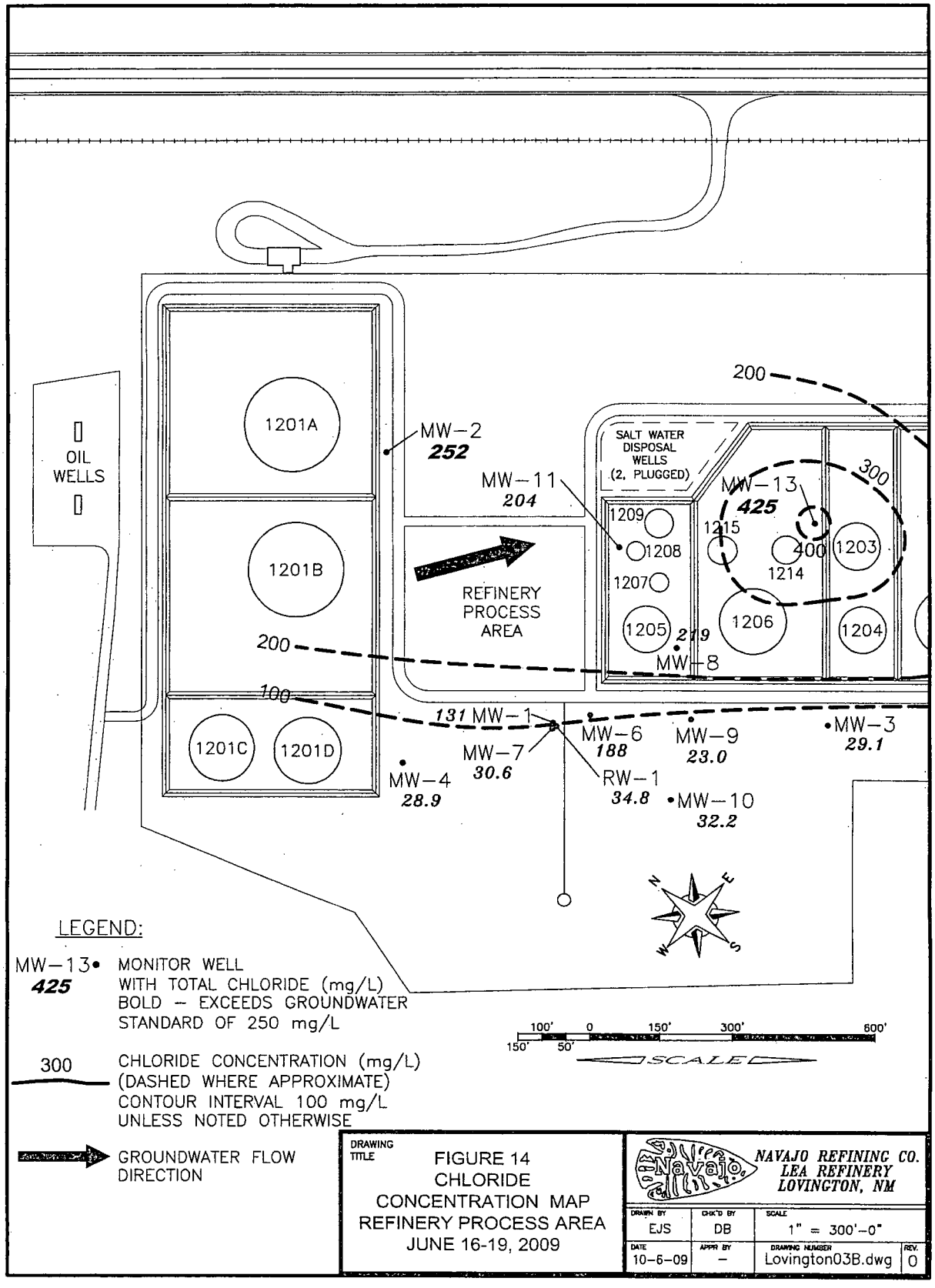

NEW MEXICO STATE HIGHWAY 18
T. & N.M. RR
CRUDE UNLOADING
FIRE HOUSE
107
WW-EAST
OIL WELLS
1201A
1201B
1201C
1201D
MW-2
252
SALT WATER DISPOSAL WELLS (2, PLUGGED)
MW-11
204
REFINERY PROCESS AREA
1209
1208
1207
1205
1206
1204
1202
1215
1214
1203
400
425
MW-13
300
200
100
MW-8
219
MW-1
131
MW-6
188
MW-9
23.0
MW-3
29.1
MW-4
28.9
MW-7
30.6
RW-1
34.8
MW-10
32.2
FLARE
OFFICE
SHOP
WAREHOUSE
1210
WW-NORTH
140
WW-SOUTH
497
400
300
200
100
MW-5
186
ASPHALT RACK SUMP
PIPELINE OFFICE
104B
105A
104A
0106A
MW-12
23.0
105B
102A
102B
103A
103B
101B
MW-14
93.0
LOVINGTON PIPELINE STATION
LEGEND:
MW-13 425 MONITOR WELL WITH TOTAL CHLORIDE (mg/L) BOLD – EXCEEDS GROUNDWATER STANDARD OF 250 mg/L
300 CHLORIDE CONCENTRATION (mg/L) (DASHED WHERE APPROXIMATE) CONTOUR INTERVAL 100 mg/L UNLESS NOTED OTHERWISE
GROUNDWATER FLOW DIRECTION
N E S W
100' 0 150' 300' 600'
150' 50'
SCALE
DRAWING TITLE
FIGURE 12
CHLORIDE
CONCENTRATION MAP
JUNE 16-19, 2009
NAVAJO REFINING CO.
LEA REFINERY
LOVINGTON, NM
DRAWN BY EJS
CHK'D BY DB
SCALE 1" = 300'-0"
DATE 10-6-09
APPR BY –
DRAWING NUMBER Lovington03B.dwg
REV. 0

Figure 13. Chloride Concentration Map, January 2010, Navajo Refining Company, Lea Refinery Lovington, New Mexico


NEW MEXICO STATE HIGHWAY 18
T. & N.M. RR
CRUDE UNLOADING
LW-9
FIRE HOUSE
138
WW-EAST
MW-5
26.4
OIL WELLS
1201A
1201B
1201C
1201D
SALT WATER DISPOSAL WELLS (2, PLUGGED)
MW-2
246
MW-11
164
REFINERY PROCESS AREA
1209
1208
1207
1205
1215
1214
1206
1204
1203
1202
MW-13
604
MW-8
151
OFFICE
SHOP
WAREHOUSE
1210
WW-NORTH
143
WW-SOUTH
498
ASPHALT RACK SUMP
PIPELINE OFFICE
104B
105A
104A
106A
MW-12
26.1
105B
102A
102B
103A
103B
101B
MW-14
103
LOVINGTON PIPELINE STATION
MW-1
266
334
MW-6
MW-9
23.9
MW-3
49.9
MW-4
29.3
MW-7
28.0
RW-1
34.2
MW-10
33.4
FLARE
200
100
300
400
500
LEGEND:
MW-13 MONITOR WELL
604 WITH TOTAL CHLORIDE (mg/L)
BOLD – EXCEEDS GROUNDWATER STANDARD OF 250 mg/L
300 CHLORIDE CONCENTRATION (mg/L) (DASHED WHERE APPROXIMATE) CONTOUR INTERVAL 100 mg/L UNLESS NOTED OTHERWISE
GROUNDWATER FLOW DIRECTION
NOTE:
SAMPLES COLLECTED JANUARY 13–19, 2010, EXCEPT MW-6, MW-7 AND RW-1 COLLECTED FEBRUARY 2, 2010.
N
E
S
W
100' 0 150' 300' 600'
150' 50'
SCALE
DRAWING TITLE
FIGURE 13
CHLORIDE CONCENTRATION MAP
JANUARY, 2010
NAVAJO REFINING CO.
LEA REFINERY
LOVINGTON, NM
DRAWN BY EJS
CHK'D BY DB
SCALE 1" = 300'-0"
DATE 4-13-10
APPR BY –
DRAWING NUMBER Lovington03D.dwg
REV. 0


1201A
1201B
1201C
1201D
OIL WELLS
REFINERY PROCESS AREA
SALT WATER DISPOSAL WELLS (2, PLUGGED)
MW-2 252
MW-11 204
MW-13 425
MW-1 131
MW-3 29.1
MW-4 28.9
MW-6 188
MW-7 30.6
MW-8 219
MW-9 23.0
MW-10 32.2
RW-1 34.8
1203
1204
1205
1206
1207
1208
1209
1214
1215
200
300
100
LEGEND:
MW-13• 425 MONITOR WELL WITH TOTAL CHLORIDE (mg/L) BOLD – EXCEEDS GROUNDWATER STANDARD OF 250 mg/L
300 CHLORIDE CONCENTRATION (mg/L) (DASHED WHERE APPROXIMATE) CONTOUR INTERVAL 100 mg/L UNLESS NOTED OTHERWISE
GROUNDWATER FLOW DIRECTION
100' 0 150' 300' 600'
150' 50'
SCALE
DRAWING TITLE
FIGURE 14
CHLORIDE CONCENTRATION MAP
REFINERY PROCESS AREA
JUNE 16-19, 2009
NAVAJO REFINING CO.
LEA REFINERY
LOVINGTON, NM
DRAWN BY EJS
CHK'D BY DB
SCALE 1" = 300'-0"
DATE 10-6-09
APPR BY –
DRAWING NUMBER Lovington03B.dwg
REV. 0

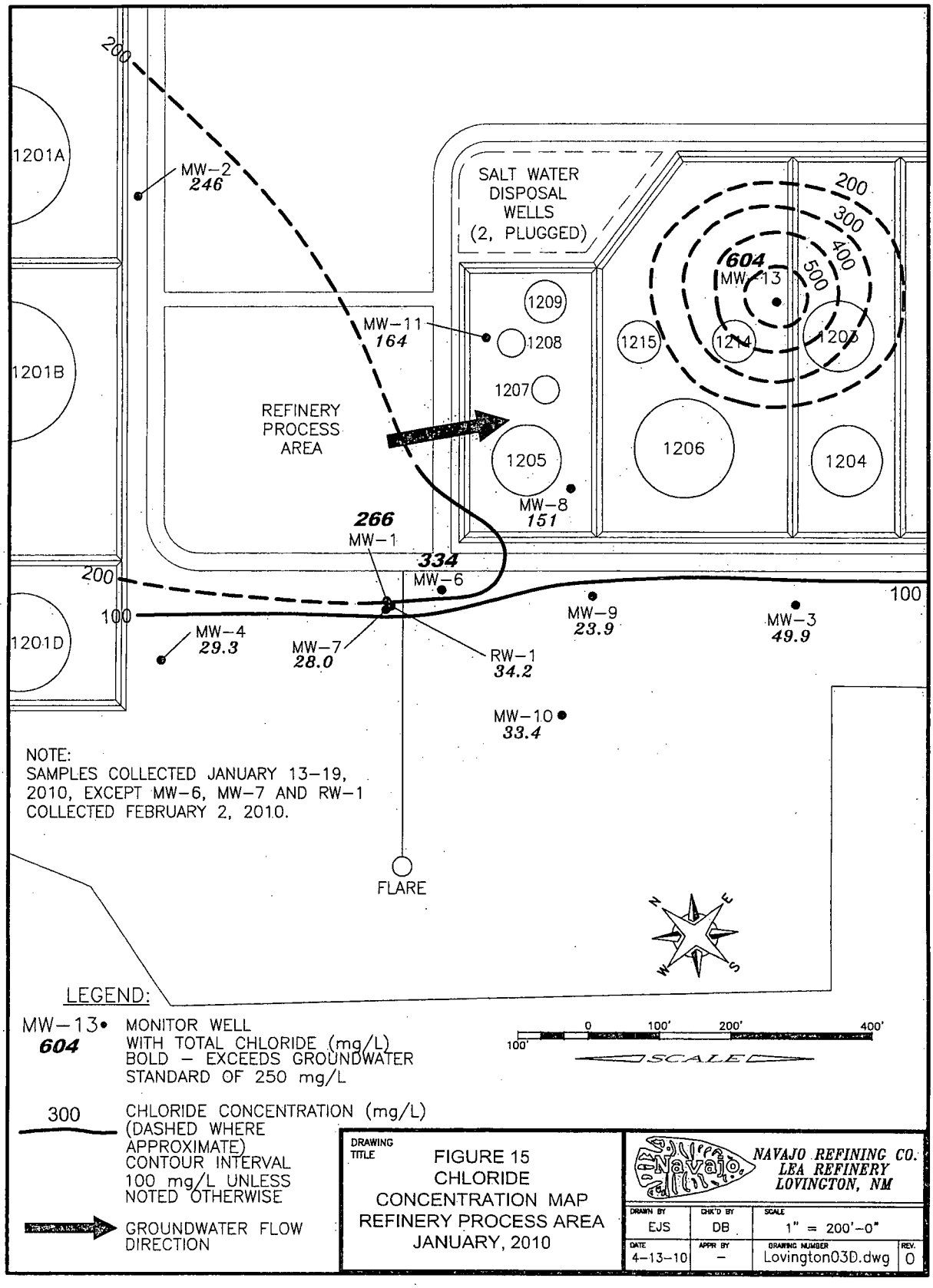

200
1201A
MW-2
246
SALT WATER
DISPOSAL
WELLS
(2, PLUGGED)
200
300
400
500
604
MW-13
1209
MW-11
164
1208
1215
1214
1203
1201B
1207
REFINERY
PROCESS
AREA
1205
1206
1204
MW-8
151
266
MW-1
334
MW-6
200
100
100
1201D
MW-4
29.3
MW-7
28.0
RW-1
34.2
MW-9
23.9
MW-3
49.9
MW-10
33.4
NOTE:
SAMPLES COLLECTED JANUARY 13-19,
2010, EXCEPT MW-6, MW-7 AND RW-1
COLLECTED FEBRUARY 2, 2010.
FLARE
N
E
W
S
LEGEND:
MW-13
604
MONITOR WELL
WITH TOTAL CHLORIDE (mg/L)
BOLD - EXCEEDS GROUNDWATER
STANDARD OF 250 mg/L
300
CHLORIDE CONCENTRATION (mg/L)
(DASHED WHERE
APPROXIMATE)
CONTOUR INTERVAL
100 mg/L UNLESS
NOTED OTHERWISE
GROUNDWATER FLOW
DIRECTION
100'
0
100'
200'
400'
SCALE
DRAWING
TITLE
FIGURE 15
CHLORIDE
CONCENTRATION MAP
REFINERY PROCESS AREA
JANUARY, 2010
NAVAJO REFINING CO.
LEA REFINERY
LOVINGTON, NM
DRAWN BY
EJS
CHK'D BY
DB
SCALE
1" = 200'-0"
DATE
4-13-10
APPR BY
-
DRAWING NUMBER
Lovington03D.dwg
REV.
0

Figure 16. Total Dissolved Solids Concentration Map, June 16-19, 2009, Navajo Refining Company, Lea Refinery Lovington, New Mexico

NEW MEXICO STATE HIGHWAY 18

T. & N.M. RR

CRUDE UNLOADING

•LW-9

FIRE HOUSE

554
WW-EAST

OIL WELLS

1201A

1201B

1201C

1201D

SALT WATER DISPOSAL WELLS (2, PLUGGED)

MW-2
988

994
MW-11

1209

1208

1207

1305

MW-8
798

REFINERY PROCESS AREA

1500

1000

1790 MW-13

1215

1214

1203

1206

1204

1202

OFFICE

SHOP

WAREHOUSE

1210

1450

1400

1200

1000

800

WW-NORTH
664

WW-SOUTH

844
MW-6

694 MW-11

422
MW-4

MW-7
384

RW-1
398

MW-9
380

MW-3
504

MW-10
378

FLARE

700
600
500
400
900
800

ASPHALT RACK SUMP

PIPELINE OFFICE

MW-5•
952

104A

104B

105A

106A

102A

102B

103A

103B

105B

MW-12
354

MW-14
540

101B

LOVINGTON PIPELINE STATION

LEGEND:

MW-13•
1790 — MONITOR WELL WITH TOTAL DISSOLVED SOLIDS CONCENTRATION (mg/L) BOLD – EXCEEDS GROUNDWATER STANDARD OF 1000 mg/L

300 — TOTAL DISSOLVED SOLIDS CONCENTRATION (mg/L) (DASHED WHERE APPROXIMATE) CONTOUR INTERVAL 100mg/L UNLESS OTHERWISE SHOWN

GROUNDWATER FLOW DIRECTION

N E S W

100' 0 150' 300' 600'
150' 50'
SCALE

DRAWING TITLE

FIGURE 16
TOTAL DISSOLVED SOLIDS CONCENTRATION MAP
JUNE 16-19, 2009

NAVAJO REFINING CO.
LEA REFINERY
LOVINGTON, NM

DRAWN BY	CHK'D BY	SCALE
EJS	DB	1" = 300'-0"
DATE	APPR BY	DRAWING NUMBER / REV.
4-13-10	–	Lovington03D.dwg / 0

Figure 17. Total Dissolved Solids Concentration Map, January 2010, Navajo Refining Company, Lea Refinery Lovington, New Mexico

NEW MEXICO STATE HIGHWAY 18

T. & N.M. RR

CRUDE UNLOADING

•LW-9

FIRE HOUSE

676
WW-EAST

MW-5 •
508

ASPHALT RACK SUMP

PIPELINE OFFICE

OIL WELLS

1201A

1201B

1201C

1201D

MW-2
966

MW-11
842

SALT WATER DISPOSAL WELLS (2, PLUGGED)

1209

1208

1207

1215

1214

1203

1202

1204

1206

205

MW-8 742

OFFICE

SHOP

WAREHOUSE

1210

WW-NORTH
638

WW-SOUTH

REFINERY PROCESS AREA

MW-1
1240

MW-6
1400

RW-1
388

MW-4
416

MW-7
350

MW-9
450

MW-3
540

MW-10
436

1520

FLARE

104A

104B

106A

105A

105B

102A

102B

103A

103B

MW-12
398

101B

MW-14
598

LOVINGTON PIPELINE STATION

800
900
1000
1500
2000
700
600
500
400

LEGEND:

MW-13•
2210
MONITOR WELL WITH TOTAL DISSOLVED SOLIDS CONCENTRATION (mg/L) BOLD – EXCEEDS GROUNDWATER STANDARD OF 1000 mg/L

300
TOTAL DISSOLVED SOLIDS CONCENTRATION (mg/L) (DASHED WHERE APPROXIMATE) CONTOUR INTERVAL 100mg/L UNLESS OTHERWISE SHOWN

GROUNDWATER FLOW DIRECTION

NOTE:
SAMPLES COLLECTED JANUARY 13–19, 2010, EXCEPT MW-6, MW-7 AND RW-1 COLLECTED FEBRUARY 2, 2010.

N E W S

100' 0 150' 300' 600'
150' 50'
SCALE

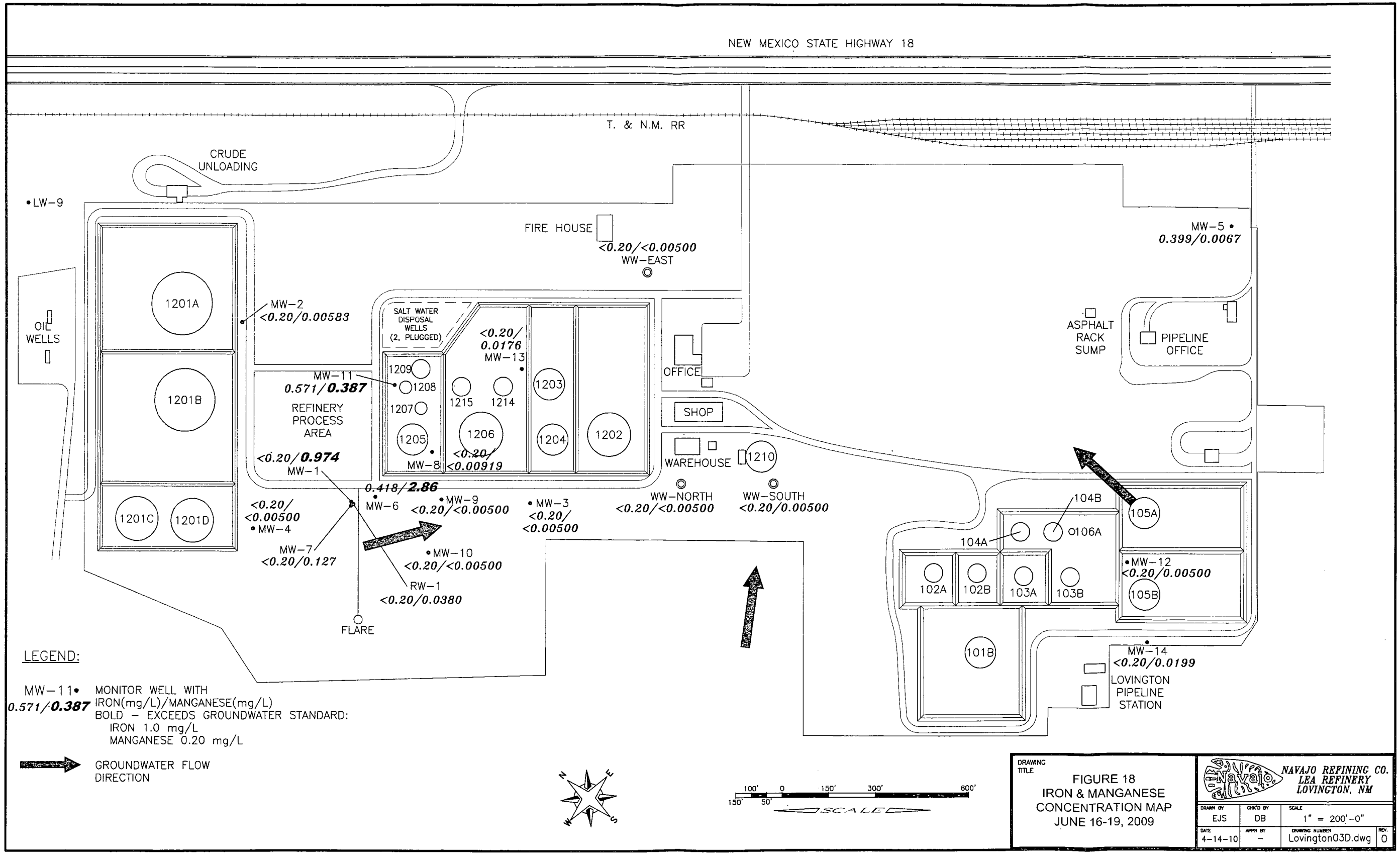
DRAWING TITLE

FIGURE 17
TOTAL DISSOLVED SOLIDS CONCENTRATION MAP
JANUARY, 2010

NAVAJO REFINING CO.
LEA REFINERY
LOVINGTON, NM

DRAWN BY	CHK'D BY	SCALE	
EJS	DB	1" = 300'-0"	
DATE	APPR BY	DRAWING NUMBER	REV.
4-13-10	–	Lovington03D.dwg	0

Figure 18. Iron and Manganese Concentration Map, June 16-19, 2009, Navajo Refining Company, Lea Refinery Lovington, New Mexico



DRAWING TITLE

FIGURE 18
IRON & MANGANESE CONCENTRATION MAP
JUNE 16-19, 2009

NAVAJO REFINING CO.
LEA REFINERY
LOVINGTON, NM

DRAWN BY	CHK'D BY	SCALE
EJS	DB	1" = 200'-0"
DATE	APPR BY	DRAWING NUMBER / REV.
4-14-10	–	Lovington03D.dwg / 0

Figure 19. Iron and Manganese Concentration Map, January 2010, Navajo Refining Company, Lea Refinery Lovington, New Mexico

NEW MEXICO STATE HIGHWAY 18

T. & N.M. RR

CRUDE UNLOADING

•LW-9

FIRE HOUSE

<0.20/<0.00500
WW-EAST

MW-5 •
<0.20/<0.00500

OIL WELLS

1201A

1201B

1201C

1201D

MW-2
<0.20/0.00538

SALT WATER DISPOSAL WELLS (2, PLUGGED)

<0.20/
0.0591
MW-13

MW-11
<0.20/0.0559

1209
1208
1207
1205
1215
1214
1206
1203
1204
1202

REFINERY PROCESS AREA

<0.20/2.72
MW-1

MW-8
<0.20/
<0.00500

<0.20/
<0.00500
• MW-4

MW-7
<0.20/0.125

• MW-9
<0.20/<0.00500

MW-6
2.08/4.51

• MW-10
<0.20/<0.00500

RW-1
<0.20/0.0467

FLARE

• MW-3
<0.20/
0.00597

OFFICE

SHOP

WAREHOUSE

1210

WW-NORTH
<0.20/<0.00500

WW-SOUTH
<0.20/0.0224

ASPHALT RACK SUMP

PIPELINE OFFICE

104B
105A
104A
106A
• MW-12
<0.20/0.0219
102A
102B
103A
103B
105B
101B

MW-14
<0.20/0.0709

LOVINGTON PIPELINE STATION

LEGEND:

MW-11• MONITOR WELL WITH
<0.20/2.72 IRON(mg/L)/MANGANESE(mg/L)
BOLD – EXCEEDS GROUNDWATER STANDARD:
IRON 1.0 mg/L
MANGANESE 0.20 mg/L

GROUNDWATER FLOW DIRECTION

NOTE:
SAMPLES COLLECTED JANUARY 13–19, 2010, EXCEPT MW-6, MW-7 AND RW-1 COLLECTED FEBRUARY 2, 2010.

N E S W

100' 0 150' 300' 600'
150' 50'
SCALE

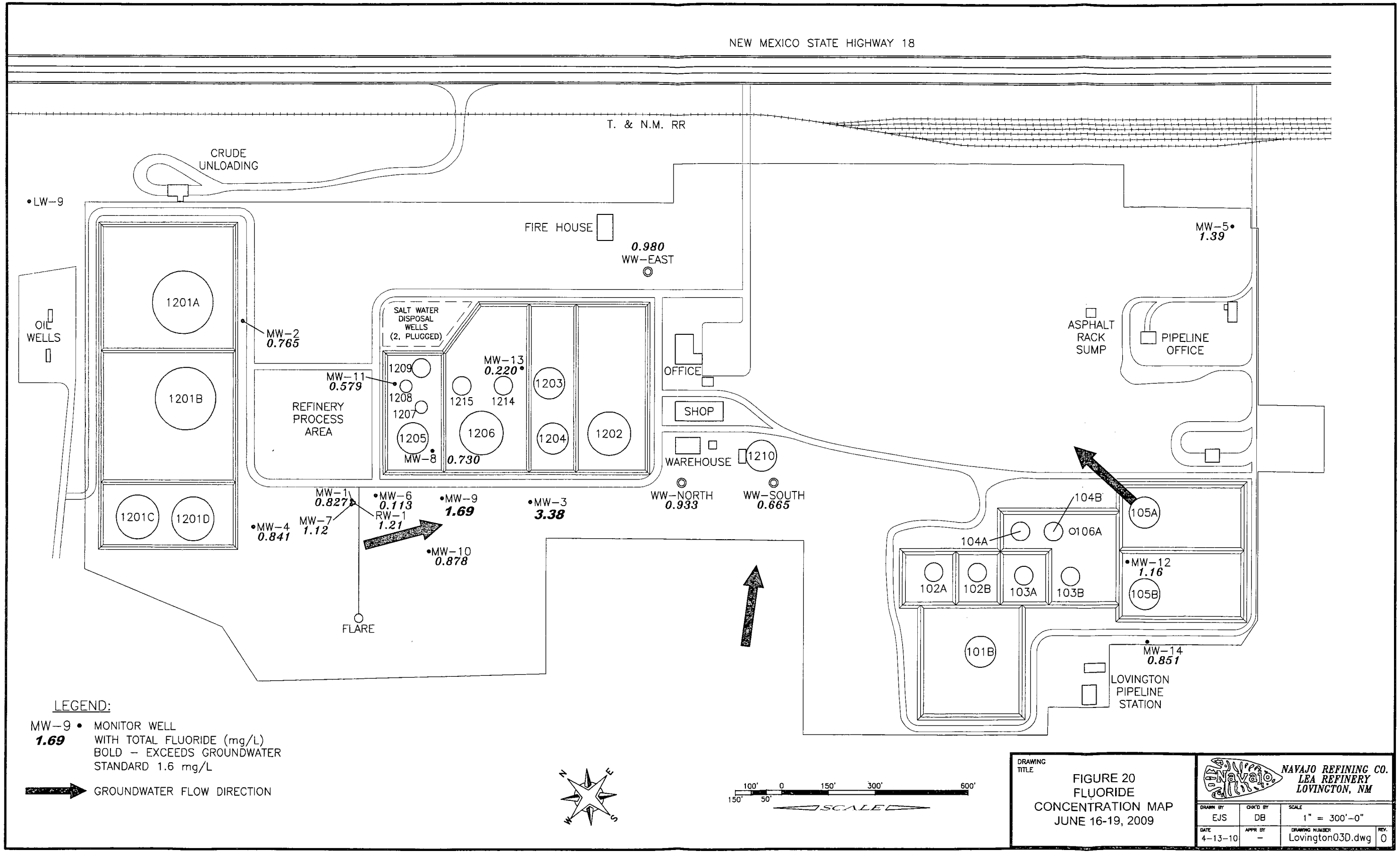
DRAWING TITLE

FIGURE 19
IRON & MANGANESE CONCENTRATION MAP
JANUARY, 2010

NAVAJO REFINING CO.
LEA REFINERY
LOVINGTON, NM

DRAWN BY	CHK'D BY	SCALE
EJS	DB	1" = 200'-0"
DATE	APPR BY	DRAWING NUMBER / REV.
4-14-10	–	Lovington03D.dwg / 0

Figure 20. Fluoride Concentration Map, June 16-19, 2009, Navajo Refining Company, Lea Refinery Lovington, New Mexico



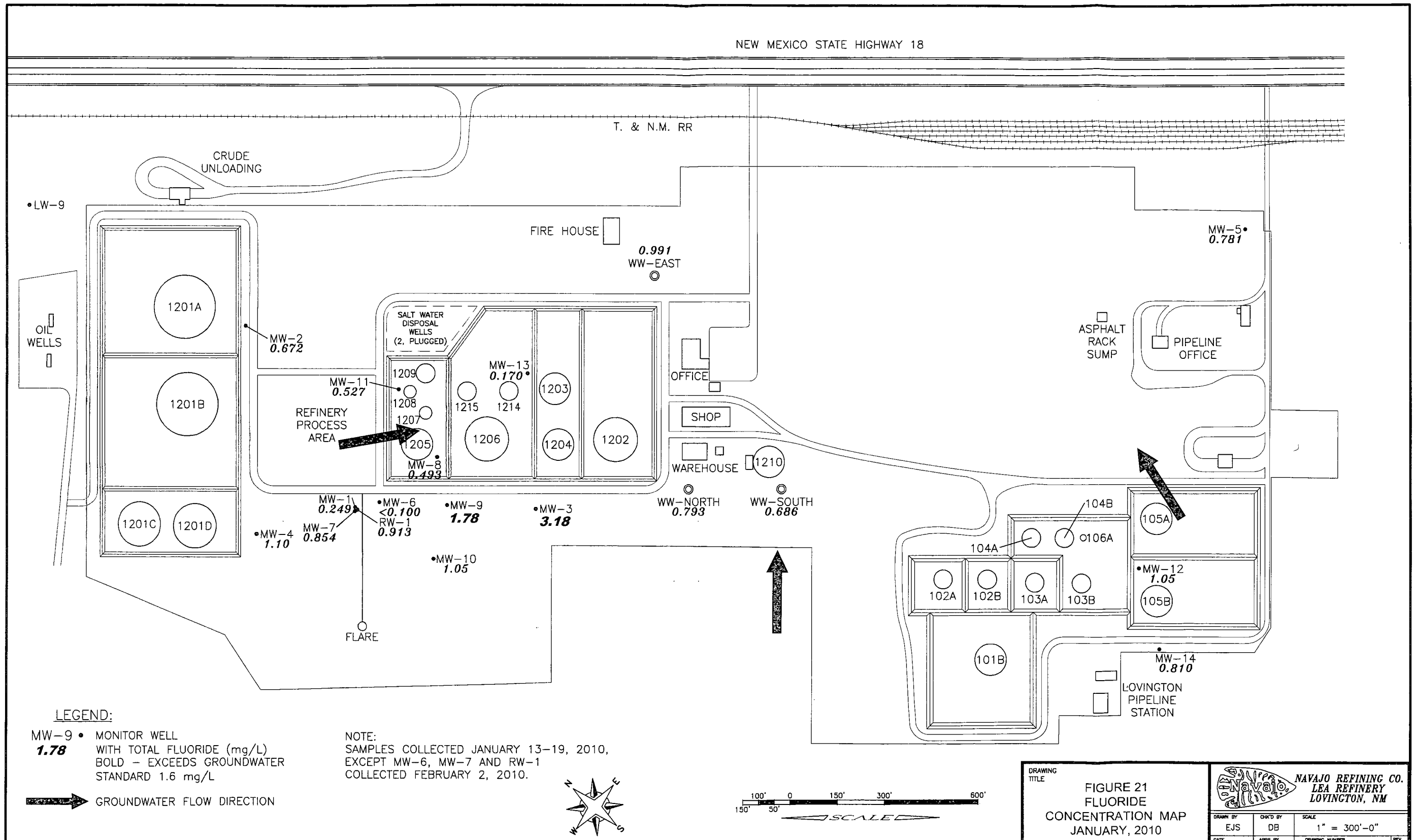
DRAWING TITLE

FIGURE 20
FLUORIDE CONCENTRATION MAP
JUNE 16-19, 2009

NAVAJO REFINING CO.
LEA REFINERY
LOVINGTON, NM

DRAWN BY	CHK'D BY	SCALE	
EJS	DB	1" = 300'-0"	
DATE	APPR BY	DRAWING NUMBER	REV.
4-13-10	–	Lovington03D.dwg	0

Figure 21. Fluoride Concentration Map, January 2010, Navajo Refining Company, Lea Refinery Lovington, New Mexico



LEGEND:

MW-9 • **1.78** MONITOR WELL WITH TOTAL FLUORIDE (mg/L) BOLD – EXCEEDS GROUNDWATER STANDARD 1.6 mg/L

GROUNDWATER FLOW DIRECTION

NOTE:
SAMPLES COLLECTED JANUARY 13–19, 2010, EXCEPT MW-6, MW-7 AND RW-1 COLLECTED FEBRUARY 2, 2010.

100' 0 150' 300' 600'
150' 50' SCALE

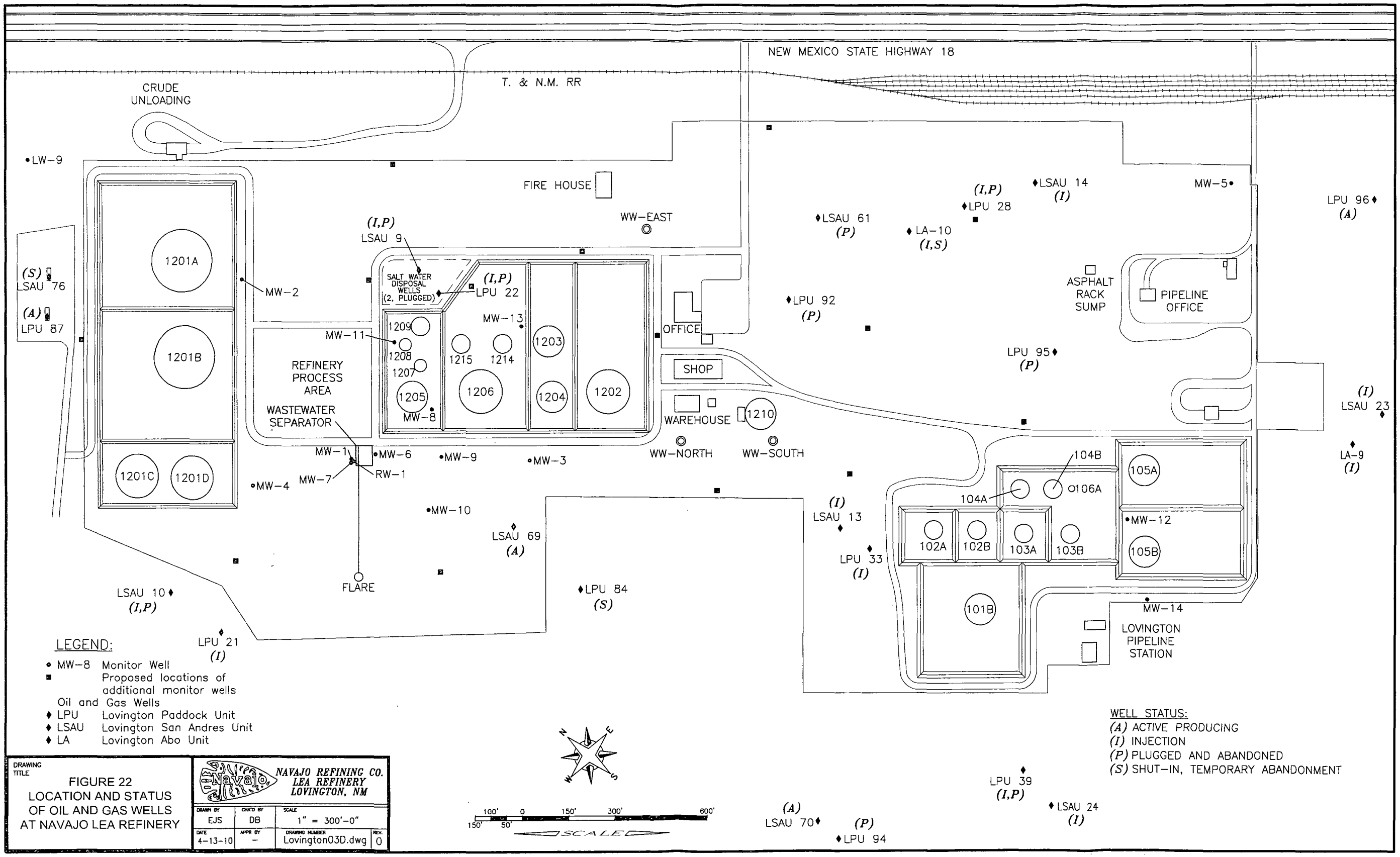
DRAWING TITLE

FIGURE 21
FLUORIDE CONCENTRATION MAP
JANUARY, 2010

NAVAJO REFINING CO.
LEA REFINERY
LOVINGTON, NM

DRAWN BY	CHK'D BY	SCALE
EJS	DB	1" = 300'-0"
DATE	APPR BY	DRAWING NUMBER / REV.
4-13-10	–	Lovington03D.dwg / 0

Figure 22. Location and Status of Oil and Gas Wells, Navajo Refining Company, Lea Refinery Lovington, New Mexico



DRAWING TITLE

FIGURE 22
LOCATION AND STATUS
OF OIL AND GAS WELLS
AT NAVAJO LEA REFINERY

NAVAJO REFINING CO.
LEA REFINERY
LOVINGTON, NM

DRAWN BY	CHK'D BY	SCALE	
EJS	DB	1" = 300'-0"	
DATE	APPR BY	DRAWING NUMBER	REV.
4-13-10	–	Lovington03D.dwg	0

XV. APPENDICES

Appendix A
OCD Report of Injection Well Mechanical Integrity Failure, Navajo Refining Company, Lea Refinery Lovington, New Mexico

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

Response Required – Deadline Enclosed

Underground Injection Control Program

"Protecting Our Underground Sources of Drinking Water"

11-May-09

CHEVRON MIDCONTINENT, L.P.
15 Smith Road
Midland TX 79705-0000

LETTER OF VIOLATION and SHUT-IN DIRECTIVE
Failed Mechanical Integrity Test

Dear Operator:

The following test(s) were performed on the listed dates on the following well(s) shown below in the test detail section.

The test(s) indicates that the well or wells failed to meet mechanical integrity standards of the New Mexico Oil Conservation Division. To comply with guidelines established by the U.S. Environmental Protection Agency, the well(s) must be shut-in immediately until it is successfully repaired. The test detail section which follows indicates preliminary findings and/or probable causes of the failure. This determination is based on a test of your well or facility by an inspector employed by the Oil Conservation Division. Additional testing during the repair operation may be necessary to properly identify the nature of the well failure.

Please notify the proper district office of the Division at least 48 hours prior to the date and time that the well(s) will be retested so the test may be witnessed by a field representative.

MECHANICAL INTEGRITY TEST DETAIL SECTION

LOVINGTON SAN ANDRES UNIT No.010 — **30-025-03799-00-00**

Active Injection - (All Types) — G-36-16S-36E

Test Date:	5/11/2009	**Permitted Injection PSI:**		**Actual PSI:**	
Test Reason:	TA Status Test	**Test Result:**	F	**Repair Due:**	8/14/2009
Test Type:	Std. Annulus Pres. Test	**FAIL TYPE:**	Casing	**FAIL CAUSE:**	

Comments on MIT: Check bradenhead pressures prior to MIT. Found 420 psi on intermediate. Open to blow down. Salt water to surface. Need to identify cause and repair. MW

In the event that a satisfactory response is not received to this letter of direction by the "Repair Due:" date shown above, or if the well(s) are not immediately shut-in, further enforcement will occur. Such enforcement may include this office applying to the Division for an order summoning you to a hearing before a Division Examiner in Santa Fe to show cause why you should not be ordered to permanently plug and abandon this well. Such a hearing may result in imposition of CIVIL PENALTIES for your violation of OCD rules.

Sincerely,

COMPLIANCE OFFICER

Hobbs OCD District Office

Note: Pressure Tests are performed prior to initial injection, after repairs and otherwise, every 5 years; Bradenhead Tests are performed annually. Information in Detail Section comes directly from field inspector data entries - not all blanks will contain data. "Failure Type" and "Failure Cause" and any Comments are not to be interpreted as a diagnosis of the condition of the wellbore. Additional testing should be conducted by the operator to accurately determine the nature of the actual failure. * Significant Non-Compliance events are reported directly to the EPA, Region VI, Dallas, Texas.

Appendix B
Refinery Water Well Drilling and Completion Logs, Navajo Refining Company, Lea Refinery Lovington, New Mexico

U 4 No. 2

Form WR-23 STATE ENGINEER OFFICE

NADRO NORTH WELL

WELL RECORD

FIELD ENGR. LOG FAMARUSS #2

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

"City Well No. 10"

Section 1

(Plat of 640 acres)

(A) Owner of well City of Lovington

Street and Number

City Lovington State N.M.

Well was drilled under Permit No. L-4058-S-16-E2 and is located in the

¼ ¼ ¼ of Section Twp. Rge.

(B) Drilling Contractor Grady Backus License No. 522

Street and Number Box 791

City Lovington State N.M.

Drilling was commenced 3-27 19 73

Drilling was completed 4-6 19 73

Elevation at top of casing in feet above sea level Total depth of well 235

State whether well is shallow or artesian Depth to water upon completion 62

Section 2 PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation
1	62	78	16	Water Sand
2	86	98	12	Quick Sand
3	98	152	54	Sand ?
4				
5				

Section 3 RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth Top	Depth Bottom	Feet	Type Shoe	Perforations From	Perforations To
12 3/4		0	0	235	235	0	65	215

Section 4 RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used

STATE ENGINEER OFFICE 1973 JUL 18 AM 10 09

Section 5 PLUGGING RECORD

Name of Plugging Contractor License No.

Street and Number City State

Tons of Clay used Tons of Roughage used Type of roughage

Plugging method used Date Plugged 19

Plugging approved by:

Basin Supervisor

Cement Plugs were placed as follows:

No.	Depth of Plug From	Depth of Plug To	No. of Sacks Used

FOR USE OF STATE ENGINEER ONLY

Date Received 7/13/73

File No. L-4058-S-16 Use MUN Location No. 16.36.36.42112

Note: From Field Diary North well on 10/12/05 Total Depth 235 feet

ection 6

LOG OF WELL

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color	Type of Material Encountered
0	1	1	Soil & Rock	
1	22	21	Caliche	
22	26	4	Rotten	
26	62	36	Sandy Clay	
62	78	16	Water Sand	
78	86	8	Sandy Clay	
86	98	12	Fine Sand	
98	152	54	Sand ?	
152	170	18	Sandy Clay	
170	205	35	Clay	
205	234	29	Gravel & Sand & Clay	
234	235	1	Sand Rock	

L S Elev.

Depth to K Trc

Elev of K Trc

Loc. No. 16.36.36.42112

Hydro. Survey Field Check X

SOURCE OF ALTITUDE GIVEN

Interpolated from Topo. Sheet

Determined by Inst. Leveling

Other

ıe undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and cor-ct record of the above described well.

Grady Backus

Well Driller

WWTD, INC. No 2

Date 4-9-73

WELL TEST

Our Work Order No. _____

ustomer: CITY OF LOVINGTON Lease No. _____

ddress: _____ Well No. _____

'ell Dia. (I.D.) _____ Well Depth _____ Casing Length _____ Tested By: JIMMY & ROGER CHAMBERS

asing Perforated from: _____ to _____ Static Level: Before 60' After _____

olumn Size 8" Column Setting 205 Bowl Size 10" No. of Stages 6

Date	Time	AM/PM	GPM	Pumping Level	Pump RPM	REMARKS: (Clear, Sandy, Etc.)
4-9-73	11:00	AM	300	60'		STARTED WELL TEST
	12:00	NOON	300	60'		HEAVY DRILLING MUD
	1:00	PM	400	60'		HEAVY DRILLING MUD
	2:00	PM	500	60'		HEAVY SAND
	3:00	PM	550	60'		HEAVY SAND
	4:00	PM	600	60'		MEDIUM SAND
	5:00	PM	700	60'		MEDIUM SAND
	6:00	PM	750	60'		SANDY
	7:00	PM	750	60'		
	8:00	PM	750	60'		SANDY
	9:00	PM	800	60'		BACKFLUSHED - SANDY
	10:00	PM	800	60'		BACKFLUSHED - SANDY
	11:00	PM	800	60'		BACKFLUSHED - SANDY
4-10-73	12:00	MID-NIGHT	850	60'		BACKFLUSHED - SANDY
	1:00	AM	850	60'		BACKFLUSHED - SANDY
	2:00	AM	850	60'		BACKFLUSHED - SANDY
	3:00	AM	850	60'		BACKFLUSHED - SANDY
	4:00	AM	850	60'		BACKFLUSHED - SANDY
	5:00	AM	850	60'		BACKFLUSHED - SANDY
	6:00	AM	850	60'		BACKFLUSHED - LIGHT SAND
	7:00	AM	850	60'		BACKFLUSHED - LIGHT SAND
	8:00	AM	1000	60'		BACKFLUSHED - LIGHT SAND
	9:00	AM	1000	60'		HEAVY SAND

WW II Wp Inc.

Date

WELL TEST

Our Work Order No.

Customer: CITY OF LOVINGTON Lease No.

Address: Well No.

Well Dia. (I.D.) Well Depth Casing Length Tested By: JIMMY & ROGER CHAMBERS

Casing Perforated from: to Static Level: Before 60' After

Column Size 8" Column Setting 205' Bowl Size 10" No. of Stages 6

Date	Time	AM/PM	GPM	Pumping Level	Pump RPM	REMARKS: (Clear, Sandy, Etc.)
	10:00	AM	1000			BACKFLUSHING - MEDIUM SANDY
	11:00	AM	1000			BACKFLUSHING - SANDY
	12:00	NOON	1000			BACKFLUSHING - LIGHT SAND
	1:00	PM	1000			BACKFLUSHING - LIGHT SAND
	2:00	PM	1000			BACKFLUSHING - LIGHT SAND
	3:00	PM	1000			BACKFLUSHING - LIGHT SAND
	4:00	PM	1000			BACKFLUSHING SAND
	5:00	PM	1000			BACKFLUSHING - LIGHT SAND
	6:00	PM	1000			BACKFLUSHING - SAND
	7:00	PM	1000			BACKFLUSHING - SAND
	8:00	PM	1000			BACKFLUSHING - SAND
	9:00	PM	1000			BACKFLUSHED - SAND
	10:00	PM	1000			BACKFLUSHED - SAND
	11:00	PM	1000			BACKFLUSHED - SAND
4-11-73	12:00	MID-NIGHT	1000			BACKFLUSHED - LIGHT SAND
	1:00	AM	1000			BACKFLUSHED - LIGHT SAND
	2:00	AM	1000			BACKFLUSHED - LIGHT SAND
	3:00	AM	1000			BACKFLUSHED - LIGHT SAND
	4:00	AM	1000			BACKFLUSHED - LIGHT SAND
	5:00	AM	1000			BACKFLUSHED - LIGHT SAND
	6:00	AM	1000			BACKFLUSHED - LIGHT SAND
	7:00	AM	1000			BACKFLUSHED - CLEAN
	8:00	AM	1000			BACKFLUSHED - CLEAN

WTD, INC.

Date 4-11-73

WELL TEST

Our Work Order No. _____

Customer: CITY OF LOVINGTON Lease No. _____

Address: _____ Well No. _____

Well Dia. (I.D.) _____ Well Depth _____ Casing Length _____ Tested By:

Casing Perforated from: _____ to _____ Static Level: Before _____ After _____

Column Size _____ Column Setting _____ Bowl Size _____ No. of Stages _____

Date	Time	AM/PM	GPM	Pumping Level	Pump RPM	REMARKS: (Clear, Sandy, Etc.)
4-11-73	9:00	AM	1000			BACKFLUSHED - CLEAR
	10:00	AM	1000	85'		PUT ORIFICE ON - CHECKED DRAW DOWN
	11:00		1000	85' 6"		SLIGHT SAND
	11:30			86'		SHUT DOWN AND ADDED CHLORINE

WTD, INC.

WELL TEST

Date 4-12-79

Our Work Order No.

Customer: CITY OF LOVINGTON Lease No.

Address: Well No. 2

Well Dia. (I.D.) 12" Well Depth 235' Casing Length 235' Tested By: M.D. GIESE

Casing Perforated from: to Static Level: Before 61.50 After 63.91

Column Size 8" Column Setting 205' Bowl Size 10" No. of Stages 6

Date	Time	AM/PM	GPM	Pumping Level	Pump RPM	REMARKS: (Clear, Sandy, Etc.)
	8:30	AM				FLOW TEST
	8:35		800	77.80		
	8:40			78.52		
	8:45			78.75		
	8:50			78.90		
	8:55			79.08		
	9:00			78.95		
	9:30			79.45		
	10:00			79.70		
	10:30			79.92		
	11:00			79.94		
	11:30		800	80		
	11:35		600	77.23		SLOWED PUMP TO 600 GPM
	11:40			76.78		
	11:45			76.75		
	11:50			76.72		
	11:55			76.67		
	12:00	PM		76.67		
	12:30			76.58		
	1:00			76.61		
	1:30			76.70		
	2:00			76.70		
	2:30			76.70		

WTD, INC.

Date _____

WELL TEST

Our Work Order No. _____

Customer: CITY OF LOVINGTON Lease No. _____

Address: _____ Well No. _____

Well Dia. (I.D.) _____ Well Depth _____ Casing Length _____ Tested By:

Casing Perforated from: _____ to _____ Static Level: Before _____ After _____

Column Size _____ Column Setting _____ Bowl Size _____ No. of Stages _____

Date	Time	AM/PM	GPM	Pumping Level	Pump RPM	REMARKS: (Clear, Sandy, Etc.)
	2:30		400			
	2:35			72.55		
	2:40			72.62		
	2:45			72.60		
	2:50			72.60		
	2:55			72.58		
	3:00			72.52		
	3:30			72.50		
	4:00			72.54		
	4:30			72.56		
						15 MIN. RECOVERY WATER LEVEL RAISED
						TO 63.7'

#2

(Complete Form in Triplicate) Revised December 1966

PROOF OF COMPLETION OF WELL

Permit No. _____

1. Name of Water Right Owner City of Lovington
   Mailing address Box 1268
   City and State Lovington, New Mexico 88260

2. Permit is for Supplemental Well (supplemental well, change location of well) from Shallow (artesian or shallow) ground water.

3. Description of well:
   Located in the SW ¼ NE ¼ SE ¼, of Sec. 36 Twp. 16S Rge. ____ N.M.P.M., or Tract No. ____
   of Map No. ____ of the ____ District; total depth, 235 feet; is well cased 235 ;
   outside diameter of top casing (or hole, if uncased), 12 inches; if artesian, is well equipped with gate valve ____; date drilled 4-9- 19 73; Name of driller Grady BAckus Drilling Co.

4. Record of Pumping Test, if made (to be supplied by person or firm making test); Name and address of person making test, WHB, Inc., Hobbs Hwy, Lovington, New Mexico 88260 ;
   date of test 4-9- 19 73; depth to water before test, 63 feet below (above, below) land surface,
   and pumping level during test, 100 feet; length of test, 50 hours; average discharge, 800 G.P.M.;
   specific capacity of well, 20 gals./min. per foot of drawdown.

5. Permanent Pump Equipment:
   (a) Description of pump: Make Layne ; Type Turbine ;
   size of discharge 6 inches; if turbine type, give size of column, 6 inches; diameter of bowls 10 inches; number of bowls 6 ; length of suction pipe 6 feet; total length of column, bowls and suction pipe 170 feet; if centrifugal type, give size of pump 6 inches:
   if other type, describe ____;
   rated capacity of pump (if known), 300 G.P.M., at 1800 rev. per min., from a depth of 56 feet.

   (b) Description of power plant: Make Westing ; Type Life Line-T Vert. ;
   rated horsepower (if available) 60 ; type of drive connection to pump Direct (direct, gearhead, or belt).

   (c) Actual discharge of pump, 300 G.P.M., at 1800 rev. per min., from a depth of 57 feet;
   Date of test 5-10 19 73.

6. If reservoir is used, give approximate size: length ____ feet; width ____; depth ____.

7. If above well replaced an old well to be plugged or abandoned, fill out the following: the well abandoned is located in the ____ ¼ ____ ¼ ____ ¼ of Sec. ____, Twp. ____, Rge. ____.

   Describe plugging method ____
   Name of plugging contractor ____

8. Well Record filed with State Engineer's Office ____ .
   (Yes or No)

I, ____, affirm that the foregoing statements are true to the best of my knowledge and belief and that I am the ____ owner and holder of said water right.
(sole, partial, agent for, etc.,)

____, Permittee

By: ____

Form WR-23 STATE ENGINEER OFFICE

NMDOT South Well WELL RECORD

FIELD ENGR. LOG Jamarillo #1

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

"City Well No. "

Section 1

(A) Owner of well City of Lovington

Street and Number

City Lovington State N. M.

Well was drilled under Permit No. L-1702.AFI and is located in the

¼ ¼ ¼ of Section Twp. Rge.

(B) Drilling Contractor Brady Backus License No. 322

Street and Number Box 791

City Lovington State N. M.

Drilling was commenced 3-19 19 73

Drilling was completed 3-26 19 73

(Plat of 640 acres)

Elevation at top of casing in feet above sea level Total depth of well 248

State whether well is shallow or artesian Depth to water upon completion 62

Section 2 PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation
1	62	72	10	Water Sand
2	80	94	14	Brick Sand
3	104	156	52	Sand ?
4				
5				

Section 3 RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth Top	Depth Bottom	Feet	Type Shoe	Perforations From	Perforations To
12 3/4		0	0	248	248	0	78	228

Section 4 RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used

RECEIVED JUL 18 1973 N. M. STATE ENGINEER OFFICE

Section 5 PLUGGING RECORD

Name of Plugging Contractor License No.

Street and Number City State

Tons of Clay used Tons of Roughage used Type of roughage

Plugging method used Date Plugged 19

Plugging approved by:

Basin Supervisor

Cement Plugs were placed as follows:

No.	Depth of Plug From	Depth of Plug To	No. of Sacks Used

FOR USE OF STATE ENGINEER ONLY

Date Received 7-18-73

File No. L-1702-03-04 Comb A Use MUN Location No. 16.36.36.42123

Section 6

LOG OF WELL

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color	Type of Material Encountered
0	5	5	Soil	
5	14	9	Caliche & Rock	
14	62	48	Sandy Clay	
62	72	10	Quick Sand	
72	80	8	Sandy Clay	
80	94	14	Quick Sand	
94	104	10	Sandy Clay	
104	156	52	Sand	
156	180	24	Sandy Clay	
180	205	25	Clay	
205	243	38	Gravel & Sand & Clay	
243	248	5	Red Bed	

U.S. Elev.

Depth to K Trc.

Elev. of K Trc.

Loc. No. 16.36.36.42123

Hydrn. Survey Field Check X

SOURCE OF ALTITUDE GIVEN

Interpolated from Topo. Sheet

Determined by Inst. Leveling

Other

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Leo D. Parker

Well Driller

W-H-B, Inc.

WELL TEST

Date MARCH 29, 1973

Our Work Order No. _____

Customer: GRADY BACKUS DRILLING CO. FOR - CITY OF LOVINGTON

Lease No. _____

Address: _____

Well No. _____

Well Dia. (I.D.) 12 Well Depth 248 Casing Length 248

Tested By: GUY LAYLAND

Casing Perforated from: 13 3/4 OD - 78' to 228 Static Level: Before 66 After _____

Column Size 8" Column Setting 220' Bowl Size 10" No. of Stages 7

Date	Time	AM/PM	GPM	Pumping Level	Pump RPM	REMARKS: (Clear, Sandy, Etc.)
3-29-73	2:30	PM	300			DRILLING MUD
	3:30	PM	325			DRILLING MUD
	4:30	PM	425			DRILLING MUD AND HEAVY SAND NO AIR
	5:30	PM	500			DRILLING MUD AND HEAVY SAND NO AIR
	6:30	PM	650			BACK FLUSHING
	7:30	PM	725			HEAVY SAND - NO AIR
	8:30	PM	775			BACK FLUSHING
	9:30	PM	775			BACK FLUSHING - SANDY
	10:30	PM	775			BACK FLUSHING
	11:30	PM	775			BACK FLUSHING - SANDY
3-30-73	12:00	AM	775			BACK FLUSHING
	1:30	AM	775			BACK FLUSHING - SANDY
	2:30	AM	775			BACK FLUSHING
	3:30	AM	775			FLUSHING - WITH SAND
	4:30	AM	775			FLUSHING - WITH SAND
	5:30	AM	775			BACK FLUSHING WITH SAND
	6:30	AM	775			BACK FLUSHING
	7:30	AM	825			HEAVY SAND
	8:30	AM	850			HEAVY SAND
	9:30	AM	875			BACK FLUSHING
	10:30	AM	900			BACK FLUSHING
	11:30	AM	900			HEAVY SAND - NO AIR

WTD, INC.

Date MARCH 29, 1973

WELL TEST

Our Work Order No. _____

Customer: GRADY BACKUS DRILLING CO. Lease No. _____
FOR - CITY OF LOVINGTON

Address: _____ Well No. _____

Well Dia. (I.D.) 12 Well Depth 248 Casing Length 248 Tested By: GUY LAYLAND

Casing Perforated from: 13 3/4 OD - 78' to 228 Static Level: Before 56 After _____

Column Size 8" Column Setting 220' Bowl Size 10" No. of Stages 7

Date	Time	AM/PM	GPM	Pumping Level	Pump RPM	REMARKS: (Clear, Sandy, Etc.)
3-30-73	12:00	PM	900			HEAVY SAND - NO AIR
	1:00	PM	900			HEAVY SAND - NO AIR
	2:00	PM	900			HEAVY SAND - NO AIR
	3:00	PM	1000			BACK FLUSHING
	4:00	PM	1000			BACK FLUSHING
	5:00	PM	1000			HEAVY SAND - NO AIR
	6:00	PM	1000			HEAVY SAND - NO AIR
	7:00	PM	1000			HEAVY SAND - NO AIR
	8:00	PM	1000			HEAVY SAND
	9:00	PM	1000			HEAVY SAND
	10:00	PM	1000			BACK FLUSHING
	11:00	PM	1000			BACK FLUSHING
	12:00	MID NIGHT	1000			BACK FLUSHING - SAND AND NO AIR
3-31-73	1:00	AM	1000			BACK FLUSHING - HEAVY SAND - NO AIR
	2:00	AM	1000			BACK FLUSHING
	3:00	AM	1000			BACK FLUSHING - SAND
	4:00	AM	1000			BACK FLUSHING
	5:00	AM	1000			BACK FLUSHING - SAND
	6:00	AM	1000			BACK FLUSHING - SAND
	7:00	AM	1000			BACK FLUSHING - LIGHT SAND
	8:00	AM	1000	229'		PUMPED OFF AT 1000 GPM - STOP BACK FLUSHING
	9:00	AM	1000	229'		" " " " "

W-H-B, INC.

WELL TEST

Date MARCH 29, 1973

Our Work Order No.

Customer: GRADY BACKUS DRILLING CO.
FOR - CITY OF LOVINGTON

Lease No.

Address:

Well No.

Well Dia. (I.D.) 12 Well Depth 248 Casing Length 248 Tested By: GUY LAYLAND

Casing Perforated from: 13 3/4 OD - 78' to 228 Static Level: Before 66 After

Column Size 8" Column Setting 220' Bowl Size 10" No. of Stages 7

Date	Time	AM/PM	GPM	Pumping Level	Pump RPM	REMARKS: (Clear, Sandy, Etc.)
3-31-73	10:00	AM	1000	229'		PUMPED OFF AT 1000 GPM - STOP BACK FLUSHING
	11:00	AM	975	229'		" " " " "
	11:30	AM	975			ADD CHLORINE
	11:30					
	12:00					BACK FLUSHING - CHLORINE

W-H-B, Inc.

WELL TEST

Date MARCH 29, 1973

Our Work Order No. _____

Customer: GRADY BACKUS DRILLING CO. FOR - CITY OF LOVINGTON

Lease No. _____

Address: _____

Well No. _____

Well Dia. (I.D.) 12 Well Depth 248 Casing Length 248

Tested By: DEWEY WEST

Casing Perforated from: 13 3/4 OD - 78' to 228 Static Level: Before 69 After _____

Column Size 8" Column Setting 220' Bowl Size 10" No. of Stages 7

Date	Time	AM/PM	GPM	Pumping Level	Pump RPM	REMARKS: (Clear, Sandy, Etc.)
4-2-73	4:30 9:30	AM				PUMPING AT MAXIMUM AND BACK FLUSHING - WATER ROSE TO
						70' LEVEL 10 MIN. AFTER SHUT DOWN TO START TEST AT 800 GPM
	9:30	AM	800	70		
	9:35	AM	800	73		
	9:40	AM	800	77		
	9:45	AM	800	82		
	9:50	AM	800	86		
	9:55	AM	800	91		
	10:00	AM	800	95		
	10:05	AM	800	100		
	10:30	AM	800	100		
	10:35	AM	600	98		
	10:40	AM	600	97		
	10:45	AM	600	97		
	10:50	AM	600	97		
	10:55	AM	600	97		
	11:00	AM	600	97		
	11:30	AM	600	97		
	12:00	PM	600	97		
	12:30	PM	600	97		
	12:35	PM	500	95		
	12:40	PM	500	94		

W-H-B, Inc.

WELL TEST

Date MARCH 29, 1973

Our Work Order No. _____

Customer: GRADY BACKUS DRILLING CO. FOR - CITY OF LOVINGTON

Lease No. _____

Address: _____

Well No. _____

Well Dia. (I.D.) 12 Well Depth 248 Casing Length 248

Tested By: DEWEY WEST

Casing Perforated from: 13 3/4 OD - 78' to 228 Static Level: Before 69 After _____

Column Size 8" Column Setting 220' Bowl Size 10" No. of Stages 7

Date	Time	AM/PM	GPM	Pumping Level	Pump RPM	REMARKS: (Clear, Sandy, Etc.)
4-2-73	12:45	PM	500	94		
	12:50	PM	500	94		
	12:55	PM	500	94		
	1:00	PM	500	94		CLEAR
	1:30	PM	500	94		CLEAR
	2:00	PM	500	94		CLEAR
	2:30	PM	500	94		CLEAR
	3:00	PM	500	94		CLEAR
	3:30	PM	500	94		
	4:00	PM	500	94		
	4:05	PM	400	92		
4-2-73	4:10	PM	400	92		
	4:15	PM	400	92		
	4:20	PM	400	91		
	4:25	PM	400	91		
	4:30	PM	400	91		
	5:00	PM	400	91		
	5:30	PM	400	91		
	5:35	PM	300	90		
	5:40	PM	300	90		
	5:45	PM	300	90		
	5:50	PM	300	90		

W-H-B, Inc.

Date MARCH 29, 1973

WELL TEST

Our Work Order No. _____

Customer: GRADY BACKUS DRILLING CO. Lease No. _____
FOR - CITY OF LOVINGTON

Address: _____ Well No. _____

Well Dia. (I.D.) 12 Well Depth 248 Casing Length 248 Tested By: DEWEY WEST

Casing Perforated from: 13 3/4 OD - 78' to 228 Static Level: Before 69 After _____

Column Size 8" Column Setting 220' Bowl Size 10" No. of Stages 7

Date	Time	AM/PM	GPM	Pumping Level	Pump RPM	REMARKS: (Clear, Sandy, Etc.)
4-2-73	5:55	PM	300	90		
	6:00	PM	300	90		
	6:30	PM	300	90		
	6:50	PM	300	90		
	6:55	PM		76		CUT OFF TEST PUMP - RECOVERY
	7:00	PM				70' RECOVERY

(Complete Form in Triplicate) Revised December 1966

PROOF OF COMPLETION OF WELL

Permit No. _____

1. Name of Water Right Owner City of Lovington
   Mailing address Box 1268
   City and State Lovington, New Mexico 88260

2. Permit is for Supplemental Well (supplemental well, change location of well) from Shallow (artesian or shallow) ground water.

3. Description of well:
   Located in the SW ¼ NE ¼ SE ¼, of Sec. 36 Twp. 16S Rge. 36E N.M.P.M., or Tract No. _____ of Map No. _____ of the _____ District; total depth, 248 feet; is well cased 248; outside diameter of top casing (or hole, if uncased), 12 inches; if artesian, is well equipped with gate valve _____; date drilled March 29 19 73; Name of driller Grady Backus Drilling Co.

4. Record of Pumping Test, if made (to be supplied by person or firm making test); Name and address of person making test, WHB, Inc. Hobbs Hwy, Lovington, New Mexico; date of test March 29 19 73; depth to water before test, 62 feet below (above, below) land surface, and pumping level during test, 100 feet; length of test, 48 hours; average discharge, 800 G.P.M.; specific capacity of well, 20 gals./min. per foot of drawdown.

5. Permanent Pump Equipment:
   (a) Description of pump: Make Layne; Type Turbine; size of discharge 6 inches; if turbine type, give size of column, 6 inches; diameter of bowls 10 inches; number of bowls 6; length of suction pipe 6 feet; total length of column, bowls and suction pipe 170 feet; if centrifugal type, give size of pump 6 inches: if other type, describe _____; rated capacity of pump (if known), 300 G.P.M., at 1800 rev. per min., from a depth of 57 feet.

   (b) Description of power plant: Make Westing; Type Life line-T vert.; rated horsepower (if available) 60; type of drive connection to pump Direct (direct, gearhead, or belt).

   (c) Actual discharge of pump, 300 G.P.M., at 1800 rev. per min., from a depth of 57 feet; Date of test 5-10 19 73.

6. If reservoir is used, give approximate size: length _____ feet; width _____; depth _____.

7. If above well replaced an old well to be plugged or abandoned, fill out the following: the well abandoned is located in the _____ ¼ _____ ¼ _____ ¼ of Sec. _____, Twp. _____, Rge. _____.

   Describe plugging method _____
   Name of plugging contractor _____

8. Well Record filed with State Engineer's Office _____. (Yes or No)

I, _____, affirm that the foregoing statements are true to the best of my knowledge and belief and that I am the _____ owner and holder of said water right. (sole, partial, agent for, etc.,)

_____, Permittee

Fi. Numb(L 4058-S-26

NEW MEXICO OFFICE OF THE STATE ENGINEER
WELL RECORD

10. ADDITIONAL STATEMENTS OR EXPLANATIONS:

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Alan Eades by Andrea Eades — Driller — 11-6-05 (mm/dd/year)

FOR STATE ENGINEER USE ONLY

Quad ____; FWL ____; FSL ____; Use _____; Location No. _____

File Number: L 4058-S-26 Trn Number: 339936
Form: wr-20 page 4 of 4

Fil Number: 4058-S-26

NEW MEXICO OFFICE OF THE STATE ENGINEER
WELL RECORD

9. LOG OF HOLE

Depth in Feet From	To	Thickness in feet	Color and Type of Material Encountered
0	1	1	Top Soil
1	21	20	Caliche
21	110	89	Sand and Sandstone Stringers
110	114	4	Sandstone
114	184	70	Sand and Sandstone Stringers
184	190	6	Sand and Sandy Brown Clay Streaks
190	233	43	Sand and Gravel
233	237	4	Yellow and Red Clay

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2004 JUN -6 AM 11 26

Le Nu : L 4058-S-26

NEW MEXICO OFFICE OF THE STATE ENGINEER
WELL RECORD

5. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	To	Thickness in feet	Description of water-bearing formation	Estimated Yield (GPM)
114	184	70	Sand & Sandstone Stringers	
190	233	43	Sand & Gravel	

6. RECORD OF CASING

Diameter (inches)	Pounds per ft.	Threads per in.	Depth in Feet Top	Bottom	Length (feet)	Type of Shoe	Perforations From	To
8" steel -	.219 wall				237		157	237

7. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	To	Hole Diameter	Sacks of mud	Cubic Feet of Cement	Method of Placement

8. PLUGGING RECORD

Plugging Contractor: _____

Address: _____

Plugging Method: _____

Date Well Plugged: _____

Plugging approved by: _____

State Engineer Representative

No.	Depth in Feet Top	Bottom	Cubic Feetof Cement
1			
2			
3			
4			
5			

File Number: L 4058-S-26 Trn Number: 339936

Form: WR-20

Fil Number 4058-S-26

NEW MEXICO OFFICE OF THE STATE ENGINEER
WELL RECORD

Navajo East well

1. OWNER OF WELL

Name: City of Lovington Work Phone:
Contact: Charles Kelley Home Phone:
Address: P.O. Box 1268
City: Lovington State: NM Zip: 88260

2. LOCATION OF WELL (A, B, C, or D required, E or F if known)

A. SE 1/4 SE 1/4 NE 1/4 Section: 36 Township: 16S Range: 36E N.M.P.M. in Lea County.

B. X = _____ feet, Y = _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant. U.S.G.S. Quad Map _____

C. Latitude: _____ d _____ m _____ s Longitude: _____ d _____ m _____ s

D. East _____ (m), North _____ (m), UTM Zone 13, NAD __ (27 or 83)

E. Tract No. _____, Map No. _____ of the _____ Hydrographic Survey

F. Lot No. _____, Block No. _____ of Unit/Tract _____ of the _____ Subdivision recorded in _____ County

G. Other: _____

H. Give State Engineer File Number if existing well: _____

I. On land owned by (required): Applicant

STATE ENGINEER OFFICE ROSWELL, NEW MEXICO 2005 JAN -6 AM 11:29

3. DRILLING CONTRACTOR

License Number: WD1044
Name: Alan G. Eades Work Phone: 505-392-2457
Agent: Home Phone:
Mailing Address: 1200 East Bender Blvd.
City: Hobbs State: NM Zip: 88240

4. DRILLING RECORD

Drilling began: 10-26-05 Completed: 10-29-05 Type tools: Rotary
Size of hole: see *in. Total depth of well: 237 ft.
Completed well is: Shallow (shallow, artesian)
Depth to water upon completion of well: _____ ft.

*size of hole: 13" from surface to 20'
12 1/4" from 20' to 237'

File Number: L 4058-S-26 Trn Number: 339936
Form: wr-20 page 1 of 4

Loc. 16.36.36 24443

Appendix C
Copies of June 2009 and January 2010 Water Quality Sampling Analytical Reports

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

30-Jun-2009

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

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

Re: Navajo Lea Refinery Semi-Annual

Work Order: **0906452**

Dear Darrell,

ALS Laboratory Group received 10 samples on 17-Jun-2009 09:15 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 88.

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

Sincerely,

JayLynn F Thibault

Electronically approved by: Glenda H. Ramos

JayLynn F Thibault
Project Manager

ACCREDITED IN ACCORDANCE WITH nelac
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

ALS Laboratory Group

Date: 30-Jun-09

Client: Navajo Refining Company
Project: Navajo Refinery Semi-Annual
Work Order: **0906452**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
0906452-01	MW#5	Water		6/16/2009 09:20	6/17/2009 09:15	☐
0906452-02	MW#12	Water		6/16/2009 10:25	6/17/2009 09:15	☐
0906452-03	MW#14	Water		6/16/2009 11:15	6/17/2009 09:15	☐
0906452-04	MW#13	Water		6/16/2009 12:30	6/17/2009 09:15	☐
0906452-05	MW#4	Water		6/16/2009 13:20	6/17/2009 09:15	☐
0906452-06	MW#3	Water		6/16/2009 13:50	6/17/2009 09:15	☐
0906452-07	MW#9	Water		6/16/2009 14:20	6/17/2009 09:15	☐
0906452-08	MW#10	Water		6/16/2009 15:00	6/17/2009 09:15	☐
0906452-09	Trip Blank 2515	Water		6/16/2009 16:50	6/17/2009 09:15	☐
0906452-10	Trip Blank 2497	Water		6/16/2009 16:50	6/17/2009 09:15	☐

ALS Laboratory Group

Date: 30-Jun-09

Client: Navajo Refining Company
Project: Navajo Refinery Semi-Annual
Work Order: 0906452

Case Narrative

Batch 36701 Metals MS/MSD is an unrelated sample.

Batch 36777 Mercury MS/MSD is an unrelated sample.

Batch R78404 Volatiles MS/MSD is an unrelated sample.

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#5
Lab ID: 0906452-01
Collection Date: 6/16/2009 09:20 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/24/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/24/2009 05:54 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/19/2009**	Analyst: **SKS**
Aluminum	**0.796**		**0.0200**	**mg/L**	1	6/23/2009 06:55 AM
Arsenic	**0.0233**		**0.00500**	**mg/L**	1	6/23/2009 06:55 AM
Barium	**0.0639**		**0.00500**	**mg/L**	1	6/23/2009 06:55 AM
Boron	**0.116**		**0.0200**	**mg/L**	1	6/23/2009 06:55 AM
Cadmium	ND		0.00200	mg/L	1	6/23/2009 06:55 AM
Calcium	**16.0**		**0.500**	**mg/L**	1	6/23/2009 06:55 AM
Chromium	ND		0.00500	mg/L	1	6/23/2009 06:55 AM
Cobalt	ND		0.00500	mg/L	1	6/23/2009 06:55 AM
Copper	ND		0.00500	mg/L	1	6/23/2009 06:55 AM
Iron	**0.399**		**0.200**	**mg/L**	1	6/23/2009 06:55 AM
Lead	ND		0.00500	mg/L	1	6/23/2009 06:55 AM
Magnesium	**3.11**		**0.200**	**mg/L**	1	6/23/2009 06:55 AM
Manganese	**0.00670**		**0.00500**	**mg/L**	1	6/23/2009 06:55 AM
Molybdenum	**0.0103**		**0.00500**	**mg/L**	1	6/23/2009 06:55 AM
Nickel	ND		0.00500	mg/L	1	6/23/2009 06:55 AM
Potassium	**3.05**		**0.200**	**mg/L**	1	6/23/2009 06:55 AM
Selenium	ND		0.00500	mg/L	1	6/23/2009 06:55 AM
Silver	ND		0.00500	mg/L	1	6/23/2009 06:55 AM
Sodium	**302**		**2.00**	**mg/L**	10	6/23/2009 05:19 PM
Zinc	ND		0.0100	mg/L	1	6/23/2009 06:55 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1,1'-Biphenyl	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	6/29/2009 09:05 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2-Chlorophenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2-Methylphenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2-Nitroaniline	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
2-Nitrophenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
3&4-Methylphenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#5
Lab ID: 0906452-01
Collection Date: 6/16/2009 09:20 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
3-Nitroaniline	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
4-Chloroaniline	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
4-Nitroaniline	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
4-Nitrophenol	ND		0.0010	mg/L	1	6/29/2009 09:05 PM
Acenaphthene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Acenaphthylene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Acetophenone	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Anthracene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Atrazine	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Benzaldehyde	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Bis(2-ethylhexyl)phthalate	**0.00027**		**0.00020**	**mg/L**	1	6/29/2009 09:05 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Caprolactam	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Carbazole	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Chrysene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Di-n-butyl phthalate	**0.00045**		**0.00020**	**mg/L**	1	6/29/2009 09:05 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Dibenzofuran	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Diethyl phthalate	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Fluoranthene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Fluorene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Hexachloroethane	ND		0.00020	mg/L	1	6/29/2009 09:05 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#5
Lab ID: 0906452-01
Collection Date: 6/16/2009 09:20 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Isophorone	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Naphthalene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Nitrobenzene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Pentachlorophenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Phenanthrene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Phenol	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Pyrene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
Surr: 2,4,6-Tribromophenol	*57.4*		*34-129*	*%REC*	1	6/29/2009 09:05 PM
Surr: 2-Fluorobiphenyl	*64.7*		*40-125*	*%REC*	1	6/29/2009 09:05 PM
Surr: 2-Fluorophenol	*56.2*		*20-120*	*%REC*	1	6/29/2009 09:05 PM
Surr: 4-Terphenyl-d14	*61.9*		*40-135*	*%REC*	1	6/29/2009 09:05 PM
Surr: Nitrobenzene-d5	*54.3*		*41-120*	*%REC*	1	6/29/2009 09:05 PM
Surr: Phenol-d6	*58.9*		*20-120*	*%REC*	1	6/29/2009 09:05 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1-Methylnaphthalene	ND		0.00020	mg/L	1	6/29/2009 09:05 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
2-Butanone	ND		0.010	mg/L	1	6/23/2009 09:21 PM
2-Hexanone	ND		0.010	mg/L	1	6/23/2009 09:21 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/23/2009 09:21 PM
Acetone	ND		0.010	mg/L	1	6/23/2009 09:21 PM
Benzene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Bromoform	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Bromomethane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Carbon disulfide	ND		0.010	mg/L	1	6/23/2009 09:21 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW#5
Collection Date: 6/16/2009 09:20 AM

Work Order: 0906452
Lab ID: 0906452-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Chloroethane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Chloroform	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Chloromethane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
m,p-Xylene	ND		0.010	mg/L	1	6/23/2009 09:21 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Methylene chloride	ND		0.010	mg/L	1	6/23/2009 09:21 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Naphthalene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
o-Xylene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Styrene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Toluene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Trichloroethene	ND		0.0050	mg/L	1	6/23/2009 09:21 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/23/2009 09:21 PM
Xylenes, Total	ND		0.015	mg/L	1	6/23/2009 09:21 PM
Surr: 1,2-Dichloroethane-d4	*106*		*70-125*	*%REC*	1	6/23/2009 09:21 PM
Surr: 4-Bromofluorobenzene	*115*		*72-125*	*%REC*	1	6/23/2009 09:21 PM
Surr: Dibromofluoromethane	*99.3*		*71-125*	*%REC*	1	6/23/2009 09:21 PM
Surr: Toluene-d8	*101*		*75-125*	*%REC*	1	6/23/2009 09:21 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**186**		**5.00**	**mg/L**	10	6/22/2009 06:42 PM
Fluoride	**1.39**		**0.100**	**mg/L**	1	6/22/2009 12:07 PM
Sulfate	**131**		**5.00**	**mg/L**	10	6/22/2009 06:42 PM
Nitrate/Nitrite (as N)	**3.31**		**0.500**	**mg/L**	5	6/19/2009 05:48 PM
Surr: Selenate (surr)	*95.3*		*85-115*	*%REC*	10	6/22/2009 06:42 PM
Surr: Selenate (surr)	*93.9*		*85-115*	*%REC*	1	6/22/2009 12:07 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	5	6/19/2009 05:48 PM
ALKALINITY			**SM2320B**			Analyst: **TDW**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#5
Lab ID: 0906452-01
Collection Date: 6/16/2009 09:20 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**323**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**323**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**1,820**		**1.00**	**µmhos/cm**	1	6/17/2009 05:00 PM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.82**	H	**0.100**	**pH units**	1	6/17/2009 03:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**952**		**10.0**	**mg/L**	1	6/19/2009 11:00 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#12
Lab ID: 0906452-02
Collection Date: 6/16/2009 10:25 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/24/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/24/2009 05:56 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/19/2009**	Analyst: **SKS**
Aluminum	ND		0.0200	mg/L	1	6/23/2009 07:02 AM
Arsenic	**0.00516**		**0.00500**	**mg/L**	1	6/23/2009 07:02 AM
Barium	**0.0775**		**0.00500**	**mg/L**	1	6/23/2009 07:02 AM
Boron	**0.200**		**0.0200**	**mg/L**	1	6/23/2009 07:02 AM
Cadmium	ND		0.00200	mg/L	1	6/23/2009 07:02 AM
Calcium	**62.4**		**0.500**	**mg/L**	1	6/23/2009 07:02 AM
Chromium	ND		0.00500	mg/L	1	6/23/2009 07:02 AM
Cobalt	ND		0.00500	mg/L	1	6/23/2009 07:02 AM
Copper	ND		0.00500	mg/L	1	6/23/2009 07:02 AM
Iron	ND		0.200	mg/L	1	6/23/2009 07:02 AM
Lead	ND		0.00500	mg/L	1	6/23/2009 07:02 AM
Magnesium	**5.90**		**0.200**	**mg/L**	1	6/23/2009 07:02 AM
Manganese	ND		0.00500	mg/L	1	6/23/2009 07:02 AM
Molybdenum	ND		0.00500	mg/L	1	6/23/2009 07:02 AM
Nickel	ND		0.00500	mg/L	1	6/23/2009 07:02 AM
Potassium	**1.96**		**0.200**	**mg/L**	1	6/23/2009 07:02 AM
Selenium	ND		0.00500	mg/L	1	6/23/2009 07:02 AM
Silver	ND		0.00500	mg/L	1	6/23/2009 07:02 AM
Sodium	**40.2**		**0.200**	**mg/L**	1	6/23/2009 07:02 AM
Zinc	ND		0.0100	mg/L	1	6/23/2009 07:02 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1,1'-Biphenyl	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	6/29/2009 09:26 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2-Chlorophenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2-Methylphenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2-Nitroaniline	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
2-Nitrophenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
3&4-Methylphenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#12
Lab ID: 0906452-02
Collection Date: 6/16/2009 10:25 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
3-Nitroaniline	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
4-Chloroaniline	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
4-Nitroaniline	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
4-Nitrophenol	ND		0.0010	mg/L	1	6/29/2009 09:26 PM
Acenaphthene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Acenaphthylene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Acetophenone	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Anthracene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Atrazine	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Benzaldehyde	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Bis(2-ethylhexyl)phthalate	**0.0027**		**0.00020**	**mg/L**	1	6/29/2009 09:26 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Caprolactam	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Carbazole	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Chrysene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Dibenzofuran	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Diethyl phthalate	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Fluoranthene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Fluorene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Hexachloroethane	ND		0.00020	mg/L	1	6/29/2009 09:26 PM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 0906452
Sample ID: MW#12 **Lab ID:** 0906452-02
Collection Date: 6/16/2009 10:25 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Isophorone	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Naphthalene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Nitrobenzene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Pentachlorophenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Phenanthrene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Phenol	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Pyrene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
Surr: 2,4,6-Tribromophenol	*68.7*		*34-129*	*%REC*	1	6/29/2009 09:26 PM
Surr: 2-Fluorobiphenyl	*68.6*		*40-125*	*%REC*	1	6/29/2009 09:26 PM
Surr: 2-Fluorophenol	*60.4*		*20-120*	*%REC*	1	6/29/2009 09:26 PM
Surr: 4-Terphenyl-d14	*64.2*		*40-135*	*%REC*	1	6/29/2009 09:26 PM
Surr: Nitrobenzene-d5	*54.7*		*41-120*	*%REC*	1	6/29/2009 09:26 PM
Surr: Phenol-d6	*60.1*		*20-120*	*%REC*	1	6/29/2009 09:26 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1-Methylnaphthalene	ND		0.00020	mg/L	1	6/29/2009 09:26 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 11:49 AM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 11:49 AM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 11:49 AM
Acetone	ND		0.010	mg/L	1	6/24/2009 11:49 AM
Benzene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 11:49 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#12
Lab ID: 0906452-02
Collection Date: 6/16/2009 10:25 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 11:49 AM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 11:49 AM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Styrene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Toluene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 11:49 AM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 11:49 AM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 11:49 AM
Surr: 1,2-Dichloroethane-d4	*109*		*70-125*	*%REC*	1	6/24/2009 11:49 AM
Surr: 4-Bromofluorobenzene	*109*		*72-125*	*%REC*	1	6/24/2009 11:49 AM
Surr: Dibromofluoromethane	*105*		*71-125*	*%REC*	1	6/24/2009 11:49 AM
Surr: Toluene-d8	*107*		*75-125*	*%REC*	1	6/24/2009 11:49 AM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**23.0**		**0.500**	**mg/L**	1	6/22/2009 12:31 PM
Fluoride	**1.16**		**0.100**	**mg/L**	1	6/22/2009 12:31 PM
Sulfate	**49.6**		**0.500**	**mg/L**	1	6/22/2009 12:31 PM
Nitrate/Nitrite (as N)	**1.98**		**0.500**	**mg/L**	5	6/19/2009 06:58 PM
Surr: Selenate (surr)	*97.7*		*85-115*	*%REC*	5	6/19/2009 06:58 PM
Surr: Selenate (surr)	*93.5*		*85-115*	*%REC*	1	6/22/2009 12:31 PM
ALKALINITY			**SM2320B**			Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**165**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#12
Lab ID: 0906452-02
Collection Date: 6/16/2009 10:25 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**165**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**663**		**1.00**	**µmhos/cm**	1	6/17/2009 05:00 PM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**6.69**	H	**0.100**	**pH units**	1	6/17/2009 03:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**354**		**10.0**	**mg/L**	1	6/19/2009 11:00 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#14
Lab ID: 0906452-03
Collection Date: 6/16/2009 11:15 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/24/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/24/2009 05:58 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/19/2009**	Analyst: **SKS**
Aluminum	ND		0.0200	mg/L	1	6/23/2009 07:08 AM
Arsenic	ND		0.00500	mg/L	1	6/23/2009 07:08 AM
Barium	**0.0770**		**0.00500**	**mg/L**	1	6/23/2009 07:08 AM
Boron	**0.132**		**0.0200**	**mg/L**	1	6/23/2009 07:08 AM
Cadmium	ND		0.00200	mg/L	1	6/23/2009 07:08 AM
Calcium	**89.8**		**0.500**	**mg/L**	1	6/23/2009 07:08 AM
Chromium	ND		0.00500	mg/L	1	6/23/2009 07:08 AM
Cobalt	ND		0.00500	mg/L	1	6/23/2009 07:08 AM
Copper	ND		0.00500	mg/L	1	6/23/2009 07:08 AM
Iron	ND		0.200	mg/L	1	6/23/2009 07:08 AM
Lead	ND		0.00500	mg/L	1	6/23/2009 07:08 AM
Magnesium	**11.3**		**0.200**	**mg/L**	1	6/23/2009 07:08 AM
Manganese	**0.0199**		**0.00500**	**mg/L**	1	6/23/2009 07:08 AM
Molybdenum	**0.0215**		**0.00500**	**mg/L**	1	6/23/2009 07:08 AM
Nickel	ND		0.00500	mg/L	1	6/23/2009 07:08 AM
Potassium	**3.09**		**0.200**	**mg/L**	1	6/23/2009 07:08 AM
Selenium	ND		0.00500	mg/L	1	6/23/2009 07:08 AM
Silver	ND		0.00500	mg/L	1	6/23/2009 07:08 AM
Sodium	**25.7**		**0.200**	**mg/L**	1	6/23/2009 07:08 AM
Zinc	**0.0255**		**0.0100**	**mg/L**	1	6/23/2009 07:08 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1,1'-Biphenyl	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	6/30/2009 02:33 AM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2-Chloronaphthalene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2-Chlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
2-Nitrophenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
3&4-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#14
Lab ID: 0906452-03
Collection Date: 6/16/2009 11:15 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
3-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
4-Chloroaniline	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
4-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
4-Nitrophenol	ND		0.0010	mg/L	1	6/30/2009 02:33 AM
Acenaphthene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Acenaphthylene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Acetophenone	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Anthracene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Atrazine	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Benz(a)anthracene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Benzaldehyde	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Benzo(a)pyrene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Bis(2-ethylhexyl)phthalate	**0.0071**		**0.00020**	**mg/L**	1	6/30/2009 02:33 AM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Caprolactam	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Carbazole	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Chrysene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Dibenzofuran	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Diethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Dimethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Fluoranthene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Fluorene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Hexachlorobenzene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Hexachlorobutadiene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Hexachloroethane	ND		0.00020	mg/L	1	6/30/2009 02:33 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#14
Lab ID: 0906452-03
Collection Date: 6/16/2009 11:15 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Isophorone	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Naphthalene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Nitrobenzene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Pentachlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Phenanthrene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Phenol	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Pyrene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
Surr: 2,4,6-Tribromophenol	*68.1*		*34-129*	*%REC*	1	6/30/2009 02:33 AM
Surr: 2-Fluorobiphenyl	*65.7*		*40-125*	*%REC*	1	6/30/2009 02:33 AM
Surr: 2-Fluorophenol	*56.9*		*20-120*	*%REC*	1	6/30/2009 02:33 AM
Surr: 4-Terphenyl-d14	*62.4*		*40-135*	*%REC*	1	6/30/2009 02:33 AM
Surr: Nitrobenzene-d5	*53.7*		*41-120*	*%REC*	1	6/30/2009 02:33 AM
Surr: Phenol-d6	*58.2*		*20-120*	*%REC*	1	6/30/2009 02:33 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 02:33 AM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 04:29 PM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 04:29 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 04:29 PM
Acetone	ND		0.010	mg/L	1	6/24/2009 04:29 PM
Benzene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 04:29 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#14
Lab ID: 0906452-03
Collection Date: 6/16/2009 11:15 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 04:29 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 04:29 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Styrene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Toluene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 04:29 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 04:29 PM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 04:29 PM
Surr: 1,2-Dichloroethane-d4	*113*		*70-125*	*%REC*	1	6/24/2009 04:29 PM
Surr: 4-Bromofluorobenzene	*92.4*		*72-125*	*%REC*	1	6/24/2009 04:29 PM
Surr: Dibromofluoromethane	*112*		*71-125*	*%REC*	1	6/24/2009 04:29 PM
Surr: Toluene-d8	*102*		*75-125*	*%REC*	1	6/24/2009 04:29 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**93.0**		**5.00**	**mg/L**	10	6/22/2009 08:39 PM
Fluoride	**0.851**		**0.100**	**mg/L**	1	6/22/2009 12:54 PM
Sulfate	**60.9**		**5.00**	**mg/L**	10	6/22/2009 08:39 PM
Nitrate/Nitrite (as N)	**5.16**		**0.500**	**mg/L**	5	6/19/2009 07:21 PM
Surr: Selenate (surr)	*94.8*		*85-115*	*%REC*	10	6/22/2009 08:39 PM
Surr: Selenate (surr)	*94.0*		*85-115*	*%REC*	1	6/22/2009 12:54 PM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	5	6/19/2009 07:21 PM
ALKALINITY			**SM2320B**			Analyst: **TDW**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#14
Lab ID: 0906452-03
Collection Date: 6/16/2009 11:15 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**162**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**162**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**888**		**1.00**	**µmhos/cm**	1	6/17/2009 05:00 PM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**6.89**	H	**0.100**	**pH units**	1	6/17/2009 03:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**540**		**10.0**	**mg/L**	1	6/19/2009 11:00 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW#13
Collection Date: 6/16/2009 12:30 PM

Work Order: 0906452
Lab ID: 0906452-04
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/24/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/24/2009 06:00 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/19/2009**	Analyst: **SKS**
Aluminum	ND		0.0200	mg/L	1	6/23/2009 07:14 AM
Arsenic	ND		0.00500	mg/L	1	6/23/2009 07:14 AM
Barium	**0.0692**		**0.00500**	**mg/L**	1	6/23/2009 07:14 AM
Boron	**0.253**		**0.0200**	**mg/L**	1	6/23/2009 07:14 AM
Cadmium	ND		0.00200	mg/L	1	6/23/2009 07:14 AM
Calcium	**297**		**5.00**	**mg/L**	10	6/23/2009 05:25 PM
Chromium	**0.0106**		**0.00500**	**mg/L**	1	6/23/2009 07:14 AM
Cobalt	**0.0285**		**0.00500**	**mg/L**	1	6/23/2009 07:14 AM
Copper	ND		0.00500	mg/L	1	6/23/2009 07:14 AM
Iron	ND		0.200	mg/L	1	6/23/2009 07:14 AM
Lead	ND		0.00500	mg/L	1	6/23/2009 07:14 AM
Magnesium	**34.9**		**0.200**	**mg/L**	1	6/23/2009 07:14 AM
Manganese	**0.0176**		**0.00500**	**mg/L**	1	6/23/2009 07:14 AM
Molybdenum	ND		0.00500	mg/L	1	6/23/2009 07:14 AM
Nickel	**0.0126**		**0.00500**	**mg/L**	1	6/23/2009 07:14 AM
Potassium	**4.48**		**0.200**	**mg/L**	1	6/23/2009 07:14 AM
Selenium	ND		0.00500	mg/L	1	6/23/2009 07:14 AM
Silver	ND		0.00500	mg/L	1	6/23/2009 07:14 AM
Sodium	**95.0**		**0.200**	**mg/L**	1	6/23/2009 07:14 AM
Zinc	**0.0269**		**0.0100**	**mg/L**	1	6/23/2009 07:14 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1,1'-Biphenyl	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	6/30/2009 02:55 AM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2-Chloronaphthalene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2-Chlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
2-Nitrophenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
3&4-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#13
Lab ID: 0906452-04
Collection Date: 6/16/2009 12:30 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
3-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
4-Chloroaniline	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
4-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
4-Nitrophenol	ND		0.0010	mg/L	1	6/30/2009 02:55 AM
Acenaphthene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Acenaphthylene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Acetophenone	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Anthracene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Atrazine	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Benz(a)anthracene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Benzaldehyde	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Benzo(a)pyrene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Bis(2-ethylhexyl)phthalate	**0.0031**		**0.00020**	**mg/L**	1	6/30/2009 02:55 AM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Caprolactam	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Carbazole	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Chrysene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Dibenzofuran	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Diethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Dimethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Fluoranthene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Fluorene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Hexachlorobenzene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Hexachlorobutadiene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Hexachloroethane	ND		0.00020	mg/L	1	6/30/2009 02:55 AM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 0906452
Sample ID: MW#13 **Lab ID:** 0906452-04
Collection Date: 6/16/2009 12:30 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Isophorone	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Naphthalene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Nitrobenzene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Pentachlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Phenanthrene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Phenol	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Pyrene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
Surr: 2,4,6-Tribromophenol	*58.3*		*34-129*	*%REC*	1	6/30/2009 02:55 AM
Surr: 2-Fluorobiphenyl	*65.8*		*40-125*	*%REC*	1	6/30/2009 02:55 AM
Surr: 2-Fluorophenol	*49.3*		*20-120*	*%REC*	1	6/30/2009 02:55 AM
Surr: 4-Terphenyl-d14	*57.6*		*40-135*	*%REC*	1	6/30/2009 02:55 AM
Surr: Nitrobenzene-d5	*52.0*		*41-120*	*%REC*	1	6/30/2009 02:55 AM
Surr: Phenol-d6	*52.6*		*20-120*	*%REC*	1	6/30/2009 02:55 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 02:55 AM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 05:46 PM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 05:46 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 05:46 PM
Acetone	ND		0.010	mg/L	1	6/24/2009 05:46 PM
Benzene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 05:46 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#13
Lab ID: 0906452-04
Collection Date: 6/16/2009 12:30 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 05:46 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 05:46 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Styrene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Toluene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 05:46 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 05:46 PM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 05:46 PM
Surr: 1,2-Dichloroethane-d4	*110*		*70-125*	*%REC*	1	6/24/2009 05:46 PM
Surr: 4-Bromofluorobenzene	*98.5*		*72-125*	*%REC*	1	6/24/2009 05:46 PM
Surr: Dibromofluoromethane	*107*		*71-125*	*%REC*	1	6/24/2009 05:46 PM
Surr: Toluene-d8	*101*		*75-125*	*%REC*	1	6/24/2009 05:46 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**425**		**10.0**	**mg/L**	20	6/22/2009 09:02 PM
Fluoride	**0.220**		**0.100**	**mg/L**	1	6/22/2009 01:17 PM
Sulfate	**138**		**10.0**	**mg/L**	20	6/22/2009 09:02 PM
Nitrate/Nitrite (as N)	**2.65**		**0.500**	**mg/L**	5	6/19/2009 07:44 PM
Surr: Selenate (surr)	*95.3*		*85-115*	*%REC*	20	6/22/2009 09:02 PM
Surr: Selenate (surr)	*95.5*		*85-115*	*%REC*	1	6/22/2009 01:17 PM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	5	6/19/2009 07:44 PM
ALKALINITY			**SM2320B**			Analyst: **TDW**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#13
Lab ID: 0906452-04
Collection Date: 6/16/2009 12:30 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**334**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**334**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**2,520**		**1.00**	**µmhos/cm**	1	6/17/2009 05:00 PM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**6.44**	H	**0.100**	**pH units**	1	6/17/2009 03:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**1,790**		**10.0**	**mg/L**	1	6/19/2009 11:00 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW#4
Collection Date: 6/16/2009 01:20 PM

Work Order: 0906452
Lab ID: 0906452-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/24/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/24/2009 06:02 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/19/2009**	Analyst: **SKS**
Aluminum	**0.180**		**0.0200**	**mg/L**	1	6/23/2009 07:20 AM
Arsenic	ND		0.00500	mg/L	1	6/23/2009 07:20 AM
Barium	**0.174**		**0.00500**	**mg/L**	1	6/23/2009 07:20 AM
Boron	**0.160**		**0.0200**	**mg/L**	1	6/23/2009 07:20 AM
Cadmium	ND		0.00200	mg/L	1	6/23/2009 07:20 AM
Calcium	**46.3**		**0.500**	**mg/L**	1	6/23/2009 07:20 AM
Chromium	**0.00534**		**0.00500**	**mg/L**	1	6/23/2009 07:20 AM
Cobalt	ND		0.00500	mg/L	1	6/23/2009 07:20 AM
Copper	ND		0.00500	mg/L	1	6/23/2009 07:20 AM
Iron	ND		0.200	mg/L	1	6/23/2009 07:20 AM
Lead	ND		0.00500	mg/L	1	6/23/2009 07:20 AM
Magnesium	**7.48**		**0.200**	**mg/L**	1	6/23/2009 07:20 AM
Manganese	ND		0.00500	mg/L	1	6/23/2009 07:20 AM
Molybdenum	ND		0.00500	mg/L	1	6/23/2009 07:20 AM
Nickel	ND		0.00500	mg/L	1	6/23/2009 07:20 AM
Potassium	**2.47**		**0.200**	**mg/L**	1	6/23/2009 07:20 AM
Selenium	ND		0.00500	mg/L	1	6/23/2009 07:20 AM
Silver	ND		0.00500	mg/L	1	6/23/2009 07:20 AM
Sodium	**64.1**		**0.200**	**mg/L**	1	6/23/2009 07:20 AM
Zinc	**0.0120**		**0.0100**	**mg/L**	1	6/23/2009 07:20 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1,1'-Biphenyl	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	6/30/2009 03:16 AM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2-Chloronaphthalene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2-Chlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
2-Nitrophenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
3&4-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#4
Lab ID: 0906452-05
Collection Date: 6/16/2009 01:20 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
3-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
4-Chloroaniline	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
4-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
4-Nitrophenol	ND		0.0010	mg/L	1	6/30/2009 03:16 AM
Acenaphthene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Acenaphthylene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Acetophenone	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Anthracene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Atrazine	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Benz(a)anthracene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Benzaldehyde	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Benzo(a)pyrene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Bis(2-ethylhexyl)phthalate	**0.0020**		**0.00020**	**mg/L**	1	6/30/2009 03:16 AM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Caprolactam	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Carbazole	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Chrysene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Dibenzofuran	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Diethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Dimethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Fluoranthene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Fluorene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Hexachlorobenzene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Hexachlorobutadiene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Hexachloroethane	ND		0.00020	mg/L	1	6/30/2009 03:16 AM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 0906452
Sample ID: MW#4 **Lab ID:** 0906452-05
Collection Date: 6/16/2009 01:20 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Isophorone	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Naphthalene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Nitrobenzene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Pentachlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Phenanthrene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Phenol	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Pyrene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
Surr: 2,4,6-Tribromophenol	*63.3*		*34-129*	*%REC*	1	6/30/2009 03:16 AM
Surr: 2-Fluorobiphenyl	*70.6*		*40-125*	*%REC*	1	6/30/2009 03:16 AM
Surr: 2-Fluorophenol	*59.3*		*20-120*	*%REC*	1	6/30/2009 03:16 AM
Surr: 4-Terphenyl-d14	*61.3*		*40-135*	*%REC*	1	6/30/2009 03:16 AM
Surr: Nitrobenzene-d5	*57.5*		*41-120*	*%REC*	1	6/30/2009 03:16 AM
Surr: Phenol-d6	*60.9*		*20-120*	*%REC*	1	6/30/2009 03:16 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 03:16 AM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 06:11 PM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 06:11 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 06:11 PM
Acetone	ND		0.010	mg/L	1	6/24/2009 06:11 PM
Benzene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 06:11 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW#4
Collection Date: 6/16/2009 01:20 PM

Work Order: 0906452
Lab ID: 0906452-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 06:11 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 06:11 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Styrene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Toluene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 06:11 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 06:11 PM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 06:11 PM
Surr: 1,2-Dichloroethane-d4	*108*		*70-125*	*%REC*	1	6/24/2009 06:11 PM
Surr: 4-Bromofluorobenzene	*96.6*		*72-125*	*%REC*	1	6/24/2009 06:11 PM
Surr: Dibromofluoromethane	*104*		*71-125*	*%REC*	1	6/24/2009 06:11 PM
Surr: Toluene-d8	*104*		*75-125*	*%REC*	1	6/24/2009 06:11 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**28.9**		**0.500**	**mg/L**	1	6/22/2009 01:40 PM
Fluoride	**0.841**		**0.100**	**mg/L**	1	6/22/2009 01:40 PM
Sulfate	**61.5**		**2.50**	**mg/L**	5	6/22/2009 09:25 PM
Nitrate/Nitrite (as N)	**1.84**		**0.500**	**mg/L**	5	6/19/2009 08:07 PM
Surr: Selenate (surr)	*95.8*		*85-115*	*%REC*	5	6/22/2009 09:25 PM
Surr: Selenate (surr)	*95.1*		*85-115*	*%REC*	1	6/22/2009 01:40 PM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	5	6/19/2009 08:07 PM
ALKALINITY			**SM2320B**			Analyst: **TDW**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#4
Lab ID: 0906452-05
Collection Date: 6/16/2009 01:20 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**170**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**170**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**704**		**1.00**	**µmhos/cm**	1	6/17/2009 05:00 PM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.30**	H	**0.100**	**pH units**	1	6/17/2009 03:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**422**		**10.0**	**mg/L**	1	6/19/2009 11:00 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW#3
Collection Date: 6/16/2009 01:50 PM

Work Order: 0906452
Lab ID: 0906452-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/24/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/24/2009 06:04 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/19/2009**	Analyst: **SKS**
Aluminum	**0.308**		**0.0200**	**mg/L**	1	6/23/2009 07:44 AM
Arsenic	**0.00815**		**0.00500**	**mg/L**	1	6/23/2009 07:44 AM
Barium	**0.115**		**0.00500**	**mg/L**	1	6/23/2009 07:44 AM
Boron	**0.160**		**0.0200**	**mg/L**	1	6/23/2009 07:44 AM
Cadmium	ND		0.00200	mg/L	1	6/23/2009 07:44 AM
Calcium	**19.9**		**0.500**	**mg/L**	1	6/23/2009 07:44 AM
Chromium	**0.00709**		**0.00500**	**mg/L**	1	6/23/2009 07:44 AM
Cobalt	ND		0.00500	mg/L	1	6/23/2009 07:44 AM
Copper	ND		0.00500	mg/L	1	6/23/2009 07:44 AM
Iron	ND		0.200	mg/L	1	6/23/2009 07:44 AM
Lead	ND		0.00500	mg/L	1	6/23/2009 07:44 AM
Magnesium	**3.09**		**0.200**	**mg/L**	1	6/23/2009 07:44 AM
Manganese	ND		0.00500	mg/L	1	6/23/2009 07:44 AM
Molybdenum	**0.0151**		**0.00500**	**mg/L**	1	6/23/2009 07:44 AM
Nickel	ND		0.00500	mg/L	1	6/23/2009 07:44 AM
Potassium	**2.69**		**0.200**	**mg/L**	1	6/23/2009 07:44 AM
Selenium	ND		0.00500	mg/L	1	6/23/2009 07:44 AM
Silver	ND		0.00500	mg/L	1	6/23/2009 07:44 AM
Sodium	**141**		**0.200**	**mg/L**	1	6/23/2009 07:44 AM
Zinc	ND		0.0100	mg/L	1	6/23/2009 07:44 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1,1'-Biphenyl	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	6/30/2009 03:38 AM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2-Chloronaphthalene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2-Chlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
2-Nitrophenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
3&4-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#3
Lab ID: 0906452-06
Collection Date: 6/16/2009 01:50 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
3-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
4-Chloroaniline	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
4-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
4-Nitrophenol	ND		0.0010	mg/L	1	6/30/2009 03:38 AM
Acenaphthene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Acenaphthylene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Acetophenone	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Anthracene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Atrazine	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Benz(a)anthracene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Benzaldehyde	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Benzo(a)pyrene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Bis(2-ethylhexyl)phthalate	**0.0022**		**0.00020**	**mg/L**	1	6/30/2009 03:38 AM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Caprolactam	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Carbazole	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Chrysene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Dibenzofuran	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Diethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Dimethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Fluoranthene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Fluorene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Hexachlorobenzene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Hexachlorobutadiene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Hexachloroethane	ND		0.00020	mg/L	1	6/30/2009 03:38 AM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 0906452
Sample ID: MW#3 **Lab ID:** 0906452-06
Collection Date: 6/16/2009 01:50 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Isophorone	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Naphthalene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Nitrobenzene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Pentachlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Phenanthrene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Phenol	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Pyrene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
Surr: 2,4,6-Tribromophenol	*69.0*		*34-129*	*%REC*	1	6/30/2009 03:38 AM
Surr: 2-Fluorobiphenyl	*66.1*		*40-125*	*%REC*	1	6/30/2009 03:38 AM
Surr: 2-Fluorophenol	*55.8*		*20-120*	*%REC*	1	6/30/2009 03:38 AM
Surr: 4-Terphenyl-d14	*63.7*		*40-135*	*%REC*	1	6/30/2009 03:38 AM
Surr: Nitrobenzene-d5	*55.2*		*41-120*	*%REC*	1	6/30/2009 03:38 AM
Surr: Phenol-d6	*60.2*		*20-120*	*%REC*	1	6/30/2009 03:38 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 03:38 AM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 06:37 PM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 06:37 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 06:37 PM
Acetone	ND		0.010	mg/L	1	6/24/2009 06:37 PM
Benzene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 06:37 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW#3
Collection Date: 6/16/2009 01:50 PM

Work Order: 0906452
Lab ID: 0906452-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 06:37 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 06:37 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Styrene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Toluene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 06:37 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 06:37 PM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 06:37 PM
Surr: 1,2-Dichloroethane-d4	*114*		*70-125*	*%REC*	1	6/24/2009 06:37 PM
Surr: 4-Bromofluorobenzene	*109*		*72-125*	*%REC*	1	6/24/2009 06:37 PM
Surr: Dibromofluoromethane	*109*		*71-125*	*%REC*	1	6/24/2009 06:37 PM
Surr: Toluene-d8	*108*		*75-125*	*%REC*	1	6/24/2009 06:37 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**29.1**		**0.500**	**mg/L**	1	6/22/2009 02:03 PM
Fluoride	**3.38**		**0.100**	**mg/L**	1	6/22/2009 02:03 PM
Sulfate	**64.6**		**2.50**	**mg/L**	5	6/22/2009 09:48 PM
Nitrate/Nitrite (as N)	**2.19**		**0.500**	**mg/L**	5	6/19/2009 08:31 PM
Surr: Selenate (surr)	*95.9*		*85-115*	*%REC*	5	6/22/2009 09:48 PM
Surr: Selenate (surr)	*95.3*		*85-115*	*%REC*	1	6/22/2009 02:03 PM
Surr: Selenate (surr)	*104*		*85-115*	*%REC*	5	6/19/2009 08:31 PM
ALKALINITY			**SM2320B**			Analyst: **TDW**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#3
Lab ID: 0906452-06
Collection Date: 6/16/2009 01:50 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**223**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**223**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**867**		**1.00**	**µmhos/cm**	1	6/17/2009 05:00 PM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.54**	H	**0.100**	**pH units**	1	6/17/2009 03:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**504**		**10.0**	**mg/L**	1	6/19/2009 11:00 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#9
Lab ID: 0906452-07
Collection Date: 6/16/2009 02:20 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/24/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/24/2009 06:06 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/19/2009**	Analyst: **SKS**
Aluminum	**0.0468**		**0.0200**	**mg/L**	1	6/23/2009 07:50 AM
Arsenic	**0.0373**		**0.00500**	**mg/L**	1	6/23/2009 07:50 AM
Barium	**0.0911**		**0.00500**	**mg/L**	1	6/23/2009 07:50 AM
Boron	**0.122**		**0.0200**	**mg/L**	1	6/23/2009 07:50 AM
Cadmium	ND		0.00200	mg/L	1	6/23/2009 07:50 AM
Calcium	**10.9**		**0.500**	**mg/L**	1	6/23/2009 07:50 AM
Chromium	ND		0.00500	mg/L	1	6/23/2009 07:50 AM
Cobalt	ND		0.00500	mg/L	1	6/23/2009 07:50 AM
Copper	ND		0.00500	mg/L	1	6/23/2009 07:50 AM
Iron	ND		0.200	mg/L	1	6/23/2009 07:50 AM
Lead	ND		0.00500	mg/L	1	6/23/2009 07:50 AM
Magnesium	**1.56**		**0.200**	**mg/L**	1	6/23/2009 07:50 AM
Manganese	ND		0.00500	mg/L	1	6/23/2009 07:50 AM
Molybdenum	ND		0.00500	mg/L	1	6/23/2009 07:50 AM
Nickel	ND		0.00500	mg/L	1	6/23/2009 07:50 AM
Potassium	**2.20**		**0.200**	**mg/L**	1	6/23/2009 07:50 AM
Selenium	ND		0.00500	mg/L	1	6/23/2009 07:50 AM
Silver	ND		0.00500	mg/L	1	6/23/2009 07:50 AM
Sodium	**117**		**0.200**	**mg/L**	1	6/23/2009 07:50 AM
Zinc	ND		0.0100	mg/L	1	6/23/2009 07:50 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1,1'-Biphenyl	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	6/30/2009 03:59 AM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
2-Chloronaphthalene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
2-Chlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
2-Methylnaphthalene	**0.00030**		**0.00020**	**mg/L**	1	6/30/2009 03:59 AM
2-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
2-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
2-Nitrophenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
3&4-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW#9
Collection Date: 6/16/2009 02:20 PM

Work Order: 0906452
Lab ID: 0906452-07
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
3-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
4-Chloroaniline	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
4-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
4-Nitrophenol	ND		0.0010	mg/L	1	6/30/2009 03:59 AM
Acenaphthene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Acenaphthylene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Acetophenone	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Anthracene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Atrazine	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Benz(a)anthracene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Benzaldehyde	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Benzo(a)pyrene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Bis(2-ethylhexyl)phthalate	**0.0030**		**0.00020**	**mg/L**	1	6/30/2009 03:59 AM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Caprolactam	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Carbazole	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Chrysene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Dibenzofuran	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Diethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Dimethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Fluoranthene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Fluorene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Hexachlorobenzene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Hexachlorobutadiene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Hexachloroethane	ND		0.00020	mg/L	1	6/30/2009 03:59 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#9
Lab ID: 0906452-07
Collection Date: 6/16/2009 02:20 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Isophorone	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Naphthalene	**0.00057**		**0.00020**	**mg/L**	1	6/30/2009 03:59 AM
Nitrobenzene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Pentachlorophenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Phenanthrene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Phenol	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Pyrene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
Surr: 2,4,6-Tribromophenol	*63.7*		*34-129*	*%REC*	1	6/30/2009 03:59 AM
Surr: 2-Fluorobiphenyl	*66.7*		*40-125*	*%REC*	1	6/30/2009 03:59 AM
Surr: 2-Fluorophenol	*58.7*		*20-120*	*%REC*	1	6/30/2009 03:59 AM
Surr: 4-Terphenyl-d14	*63.1*		*40-135*	*%REC*	1	6/30/2009 03:59 AM
Surr: Nitrobenzene-d5	*57.0*		*41-120*	*%REC*	1	6/30/2009 03:59 AM
Surr: Phenol-d6	*62.5*		*20-120*	*%REC*	1	6/30/2009 03:59 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 03:59 AM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 07:02 PM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 07:02 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 07:02 PM
Acetone	ND		0.010	mg/L	1	6/24/2009 07:02 PM
Benzene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 07:02 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#9
Lab ID: 0906452-07
Collection Date: 6/16/2009 02:20 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 07:02 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 07:02 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Styrene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Toluene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:02 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 07:02 PM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 07:02 PM
Surr: 1,2-Dichloroethane-d4	*117*		*70-125*	*%REC*	1	6/24/2009 07:02 PM
Surr: 4-Bromofluorobenzene	*109*		*72-125*	*%REC*	1	6/24/2009 07:02 PM
Surr: Dibromofluoromethane	*111*		*71-125*	*%REC*	1	6/24/2009 07:02 PM
Surr: Toluene-d8	*104*		*75-125*	*%REC*	1	6/24/2009 07:02 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**23.0**		**0.500**	**mg/L**	1	6/22/2009 02:27 PM
Fluoride	**1.69**		**0.100**	**mg/L**	1	6/22/2009 02:27 PM
Sulfate	**73.2**		**2.50**	**mg/L**	5	6/22/2009 10:12 PM
Nitrate/Nitrite (as N)	**0.748**		**0.500**	**mg/L**	5	6/19/2009 10:04 PM
Surr: Selenate (surr)	*95.9*		*85-115*	*%REC*	5	6/22/2009 10:12 PM
Surr: Selenate (surr)	*95.6*		*85-115*	*%REC*	1	6/22/2009 02:27 PM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	5	6/19/2009 10:04 PM
ALKALINITY			**SM2320B**			Analyst: **TDW**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#9
Lab ID: 0906452-07
Collection Date: 6/16/2009 02:20 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**184**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**184**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**715**		**1.00**	**µmhos/cm**	1	6/17/2009 05:00 PM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.80**	H	**0.100**	**pH units**	1	6/17/2009 03:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**380**		**10.0**	**mg/L**	1	6/19/2009 11:00 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW#10
Collection Date: 6/16/2009 03:00 PM

Work Order: 0906452
Lab ID: 0906452-08
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/24/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/24/2009 06:12 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/19/2009**	Analyst: **SKS**
Aluminum	ND		0.0200	mg/L	1	6/23/2009 07:56 AM
Arsenic	ND		0.00500	mg/L	1	6/23/2009 07:56 AM
Barium	**0.113**		**0.00500**	**mg/L**	1	6/23/2009 07:56 AM
Boron	**0.138**		**0.0200**	**mg/L**	1	6/23/2009 07:56 AM
Cadmium	ND		0.00200	mg/L	1	6/23/2009 07:56 AM
Calcium	**59.7**		**0.500**	**mg/L**	1	6/23/2009 07:56 AM
Chromium	ND		0.00500	mg/L	1	6/23/2009 07:56 AM
Cobalt	ND		0.00500	mg/L	1	6/23/2009 07:56 AM
Copper	ND		0.00500	mg/L	1	6/23/2009 07:56 AM
Iron	ND		0.200	mg/L	1	6/23/2009 07:56 AM
Lead	ND		0.00500	mg/L	1	6/23/2009 07:56 AM
Magnesium	**8.86**		**0.200**	**mg/L**	1	6/23/2009 07:56 AM
Manganese	ND		0.00500	mg/L	1	6/23/2009 07:56 AM
Molybdenum	ND		0.00500	mg/L	1	6/23/2009 07:56 AM
Nickel	ND		0.00500	mg/L	1	6/23/2009 07:56 AM
Potassium	**1.93**		**0.200**	**mg/L**	1	6/23/2009 07:56 AM
Selenium	ND		0.00500	mg/L	1	6/23/2009 07:56 AM
Silver	ND		0.00500	mg/L	1	6/23/2009 07:56 AM
Sodium	**43.3**		**0.200**	**mg/L**	1	6/23/2009 07:56 AM
Zinc	**0.0127**		**0.0100**	**mg/L**	1	6/23/2009 07:56 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1,1´-Biphenyl	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	6/30/2009 04:21 AM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2-Chloronaphthalene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2-Chlorophenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
2-Nitrophenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
3&4-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW#10
Collection Date: 6/16/2009 03:00 PM

Work Order: 0906452
Lab ID: 0906452-08
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
3-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
4-Chloroaniline	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
4-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
4-Nitrophenol	ND		0.0010	mg/L	1	6/30/2009 04:21 AM
Acenaphthene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Acenaphthylene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Acetophenone	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Anthracene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Atrazine	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Benz(a)anthracene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Benzaldehyde	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Benzo(a)pyrene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Bis(2-ethylhexyl)phthalate	**0.00044**		**0.00020**	**mg/L**	1	6/30/2009 04:21 AM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Caprolactam	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Carbazole	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Chrysene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Dibenzofuran	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Diethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Dimethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Fluoranthene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Fluorene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Hexachlorobenzene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Hexachlorobutadiene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Hexachloroethane	ND		0.00020	mg/L	1	6/30/2009 04:21 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#10
Lab ID: 0906452-08
Collection Date: 6/16/2009 03:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Isophorone	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Naphthalene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Nitrobenzene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Pentachlorophenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Phenanthrene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Phenol	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Pyrene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
Surr: 2,4,6-Tribromophenol	*63.5*		*34-129*	*%REC*	1	6/30/2009 04:21 AM
Surr: 2-Fluorobiphenyl	*68.5*		*40-125*	*%REC*	1	6/30/2009 04:21 AM
Surr: 2-Fluorophenol	*59.2*		*20-120*	*%REC*	1	6/30/2009 04:21 AM
Surr: 4-Terphenyl-d14	*59.5*		*40-135*	*%REC*	1	6/30/2009 04:21 AM
Surr: Nitrobenzene-d5	*56.7*		*41-120*	*%REC*	1	6/30/2009 04:21 AM
Surr: Phenol-d6	*61.2*		*20-120*	*%REC*	1	6/30/2009 04:21 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/18/2009**	Analyst: **ACN**
1-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 04:21 AM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 07:28 PM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 07:28 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 07:28 PM
Acetone	ND		0.010	mg/L	1	6/24/2009 07:28 PM
Benzene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 07:28 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#10
Lab ID: 0906452-08
Collection Date: 6/16/2009 03:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 07:28 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 07:28 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Styrene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Toluene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:28 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 07:28 PM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 07:28 PM
Surr: 1,2-Dichloroethane-d4	*111*		*70-125*	*%REC*	1	6/24/2009 07:28 PM
Surr: 4-Bromofluorobenzene	*103*		*72-125*	*%REC*	1	6/24/2009 07:28 PM
Surr: Dibromofluoromethane	*110*		*71-125*	*%REC*	1	6/24/2009 07:28 PM
Surr: Toluene-d8	*103*		*75-125*	*%REC*	1	6/24/2009 07:28 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**32.2**		**0.500**	**mg/L**	1	6/22/2009 02:50 PM
Fluoride	**0.878**		**0.100**	**mg/L**	1	6/22/2009 02:50 PM
Sulfate	**76.5**		**2.50**	**mg/L**	5	6/22/2009 10:35 PM
Nitrate/Nitrite (as N)	**1.83**		**0.500**	**mg/L**	5	6/19/2009 10:27 PM
Surr: Selenate (surr)	*98.0*		*85-115*	*%REC*	5	6/22/2009 10:35 PM
Surr: Selenate (surr)	*95.6*		*85-115*	*%REC*	1	6/22/2009 02:50 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	5	6/19/2009 10:27 PM
ALKALINITY			**SM2320B**			Analyst: **TDW**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: MW#10
Lab ID: 0906452-08
Collection Date: 6/16/2009 03:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**165**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/24/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**165**		**5.00**	**mg/L**	1	6/24/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**676**		**1.00**	**µmhos/cm**	1	6/17/2009 05:00 PM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.15**		**0.100**	**pH units**	1	6/17/2009 03:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**378**		**10.0**	**mg/L**	1	6/19/2009 11:00 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Trip Blank 2515
Collection Date: 6/16/2009 04:50 PM

Work Order: 0906452
Lab ID: 0906452-09
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 04:54 PM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 04:54 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 04:54 PM
Acetone	ND		0.010	mg/L	1	6/24/2009 04:54 PM
Benzene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 04:54 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 04:54 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 04:54 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Styrene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Trip Blank 2515
Collection Date: 6/16/2009 04:50 PM

Work Order: 0906452
Lab ID: 0906452-09
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Toluene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 04:54 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 04:54 PM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 04:54 PM
Surr: 1,2-Dichloroethane-d4	*110*		*70-125*	*%REC*	1	6/24/2009 04:54 PM
Surr: 4-Bromofluorobenzene	*104*		*72-125*	*%REC*	1	6/24/2009 04:54 PM
Surr: Dibromofluoromethane	*107*		*71-125*	*%REC*	1	6/24/2009 04:54 PM
Surr: Toluene-d8	*105*		*75-125*	*%REC*	1	6/24/2009 04:54 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906452
Sample ID: Trip Blank 2497
Lab ID: 0906452-10
Collection Date: 6/16/2009 04:50 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 05:20 PM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 05:20 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 05:20 PM
Acetone	ND		0.010	mg/L	1	6/24/2009 05:20 PM
Benzene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 05:20 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 05:20 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 05:20 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Styrene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Trip Blank 2497
Collection Date: 6/16/2009 04:50 PM

Work Order: *0906452*
Lab ID: 0906452-10
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Toluene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 05:20 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 05:20 PM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 05:20 PM
Surr: 1,2-Dichloroethane-d4	*109*		*70-125*	*%REC*	1	6/24/2009 05:20 PM
Surr: 4-Bromofluorobenzene	*104*		*72-125*	*%REC*	1	6/24/2009 05:20 PM
Surr: Dibromofluoromethane	*108*		*71-125*	*%REC*	1	6/24/2009 05:20 PM
Surr: Toluene-d8	*102*		*75-125*	*%REC*	1	6/24/2009 05:20 PM

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

ALS Laboratory Group

Date: 28-Sep-09

Client: Navajo Refining Company

Work Order: 0906452

Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36701** Instrument ID **ICP7500** Method: **SW6020** **(Dissolve)**

MBLK Sample ID: **MBLKW4-061909-36701** Units: **mg/L** Analysis Date: **6/23/2009 05:06 AM**

Client ID: Run ID: **ICP7500_090622A** SeqNo: **1701927** Prep Date: **6/19/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.01649	0.010								
Arsenic	ND	0.0050								
Barium	ND	0.0050								
Boron	0.01767	0.020								J
Cadmium	ND	0.0020								
Calcium	0.06794	0.50								J
Chromium	ND	0.0050								
Cobalt	ND	0.0050								
Copper	0.0009685	0.0050								J
Iron	ND	0.20								
Lead	ND	0.0050								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Molybdenum	0.001872	0.0050								J
Nickel	ND	0.0050								
Potassium	ND	0.20								
Selenium	ND	0.0050								
Silver	0.001123	0.0050								J
Sodium	ND	0.20								
Zinc	0.008763	0.010								J

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36701** Instrument ID **ICP7500** Method: **SW6020** **(Dissolve)**

LCS Sample ID: **MLCSW4-061909-36701** Units: **mg/L** Analysis Date: **6/23/2009 05:12 AM**

Client ID: Run ID: **ICP7500_090622A** SeqNo: **1701928** Prep Date: **6/19/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1031	0.020	0.1	0	103	80-120	0			
Arsenic	0.05311	0.0050	0.05	0	106	80-120	0			
Barium	0.0499	0.0050	0.05	0	99.8	80-120	0			
Boron	0.4794	0.020	0.5	0	95.9	80-120	0			
Cadmium	0.04907	0.0020	0.05	0	98.1	80-120	0			
Calcium	4.89	0.50	5	0	97.8	80-120	0			
Chromium	0.04775	0.0050	0.05	0	95.5	80-120	0			
Cobalt	0.04938	0.0050	0.05	0	98.8	80-120	0			
Copper	0.04724	0.0050	0.05	0	94.5	80-120	0			
Iron	4.713	0.20	5	0	94.3	80-120	0			
Lead	0.04548	0.0050	0.05	0	91	80-120	0			
Magnesium	4.682	0.20	5	0	93.6	80-120	0			
Manganese	0.04879	0.0050	0.05	0	97.6	80-120	0			
Molybdenum	0.04838	0.0050	0.05	0	96.8	80-120	0			
Nickel	0.04873	0.0050	0.05	0	97.5	80-120	0			
Potassium	4.843	0.20	5	0	96.9	80-120	0			
Selenium	0.05017	0.0050	0.05	0	100	80-120	0			
Sodium	4.714	0.20	5	0	94.3	80-120	0			

LCS Sample ID: **MLCSW4-061909-36701** Units: **mg/L** Analysis Date: **6/23/2009 04:49 PM**

Client ID: Run ID: **ICP7500_090623A** SeqNo: **1702697** Prep Date: **6/19/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Silver	0.05214	0.0050	0.05	0	104	80-120	0			
Zinc	0.06169	0.0050	0.05	0	123	80-120	0			S

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36701** Instrument ID **ICP7500** Method: **SW6020** **(Dissolve)**

MS Sample ID: **0906440-14BMS** Units: **mg/L** Analysis Date: **6/23/2009 06:31 AM**

Client ID: Run ID: **ICP7500_090622A** SeqNo: **1701940** Prep Date: **6/19/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1117	0.020	0.1	0	112	75-125	0			
Arsenic	0.0538	0.0050	0.05	0	108	75-125	0			
Barium	0.5978	0.0050	0.05	0.5336	128	75-125	0			SO
Boron	0.7304	0.020	0.5	0.2239	101	75-125	0			
Cadmium	0.05094	0.0020	0.05	0	102	75-125	0			
Calcium	66.01	0.50	5	58.31	154	75-125	0			SO
Chromium	0.04972	0.0050	0.05	0.001153	97.1	75-125	0			
Cobalt	0.05174	0.0050	0.05	0.001271	101	75-125	0			
Copper	0.04863	0.0050	0.05	0.001329	94.6	75-125	0			
Iron	4.876	0.20	5	0	97.5	75-125	0			
Lead	0.04986	0.0050	0.05	0	99.7	75-125	0			
Magnesium	27.6	0.20	5	22.21	108	75-125	0			O
Manganese	0.134	0.0050	0.05	0.08061	107	75-125	0			
Molybdenum	0.05436	0.0050	0.05	0.002976	103	75-125	0			
Nickel	0.07937	0.0050	0.05	0.02877	101	75-125	0			
Potassium	5.526	0.20	5	0.5315	99.9	75-125	0			
Selenium	0.05272	0.0050	0.05	0	105	75-125	0			
Sodium	145	0.20	5	138.8	124	75-125	0			O

MS Sample ID: **0906440-14BMS** Units: **mg/L** Analysis Date: **6/23/2009 05:01 PM**

Client ID: Run ID: **ICP7500_090623A** SeqNo: **1702699** Prep Date: **6/19/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Silver	0.04909	0.0050	0.05	0	98.2	75-125	0			
Zinc	0.0714	0.010	0.05	0.003373	136	75-125	0			S

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36701** Instrument ID **ICP7500** Method: **SW6020** **(Dissolve)**

MSD Sample ID: **0906440-14BMSD** Units: **mg/L** Analysis Date: **6/23/2009 06:37 AM**

Client ID: Run ID: **ICP7500_090622A** SeqNo: **1701941** Prep Date: **6/19/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1053	0.020	0.1	0	105	75-125	0.1117	5.9	25	
Arsenic	0.05105	0.0050	0.05	0	102	75-125	0.0538	5.25	25	
Barium	0.5913	0.0050	0.05	0.5336	115	75-125	0.5978	1.09	25	O
Boron	0.7198	0.020	0.5	0.2239	99.2	75-125	0.7304	1.46	25	
Cadmium	0.04743	0.0020	0.05	0	94.9	75-125	0.05094	7.14	25	
Calcium	64.23	0.50	5	58.31	118	75-125	66.01	2.73	25	O
Chromium	0.04738	0.0050	0.05	0.001153	92.5	75-125	0.04972	4.82	25	
Cobalt	0.0494	0.0050	0.05	0.001271	96.3	75-125	0.05174	4.63	25	
Copper	0.04677	0.0050	0.05	0.001329	90.9	75-125	0.04863	3.9	25	
Iron	4.765	0.20	5	0	95.3	75-125	4.876	2.3	25	
Lead	0.04744	0.0050	0.05	0	94.9	75-125	0.04986	4.97	25	
Magnesium	27.27	0.20	5	22.21	101	75-125	27.6	1.2	25	O
Manganese	0.1286	0.0050	0.05	0.08061	96	75-125	0.134	4.11	25	
Molybdenum	0.05313	0.0050	0.05	0.002976	100	75-125	0.05436	2.29	25	
Nickel	0.07626	0.0050	0.05	0.02877	95	75-125	0.07937	4	25	
Potassium	5.37	0.20	5	0.5315	96.8	75-125	5.526	2.86	25	
Selenium	0.05072	0.0050	0.05	0	101	75-125	0.05272	3.87	25	
Sodium	143.3	0.20	5	138.8	90	75-125	145	1.18	25	O

MSD Sample ID: **0906440-14BMSD** Units: **mg/L** Analysis Date: **6/23/2009 05:07 PM**

Client ID: Run ID: **ICP7500_090623A** SeqNo: **1702700** Prep Date: **6/19/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Silver	0.04854	0.0050	0.05	0	97.1	75-125	0.04909	1.13	25	
Zinc	0.05082	0.010	0.05	0.003373	94.9	75-125	0.0714	33.7	25	R

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36701** Instrument ID **ICP7500** Method: **SW6020** **(Dissolve)**

DUP Sample ID: **0906440-14BDUP** Units: **mg/L** Analysis Date: **6/23/2009 06:25 AM**

Client ID: Run ID: **ICP7500_090622A** SeqNo: **1701939** Prep Date: **6/19/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	ND	0.020	0	0	0	0-0	0	0	25	
Arsenic	0.0009755	0.0050	0	0	0	0-0	0	0	25	J
Barium	0.5373	0.0050	0	0	0	0-0	0.5336	0.691	25	
Boron	0.2381	0.020	0	0	0	0-0	0.2239	6.15	25	
Cadmium	ND	0.0020	0	0	0	0-0	0	0	25	
Calcium	59.7	0.50	0	0	0	0-0	58.31	2.36	25	
Chromium	ND	0.0050	0	0	0	0-0	0.001153	0	25	
Cobalt	0.001338	0.0050	0	0	0	0-0	0.001271	0	25	J
Copper	0.001335	0.0050	0	0	0	0-0	0.001329	0	25	J
Iron	ND	0.20	0	0	0	0-0	0	0	25	
Lead	ND	0.0050	0	0	0	0-0	0	0	25	
Magnesium	22.51	0.20	0	0	0	0-0	22.21	1.34	25	
Manganese	0.08177	0.0050	0	0	0	0-0	0.08061	1.43	25	
Molybdenum	0.004534	0.0050	0	0	0	0-0	0.002976	0	25	J
Nickel	0.02862	0.0050	0	0	0	0-0	0.02877	0.523	25	
Potassium	0.5414	0.20	0	0	0	0-0	0.5315	1.85	25	
Selenium	ND	0.0050	0	0	0	0-0	0	0	25	
Silver	ND	0.0050	0	0	0	0-0	0	0	25	
Sodium	139	0.20	0	0	0	0-0	138.8	0.144	25	
Zinc	0.004958	0.010	0	0	0	0-0	0.003373	0	25	J

The following samples were analyzed in this batch:

0906452-01C	0906452-02C	0906452-03C
0906452-04C	0906452-05C	0906452-06C
0906452-07C	0906452-08C	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36777** Instrument ID **Mercury** Method: **SW7470**

MBLK Sample ID: **GBLKW3-062409-36777** Units: **mg/L** Analysis Date: **6/24/2009 05:23 PM**
Client ID: Run ID: **MERCURY_090624A** SeqNo: **1704245** Prep Date: **6/24/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: **GLCSW3-062409-36777** Units: **mg/L** Analysis Date: **6/24/2009 05:25 PM**
Client ID: Run ID: **MERCURY_090624A** SeqNo: **1704246** Prep Date: **6/24/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00556	0.00020	0.005	0	111	85-115	0			

MS Sample ID: **0906467-01EMS** Units: **mg/L** Analysis Date: **6/24/2009 05:31 PM**
Client ID: Run ID: **MERCURY_090624A** SeqNo: **1704249** Prep Date: **6/24/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00577	0.00020	0.005	-0.000059	117	85-115	0			S

MSD Sample ID: **0906467-01EMSD** Units: **mg/L** Analysis Date: **6/24/2009 05:34 PM**
Client ID: Run ID: **MERCURY_090624A** SeqNo: **1704250** Prep Date: **6/24/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00568	0.00020	0.005	-0.000059	115	85-115	0.00577	1.57	20	

DUP Sample ID: **0906467-01EDUP** Units: **mg/L** Analysis Date: **6/24/2009 05:29 PM**
Client ID: Run ID: **MERCURY_090624A** SeqNo: **1704248** Prep Date: **6/24/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020	0	0	0	0-0	-0.000059	0	20	

The following samples were analyzed in this batch:

0906452-01D	0906452-02D	0906452-03D
0906452-04D	0906452-05D	0906452-06D
0906452-07D	0906452-08D	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36663** Instrument ID **SV-4** Method: **SW8270**

MBLK Sample ID: **SBLKW2-090618-36663** Units: **µg/L** Analysis Date: **6/24/2009 02:20 AM**

Client ID: Run ID: **SV-4_090623C** SeqNo: **1704338** Prep Date: **6/18/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
2,4-Dichlorophenol	ND	0.20								
2,4-Dimethylphenol	ND	0.20								
2,4-Dinitrophenol	ND	1.0								
2,4-Dinitrotoluene	ND	0.20								
2,6-Dinitrotoluene	ND	0.20								
2-Chloronaphthalene	ND	0.20								
2-Chlorophenol	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.20								
2-Nitroaniline	ND	0.20								
2-Nitrophenol	ND	0.20								
3&4-Methylphenol	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.20								
3-Nitroaniline	ND	0.20								
4,6-Dinitro-2-methylphenol	ND	0.20								
4-Bromophenyl phenyl ether	ND	0.20								
4-Chloro-3-methylphenol	ND	0.20								
4-Chloroaniline	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
4-Nitroaniline	ND	0.20								
4-Nitrophenol	ND	1.0								
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Acetophenone	ND	0.20								
Anthracene	ND	0.20								
Atrazine	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzaldehyde	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Caprolactam	ND	0.20								
Carbazole	ND	0.20								

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

Batch ID: **36663** Instrument ID **SV-4** Method: **SW8270**

Chrysene	ND	0.20					
Di-n-butyl phthalate	ND	0.20					
Di-n-octyl phthalate	ND	0.20					
Dibenz(a,h)anthracene	ND	0.20					
Dibenzofuran	ND	0.20					
Diethyl phthalate	ND	0.20					
Dimethyl phthalate	ND	0.20					
Fluoranthene	ND	0.20					
Fluorene	ND	0.20					
Hexachlorobenzene	ND	0.20					
Hexachlorobutadiene	ND	0.20					
Hexachlorocyclopentadiene	ND	0.20					
Hexachloroethane	ND	0.20					
Indeno(1,2,3-cd)pyrene	ND	0.20					
Isophorone	ND	0.20					
N-Nitrosodi-n-propylamine	ND	0.20					
N-Nitrosodiphenylamine	ND	0.20					
Naphthalene	ND	0.20					
Nitrobenzene	ND	0.20					
Pentachlorophenol	ND	0.20					
Phenanthrene	ND	0.20					
Phenol	ND	0.20					
Pyrene	ND	0.20					
Surr: 2,4,6-Tribromophenol	*3.019*	0.20	*5*	0	*60.4*	*34-129*	0
Surr: 2-Fluorobiphenyl	*3.745*	0.20	*5*	0	*74.9*	*40-125*	0
Surr: 2-Fluorophenol	*3.478*	0.20	*5*	0	*69.6*	*20-120*	0
Surr: 4-Terphenyl-d14	*3.524*	0.20	*5*	0	*70.5*	*40-135*	0
Surr: Nitrobenzene-d5	*3.678*	0.20	*5*	0	*73.6*	*41-120*	0
Surr: Phenol-d6	*3.207*	0.20	*5*	0	*64.1*	*20-120*	0

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36663** Instrument ID **SV-4** Method: **SW8270**

LCS Sample ID: **SLCSW2-090618-36663** Units: **µg/L** Analysis Date: **6/24/2009 02:37 AM**

Client ID: Run ID: **SV-4_090623C** SeqNo: **1704339** Prep Date: **6/18/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	3.947	0.20	5	0	78.9	45-125	0			
2,4,5-Trichlorophenol	3.981	0.20	5	0	79.6	46-120	0			
2,4,6-Trichlorophenol	4.015	0.20	5	0	80.3	42-120	0			
2,4-Dichlorophenol	3.774	0.20	5	0	75.5	49-120	0			
2,4-Dimethylphenol	3.004	0.20	5	0	60.1	35-120	0			
2,4-Dinitrophenol	2.516	1.0	5	0	50.3	15-120	0			
2,4-Dinitrotoluene	4.363	0.20	5	0	87.3	50-122	0			
2,6-Dinitrotoluene	4.288	0.20	5	0	85.8	50-120	0			
2-Chloronaphthalene	4.529	0.20	5	0	90.6	50-120	0			
2-Chlorophenol	3.889	0.20	5	0	77.8	40-120	0			
2-Methylnaphthalene	4.163	0.20	5	0	83.3	50-120	0			
2-Methylphenol	3.87	0.20	5	0	77.4	45-120	0			
2-Nitroaniline	4.628	0.20	5	0	92.6	28-139	0			
2-Nitrophenol	4.047	0.20	5	0	80.9	40-120	0			
3&4-Methylphenol	3.645	0.20	5	0	72.9	35-120	0			
3,3'-Dichlorobenzidine	3.291	0.20	5	0	65.8	15-120	0			
3-Nitroaniline	3.497	0.20	5	0	69.9	30-120	0			
4,6-Dinitro-2-methylphenol	3.257	0.20	5	0	65.1	25-121	0			
4-Bromophenyl phenyl ether	3.397	0.20	5	0	67.9	45-120	0			
4-Chloro-3-methylphenol	4.064	0.20	5	0	81.3	47-120	0			
4-Chloroaniline	2.847	0.20	5	0	56.9	20-120	0			
4-Chlorophenyl phenyl ether	4.611	0.20	5	0	92.2	50-120	0			
4-Nitroaniline	3.627	0.20	5	0	72.5	30-133	0			
4-Nitrophenol	3.857	1.0	5	0	77.1	30-130	0			
Acenaphthene	3.979	0.20	5	0	79.6	45-120	0			
Acenaphthylene	4.053	0.20	5	0	81.1	47-120	0			
Acetophenone	3.763	0.20	5	0	75.3	40-120	0			
Anthracene	4.301	0.20	5	0	86	45-120	0			
Atrazine	3.618	0.20	5	0	72.4	40-130	0			
Benz(a)anthracene	4.333	0.20	5	0	86.7	40-120	0			
Benzaldehyde	3.173	0.20	5	0	63.5	35-130	0			
Benzo(a)pyrene	4.117	0.20	5	0	82.3	45-120	0			
Benzo(b)fluoranthene	4.516	0.20	5	0	90.3	50-120	0			
Benzo(g,h,i)perylene	3.988	0.20	5	0	79.8	42-127	0			
Benzo(k)fluoranthene	4.072	0.20	5	0	81.4	45-127	0			
Bis(2-chloroethoxy)methane	3.947	0.20	5	0	78.9	45-120	0			
Bis(2-chloroethyl)ether	4.791	0.20	5	0	95.8	37-121	0			
Bis(2-chloroisopropyl)ether	4.082	0.20	5	0	81.6	40-120	0			
Bis(2-ethylhexyl)phthalate	4.428	0.20	5	0	88.6	40-139	0			
Butyl benzyl phthalate	4.426	0.20	5	0	88.5	47-123	0			
Caprolactam	4.639	0.20	5	0	92.8	35-134	0			
Carbazole	4.142	0.20	5	0	82.8	42-128	0			

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36663**	Instrument ID **SV-4**		Method: **SW8270**				
Chrysene	4.356	0.20	5	0	87.1	43-120	0
Di-n-butyl phthalate	3.498	0.20	5	0	70	45-123	0
Di-n-octyl phthalate	4.606	0.20	5	0	92.1	45-129	0
Dibenz(a,h)anthracene	4.426	0.20	5	0	88.5	45-125	0
Dibenzofuran	4.22	0.20	5	0	84.4	50-120	0
Diethyl phthalate	4.11	0.20	5	0	82.2	41-120	0
Dimethyl phthalate	4.381	0.20	5	0	87.6	40-122	0
Fluoranthene	3.34	0.20	5	0	66.8	45-125	0
Fluorene	4.454	0.20	5	0	89.1	49-120	0
Hexachlorobenzene	3.545	0.20	5	0	70.9	48-120	0
Hexachlorobutadiene	4.01	0.20	5	0	80.2	40-120	0
Hexachlorocyclopentadiene	3.523	0.20	5	0	70.5	34-136	0
Hexachloroethane	4.037	0.20	5	0	80.7	40-120	0
Indeno(1,2,3-cd)pyrene	4.885	0.20	5	0	97.7	41-128	0
Isophorone	4.072	0.20	5	0	81.4	40-121	0
N-Nitrosodi-n-propylamine	3.439	0.20	5	0	68.8	40-120	0
N-Nitrosodiphenylamine	3.461	0.20	5	0	69.2	40-125	0
Naphthalene	4.162	0.20	5	0	83.2	45-120	0
Nitrobenzene	3.717	0.20	5	0	74.3	44-120	0
Pentachlorophenol	1.232	0.20	5	0	24.6	19-121	0
Phenanthrene	4.353	0.20	5	0	87.1	45-121	0
Phenol	4.197	0.20	5	0	83.9	20-124	0
Pyrene	4.724	0.20	5	0	94.5	40-130	0
Surr: 2,4,6-Tribromophenol	*3.689*	0.20	*5*	0	*73.8*	*34-129*	0
Surr: 2-Fluorobiphenyl	*4.049*	0.20	*5*	0	*81*	*40-125*	0
Surr: 2-Fluorophenol	*3.007*	0.20	*5*	0	*60.1*	*20-120*	0
Surr: 4-Terphenyl-d14	*4.02*	0.20	*5*	0	*80.4*	*40-135*	0
Surr: Nitrobenzene-d5	*3.723*	0.20	*5*	0	*74.5*	*41-120*	0
Surr: Phenol-d6	*3.573*	0.20	*5*	0	*71.5*	*20-120*	0

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36663** Instrument ID **SV-4** Method: **SW8270**

LCSD Sample ID: **SLCSDW2-090618-36663** Units: **µg/L** Analysis Date: **6/24/2009 03:05 AM**

Client ID: Run ID: **SV-4_090623C** SeqNo: **1704340** Prep Date: **6/18/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	3.942	0.20	5	0	78.8	45-125	3.947	0.127	20	
2,4,5-Trichlorophenol	4.131	0.20	5	0	82.6	46-120	3.981	3.7	20	
2,4,6-Trichlorophenol	4.029	0.20	5	0	80.6	42-120	4.015	0.34	20	
2,4-Dichlorophenol	4.129	0.20	5	0	82.6	49-120	3.774	8.98	20	
2,4-Dimethylphenol	3.103	0.20	5	0	62.1	35-120	3.004	3.25	20	
2,4-Dinitrophenol	2.155	1.0	5	0	43.1	15-120	2.516	15.5	20	
2,4-Dinitrotoluene	4.427	0.20	5	0	88.5	50-122	4.363	1.47	20	
2,6-Dinitrotoluene	4.3	0.20	5	0	86	50-120	4.288	0.294	20	
2-Chloronaphthalene	5.042	0.20	5	0	101	50-120	4.529	10.7	20	
2-Chlorophenol	4.194	0.20	5	0	83.9	40-120	3.889	7.55	20	
2-Methylnaphthalene	4.233	0.20	5	0	84.7	50-120	4.163	1.67	20	
2-Methylphenol	3.912	0.20	5	0	78.2	45-120	3.87	1.1	20	
2-Nitroaniline	4.73	0.20	5	0	94.6	28-139	4.628	2.17	20	
2-Nitrophenol	4.178	0.20	5	0	83.6	40-120	4.047	3.19	20	
3&4-Methylphenol	3.882	0.20	5	0	77.6	35-120	3.645	6.3	20	
3,3'-Dichlorobenzidine	3.428	0.20	5	0	68.6	15-120	3.291	4.09	20	
3-Nitroaniline	3.3	0.20	5	0	66	30-120	3.497	5.82	20	
4,6-Dinitro-2-methylphenol	3.026	0.20	5	0	60.5	25-121	3.257	7.36	20	
4-Bromophenyl phenyl ether	3.442	0.20	5	0	68.8	45-120	3.397	1.31	20	
4-Chloro-3-methylphenol	4.183	0.20	5	0	83.7	47-120	4.064	2.89	20	
4-Chloroaniline	2.755	0.20	5	0	55.1	20-120	2.847	3.3	20	
4-Chlorophenyl phenyl ether	4.596	0.20	5	0	91.9	50-120	4.611	0.33	20	
4-Nitroaniline	3.452	0.20	5	0	69	30-133	3.627	4.94	20	
4-Nitrophenol	3.841	1.0	5	0	76.8	30-130	3.857	0.43	20	
Acenaphthene	3.964	0.20	5	0	79.3	45-120	3.979	0.384	20	
Acenaphthylene	4.157	0.20	5	0	83.1	47-120	4.053	2.55	20	
Acetophenone	3.984	0.20	5	0	79.7	40-120	3.763	5.71	20	
Anthracene	4.414	0.20	5	0	88.3	45-120	4.301	2.58	20	
Atrazine	3.527	0.20	5	0	70.5	40-130	3.618	2.55	20	
Benz(a)anthracene	4.485	0.20	5	0	89.7	40-120	4.333	3.46	20	
Benzaldehyde	3.292	0.20	5	0	65.8	35-130	3.173	3.69	20	
Benzo(a)pyrene	4.534	0.20	5	0	90.7	45-120	4.117	9.64	20	
Benzo(b)fluoranthene	4.441	0.20	5	0	88.8	50-120	4.516	1.69	20	
Benzo(g,h,i)perylene	4.415	0.20	5	0	88.3	42-127	3.988	10.2	20	
Benzo(k)fluoranthene	4.104	0.20	5	0	82.1	45-127	4.072	0.767	20	
Bis(2-chloroethoxy)methane	4.142	0.20	5	0	82.8	45-120	3.947	4.83	20	
Bis(2-chloroethyl)ether	4.842	0.20	5	0	96.8	37-121	4.791	1.07	20	
Bis(2-chloroisopropyl)ether	4.353	0.20	5	0	87.1	40-120	4.082	6.43	20	
Bis(2-ethylhexyl)phthalate	4.646	0.20	5	0	92.9	40-139	4.428	4.8	20	
Butyl benzyl phthalate	4.531	0.20	5	0	90.6	47-123	4.426	2.33	20	
Caprolactam	4.494	0.20	5	0	89.9	35-134	4.639	3.18	20	
Carbazole	4.302	0.20	5	0	86	42-128	4.142	3.78	20	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36663** Instrument ID **SV-4** Method: **SW8270**

Chrysene	4.36	0.20	5	0	87.2	43-120	4.356	0.0936	20
Di-n-butyl phthalate	3.73	0.20	5	0	74.6	45-123	3.498	6.43	20
Di-n-octyl phthalate	4.835	0.20	5	0	96.7	45-129	4.606	4.84	20
Dibenz(a,h)anthracene	4.335	0.20	5	0	86.7	45-125	4.426	2.08	20
Dibenzofuran	4.261	0.20	5	0	85.2	50-120	4.22	0.959	20
Diethyl phthalate	4.044	0.20	5	0	80.9	41-120	4.11	1.63	20
Dimethyl phthalate	4.392	0.20	5	0	87.8	40-122	4.381	0.245	20
Fluoranthene	3.638	0.20	5	0	72.8	45-125	3.34	8.54	20
Fluorene	4.423	0.20	5	0	88.5	49-120	4.454	0.713	20
Hexachlorobenzene	3.621	0.20	5	0	72.4	48-120	3.545	2.11	20
Hexachlorobutadiene	4.259	0.20	5	0	85.2	40-120	4.01	6.02	20
Hexachlorocyclopentadiene	3.648	0.20	5	0	73	34-136	3.523	3.49	20
Hexachloroethane	4.116	0.20	5	0	82.3	40-120	4.037	1.93	20
Indeno(1,2,3-cd)pyrene	5.302	0.20	5	0	106	41-128	4.885	8.19	20
Isophorone	4.317	0.20	5	0	86.3	40-121	4.072	5.83	20
N-Nitrosodi-n-propylamine	3.761	0.20	5	0	75.2	40-120	3.439	8.94	20
N-Nitrosodiphenylamine	3.489	0.20	5	0	69.8	40-125	3.461	0.815	20
Naphthalene	4.393	0.20	5	0	87.9	45-120	4.162	5.4	20
Nitrobenzene	3.913	0.20	5	0	78.3	44-120	3.717	5.13	20
Pentachlorophenol	1.295	0.20	5	0	25.9	19-121	1.232	4.97	20
Phenanthrene	4.35	0.20	5	0	87	45-121	4.353	0.0514	20
Phenol	4.448	0.20	5	0	89	20-124	4.197	5.83	20
Pyrene	4.704	0.20	5	0	94.1	40-130	4.724	0.428	20
Surr: 2,4,6-Tribromophenol	*3.683*	0.20	*5*	0	*73.7*	*34-129*	3.689	*0.174*	*20*
Surr: 2-Fluorobiphenyl	*4.12*	0.20	*5*	0	*82.4*	*40-125*	4.049	*1.74*	*20*
Surr: 2-Fluorophenol	*3.186*	0.20	*5*	0	*63.7*	*20-120*	3.007	*5.79*	*20*
Surr: 4-Terphenyl-d14	*3.89*	0.20	*5*	0	*77.8*	*40-135*	4.02	*3.3*	*20*
Surr: Nitrobenzene-d5	*4.03*	0.20	*5*	0	*80.6*	*41-120*	3.723	*7.93*	*20*
Surr: Phenol-d6	*3.787*	0.20	*5*	0	*75.7*	*20-120*	3.573	*5.82*	*20*

The following samples were analyzed in this batch:

0906452-01E	0906452-02E	0906452-03E
0906452-04E	0906452-05E	0906452-06E
0906452-07E	0906452-08E	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78404** Instrument ID **VOA1** Method: **SW8260**

MBLK Sample ID: **VBLKW-062309-R78404** Units: **µg/L** Analysis Date: **6/23/2009 11:09 AM**

Client ID: Run ID: **VOA1_090623A** SeqNo: **1703520** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
2-Butanone	ND	10								
2-Hexanone	ND	10								
4-Isopropyltoluene	ND	5.0								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
Isopropylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methyl tert-butyl ether	ND	5.0								
Methylene chloride	ND	10								
n-Butylbenzene	ND	5.0								
n-Propylbenzene	ND	5.0								
Naphthalene	ND	5.0								
o-Xylene	ND	5.0								
sec-Butylbenzene	ND	5.0								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,2-Dichloroethene	ND	5.0								

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

Batch ID: **R78404** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Vinyl chloride	ND	2.0					
Xylenes, Total	ND	15					
Surr: 1,2-Dichloroethane-d4	*46.47*	5.0	*50*	0	*92.9*	*70-125*	0
Surr: 4-Bromofluorobenzene	*52.2*	5.0	*50*	0	*104*	*72-125*	0
Surr: Dibromofluoromethane	*49.28*	5.0	*50*	0	*98.6*	*71-125*	0
Surr: Toluene-d8	*52.97*	5.0	*50*	0	*106*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78404** Instrument ID **VOA1** Method: **SW8260**

LCS Sample ID: **VLCSW-062309-R78404** Units: **µg/L** Analysis Date: **6/23/2009 10:18 AM**

Client ID: Run ID: **VOA1_090623A** SeqNo: **1703519** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	47.28	5.0	50	0	94.6	80-120	0			
1,1,2,2-Tetrachloroethane	46.85	5.0	50	0	93.7	72-120	0			
1,1,2-Trichloroethane	49.81	5.0	50	0	99.6	80-120	0			
1,1-Dichloroethane	51.35	5.0	50	0	103	76-120	0			
1,1-Dichloroethene	52.34	5.0	50	0	105	73-124	0			
1,2,4-Trimethylbenzene	54.3	5.0	50	0	109	68-123	0			
1,2-Dibromoethane	51.49	5.0	50	0	103	80-120	0			
1,2-Dichloroethane	52.46	5.0	50	0	105	78-120	0			
1,2-Dichloropropane	54.13	5.0	50	0	108	80-120	0			
1,3,5-Trimethylbenzene	52.25	5.0	50	0	105	80-120	0			
2-Butanone	101.3	10	100	0	101	58-132	0			
2-Hexanone	103.6	10	100	0	104	61-130	0			
4-Isopropyltoluene	50.09	5.0	50	0	100	79-120	0			
4-Methyl-2-pentanone	104.5	10	100	0	104	65-127	0			
Acetone	90.49	10	100	0	90.5	59-137	0			
Benzene	52.52	5.0	50	0	105	73-121	0			
Bromodichloromethane	50.55	5.0	50	0	101	80-120	0			
Bromoform	53.35	5.0	50	0	107	79-120	0			
Bromomethane	51.12	5.0	50	0	102	66-137	0			
Carbon disulfide	99.87	10	100	0	99.9	68-141	0			
Carbon tetrachloride	53.8	5.0	50	0	108	75-124	0			
Chlorobenzene	53.61	5.0	50	0	107	80-120	0			
Chloroethane	50.1	5.0	50	0	100	76-121	0			
Chloroform	48.97	5.0	50	0	97.9	80-120	0			
Chloromethane	49.92	5.0	50	0	99.8	67-123	0			
cis-1,2-Dichloroethene	51.59	5.0	50	0	103	78-120	0			
cis-1,3-Dichloropropene	55.93	5.0	50	0	112	80-120	0			
Dibromochloromethane	53.07	5.0	50	0	106	80-120	0			
Ethylbenzene	52.65	5.0	50	0	105	80-120	0			
Isopropylbenzene	50.26	5.0	50	0	101	80-120	0			
m,p-Xylene	109.6	10	100	0	110	78-121	0			
Methyl tert-butyl ether	51.32	5.0	50	0	103	73-121	0			
Methylene chloride	47.48	10	50	0	95	65-133	0			
n-Butylbenzene	49.98	5.0	50	0	100	77-120	0			
n-Propylbenzene	51.74	5.0	50	0	103	78-120	0			
Naphthalene	47.64	5.0	50	0	95.3	65-127	0			
o-Xylene	53.34	5.0	50	0	107	80-120	0			
sec-Butylbenzene	53.07	5.0	50	0	106	78-120	0			
Styrene	51.73	5.0	50	0	103	80-120	0			
Tetrachloroethene	51.06	5.0	50	0	102	79-120	0			
Toluene	51.73	5.0	50	0	103	80-120	0			
trans-1,2-Dichloroethene	48.45	5.0	50	0	96.9	78-120	0			

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78404** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	54.14	5.0	50	0	108	80-120	0
Trichloroethene	53.52	5.0	50	0	107	80-120	0
Vinyl chloride	47.42	2.0	50	0	94.8	70-127	0
Xylenes, Total	163	15	150	0	109	80-120	0
Surr: 1,2-Dichloroethane-d4	*51.69*	5.0	*50*	0	*103*	*70-125*	0
Surr: 4-Bromofluorobenzene	*57.5*	5.0	*50*	0	*115*	*72-125*	0
Surr: Dibromofluoromethane	*47.43*	5.0	*50*	0	*94.9*	*71-125*	0
Surr: Toluene-d8	*54.67*	5.0	*50*	0	*109*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78404** Instrument ID **VOA1** Method: **SW8260**

MS Sample ID: **0906487-01AMS** Units: **µg/L** Analysis Date: **6/23/2009 02:06 PM**

Client ID: Run ID: **VOA1_090623A** SeqNo: **1703523** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	479.7	50	500	0	95.9	80-120	0			
1,1,2,2-Tetrachloroethane	494.1	50	500	0	98.8	72-120	0			
1,1,2-Trichloroethane	462.4	50	500	0	92.5	80-120	0			
1,1-Dichloroethane	641.5	50	500	202.4	87.8	76-120	0			
1,1-Dichloroethene	1662	50	500	1341	64.1	73-124	0			S
1,2,4-Trimethylbenzene	456.7	50	500	0	91.3	68-123	0			
1,2-Dibromoethane	483.6	50	500	0	96.7	80-120	0			
1,2-Dichloroethane	522.9	50	500	5.53	103	78-120	0			
1,2-Dichloropropane	494.9	50	500	0	99	80-120	0			
1,3,5-Trimethylbenzene	450.8	50	500	0	90.2	80-120	0			
2-Butanone	1171	100	1000	0	117	58-132	0			
2-Hexanone	1039	100	1000	0	104	61-130	0			
4-Isopropyltoluene	429.1	50	500	0	85.8	79-120	0			
4-Methyl-2-pentanone	1036	100	1000	0	104	65-127	0			
Acetone	1079	100	1000	0	108	59-137	0			
Benzene	483.8	50	500	0	96.8	73-121	0			
Bromodichloromethane	488.5	50	500	0	97.7	80-120	0			
Bromoform	485.7	50	500	0	97.1	79-120	0			
Bromomethane	484.3	50	500	0	96.9	66-137	0			
Carbon disulfide	920.1	100	1000	0	92	68-141	0			
Carbon tetrachloride	438.1	50	500	0	87.6	75-124	0			
Chlorobenzene	449.4	50	500	0	89.9	80-120	0			
Chloroethane	421.1	50	500	0	84.2	76-121	0			
Chloroform	492.4	50	500	0	98.5	80-120	0			
Chloromethane	436.5	50	500	0	87.3	67-123	0			
cis-1,2-Dichloroethene	521.5	50	500	0	104	78-120	0			
cis-1,3-Dichloropropene	522.2	50	500	0	104	80-120	0			
Dibromochloromethane	505.1	50	500	0	101	80-120	0			
Ethylbenzene	446.9	50	500	0	89.4	80-120	0			
Isopropylbenzene	432.7	50	500	0	86.5	80-120	0			
m,p-Xylene	878.4	100	1000	0	87.8	78-121	0			
Methyl tert-butyl ether	555.5	50	500	0	111	73-121	0			
Methylene chloride	462.4	100	500	3.365	91.8	65-133	0			
n-Butylbenzene	420.9	50	500	0	84.2	77-120	0			
n-Propylbenzene	418	50	500	0	83.6	78-120	0			
Naphthalene	478.3	50	500	0	95.7	65-127	0			
o-Xylene	463.8	50	500	0	92.8	80-120	0			
sec-Butylbenzene	453.8	50	500	0	90.8	78-120	0			
Styrene	471.3	50	500	0	94.3	80-120	0			
Tetrachloroethene	418.8	50	500	5.649	82.6	79-120	0			
Toluene	446.2	50	500	0	89.2	80-120	0			
trans-1,2-Dichloroethene	443.4	50	500	0	88.7	78-120	0			

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78404** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	530.9	50	500	0	106	80-120	0
Trichloroethene	501.4	50	500	3.157	99.7	80-120	0
Vinyl chloride	446.9	20	500	29.01	83.6	70-127	0
Xylenes, Total	1342	150	1500	0	89.5	80-120	0
Surr: 1,2-Dichloroethane-d4	*498.4*	50	*500*	0	*99.7*	*70-125*	0
Surr: 4-Bromofluorobenzene	*480.2*	50	*500*	0	*96*	*72-125*	0
Surr: Dibromofluoromethane	*532.9*	50	*500*	0	*107*	*71-125*	0
Surr: Toluene-d8	*491*	50	*500*	0	*98.2*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78404** Instrument ID **VOA1** Method: **SW8260**

MSD Sample ID: **0906487-01AMSD** Units: **µg/L** Analysis Date: **6/23/2009 02:32 PM**

Client ID: Run ID: **VOA1_090623A** SeqNo: **1703524** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	443.8	50	500	0	88.8	80-120	479.7	7.75	20	
1,1,2,2-Tetrachloroethane	483.3	50	500	0	96.7	72-120	494.1	2.21	20	
1,1,2-Trichloroethane	475.5	50	500	0	95.1	80-120	462.4	2.79	20	
1,1-Dichloroethane	665.1	50	500	202.4	92.6	76-120	641.5	3.62	20	
1,1-Dichloroethene	1556	50	500	1341	42.9	73-124	1662	6.6	20	S
1,2,4-Trimethylbenzene	474.3	50	500	0	94.9	68-123	456.7	3.78	20	
1,2-Dibromoethane	502.4	50	500	0	100	80-120	483.6	3.81	20	
1,2-Dichloroethane	526.5	50	500	5.53	104	78-120	522.9	0.67	20	
1,2-Dichloropropane	507.7	50	500	0	102	80-120	494.9	2.54	20	
1,3,5-Trimethylbenzene	454	50	500	0	90.8	80-120	450.8	0.687	20	
2-Butanone	1187	100	1000	0	119	58-132	1171	1.41	20	
2-Hexanone	1065	100	1000	0	106	61-130	1039	2.41	20	
4-Isopropyltoluene	442.7	50	500	0	88.5	79-120	429.1	3.13	20	
4-Methyl-2-pentanone	1132	100	1000	0	113	65-127	1036	8.85	20	
Acetone	1014	100	1000	0	101	59-137	1079	6.25	20	
Benzene	472.9	50	500	0	94.6	73-121	483.8	2.28	20	
Bromodichloromethane	495.7	50	500	0	99.1	80-120	488.5	1.46	20	
Bromoform	529.1	50	500	0	106	79-120	485.7	8.55	20	
Bromomethane	450	50	500	0	90	66-137	484.3	7.34	20	
Carbon disulfide	884.2	100	1000	0	88.4	68-141	920.1	3.98	20	
Carbon tetrachloride	443.3	50	500	0	88.7	75-124	438.1	1.17	20	
Chlorobenzene	460.7	50	500	0	92.1	80-120	449.4	2.49	20	
Chloroethane	391.3	50	500	0	78.3	76-121	421.1	7.34	20	
Chloroform	463.4	50	500	0	92.7	80-120	492.4	6.06	20	
Chloromethane	427.1	50	500	0	85.4	67-123	436.5	2.19	20	
cis-1,2-Dichloroethene	507.4	50	500	0	101	78-120	521.5	2.73	20	
cis-1,3-Dichloropropene	543.2	50	500	0	109	80-120	522.2	3.93	20	
Dibromochloromethane	515.3	50	500	0	103	80-120	505.1	2.01	20	
Ethylbenzene	442.9	50	500	0	88.6	80-120	446.9	0.908	20	
Isopropylbenzene	458.4	50	500	0	91.7	80-120	432.7	5.77	20	
m,p-Xylene	829.5	100	1000	0	83	78-121	878.4	5.72	20	
Methyl tert-butyl ether	559.8	50	500	0	112	73-121	555.5	0.764	20	
Methylene chloride	463.4	100	500	3.365	92	65-133	462.4	0.205	20	
n-Butylbenzene	419.7	50	500	0	83.9	77-120	420.9	0.282	20	
n-Propylbenzene	438.6	50	500	0	87.7	78-120	418	4.81	20	
Naphthalene	507	50	500	0	101	65-127	478.3	5.82	20	
o-Xylene	464.2	50	500	0	92.8	80-120	463.8	0.0875	20	
sec-Butylbenzene	441.3	50	500	0	88.3	78-120	453.8	2.78	20	
Styrene	489.4	50	500	0	97.9	80-120	471.3	3.77	20	
Tetrachloroethene	443.5	50	500	5.649	87.6	79-120	418.8	5.74	20	
Toluene	443.9	50	500	0	88.8	80-120	446.2	0.524	20	
trans-1,2-Dichloroethene	447.2	50	500	0	89.4	78-120	443.4	0.858	20	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78404**	Instrument ID **VOA1**		Method: **SW8260**						
trans-1,3-Dichloropropene	538.5	50	500	0	108	80-120	530.9	1.41	20
Trichloroethene	501.8	50	500	3.157	99.7	80-120	501.4	0.0686	20
Vinyl chloride	426.5	20	500	29.01	79.5	70-127	446.9	4.68	20
Xylenes, Total	1294	150	1500	0	86.3	80-120	1342	3.68	20
Surr: 1,2-Dichloroethane-d4	*502*	50	*500*	0	*100*	*70-125*	498.4	*0.712*	*20*
Surr: 4-Bromofluorobenzene	*531.4*	50	*500*	0	*106*	*72-125*	480.2	*10.1*	*20*
Surr: Dibromofluoromethane	*493.3*	50	*500*	0	*98.7*	*71-125*	532.9	*7.72*	*20*
Surr: Toluene-d8	*525*	50	*500*	0	*105*	*75-125*	491	*6.69*	*20*

The following samples were analyzed in this batch: 0906452-01A

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

MBLK Sample ID: **VBLKW-062409-R78455** Units: **µg/L** Analysis Date: **6/24/2009 10:32 AM**

Client ID: Run ID: **VOA1_090624B** SeqNo: **1704552** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
2-Butanone	ND	10								
2-Hexanone	ND	10								
4-Isopropyltoluene	ND	5.0								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
Isopropylbenzene	0.9263	5.0								J
m,p-Xylene	ND	10								
Methyl tert-butyl ether	ND	5.0								
Methylene chloride	ND	10								
n-Butylbenzene	ND	5.0								
n-Propylbenzene	ND	5.0								
Naphthalene	ND	5.0								
o-Xylene	ND	5.0								
sec-Butylbenzene	ND	5.0								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,2-Dichloroethene	ND	5.0								

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455**	Instrument ID **VOA1**		Method: **SW8260**				
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Vinyl chloride	ND	2.0					
Xylenes, Total	ND	15					
Surr: 1,2-Dichloroethane-d4	*51*	5.0	*50*	0	*102*	*70-125*	0
Surr: 4-Bromofluorobenzene	*50.51*	5.0	*50*	0	*101*	*72-125*	0
Surr: Dibromofluoromethane	*52.86*	5.0	*50*	0	*106*	*71-125*	0
Surr: Toluene-d8	*47.37*	5.0	*50*	0	*94.7*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

LCS Sample ID: **VLCSW-062409-R78455** Units: **µg/L** Analysis Date: **6/24/2009 09:41 AM**

Client ID: Run ID: **VOA1_090624B** SeqNo: **1704551** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	53.79	5.0	50	0	108	80-120	0			
1,1,2,2-Tetrachloroethane	44.98	5.0	50	0	90	72-120	0			
1,1,2-Trichloroethane	45.42	5.0	50	0	90.8	80-120	0			
1,1-Dichloroethane	50.55	5.0	50	0	101	76-120	0			
1,1-Dichloroethene	49.01	5.0	50	0	98	73-124	0			
1,2,4-Trimethylbenzene	50.51	5.0	50	0	101	68-123	0			
1,2-Dibromoethane	44.29	5.0	50	0	88.6	80-120	0			
1,2-Dichloroethane	49.11	5.0	50	0	98.2	78-120	0			
1,2-Dichloropropane	48.3	5.0	50	0	96.6	80-120	0			
1,3,5-Trimethylbenzene	47.98	5.0	50	0	96	80-120	0			
2-Butanone	99.09	10	100	0	99.1	58-132	0			
2-Hexanone	90.94	10	100	0	90.9	61-130	0			
4-Isopropyltoluene	49.2	5.0	50	0	98.4	79-120	0			
4-Methyl-2-pentanone	96.85	10	100	0	96.8	65-127	0			
Acetone	86.75	10	100	0	86.7	59-137	0			
Benzene	48.16	5.0	50	0	96.3	73-121	0			
Bromodichloromethane	48.07	5.0	50	0	96.1	80-120	0			
Bromoform	48.75	5.0	50	0	97.5	79-120	0			
Bromomethane	49.49	5.0	50	0	99	66-137	0			
Carbon disulfide	99.86	10	100	0	99.9	68-141	0			
Carbon tetrachloride	50.62	5.0	50	0	101	75-124	0			
Chlorobenzene	48.1	5.0	50	0	96.2	80-120	0			
Chloroethane	43.53	5.0	50	0	87.1	76-121	0			
Chloroform	48.32	5.0	50	0	96.6	80-120	0			
Chloromethane	47.53	5.0	50	0	95.1	67-123	0			
cis-1,2-Dichloroethene	50.56	5.0	50	0	101	78-120	0			
cis-1,3-Dichloropropene	49.95	5.0	50	0	99.9	80-120	0			
Dibromochloromethane	50.32	5.0	50	0	101	80-120	0			
Ethylbenzene	47.96	5.0	50	0	95.9	80-120	0			
Isopropylbenzene	49.8	5.0	50	0	99.6	80-120	0			
m,p-Xylene	92.82	10	100	0	92.8	78-121	0			
Methyl tert-butyl ether	48.35	5.0	50	0	96.7	73-121	0			
Methylene chloride	48.3	10	50	0	96.6	65-133	0			
n-Butylbenzene	47.06	5.0	50	0	94.1	77-120	0			
n-Propylbenzene	47.6	5.0	50	0	95.2	78-120	0			
Naphthalene	46.79	5.0	50	0	93.6	65-127	0			
o-Xylene	47.66	5.0	50	0	95.3	80-120	0			
sec-Butylbenzene	49.83	5.0	50	0	99.7	78-120	0			
Styrene	48.16	5.0	50	0	96.3	80-120	0			
Tetrachloroethene	48.22	5.0	50	0	96.4	79-120	0			
Toluene	47.27	5.0	50	0	94.5	80-120	0			
trans-1,2-Dichloroethene	48.64	5.0	50	0	97.3	78-120	0			

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455**	Instrument ID **VOA1**		Method: **SW8260**				
trans-1,3-Dichloropropene	52.18	5.0	50	0	104	80-120	0
Trichloroethene	53.01	5.0	50	0	106	80-120	0
Vinyl chloride	44.95	2.0	50	0	89.9	70-127	0
Xylenes, Total	140.5	15	150	0	93.7	80-120	0
Surr: 1,2-Dichloroethane-d4	*49.32*	5.0	*50*	0	*98.6*	*70-125*	0
Surr: 4-Bromofluorobenzene	*53.42*	5.0	*50*	0	*107*	*72-125*	0
Surr: Dibromofluoromethane	*51.97*	5.0	*50*	0	*104*	*71-125*	0
Surr: Toluene-d8	*50.86*	5.0	*50*	0	*102*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

MS Sample ID: **0906452-02AMS** Units: **µg/L** Analysis Date: **6/24/2009 01:55 PM**

Client ID: **MW#12** Run ID: **VOA1_090624B** SeqNo: **1704556** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	50.79	5.0	50	0	102	80-120	0			
1,1,2,2-Tetrachloroethane	53.12	5.0	50	0	106	72-120	0			
1,1,2-Trichloroethane	46.4	5.0	50	0	92.8	80-120	0			
1,1-Dichloroethane	52.92	5.0	50	0	106	76-120	0			
1,1-Dichloroethene	50.45	5.0	50	0	101	73-124	0			
1,2,4-Trimethylbenzene	45.76	5.0	50	0	91.5	68-123	0			
1,2-Dibromoethane	48.09	5.0	50	0	96.2	80-120	0			
1,2-Dichloroethane	49.59	5.0	50	0	99.2	78-120	0			
1,2-Dichloropropane	48.63	5.0	50	0	97.3	80-120	0			
1,3,5-Trimethylbenzene	51.45	5.0	50	0	103	80-120	0			
2-Butanone	116.3	10	100	0	116	58-132	0			
2-Hexanone	104.2	10	100	0	104	61-130	0			
4-Isopropyltoluene	44.81	5.0	50	0	89.6	79-120	0			
4-Methyl-2-pentanone	103.7	10	100	0	104	65-127	0			
Acetone	101.1	10	100	0	101	59-137	0			
Benzene	46.36	5.0	50	0	92.7	73-121	0			
Bromodichloromethane	50.39	5.0	50	0	101	80-120	0			
Bromoform	48.67	5.0	50	0	97.3	79-120	0			
Bromomethane	59.01	5.0	50	0	118	66-137	0			
Carbon disulfide	99.31	10	100	0	99.3	68-141	0			
Carbon tetrachloride	47.94	5.0	50	0	95.9	75-124	0			
Chlorobenzene	47.11	5.0	50	0	94.2	80-120	0			
Chloroethane	45.18	5.0	50	0	90.4	76-121	0			
Chloroform	51.79	5.0	50	0	104	80-120	0			
Chloromethane	42.55	5.0	50	0	85.1	67-123	0			
cis-1,2-Dichloroethene	52.17	5.0	50	0	104	78-120	0			
cis-1,3-Dichloropropene	47.43	5.0	50	0	94.9	80-120	0			
Dibromochloromethane	49.37	5.0	50	0	98.7	80-120	0			
Ethylbenzene	46.69	5.0	50	0	93.4	80-120	0			
Isopropylbenzene	45.98	5.0	50	0.6308	90.7	80-120	0			
m,p-Xylene	90.16	10	100	0	90.2	78-121	0			
Methyl tert-butyl ether	58.38	5.0	50	0	117	73-121	0			
Methylene chloride	49.61	10	50	0	99.2	65-133	0			
n-Butylbenzene	48.24	5.0	50	0	96.5	77-120	0			
n-Propylbenzene	48.14	5.0	50	0	96.3	78-120	0			
Naphthalene	49.66	5.0	50	0	99.3	65-127	0			
o-Xylene	47.94	5.0	50	0	95.9	80-120	0			
sec-Butylbenzene	50.01	5.0	50	0	100	78-120	0			
Styrene	46.05	5.0	50	0	92.1	80-120	0			
Tetrachloroethene	45	5.0	50	0	90	79-120	0			
Toluene	45.29	5.0	50	0	90.6	80-120	0			
trans-1,2-Dichloroethene	52.19	5.0	50	0	104	78-120	0			

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455**	Instrument ID **VOA1**		Method: **SW8260**				
trans-1,3-Dichloropropene	54.28	5.0	50	0	109	80-120	0
Trichloroethene	50.51	5.0	50	0	101	80-120	0
Vinyl chloride	47.05	2.0	50	0	94.1	70-127	0
Xylenes, Total	138.1	15	150	0	92.1	80-120	0
Surr: 1,2-Dichloroethane-d4	*54.41*	5.0	*50*	0	*109*	*70-125*	0
Surr: 4-Bromofluorobenzene	*49.09*	5.0	*50*	0	*98.2*	*72-125*	0
Surr: Dibromofluoromethane	*53.22*	5.0	*50*	0	*106*	*71-125*	0
Surr: Toluene-d8	*48.87*	5.0	*50*	0	*97.7*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

MSD Sample ID: **0906452-02AMSD** Units: **µg/L** Analysis Date: **6/24/2009 02:21 PM**

Client ID: **MW#12** Run ID: **VOA1_090624B** SeqNo: **1704557** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	48.34	5.0	50	0	96.7	80-120	50.79	4.94	20	
1,1,2,2-Tetrachloroethane	51.09	5.0	50	0	102	72-120	53.12	3.89	20	
1,1,2-Trichloroethane	46.2	5.0	50	0	92.4	80-120	46.4	0.427	20	
1,1-Dichloroethane	49.05	5.0	50	0	98.1	76-120	52.92	7.58	20	
1,1-Dichloroethene	45.05	5.0	50	0	90.1	73-124	50.45	11.3	20	
1,2,4-Trimethylbenzene	49.83	5.0	50	0	99.7	68-123	45.76	8.5	20	
1,2-Dibromoethane	50.02	5.0	50	0	100	80-120	48.09	3.94	20	
1,2-Dichloroethane	46.78	5.0	50	0	93.6	78-120	49.59	5.84	20	
1,2-Dichloropropane	46.95	5.0	50	0	93.9	80-120	48.63	3.52	20	
1,3,5-Trimethylbenzene	49.63	5.0	50	0	99.3	80-120	51.45	3.59	20	
2-Butanone	116.2	10	100	0	116	58-132	116.3	0.0744	20	
2-Hexanone	104.7	10	100	0	105	61-130	104.2	0.433	20	
4-Isopropyltoluene	44.08	5.0	50	0	88.2	79-120	44.81	1.64	20	
4-Methyl-2-pentanone	109.2	10	100	0	109	65-127	103.7	5.23	20	
Acetone	97.66	10	100	0	97.7	59-137	101.1	3.44	20	
Benzene	44.38	5.0	50	0	88.8	73-121	46.36	4.36	20	
Bromodichloromethane	46.94	5.0	50	0	93.9	80-120	50.39	7.08	20	
Bromoform	48.71	5.0	50	0	97.4	79-120	48.67	0.0827	20	
Bromomethane	50.26	5.0	50	0	101	66-137	59.01	16	20	
Carbon disulfide	93.76	10	100	0	93.8	68-141	99.31	5.75	20	
Carbon tetrachloride	43.14	5.0	50	0	86.3	75-124	47.94	10.5	20	
Chlorobenzene	46.77	5.0	50	0	93.5	80-120	47.11	0.733	20	
Chloroethane	42.27	5.0	50	0	84.5	76-121	45.18	6.65	20	
Chloroform	49.11	5.0	50	0	98.2	80-120	51.79	5.32	20	
Chloromethane	45.41	5.0	50	0	90.8	67-123	42.55	6.51	20	
cis-1,2-Dichloroethene	51.31	5.0	50	0	103	78-120	52.17	1.67	20	
cis-1,3-Dichloropropene	48.71	5.0	50	0	97.4	80-120	47.43	2.67	20	
Dibromochloromethane	50.31	5.0	50	0	101	80-120	49.37	1.87	20	
Ethylbenzene	47.52	5.0	50	0	95	80-120	46.69	1.78	20	
Isopropylbenzene	45.46	5.0	50	0.6308	89.7	80-120	45.98	1.15	20	
m,p-Xylene	93.71	10	100	0	93.7	78-121	90.16	3.86	20	
Methyl tert-butyl ether	58.99	5.0	50	0	118	73-121	58.38	1.04	20	
Methylene chloride	47.42	10	50	0	94.8	65-133	49.61	4.51	20	
n-Butylbenzene	44.25	5.0	50	0	88.5	77-120	48.24	8.63	20	
n-Propylbenzene	49.59	5.0	50	0	99.2	78-120	48.14	2.96	20	
Naphthalene	51.68	5.0	50	0	103	65-127	49.66	4	20	
o-Xylene	49.28	5.0	50	0	98.6	80-120	47.94	2.75	20	
sec-Butylbenzene	48.14	5.0	50	0	96.3	78-120	50.01	3.81	20	
Styrene	48.2	5.0	50	0	96.4	80-120	46.05	4.56	20	
Tetrachloroethene	42.51	5.0	50	0	85	79-120	45	5.68	20	
Toluene	43.63	5.0	50	0	87.3	80-120	45.29	3.74	20	
trans-1,2-Dichloroethene	49.77	5.0	50	0	99.5	78-120	52.19	4.74	20	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	50.81	5.0	50	0	102	80-120	54.28	6.59	20
Trichloroethene	45.27	5.0	50	0	90.5	80-120	50.51	10.9	20
Vinyl chloride	42.07	2.0	50	0	84.1	70-127	47.05	11.2	20
Xylenes, Total	143	15	150	0	95.3	80-120	138.1	3.48	20
Surr: 1,2-Dichloroethane-d4	*51.8*	5.0	*50*	0	*104*	*70-125*	54.41	*4.92*	*20*
Surr: 4-Bromofluorobenzene	*50.34*	5.0	*50*	0	*101*	*72-125*	49.09	*2.5*	*20*
Surr: Dibromofluoromethane	*52.44*	5.0	*50*	0	*105*	*71-125*	53.22	*1.47*	*20*
Surr: Toluene-d8	*49.47*	5.0	*50*	0	*98.9*	*75-125*	48.87	*1.23*	*20*

The following samples were analyzed in this batch:

0906452-02A	0906452-03A	0906452-04A
0906452-05A	0906452-06A	0906452-07A
0906452-08A	0906452-09A	0906452-10A

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78139** Instrument ID **WetChem** Method: **SM4500H+ B**

LCS Sample ID: **WLCSW1-061709-R78139** Units: **pH units** Analysis Date: **6/17/2009 03:00 PM**
Client ID: Run ID: **WETCHEM_090617J** SeqNo: **1697759** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.01	0.10	6	0	100	90-110	0			

DUP Sample ID: **0906452-01ddup** Units: **pH units** Analysis Date: **6/17/2009 03:00 PM**
Client ID: **MW#5** Run ID: **WETCHEM_090617J** SeqNo: **1697771** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.83	0.10	0	0	0	0-0	7.82	0.128	20	H

The following samples were analyzed in this batch:

0906452-01D	0906452-02D	0906452-03D
0906452-04D	0906452-05D	0906452-06D
0906452-07D	0906452-08D	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78140** Instrument ID **WetChem** Method: **M2510 B**

MBLK Sample ID: **WBLKW1-061709-R78140** Units: **µmhos/cm** Analysis Date: **6/17/2009 05:00 PM**
Client ID: Run ID: **WETCHEM_090617K** SeqNo: **1697775** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	ND	1.0								

LCS Sample ID: **WLCSW1-061709-R78140** Units: **µmhos/cm** Analysis Date: **6/17/2009 05:00 PM**
Client ID: Run ID: **WETCHEM_090617K** SeqNo: **1697776** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1440	1.0	1412	0	102	80-120	0			

DUP Sample ID: **0906452-01ddup** Units: **µmhos/cm** Analysis Date: **6/17/2009 05:00 PM**
Client ID: **MW#5** Run ID: **WETCHEM_090617K** SeqNo: **1697794** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1850	1.0	0	0	0		1820	1.63	20	

The following samples were analyzed in this batch:

0906452-01D	0906452-02D	0906452-03D
0906452-04D	0906452-05D	0906452-06D
0906452-07D	0906452-08D	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78277** Instrument ID **Balance1** Method: **M2540C**

MBLK Sample ID: **BLANK-R78277** Units: **mg/L** Analysis Date: **6/19/2009 11:00 AM**
Client ID: Run ID: **BALANCE1_090619C** SeqNo: **1701166** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	ND	10								

LCS Sample ID: **LCS-R78277** Units: **mg/L** Analysis Date: **6/19/2009 11:00 AM**
Client ID: Run ID: **BALANCE1_090619C** SeqNo: **1701167** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	958	10	1000	0	95.8	85-115	0			

DUP Sample ID: **0906433-02ADUP** Units: **mg/L** Analysis Date: **6/19/2009 11:00 AM**
Client ID: Run ID: **BALANCE1_090619C** SeqNo: **1701154** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	1372	10	0	0	0	0-0	1336	2.66	20	

The following samples were analyzed in this batch:

0906452-01D	0906452-02D	0906452-03D
0906452-04D	0906452-05D	0906452-06D
0906452-07D	0906452-08D	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78284** Instrument ID **ICS3000** Method: **E300**

MBLK Sample ID: **WBLKW4+-061909-R78284** Units: **mg/L** Analysis Date: **6/19/2009 05:02 PM**
Client ID: Run ID: **ICS3000_090619B** SeqNo: **1701230** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	0.04	0.10								J
Surr: Selenate (surr)	*5.084*	0.10	*5*	0	*102*	*85-115*	0			

LCS Sample ID: **WLCSW4+-061909-R78284** Units: **mg/L** Analysis Date: **6/19/2009 05:25 PM**
Client ID: Run ID: **ICS3000_090619B** SeqNo: **1701231** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	7.699	0.10	8	0	96.2	90-110	0			
Surr: Selenate (surr)	*4.996*	0.10	*5*	0	*99.9*	*85-115*	0			

MS Sample ID: **0906452-01BMS** Units: **mg/L** Analysis Date: **6/19/2009 06:11 PM**
Client ID: **MW#5** Run ID: **ICS3000_090619B** SeqNo: **1701235** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	23.12	0.50	20	3.314	99	80-120	0			
Surr: Selenate (surr)	*25.62*	0.50	*25*	0	*102*	*85-115*	0			

MS Sample ID: **0906467-05BMS** Units: **mg/L** Analysis Date: **6/20/2009 12:46 AM**
Client ID: Run ID: **ICS3000_090619B** SeqNo: **1701269** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	3.672	0.10	4	0.045	90.7	80-120	0			
Surr: Selenate (surr)	*4.994*	0.10	*5*	0	*99.9*	*85-115*	0			

MSD Sample ID: **0906452-01BMSD** Units: **mg/L** Analysis Date: **6/19/2009 06:35 PM**
Client ID: **MW#5** Run ID: **ICS3000_090619B** SeqNo: **1701237** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	23.13	0.50	20	3.314	99.1	80-120	23.12	0.013	20	
Surr: Selenate (surr)	*25.55*	0.50	*25*	0	*102*	*85-115*	25.62	*0.27*	*20*	

MSD Sample ID: **0906467-05BMSD** Units: **mg/L** Analysis Date: **6/20/2009 01:10 AM**
Client ID: Run ID: **ICS3000_090619B** SeqNo: **1701270** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	3.642	0.10	4	0.045	89.9	80-120	3.672	0.82	20	
Surr: Selenate (surr)	*5.01*	0.10	*5*	0	*100*	*85-115*	4.994	*0.32*	*20*	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78284** Instrument ID **ICS3000** Method: **E300**

The following samples were analyzed in this batch:

0906452-01B	0906452-02B	0906452-03B
0906452-04B	0906452-05B	0906452-06B
0906452-07B	0906452-08B	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78313** Instrument ID **ICS3000** Method: **E300**

MBLK Sample ID: **WBLKW1-062209-R78313** Units: **mg/L** Analysis Date: **6/22/2009 10:58 AM**
Client ID: Run ID: **ICS3000_090622A** SeqNo: **1701597** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	0.50								
Surr: Selenate (surr)	*4.573*	0.10	*5*	0	*91.5*	*85-115*	0			

LCS Sample ID: **WLCSW1-062209-R78313** Units: **mg/L** Analysis Date: **6/22/2009 11:44 AM**
Client ID: Run ID: **ICS3000_090622A** SeqNo: **1701598** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.48	0.50	20	0	97.4	90-110	0			
Fluoride	3.968	0.10	4	0	99.2	90-110	0			
Sulfate	18.94	0.50	20	0	94.7	90-110	0			
Surr: Selenate (surr)	*4.486*	0.10	*5*	0	*89.7*	*85-115*	0			

MS Sample ID: **0906467-05DMS** Units: **mg/L** Analysis Date: **6/22/2009 05:56 PM**
Client ID: Run ID: **ICS3000_090622A** SeqNo: **1701614** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	21.56	0.50	10	11.98	95.8	80-120	0			
Fluoride	2.001	0.10	2	-0.076	104	80-120	0			
Sulfate	9.337	0.50	10	0.127	92.1	80-120	0			
Surr: Selenate (surr)	*4.717*	0.10	*5*	0	*94.3*	*85-115*	0			

MS Sample ID: **0906452-01DMS** Units: **mg/L** Analysis Date: **6/22/2009 07:06 PM**
Client ID: **MW#5** Run ID: **ICS3000_090622A** SeqNo: **1701617** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	278.7	5.0	100	186.3	92.5	80-120	0			
Fluoride	21.47	1.0	20	0.523	105	80-120	0			
Sulfate	223.1	5.0	100	130.8	92.3	80-120	0			
Surr: Selenate (surr)	*47.96*	1.0	*50*	0	*95.9*	*85-115*	0			

MSD Sample ID: **0906467-05DMSD** Units: **mg/L** Analysis Date: **6/22/2009 06:19 PM**
Client ID: Run ID: **ICS3000_090622A** SeqNo: **1701615** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	21.55	0.50	10	11.98	95.8	80-120	21.56	0.0232	20	
Fluoride	2.024	0.10	2	-0.076	105	80-120	2.001	1.14	20	
Sulfate	9.417	0.50	10	0.127	92.9	80-120	9.337	0.853	20	
Surr: Selenate (surr)	*4.733*	0.10	*5*	0	*94.7*	*85-115*	4.717	*0.339*	*20*	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78313** Instrument ID **ICS3000** Method: **E300**

MSD Sample ID: **0906452-01DMSD** Units: **mg/L** Analysis Date: **6/22/2009 07:29 PM**

Client ID: **MW#5** Run ID: **ICS3000_090622A** SeqNo: **1701618** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	278.7	5.0	100	186.3	92.5	80-120	278.7	0.00753	20	
Fluoride	21.48	1.0	20	0.523	105	80-120	21.47	0.0279	20	
Sulfate	223.4	5.0	100	130.8	92.6	80-120	223.1	0.137	20	
Surr: Selenate (surr)	*48.03*	1.0	*50*	0	*96.1*	*85-115*	47.96	*0.144*	*20*	

The following samples were analyzed in this batch:

0906452-01D	0906452-02D	0906452-03D
0906452-04D	0906452-05D	0906452-06D
0906452-07D	0906452-08D	

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

Client: Navajo Refining Company
Work Order: 0906452
Project: Navajo Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78439** Instrument ID **WetChem** Method: **SM2320B**

MBLK Sample ID: **WBLKW1-062409-R78439** Units: **mg/L** Analysis Date: **6/24/2009 03:00 PM**

Client ID: Run ID: **WETCHEM_090624H** SeqNo: **1704280** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-062409-R78439** Units: **mg/L** Analysis Date: **6/24/2009 03:00 PM**

Client ID: Run ID: **WETCHEM_090624H** SeqNo: **1704281** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	1043	5.0	1000	0	104	80-120	0			
Alkalinity, Total (As CaCO3)	1043	5.0	1000	0	104	80-120	0			

DUP Sample ID: **0906510-01cdup** Units: **mg/L** Analysis Date: **6/24/2009 03:00 PM**

Client ID: Run ID: **WETCHEM_090624H** SeqNo: **1704292** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	170	5.0	0	0	0	0-0	170	0	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	170	5.0	0	0	0	0-0	170	0	20	

The following samples were analyzed in this batch:

0906452-01D	0906452-02D	0906452-03D
0906452-04D	0906452-05D	0906452-06D
0906452-07D	0906452-08D	

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

ALS Laboratory Group

Date: 30-Jun-09

Client: Navajo Refining Company
Project: Navajo Refinery Semi-Annual
WorkOrder: 0906452

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	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	Description
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
µmhos/cm	
mg/L	Milligrams per Liter
pH units	

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Chain of Custody Form

Page 1 of 1

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ALS Project Manager: | ALS Work Order #: 0906052

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Navajo ~~Artesia~~ Refinery Semi-Annual LEA	A	VOC (8260) Select Dry P
Work Order		Project Number		B	~~TPH (8015M) GRO, DRO, ORO~~ Total Mercury
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	SVOC (8270) LL TCL
Send Report To	Darrell Moore	Invoice Attn	Darrell Moore	D	Dissolved Metals (6020/7000) Select
Address	P.O. Box 159	Address	P.O. Box 159	E	Anions (300) Cl, F, SO4, NO3, NO2
				F	Alkalinity
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	pH/Specific Conductivity
Phone	(505) 748-3311	Phone	(505) 748-3311	H	TDS
Fax	(505) 746-5421	Fax	(505) 746-5421	I	Nitrate/Nitrite (300)
e-Mail Address (COPY)	dgboyer@SESI-NM.com	e-Mail Address	Darrell.Moore@hollycorp.com		Cations

No.	Sample Description	Date	Time	Matrix	Pres	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW #5	06-16-09	0920	GW	1,2,3,8	8	X	X	X	X	X	X	X	X	X	X	
2	MW #12		1025		1,2,3,8	8	X	X	X	X	X	X	X	X	X	X	
3	MW #14		1115		1,2,3,8	8	X	X	X	X	X	X	X	X	X	X	
4	MW #13		1230		1,2,3,8	8	X	X	X	X	X	X	X	X	X	X	
5	MW #4		1320		1,2,3,8	8	X	X	X	X	X	X	X	X	X	X	
6	MW #3		1350		1,2,3,8	8	X	X	X	X	X	X	X	X	X	X	
7	MW #9		1420		1,2,3,8	8	X	X	X	X	X	X	X	X	X	X	
8	MW #10		1500		1,2,3,8	8	X	X	X	X	X	X	X	X	X	X	
9	Trip Blank (3)		1650		1,8	6	X										
10																	

Sampler(s) Please Print & Sign: [signature]

Shipment Method: FED-X

Required Turnaround Time: (Check Box) ☐ Other ☑ Std 10 W/C Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
[signature]	06-16-09	1650	
Relinquished by:	Date:	Time:	Received by (Laboratory):
[signature]	6/20/09	08:45	[signature]
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: 10 Work Days TAT.

Cooler ID | Cooler Temp #

QC Package: (Check One Box Below)
☑ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other _____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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

Chain of Custody Form

Page 1 of 1

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

0906452

ALS Project Manager: | ALS Work Order #: 0906452 PAGE 1 of 1

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Navajo Artesia Refinery Semi-Annual CCA	A	VOC (8260) Select
Work Order		Project Number		B	TPH (8015M) GRO, DRO, ORO
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	SVOC (8270) LL TCL
Send Report To	Darrell Moore	Invoice Attn	Darrell Moore	D	Dissolved Metals (6020/7000) Select
Address	P.O. Box 159	Address	P.O. Box 159	E	Anions (300) Cl, F, SO4, NO3, NO2
				F	Alkalinity
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	pH/Specific Conductivity
Phone	(505) 748-3311	Phone	(505) 748-3311	H	TDS
Fax	(505) 746-5421	Fax	(505) 746-5421	I	Nitrate/Nitrite (300)
e-Mail Address	dgboyer@SESI-NM.com	e-Mail Address		J	Cations

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW #5	06-02-09	0920	H2O	1,2,3,8	8	X		X	X	X	X	X	X	X	X	
2	MW #12	06-02-09	1025	H2O	1,2,3,8	8	X		X	X	X	X	X	X	X	X	
3	MW #14	06-02-09	1115	H2O	1,2,3,8	8	X		X	X	X	X	X	X	X	X	
4	MW #13	06-02-09	1230		1,2,3,8	8	X		X	X	X	X	X	X	X	X	
5	MW #4 1320	06-02-09	~~1320~~ JS		1,2,3,8	8	X		X	X	X	X	X	X	X	X	
6	MW #3	06-02-09	1350		1,2,3,8	8	X		X	X	X	X	X	X	X	X	
7	MW #9	06-02-09	1420		1,2,3,8	8	X		X	X	X	X	X	X	X	X	
8	MW #10	06-02-09	1500		1,2,3,8	8	X		X	X	X	X	X	X	X	X	
9	TRIP BLANK (3)	06-02-09	1650	H2O	1,8	6	X		X JS								
10																	

Sampler(s) Please Print & Sign: Sosa Jerry Sosa Jerry

Shipment Method: FED-X

Required Turnaround Time: (Check Box) ☑ Std 10 WK Days ☐ 5 WK Days ☐ Other 2 WK Days ☐ 24 Hour

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Sosa Jerry	06-02-09	1650	
Relinquished by:	Date:	Time:	Received by (Laboratory):
	06/17/09	08:15	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: 10 Work Days TAT.

Cooler ID | Cooler Temp. °

QC Package: (Check One Box Below)
☑ Level II Std QC
☐ Level III Std QC/Raw Data
☐ Level IV SW846/CLP
☐ Other
☐ TRRP CheckList
☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035

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 Laboratory Group

Sample Receipt Checklist

Client Name: **NAVAJO REFINING** Date/Time Received: **17-Jun-09 09:15**

Work Order: **0906452** Received by: **RDH**

Checklist completed by Raymond N Gamboa (eSignature) 17-Jun-09 (Date) Reviewed by: Jay Lynn F Thibault (eSignature) 17-Jun-09 (Date)

Matrices: Water
Carrier name: FedEx

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):	2.7c, 3.2c, 3.6c	002	
Cooler(s)/Kit(s):	2512, 2497, 2515		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes: Logged in samples with the date of collection being 6/17/09, not 6/2/09 as indicated on the COC. Received only two sets of trip blanks, not three as indicated on the COC.

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

W.O. # [illegible] 19452.

...ll This portion can be removed for Recipient's records.

Date 06-02-09 FedEx Tracking Number 869790880538

Sender's Name Bryan, Dave Phone 575 397-0510

Company Safety & Environmental Solutions

Address 703 E Clinton

City Hobbs State NM ZIP 88240

Dept/Floor/Suite/Room

...ur Internal Billing Reference

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

CU[illegible]STODY SEAL 2512

Date: 06-02-0[illegible]

Name: S[illegible]

Company: [illegible]

Time: 1650

Seal Broken By:

Date: 6/17/09

...ll This portion can be removed for Recipient's records.

Date 06-02-09 FedEx Tracking Number 869790880549

Sender's Name Bryan, Dave Phone 575 397-0510

Company Safety & Environmental Solutions

Address 703 E Clinton

City Hobbs State NM ZIP 88240

Dept/Floor/Suite/Room

...ur Internal Billing Reference

CUSTODY SEAL

DATE 06-02-09

SIGNATURE Sean Jones

QEC 2497

Quality Environmental Co[illegible]

800-255-3950 · 30[illegible]

...ll This portion can be removed for Recipient's records.

Date 06-02-09 FedEx Tracking Number 869790880550

Sender's Name Bryan, Dave Phone 575 397-0510

Company Safety & Environmental Solutions

Address 703 E. Clinton

City Hobbs State NM ZIP 88240

Dept/Floor/Suite/Room

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

Date: 06-

Name:

Company:

CUSTODY SEAL 2515

Time: 1650

Sean Jones

Seal Broken By:

Date: 6/17/09

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES.

Environmental Division

06-Jul-2009

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

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

Re: Navajo Lea Refinery Semi-Annual

Work Order: **0906543**

Dear Darrell,

ALS Laboratory Group received 12 samples on 20-Jun-2009 08:45 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 92.

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

Sincerely,

JayLynn F Thibault

Electronically approved by: Glenda H. Ramos

JayLynn F Thibault
Project Manager

ACCREDITED IN ACCORDANCE WITH nelac
Certificate No: T104704231-08-TX

ALS Laboratory Group

Date: 06-Jul-09

Client: Navajo Refining Company
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
0906543-01	MW-6	Water		6/18/2009 12:40	6/20/2009 08:45	☐
0906543-02	MW #8	Water		6/18/2009 14:30	6/20/2009 08:45	☐
0906543-03	MW #11	Water		6/18/2009 15:15	6/20/2009 08:45	☐
0906543-04	North Well	Water		6/18/2009 16:00	6/20/2009 08:45	☐
0906543-05	East Well	Water		6/18/2009 16:20	6/20/2009 08:45	☐
0906543-06	Duplicate #1	Water			6/20/2009 08:45	☐
0906543-07	MW #1	Water		6/19/2009 14:00	6/20/2009 08:45	☐
0906543-08	MW #7	Water		6/19/2009 15:15	6/20/2009 08:45	☐
0906543-09	RW-1	Water		6/19/2009 16:16	6/20/2009 08:45	☐
0906543-10	Trip Blank 2400	Water		6/19/2009 17:00	6/20/2009 08:45	☐
0906543-11	Trip Blank 1837	Water		6/19/2009 17:00	6/20/2009 08:45	☐
0906543-12	Trip Blank 2354	Water		6/19/2009 17:00	6/20/2009 08:45	☐

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-6
Collection Date: 6/18/2009 12:40 PM

Work Order: 0906543
Lab ID: 0906543-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/30/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/30/2009 04:02 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	6/30/2009 05:03 AM
Arsenic	**0.0201**		**0.00500**	**mg/L**	1	6/30/2009 05:03 AM
Barium	**0.186**		**0.00500**	**mg/L**	1	6/30/2009 05:03 AM
Boron	**0.175**		**0.0200**	**mg/L**	1	6/30/2009 05:03 AM
Cadmium	ND		0.00200	mg/L	1	6/30/2009 05:03 AM
Calcium	**100**		**0.500**	**mg/L**	1	6/30/2009 05:03 AM
Chromium	ND		0.00500	mg/L	1	6/30/2009 05:03 AM
Cobalt	ND		0.00500	mg/L	1	6/30/2009 05:03 AM
Copper	ND		0.00500	mg/L	1	6/30/2009 05:03 AM
Iron	**0.418**		**0.200**	**mg/L**	1	6/30/2009 05:03 AM
Lead	ND		0.00500	mg/L	1	6/30/2009 05:03 AM
Magnesium	**14.5**		**0.400**	**mg/L**	2	7/1/2009 11:18 PM
Manganese	**2.86**		**0.0100**	**mg/L**	2	7/1/2009 11:18 PM
Molybdenum	ND		0.00500	mg/L	1	6/30/2009 05:03 AM
Nickel	ND		0.00500	mg/L	1	6/30/2009 05:03 AM
Potassium	**2.76**		**0.400**	**mg/L**	2	7/2/2009 01:17 PM
Selenium	ND		0.00500	mg/L	1	6/30/2009 05:03 AM
Silver	ND		0.00500	mg/L	1	6/30/2009 05:03 AM
Sodium	**105**		**0.400**	**mg/L**	2	7/1/2009 11:18 PM
Zinc	**0.00996**		**0.00500**	**mg/L**	1	6/30/2009 05:03 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	7/1/2009 06:02 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
2-Chlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
2-Methylnaphthalene	**0.0017**		**0.00020**	**mg/L**	1	7/1/2009 06:02 PM
2-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
2-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
2-Nitrophenol	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
3&4-Methylphenol	**0.0015**		**0.00020**	**mg/L**	1	7/1/2009 06:02 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW-6
Lab ID: 0906543-01
Collection Date: 6/18/2009 12:40 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
3-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
4-Chloroaniline	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
4-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
4-Nitrophenol	ND		0.0010	mg/L	1	7/1/2009 06:02 PM
Acenaphthene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Acenaphthylene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Acetophenone	**0.021**		**0.00080**	**mg/L**	4	7/2/2009 03:32 PM
Anthracene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Atrazine	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Benzaldehyde	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Bis(2-ethylhexyl)phthalate	**0.0011**		**0.00020**	**mg/L**	1	7/1/2009 06:02 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Caprolactam	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Carbazole	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Chrysene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Dibenzofuran	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Diethyl phthalate	**0.0051**		**0.00020**	**mg/L**	1	7/1/2009 06:02 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Fluoranthene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Fluorene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Hexachloroethane	ND		0.00020	mg/L	1	7/1/2009 06:02 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW-6
Lab ID: 0906543-01
Collection Date: 6/18/2009 12:40 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Isophorone	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Naphthalene	**0.0024**		**0.00020**	**mg/L**	1	7/1/2009 06:02 PM
Nitrobenzene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Pentachlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Phenanthrene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Phenol	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Pyrene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
Surr: 2,4,6-Tribromophenol	*56.3*		*34-129*	*%REC*	4	7/2/2009 03:32 PM
Surr: 2,4,6-Tribromophenol	*44.1*		*34-129*	*%REC*	1	7/1/2009 06:02 PM
Surr: 2-Fluorobiphenyl	*51.8*		*40-125*	*%REC*	1	7/1/2009 06:02 PM
Surr: 2-Fluorobiphenyl	*70.4*		*40-125*	*%REC*	4	7/2/2009 03:32 PM
Surr: 2-Fluorophenol	*58.7*		*20-120*	*%REC*	1	7/1/2009 06:02 PM
Surr: 2-Fluorophenol	*52.0*		*20-120*	*%REC*	4	7/2/2009 03:32 PM
Surr: 4-Terphenyl-d14	*67.7*		*40-135*	*%REC*	1	7/1/2009 06:02 PM
Surr: 4-Terphenyl-d14	*66.9*		*40-135*	*%REC*	4	7/2/2009 03:32 PM
Surr: Nitrobenzene-d5	*81.6*		*41-120*	*%REC*	4	7/2/2009 03:32 PM
Surr: Nitrobenzene-d5	*51.6*		*41-120*	*%REC*	1	7/1/2009 06:02 PM
Surr: Phenol-d6	*49.9*		*20-120*	*%REC*	1	7/1/2009 06:02 PM
Surr: Phenol-d6	*53.8*		*20-120*	*%REC*	4	7/2/2009 03:32 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 06:02 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
1,2,4-Trimethylbenzene	**0.0058**		**0.0050**	**mg/L**	1	6/26/2009 05:37 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
2-Butanone	**0.30**		**0.010**	**mg/L**	1	6/26/2009 05:37 PM
2-Hexanone	ND		0.010	mg/L	1	6/26/2009 05:37 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/26/2009 05:37 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW-6
Lab ID: 0906543-01
Collection Date: 6/18/2009 12:40 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Acetone	**0.059**		**0.010**	**mg/L**	1	6/26/2009 05:37 PM
Benzene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Bromoform	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Bromomethane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Carbon disulfide	ND		0.010	mg/L	1	6/26/2009 05:37 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Chloroethane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Chloroform	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Chloromethane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
m,p-Xylene	ND		0.010	mg/L	1	6/26/2009 05:37 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Methylene chloride	ND		0.010	mg/L	1	6/26/2009 05:37 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Naphthalene	**0.0075**		**0.0050**	**mg/L**	1	6/26/2009 05:37 PM
o-Xylene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Styrene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Toluene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Trichloroethene	ND		0.0050	mg/L	1	6/26/2009 05:37 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/26/2009 05:37 PM
Xylenes, Total	ND		0.015	mg/L	1	6/26/2009 05:37 PM
Surr: 1,2-Dichloroethane-d4	*100*		*70-125*	*%REC*	1	6/26/2009 05:37 PM
Surr: 4-Bromofluorobenzene	*97.8*		*72-125*	*%REC*	1	6/26/2009 05:37 PM
Surr: Dibromofluoromethane	*106*		*71-125*	*%REC*	1	6/26/2009 05:37 PM
Surr: Toluene-d8	*98.3*		*75-125*	*%REC*	1	6/26/2009 05:37 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**188**		**2.50**	**mg/L**	5	6/24/2009 11:23 AM
Fluoride	**0.113**		**0.100**	**mg/L**	1	6/23/2009 06:38 PM
Sulfate	**101**		**2.50**	**mg/L**	5	6/24/2009 11:23 AM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-6
Collection Date: 6/18/2009 12:40 PM

Work Order: 0906543
Lab ID: 0906543-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Nitrate/Nitrite (as N)	**0.678**		**0.100**	**mg/L**	1	6/24/2009 07:20 PM
Surr: Selenate (surr)	*96.9*		*85-115*	*%REC*	1	6/24/2009 07:20 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	5	6/24/2009 11:23 AM
Surr: Selenate (surr)	*96.9*		*85-115*	*%REC*	1	6/23/2009 06:38 PM
ALKALINITY			**SM2320B**			Analyst: **RPM**
Alkalinity, Bicarbonate (As CaCO3)	**246**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Total (As CaCO3)	**246**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**1,370**		**1.00**	**µmhos/cm**	1	6/22/2009 10:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**6.78**	H	**0.100**	**pH units**	1	6/22/2009 01:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**844**		**10.0**	**mg/L**	1	6/23/2009 03:00 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW #8
Collection Date: 6/18/2009 02:30 PM

Work Order: 0906543
Lab ID: 0906543-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/30/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/30/2009 04:11 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	6/30/2009 05:09 AM
Arsenic	**0.00501**		**0.00500**	**mg/L**	1	6/30/2009 05:09 AM
Barium	**0.181**		**0.00500**	**mg/L**	1	6/30/2009 05:09 AM
Boron	**0.228**		**0.0200**	**mg/L**	1	6/30/2009 05:09 AM
Cadmium	ND		0.00200	mg/L	1	6/30/2009 05:09 AM
Calcium	**107**		**0.500**	**mg/L**	1	6/30/2009 05:09 AM
Chromium	ND		0.00500	mg/L	1	6/30/2009 05:09 AM
Cobalt	ND		0.00500	mg/L	1	6/30/2009 05:09 AM
Copper	ND		0.00500	mg/L	1	6/30/2009 05:09 AM
Iron	ND		0.200	mg/L	1	6/30/2009 05:09 AM
Lead	ND		0.00500	mg/L	1	6/30/2009 05:09 AM
Magnesium	**15.1**		**0.400**	**mg/L**	2	7/1/2009 11:25 PM
Manganese	**0.00919**		**0.00500**	**mg/L**	1	6/30/2009 05:09 AM
Molybdenum	ND		0.00500	mg/L	1	6/30/2009 05:09 AM
Nickel	ND		0.00500	mg/L	1	6/30/2009 05:09 AM
Potassium	**4.16**		**0.400**	**mg/L**	2	7/2/2009 01:41 PM
Selenium	ND		0.00500	mg/L	1	6/30/2009 05:09 AM
Silver	ND		0.00500	mg/L	1	6/30/2009 05:09 AM
Sodium	**136**		**0.400**	**mg/L**	2	7/1/2009 11:25 PM
Zinc	**0.0458**		**0.00500**	**mg/L**	1	6/30/2009 05:09 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	7/1/2009 06:23 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2-Chlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
2-Nitrophenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
3&4-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #8
Lab ID: 0906543-02
Collection Date: 6/18/2009 02:30 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
3-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
4-Chloroaniline	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
4-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
4-Nitrophenol	ND		0.0010	mg/L	1	7/1/2009 06:23 PM
Acenaphthene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Acenaphthylene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Acetophenone	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Anthracene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Atrazine	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Benzaldehyde	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Bis(2-ethylhexyl)phthalate	**0.00076**		**0.00020**	**mg/L**	1	7/1/2009 06:23 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Caprolactam	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Carbazole	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Chrysene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Dibenzofuran	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Diethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Fluoranthene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Fluorene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Hexachloroethane	ND		0.00020	mg/L	1	7/1/2009 06:23 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #8
Lab ID: 0906543-02
Collection Date: 6/18/2009 02:30 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Isophorone	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Naphthalene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Nitrobenzene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Pentachlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Phenanthrene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Phenol	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Pyrene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
Surr: 2,4,6-Tribromophenol	*63.2*		*34-129*	*%REC*	1	7/1/2009 06:23 PM
Surr: 2-Fluorobiphenyl	*71.7*		*40-125*	*%REC*	1	7/1/2009 06:23 PM
Surr: 2-Fluorophenol	*56.1*		*20-120*	*%REC*	1	7/1/2009 06:23 PM
Surr: 4-Terphenyl-d14	*69.1*		*40-135*	*%REC*	1	7/1/2009 06:23 PM
Surr: Nitrobenzene-d5	*72.5*		*41-120*	*%REC*	1	7/1/2009 06:23 PM
Surr: Phenol-d6	*73.1*		*20-120*	*%REC*	1	7/1/2009 06:23 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 06:23 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
2-Butanone	ND		0.010	mg/L	1	6/26/2009 06:02 PM
2-Hexanone	ND		0.010	mg/L	1	6/26/2009 06:02 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/26/2009 06:02 PM
Acetone	ND		0.010	mg/L	1	6/26/2009 06:02 PM
Benzene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Bromoform	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Bromomethane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Carbon disulfide	ND		0.010	mg/L	1	6/26/2009 06:02 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #8
Lab ID: 0906543-02
Collection Date: 6/18/2009 02:30 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Chloroethane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Chloroform	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Chloromethane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
m,p-Xylene	ND		0.010	mg/L	1	6/26/2009 06:02 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Methylene chloride	ND		0.010	mg/L	1	6/26/2009 06:02 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Naphthalene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
o-Xylene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Styrene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Toluene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Trichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:02 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/26/2009 06:02 PM
Xylenes, Total	ND		0.015	mg/L	1	6/26/2009 06:02 PM
Surr: 1,2-Dichloroethane-d4	*104*		*70-125*	*%REC*	1	6/26/2009 06:02 PM
Surr: 4-Bromofluorobenzene	*94.4*		*72-125*	*%REC*	1	6/26/2009 06:02 PM
Surr: Dibromofluoromethane	*105*		*71-125*	*%REC*	1	6/26/2009 06:02 PM
Surr: Toluene-d8	*96.2*		*75-125*	*%REC*	1	6/26/2009 06:02 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**219**		**2.50**	**mg/L**	5	6/24/2009 11:46 AM
Fluoride	**0.730**		**0.100**	**mg/L**	1	6/23/2009 07:01 PM
Sulfate	**73.3**		**2.50**	**mg/L**	5	6/24/2009 11:46 AM
Nitrate/Nitrite (as N)	**3.46**		**0.100**	**mg/L**	1	6/24/2009 07:43 PM
Surr: Selenate (surr)	*97.7*		*85-115*	*%REC*	5	6/24/2009 11:46 AM
Surr: Selenate (surr)	*98.2*		*85-115*	*%REC*	1	6/23/2009 07:01 PM
Surr: Selenate (surr)	*99.5*		*85-115*	*%REC*	1	6/24/2009 07:43 PM
ALKALINITY			**SM2320B**			Analyst: **RPM**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW #8
Collection Date: 6/18/2009 02:30 PM

Work Order: 0906543
Lab ID: 0906543-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**284**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Total (As CaCO3)	**284**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**1,470**		**1.00**	**µmhos/cm**	1	6/22/2009 10:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**6.97**	H	**0.100**	**pH units**	1	6/22/2009 01:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**798**		**10.0**	**mg/L**	1	6/23/2009 03:00 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW #11
Collection Date: 6/18/2009 03:15 PM

Work Order: 0906543
Lab ID: 0906543-03
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/30/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/30/2009 04:13 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	6/30/2009 05:16 AM
Arsenic	ND		0.00500	mg/L	1	6/30/2009 05:16 AM
Barium	**0.194**		**0.00500**	**mg/L**	1	6/30/2009 05:16 AM
Boron	**0.199**		**0.0200**	**mg/L**	1	6/30/2009 05:16 AM
Cadmium	ND		0.00200	mg/L	1	6/30/2009 05:16 AM
Calcium	**176**		**0.500**	**mg/L**	1	6/30/2009 05:16 AM
Chromium	ND		0.00500	mg/L	1	6/30/2009 05:16 AM
Cobalt	ND		0.00500	mg/L	1	6/30/2009 05:16 AM
Copper	ND		0.00500	mg/L	1	6/30/2009 05:16 AM
Iron	**0.571**		**0.200**	**mg/L**	1	6/30/2009 05:16 AM
Lead	ND		0.00500	mg/L	1	6/30/2009 05:16 AM
Magnesium	**27.0**		**0.400**	**mg/L**	2	7/1/2009 11:31 PM
Manganese	**0.387**		**0.00500**	**mg/L**	1	6/30/2009 05:16 AM
Molybdenum	ND		0.00500	mg/L	1	6/30/2009 05:16 AM
Nickel	ND		0.00500	mg/L	1	6/30/2009 05:16 AM
Potassium	**3.51**		**0.400**	**mg/L**	2	7/2/2009 01:47 PM
Selenium	ND		0.00500	mg/L	1	6/30/2009 05:16 AM
Silver	ND		0.00500	mg/L	1	6/30/2009 05:16 AM
Sodium	**81.4**		**0.400**	**mg/L**	2	7/1/2009 11:31 PM
Zinc	**0.0212**		**0.00500**	**mg/L**	1	6/30/2009 05:16 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	7/1/2009 06:44 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2-Chlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
2-Nitrophenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
3&4-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #11
Lab ID: 0906543-03
Collection Date: 6/18/2009 03:15 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
3-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
4-Chloroaniline	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
4-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
4-Nitrophenol	ND		0.0010	mg/L	1	7/1/2009 06:44 PM
Acenaphthene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Acenaphthylene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Acetophenone	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Anthracene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Atrazine	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Benzaldehyde	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Bis(2-ethylhexyl)phthalate	**0.00045**		**0.00020**	**mg/L**	1	7/1/2009 06:44 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Caprolactam	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Carbazole	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Chrysene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Dibenzofuran	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Diethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Fluoranthene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Fluorene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Hexachloroethane	ND		0.00020	mg/L	1	7/1/2009 06:44 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #11
Lab ID: 0906543-03
Collection Date: 6/18/2009 03:15 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Isophorone	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Naphthalene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Nitrobenzene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Pentachlorophenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Phenanthrene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Phenol	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Pyrene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
Surr: 2,4,6-Tribromophenol	*55.9*		*34-129*	*%REC*	1	7/1/2009 06:44 PM
Surr: 2-Fluorobiphenyl	*70.8*		*40-125*	*%REC*	1	7/1/2009 06:44 PM
Surr: 2-Fluorophenol	*51.5*		*20-120*	*%REC*	1	7/1/2009 06:44 PM
Surr: 4-Terphenyl-d14	*64.1*		*40-135*	*%REC*	1	7/1/2009 06:44 PM
Surr: Nitrobenzene-d5	*69.4*		*41-120*	*%REC*	1	7/1/2009 06:44 PM
Surr: Phenol-d6	*63.1*		*20-120*	*%REC*	1	7/1/2009 06:44 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 06:44 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
2-Butanone	ND		0.010	mg/L	1	6/26/2009 06:28 PM
2-Hexanone	ND		0.010	mg/L	1	6/26/2009 06:28 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/26/2009 06:28 PM
Acetone	ND		0.010	mg/L	1	6/26/2009 06:28 PM
Benzene	**0.10**		**0.0050**	**mg/L**	1	6/26/2009 06:28 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Bromoform	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Bromomethane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Carbon disulfide	ND		0.010	mg/L	1	6/26/2009 06:28 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #11
Lab ID: 0906543-03
Collection Date: 6/18/2009 03:15 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Chloroethane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Chloroform	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Chloromethane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
m,p-Xylene	ND		0.010	mg/L	1	6/26/2009 06:28 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Methylene chloride	ND		0.010	mg/L	1	6/26/2009 06:28 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Naphthalene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
o-Xylene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Styrene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Toluene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Trichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:28 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/26/2009 06:28 PM
Xylenes, Total	ND		0.015	mg/L	1	6/26/2009 06:28 PM
Surr: 1,2-Dichloroethane-d4	*111*		*70-125*	*%REC*	1	6/26/2009 06:28 PM
Surr: 4-Bromofluorobenzene	*97.9*		*72-125*	*%REC*	1	6/26/2009 06:28 PM
Surr: Dibromofluoromethane	*107*		*71-125*	*%REC*	1	6/26/2009 06:28 PM
Surr: Toluene-d8	*93.1*		*75-125*	*%REC*	1	6/26/2009 06:28 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**204**		**2.50**	**mg/L**	5	6/24/2009 12:09 PM
Fluoride	**0.579**		**0.100**	**mg/L**	1	6/23/2009 08:34 PM
Sulfate	**43.1**		**0.500**	**mg/L**	1	6/23/2009 08:34 PM
Nitrate/Nitrite (as N)	**1.23**		**0.100**	**mg/L**	1	6/24/2009 08:06 PM
Surr: Selenate (surr)	*97.9*		*85-115*	*%REC*	5	6/24/2009 12:09 PM
Surr: Selenate (surr)	*95.4*		*85-115*	*%REC*	1	6/23/2009 08:34 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1	6/24/2009 08:06 PM
ALKALINITY			**SM2320B**			Analyst: **RPM**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #11
Lab ID: 0906543-03
Collection Date: 6/18/2009 03:15 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**410**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Total (As CaCO3)	**410**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**1,470**		**1.00**	**µmhos/cm**	1	6/22/2009 10:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**6.95**	H	**0.100**	**pH units**	1	6/22/2009 01:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**994**		**10.0**	**mg/L**	1	6/23/2009 03:00 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: North Well
Lab ID: 0906543-04
Collection Date: 6/18/2009 04:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/30/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/30/2009 04:15 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	6/30/2009 05:22 AM
Arsenic	**0.00536**		**0.00500**	**mg/L**	1	6/30/2009 05:22 AM
Barium	**0.0997**		**0.00500**	**mg/L**	1	6/30/2009 05:22 AM
Boron	**0.151**		**0.0200**	**mg/L**	1	6/30/2009 05:22 AM
Cadmium	ND		0.00200	mg/L	1	6/30/2009 05:22 AM
Calcium	**94.7**		**0.500**	**mg/L**	1	6/30/2009 05:22 AM
Chromium	**0.0104**		**0.00500**	**mg/L**	1	6/30/2009 05:22 AM
Cobalt	ND		0.00500	mg/L	1	6/30/2009 05:22 AM
Copper	ND		0.00500	mg/L	1	6/30/2009 05:22 AM
Iron	ND		0.200	mg/L	1	6/30/2009 05:22 AM
Lead	ND		0.00500	mg/L	1	6/30/2009 05:22 AM
Magnesium	**11.9**		**0.400**	**mg/L**	2	7/1/2009 11:38 PM
Manganese	ND		0.00500	mg/L	1	6/30/2009 05:22 AM
Molybdenum	ND		0.00500	mg/L	1	6/30/2009 05:22 AM
Nickel	ND		0.00500	mg/L	1	6/30/2009 05:22 AM
Potassium	**2.04**		**0.400**	**mg/L**	2	7/2/2009 01:53 PM
Selenium	ND		0.00500	mg/L	1	6/30/2009 05:22 AM
Silver	ND		0.00500	mg/L	1	6/30/2009 05:22 AM
Sodium	**64.4**		**0.400**	**mg/L**	2	7/1/2009 11:38 PM
Zinc	ND		0.00500	mg/L	1	6/30/2009 05:22 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	7/1/2009 07:06 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2-Chlorophenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
2-Nitrophenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
3&4-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: North Well
Lab ID: 0906543-04
Collection Date: 6/18/2009 04:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
3-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
4-Chloroaniline	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
4-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
4-Nitrophenol	ND		0.0010	mg/L	1	7/1/2009 07:06 PM
Acenaphthene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Acenaphthylene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Acetophenone	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Anthracene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Atrazine	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Benzaldehyde	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Bis(2-ethylhexyl)phthalate	**0.0011**		**0.00020**	**mg/L**	1	7/1/2009 07:06 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Caprolactam	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Carbazole	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Chrysene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Dibenzofuran	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Diethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Fluoranthene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Fluorene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Hexachloroethane	ND		0.00020	mg/L	1	7/1/2009 07:06 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: North Well
Lab ID: 0906543-04
Collection Date: 6/18/2009 04:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Isophorone	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Naphthalene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Nitrobenzene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Pentachlorophenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Phenanthrene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Phenol	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Pyrene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
Surr: 2,4,6-Tribromophenol	*59.7*		*34-129*	*%REC*	1	7/1/2009 07:06 PM
Surr: 2-Fluorobiphenyl	*68.5*		*40-125*	*%REC*	1	7/1/2009 07:06 PM
Surr: 2-Fluorophenol	*49.0*		*20-120*	*%REC*	1	7/1/2009 07:06 PM
Surr: 4-Terphenyl-d14	*62.4*		*40-135*	*%REC*	1	7/1/2009 07:06 PM
Surr: Nitrobenzene-d5	*60.7*		*41-120*	*%REC*	1	7/1/2009 07:06 PM
Surr: Phenol-d6	*59.0*		*20-120*	*%REC*	1	7/1/2009 07:06 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 07:06 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
2-Butanone	ND		0.010	mg/L	1	6/26/2009 06:53 PM
2-Hexanone	ND		0.010	mg/L	1	6/26/2009 06:53 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/26/2009 06:53 PM
Acetone	ND		0.010	mg/L	1	6/26/2009 06:53 PM
Benzene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Bromoform	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Bromomethane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Carbon disulfide	ND		0.010	mg/L	1	6/26/2009 06:53 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: North Well
Collection Date: 6/18/2009 04:00 PM

Work Order: 0906543
Lab ID: 0906543-04
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Chloroethane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Chloroform	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Chloromethane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
m,p-Xylene	ND		0.010	mg/L	1	6/26/2009 06:53 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Methylene chloride	ND		0.010	mg/L	1	6/26/2009 06:53 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Naphthalene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
o-Xylene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Styrene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Toluene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Trichloroethene	ND		0.0050	mg/L	1	6/26/2009 06:53 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/26/2009 06:53 PM
Xylenes, Total	ND		0.015	mg/L	1	6/26/2009 06:53 PM
Surr: 1,2-Dichloroethane-d4	*104*		*70-125*	*%REC*	1	6/26/2009 06:53 PM
Surr: 4-Bromofluorobenzene	*98.7*		*72-125*	*%REC*	1	6/26/2009 06:53 PM
Surr: Dibromofluoromethane	*105*		*71-125*	*%REC*	1	6/26/2009 06:53 PM
Surr: Toluene-d8	*96.8*		*75-125*	*%REC*	1	6/26/2009 06:53 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**140**		**2.50**	**mg/L**	5	6/24/2009 12:32 PM
Fluoride	**0.933**		**0.100**	**mg/L**	1	6/23/2009 08:57 PM
Sulfate	**80.6**		**2.50**	**mg/L**	5	6/24/2009 12:32 PM
Nitrate/Nitrite (as N)	**2.72**		**0.100**	**mg/L**	1	6/24/2009 08:29 PM
Surr: Selenate (surr)	*98.8*		*85-115*	*%REC*	5	6/24/2009 12:32 PM
Surr: Selenate (surr)	*88.1*		*85-115*	*%REC*	1	6/23/2009 08:57 PM
Surr: Selenate (surr)	*93.6*		*85-115*	*%REC*	1	6/24/2009 08:29 PM
ALKALINITY			**SM2320B**			Analyst: **RPM**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: North Well
Lab ID: 0906543-04
Collection Date: 6/18/2009 04:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**178**		**5.00**	**mg/L**	1	6/30/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**178**		**5.00**	**mg/L**	1	6/30/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**1,020**		**1.00**	**µmhos/cm**	1	6/22/2009 10:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.44**	H	**0.100**	**pH units**	1	6/22/2009 01:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**664**		**10.0**	**mg/L**	1	6/23/2009 03:00 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: East Well
Collection Date: 6/18/2009 04:20 PM

Work Order: 0906543
Lab ID: 0906543-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/30/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/30/2009 04:18 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Aluminum	**0.0131**		**0.0100**	**mg/L**	1	6/30/2009 05:29 AM
Arsenic	ND		0.00500	mg/L	1	6/30/2009 05:29 AM
Barium	**0.0820**		**0.00500**	**mg/L**	1	6/30/2009 05:29 AM
Boron	**0.143**		**0.0200**	**mg/L**	1	6/30/2009 05:29 AM
Cadmium	ND		0.00200	mg/L	1	6/30/2009 05:29 AM
Calcium	**83.8**		**0.500**	**mg/L**	1	6/30/2009 05:29 AM
Chromium	ND		0.00500	mg/L	1	6/30/2009 05:29 AM
Cobalt	ND		0.00500	mg/L	1	6/30/2009 05:29 AM
Copper	ND		0.00500	mg/L	1	6/30/2009 05:29 AM
Iron	ND		0.200	mg/L	1	6/30/2009 05:29 AM
Lead	ND		0.00500	mg/L	1	6/30/2009 05:29 AM
Magnesium	**12.0**		**0.400**	**mg/L**	2	7/1/2009 12:36 AM
Manganese	ND		0.00500	mg/L	1	6/30/2009 05:29 AM
Molybdenum	ND		0.00500	mg/L	1	6/30/2009 05:29 AM
Nickel	ND		0.00500	mg/L	1	6/30/2009 05:29 AM
Potassium	**1.47**		**0.400**	**mg/L**	2	7/1/2009 12:36 AM
Selenium	ND		0.00500	mg/L	1	6/30/2009 05:29 AM
Silver	ND		0.00500	mg/L	1	6/30/2009 05:29 AM
Sodium	**40.4**		**0.400**	**mg/L**	2	7/1/2009 12:36 AM
Zinc	**0.0172**		**0.00500**	**mg/L**	1	6/30/2009 05:29 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	7/2/2009 03:11 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2-Chlorophenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2-Methylphenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2-Nitroaniline	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
2-Nitrophenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
3&4-Methylphenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 0906543
Sample ID: East Well **Lab ID:** 0906543-05
Collection Date: 6/18/2009 04:20 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
3-Nitroaniline	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
4-Chloroaniline	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
4-Nitroaniline	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
4-Nitrophenol	ND		0.0010	mg/L	1	7/2/2009 03:11 PM
Acenaphthene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Acenaphthylene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Acetophenone	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Anthracene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Atrazine	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Benzaldehyde	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Bis(2-ethylhexyl)phthalate	**0.00029**		**0.00020**	**mg/L**	1	7/2/2009 03:11 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Caprolactam	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Carbazole	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Chrysene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Dibenzofuran	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Diethyl phthalate	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Fluoranthene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Fluorene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Hexachloroethane	ND		0.00020	mg/L	1	7/2/2009 03:11 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: East Well
Collection Date: 6/18/2009 04:20 PM

Work Order: 0906543
Lab ID: 0906543-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Isophorone	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Naphthalene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Nitrobenzene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Pentachlorophenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Phenanthrene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Phenol	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Pyrene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
Surr: 2,4,6-Tribromophenol	*42.0*		*34-129*	*%REC*	1	7/2/2009 03:11 PM
Surr: 2-Fluorobiphenyl	*66.9*		*40-125*	*%REC*	1	7/2/2009 03:11 PM
Surr: 2-Fluorophenol	*56.8*		*20-120*	*%REC*	1	7/2/2009 03:11 PM
Surr: 4-Terphenyl-d14	*64.9*		*40-135*	*%REC*	1	7/2/2009 03:11 PM
Surr: Nitrobenzene-d5	*66.1*		*41-120*	*%REC*	1	7/2/2009 03:11 PM
Surr: Phenol-d6	*58.5*		*20-120*	*%REC*	1	7/2/2009 03:11 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	7/2/2009 03:11 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
2-Butanone	ND		0.010	mg/L	1	6/26/2009 07:19 PM
2-Hexanone	ND		0.010	mg/L	1	6/26/2009 07:19 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/26/2009 07:19 PM
Acetone	ND		0.010	mg/L	1	6/26/2009 07:19 PM
Benzene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Bromoform	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Bromomethane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Carbon disulfide	ND		0.010	mg/L	1	6/26/2009 07:19 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: East Well
Lab ID: 0906543-05
Collection Date: 6/18/2009 04:20 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Chloroethane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Chloroform	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Chloromethane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
m,p-Xylene	ND		0.010	mg/L	1	6/26/2009 07:19 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Methylene chloride	ND		0.010	mg/L	1	6/26/2009 07:19 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Naphthalene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
o-Xylene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Styrene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Toluene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Trichloroethene	ND		0.0050	mg/L	1	6/26/2009 07:19 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/26/2009 07:19 PM
Xylenes, Total	ND		0.015	mg/L	1	6/26/2009 07:19 PM
Surr: 1,2-Dichloroethane-d4	*110*		*70-125*	*%REC*	1	6/26/2009 07:19 PM
Surr: 4-Bromofluorobenzene	*91.4*		*72-125*	*%REC*	1	6/26/2009 07:19 PM
Surr: Dibromofluoromethane	*105*		*71-125*	*%REC*	1	6/26/2009 07:19 PM
Surr: Toluene-d8	*91.8*		*75-125*	*%REC*	1	6/26/2009 07:19 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**107**		**2.50**	**mg/L**	5	6/24/2009 12:56 PM
Fluoride	**0.980**		**0.100**	**mg/L**	1	6/23/2009 09:20 PM
Sulfate	**84.0**		**2.50**	**mg/L**	5	6/24/2009 12:56 PM
Nitrate/Nitrite (as N)	**2.59**		**0.100**	**mg/L**	1	6/24/2009 08:52 PM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	5	6/24/2009 12:56 PM
Surr: Selenate (surr)	*97.7*		*85-115*	*%REC*	1	6/23/2009 09:20 PM
Surr: Selenate (surr)	*99.8*		*85-115*	*%REC*	1	6/24/2009 08:52 PM
ALKALINITY			**SM2320B**			Analyst: **RPM**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: East Well
Lab ID: 0906543-05
Collection Date: 6/18/2009 04:20 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**167**		**5.00**	**mg/L**	1	6/30/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**167**		**5.00**	**mg/L**	1	6/30/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**881**		**1.00**	**µmhos/cm**	1	6/22/2009 10:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.21**	H	**0.100**	**pH units**	1	6/22/2009 01:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**554**		**10.0**	**mg/L**	1	6/23/2009 03:00 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: Duplicate #1
Lab ID: 0906543-06
Collection Date:
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/30/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/30/2009 04:24 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	6/30/2009 05:35 AM
Arsenic	**0.0221**		**0.00500**	**mg/L**	1	6/30/2009 05:35 AM
Barium	**0.200**		**0.00500**	**mg/L**	1	6/30/2009 05:35 AM
Boron	**0.192**		**0.0200**	**mg/L**	1	6/30/2009 05:35 AM
Cadmium	ND		0.00200	mg/L	1	6/30/2009 05:35 AM
Calcium	**105**		**0.500**	**mg/L**	1	6/30/2009 05:35 AM
Chromium	ND		0.00500	mg/L	1	6/30/2009 05:35 AM
Cobalt	ND		0.00500	mg/L	1	6/30/2009 05:35 AM
Copper	ND		0.00500	mg/L	1	6/30/2009 05:35 AM
Iron	**0.219**		**0.200**	**mg/L**	1	6/30/2009 05:35 AM
Lead	ND		0.00500	mg/L	1	6/30/2009 05:35 AM
Magnesium	**15.0**		**0.400**	**mg/L**	2	7/1/2009 12:43 AM
Manganese	**2.76**		**0.0100**	**mg/L**	2	7/1/2009 12:43 AM
Molybdenum	ND		0.00500	mg/L	1	6/30/2009 05:35 AM
Nickel	**0.00653**		**0.00500**	**mg/L**	1	6/30/2009 05:35 AM
Potassium	**2.44**		**0.400**	**mg/L**	2	7/1/2009 12:43 AM
Selenium	ND		0.00500	mg/L	1	6/30/2009 05:35 AM
Silver	ND		0.00500	mg/L	1	6/30/2009 05:35 AM
Sodium	**108**		**0.400**	**mg/L**	2	7/1/2009 12:43 AM
Zinc	**0.0141**		**0.00500**	**mg/L**	1	6/30/2009 05:35 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1,1'-Biphenyl	**0.00062**		**0.00020**	**mg/L**	1	7/1/2009 07:48 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	7/1/2009 07:48 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
2-Chlorophenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
2-Methylnaphthalene	**0.0016**		**0.00020**	**mg/L**	1	7/1/2009 07:48 PM
2-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
2-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
2-Nitrophenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
3&4-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Duplicate #1
Collection Date:

Work Order: 0906543
Lab ID: 0906543-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
3-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
4-Chloroaniline	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
4-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
4-Nitrophenol	ND		0.0010	mg/L	1	7/1/2009 07:48 PM
Acenaphthene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Acenaphthylene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Acetophenone	**0.021**		**0.00080**	**mg/L**	4	7/2/2009 03:53 PM
Anthracene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Atrazine	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Benzaldehyde	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Bis(2-ethylhexyl)phthalate	**0.00092**		**0.00020**	**mg/L**	1	7/1/2009 07:48 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Caprolactam	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Carbazole	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Chrysene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Dibenzofuran	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Diethyl phthalate	**0.0038**		**0.00020**	**mg/L**	1	7/1/2009 07:48 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Fluoranthene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Fluorene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Hexachloroethane	ND		0.00020	mg/L	1	7/1/2009 07:48 PM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 0906543
Sample ID: Duplicate #1 **Lab ID:** 0906543-06
Collection Date: **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Isophorone	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Naphthalene	**0.0024**		**0.00020**	**mg/L**	1	7/1/2009 07:48 PM
Nitrobenzene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Pentachlorophenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Phenanthrene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Phenol	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Pyrene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
Surr: 2,4,6-Tribromophenol	*49.9*		*34-129*	*%REC*	4	7/2/2009 03:53 PM
Surr: 2,4,6-Tribromophenol	*60.2*		*34-129*	*%REC*	1	7/1/2009 07:48 PM
Surr: 2-Fluorobiphenyl	*76.5*		*40-125*	*%REC*	1	7/1/2009 07:48 PM
Surr: 2-Fluorobiphenyl	*57.9*		*40-125*	*%REC*	4	7/2/2009 03:53 PM
Surr: 2-Fluorophenol	*59.6*		*20-120*	*%REC*	1	7/1/2009 07:48 PM
Surr: 2-Fluorophenol	*70.2*		*20-120*	*%REC*	4	7/2/2009 03:53 PM
Surr: 4-Terphenyl-d14	*66.7*		*40-135*	*%REC*	1	7/1/2009 07:48 PM
Surr: 4-Terphenyl-d14	*74.2*		*40-135*	*%REC*	4	7/2/2009 03:53 PM
Surr: Nitrobenzene-d5	*91.4*		*41-120*	*%REC*	4	7/2/2009 03:53 PM
Surr: Nitrobenzene-d5	*57.1*		*41-120*	*%REC*	1	7/1/2009 07:48 PM
Surr: Phenol-d6	*58.4*		*20-120*	*%REC*	1	7/1/2009 07:48 PM
Surr: Phenol-d6	*61.6*		*20-120*	*%REC*	4	7/2/2009 03:53 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 07:48 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
1,2,4-Trimethylbenzene	**0.0061**		**0.0050**	**mg/L**	1	6/26/2009 05:11 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
2-Butanone	**0.28**		**0.010**	**mg/L**	1	6/26/2009 05:11 PM
2-Hexanone	ND		0.010	mg/L	1	6/26/2009 05:11 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/26/2009 05:11 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Duplicate #1
Collection Date:

Work Order: 0906543
Lab ID: 0906543-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Acetone	**0.057**		**0.010**	**mg/L**	1	6/26/2009 05:11 PM
Benzene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Bromoform	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Bromomethane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Carbon disulfide	ND		0.010	mg/L	1	6/26/2009 05:11 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Chloroethane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Chloroform	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Chloromethane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
m,p-Xylene	ND		0.010	mg/L	1	6/26/2009 05:11 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Methylene chloride	ND		0.010	mg/L	1	6/26/2009 05:11 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Naphthalene	**0.0074**		**0.0050**	**mg/L**	1	6/26/2009 05:11 PM
o-Xylene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Styrene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Toluene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Trichloroethene	ND		0.0050	mg/L	1	6/26/2009 05:11 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/26/2009 05:11 PM
Xylenes, Total	ND		0.015	mg/L	1	6/26/2009 05:11 PM
Surr: 1,2-Dichloroethane-d4	*109*		*70-125*	*%REC*	1	6/26/2009 05:11 PM
Surr: 4-Bromofluorobenzene	*94.4*		*72-125*	*%REC*	1	6/26/2009 05:11 PM
Surr: Dibromofluoromethane	*107*		*71-125*	*%REC*	1	6/26/2009 05:11 PM
Surr: Toluene-d8	*99.2*		*75-125*	*%REC*	1	6/26/2009 05:11 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**168**		**2.50**	**mg/L**	5	6/24/2009 01:19 PM
Fluoride	ND		0.100	mg/L	1	6/23/2009 09:44 PM
Sulfate	**90.4**		**2.50**	**mg/L**	5	6/24/2009 01:19 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Duplicate #1
Collection Date:

Work Order: 0906543
Lab ID: 0906543-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Nitrate/Nitrite (as N)	**0.682**		**0.100**	**mg/L**	1	6/24/2009 09:15 PM
Surr: Selenate (surr)	*97.9*		*85-115*	*%REC*	1	6/24/2009 09:15 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	5	6/24/2009 01:19 PM
Surr: Selenate (surr)	*97.9*		*85-115*	*%REC*	1	6/23/2009 09:44 PM
ALKALINITY			**SM2320B**			Analyst: **RPM**
Alkalinity, Bicarbonate (As CaCO3)	**246**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Total (As CaCO3)	**246**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**1,450**		**1.00**	**µmhos/cm**	1	6/22/2009 10:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**6.89**		**0.100**	**pH units**	1	6/22/2009 01:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**812**		**10.0**	**mg/L**	1	6/23/2009 03:00 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW #1
Collection Date: 6/19/2009 02:00 PM

Work Order: 0906543
Lab ID: 0906543-07
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/30/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/30/2009 04:26 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	7/1/2009 12:49 AM
Arsenic	**0.00914**		**0.00500**	**mg/L**	1	7/1/2009 12:49 AM
Barium	**0.147**		**0.00500**	**mg/L**	1	7/1/2009 12:49 AM
Boron	**0.175**		**0.0200**	**mg/L**	1	7/1/2009 12:49 AM
Cadmium	ND		0.00200	mg/L	1	7/1/2009 12:49 AM
Calcium	**103**		**0.500**	**mg/L**	1	7/1/2009 12:49 AM
Chromium	ND		0.00500	mg/L	1	7/1/2009 12:49 AM
Cobalt	ND		0.00500	mg/L	1	7/1/2009 12:49 AM
Copper	ND		0.00500	mg/L	1	7/1/2009 12:49 AM
Iron	ND		0.200	mg/L	1	7/1/2009 12:49 AM
Lead	ND		0.00500	mg/L	1	7/1/2009 12:49 AM
Magnesium	**13.8**		**0.200**	**mg/L**	1	7/1/2009 12:49 AM
Manganese	**0.974**		**0.00500**	**mg/L**	1	7/1/2009 12:49 AM
Molybdenum	ND		0.00500	mg/L	1	7/1/2009 12:49 AM
Nickel	ND		0.00500	mg/L	1	7/1/2009 12:49 AM
Potassium	**2.29**		**0.200**	**mg/L**	1	7/1/2009 12:49 AM
Selenium	ND		0.00500	mg/L	1	7/1/2009 12:49 AM
Silver	ND		0.00500	mg/L	1	7/1/2009 12:49 AM
Sodium	**70.4**		**0.200**	**mg/L**	1	7/1/2009 12:49 AM
Zinc	**0.0124**		**0.00500**	**mg/L**	1	7/1/2009 12:49 AM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
1,2,4-Trimethylbenzene	**0.0067**		**0.0050**	**mg/L**	1	6/26/2009 07:44 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
2-Butanone	**0.060**		**0.010**	**mg/L**	1	6/26/2009 07:44 PM
2-Hexanone	ND		0.010	mg/L	1	6/26/2009 07:44 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/26/2009 07:44 PM
Acetone	ND		0.010	mg/L	1	6/26/2009 07:44 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #1
Lab ID: 0906543-07
Collection Date: 6/19/2009 02:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Bromoform	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Bromomethane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Carbon disulfide	ND		0.010	mg/L	1	6/26/2009 07:44 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Chloroethane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Chloroform	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Chloromethane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Ethylbenzene	**0.012**		**0.0050**	**mg/L**	1	6/26/2009 07:44 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
m,p-Xylene	**0.019**		**0.010**	**mg/L**	1	6/26/2009 07:44 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Methylene chloride	ND		0.010	mg/L	1	6/26/2009 07:44 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Naphthalene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
o-Xylene	**0.011**		**0.0050**	**mg/L**	1	6/26/2009 07:44 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Styrene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Toluene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Trichloroethene	ND		0.0050	mg/L	1	6/26/2009 07:44 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/26/2009 07:44 PM
Xylenes, Total	**0.031**		**0.015**	**mg/L**	1	6/26/2009 07:44 PM
Surr: 1,2-Dichloroethane-d4	*109*		*70-125*	*%REC*	1	6/26/2009 07:44 PM
Surr: 4-Bromofluorobenzene	*106*		*72-125*	*%REC*	1	6/26/2009 07:44 PM
Surr: Dibromofluoromethane	*107*		*71-125*	*%REC*	1	6/26/2009 07:44 PM
Surr: Toluene-d8	*104*		*75-125*	*%REC*	1	6/26/2009 07:44 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**131**		**2.50**	**mg/L**	5	6/24/2009 01:42 PM
Fluoride	**0.827**		**0.100**	**mg/L**	1	6/23/2009 10:07 PM
Sulfate	**123**		**2.50**	**mg/L**	5	6/24/2009 01:42 PM
Nitrate/Nitrite (as N)	**3.75**		**0.100**	**mg/L**	1	6/24/2009 09:37 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #1
Lab ID: 0906543-07
Collection Date: 6/19/2009 02:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Selenate (surr)	*93.6*		*85-115*	*%REC*	5	6/24/2009 01:42 PM
Surr: Selenate (surr)	*97.6*		*85-115*	*%REC*	1	6/23/2009 10:07 PM
Surr: Selenate (surr)	*98.7*		*85-115*	*%REC*	1	6/24/2009 09:37 PM
ALKALINITY			**SM2320B**			Analyst: **RPM**
Alkalinity, Bicarbonate (As CaCO3)	**207**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Total (As CaCO3)	**207**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**1,130**		**1.00**	**µmhos/cm**	1	6/22/2009 10:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.07**	H	***0.100***	**pH units**	1	6/22/2009 01:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**694**		**10.0**	**mg/L**	1	6/23/2009 03:00 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #7
Lab ID: 0906543-08
Collection Date: 6/19/2009 03:15 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/30/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/30/2009 04:28 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	7/1/2009 12:56 AM
Arsenic	**0.00923**		**0.00500**	**mg/L**	1	7/1/2009 12:56 AM
Barium	**0.169**		**0.00500**	**mg/L**	1	7/1/2009 12:56 AM
Boron	**0.161**		**0.0200**	**mg/L**	1	7/1/2009 12:56 AM
Cadmium	ND		0.00200	mg/L	1	7/1/2009 12:56 AM
Calcium	**52.7**		**0.500**	**mg/L**	1	7/1/2009 12:56 AM
Chromium	ND		0.00500	mg/L	1	7/1/2009 12:56 AM
Cobalt	ND		0.00500	mg/L	1	7/1/2009 12:56 AM
Copper	ND		0.00500	mg/L	1	7/1/2009 12:56 AM
Iron	ND		0.200	mg/L	1	7/1/2009 12:56 AM
Lead	ND		0.00500	mg/L	1	7/1/2009 12:56 AM
Magnesium	**6.18**		**0.200**	**mg/L**	1	7/1/2009 12:56 AM
Manganese	**0.127**		**0.00500**	**mg/L**	1	7/1/2009 12:56 AM
Molybdenum	ND		0.00500	mg/L	1	7/1/2009 12:56 AM
Nickel	ND		0.00500	mg/L	1	7/1/2009 12:56 AM
Potassium	**2.38**		**0.200**	**mg/L**	1	7/1/2009 12:56 AM
Selenium	ND		0.00500	mg/L	1	7/1/2009 12:56 AM
Silver	ND		0.00500	mg/L	1	7/1/2009 12:56 AM
Sodium	**54.2**		**0.200**	**mg/L**	1	7/1/2009 12:56 AM
Zinc	**0.0137**		**0.00500**	**mg/L**	1	7/1/2009 12:56 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	7/1/2009 08:10 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2-Chlorophenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
2-Nitrophenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
3&4-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #7
Lab ID: 0906543-08
Collection Date: 6/19/2009 03:15 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
3-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
4-Chloroaniline	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
4-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
4-Nitrophenol	ND		0.0010	mg/L	1	7/1/2009 08:10 PM
Acenaphthene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Acenaphthylene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Acetophenone	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Anthracene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Atrazine	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Benzaldehyde	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Bis(2-ethylhexyl)phthalate	**0.0019**		**0.00020**	**mg/L**	1	7/1/2009 08:10 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Caprolactam	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Carbazole	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Chrysene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Dibenzofuran	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Diethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Fluoranthene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Fluorene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Hexachloroethane	ND		0.00020	mg/L	1	7/1/2009 08:10 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #7
Lab ID: 0906543-08
Collection Date: 6/19/2009 03:15 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Isophorone	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Naphthalene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Nitrobenzene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Pentachlorophenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Phenanthrene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Phenol	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Pyrene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
Surr: 2,4,6-Tribromophenol	*52.8*		*34-129*	*%REC*	1	7/1/2009 08:10 PM
Surr: 2-Fluorobiphenyl	*64.2*		*40-125*	*%REC*	1	7/1/2009 08:10 PM
Surr: 2-Fluorophenol	*53.5*		*20-120*	*%REC*	1	7/1/2009 08:10 PM
Surr: 4-Terphenyl-d14	*65.1*		*40-135*	*%REC*	1	7/1/2009 08:10 PM
Surr: Nitrobenzene-d5	*64.6*		*41-120*	*%REC*	1	7/1/2009 08:10 PM
Surr: Phenol-d6	*60.5*		*20-120*	*%REC*	1	7/1/2009 08:10 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 08:10 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
2-Butanone	**0.030**		**0.010**	**mg/L**	1	6/26/2009 08:09 PM
2-Hexanone	ND		0.010	mg/L	1	6/26/2009 08:09 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/26/2009 08:09 PM
Acetone	ND		0.010	mg/L	1	6/26/2009 08:09 PM
Benzene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Bromoform	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Bromomethane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Carbon disulfide	ND		0.010	mg/L	1	6/26/2009 08:09 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW #7
Collection Date: 6/19/2009 03:15 PM

Work Order: 0906543
Lab ID: 0906543-08
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Chloroethane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Chloroform	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Chloromethane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
m,p-Xylene	ND		0.010	mg/L	1	6/26/2009 08:09 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Methylene chloride	ND		0.010	mg/L	1	6/26/2009 08:09 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Naphthalene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
o-Xylene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Styrene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Toluene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Trichloroethene	ND		0.0050	mg/L	1	6/26/2009 08:09 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/26/2009 08:09 PM
Xylenes, Total	ND		0.015	mg/L	1	6/26/2009 08:09 PM
Surr: 1,2-Dichloroethane-d4	*104*		*70-125*	*%REC*	1	6/26/2009 08:09 PM
Surr: 4-Bromofluorobenzene	*102*		*72-125*	*%REC*	1	6/26/2009 08:09 PM
Surr: Dibromofluoromethane	*99.8*		*71-125*	*%REC*	1	6/26/2009 08:09 PM
Surr: Toluene-d8	*100*		*75-125*	*%REC*	1	6/26/2009 08:09 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**30.6**		**0.500**	**mg/L**	1	6/23/2009 10:30 PM
Fluoride	**1.12**		**0.100**	**mg/L**	1	6/23/2009 10:30 PM
Sulfate	**67.2**		**2.50**	**mg/L**	5	6/24/2009 02:05 PM
Nitrate/Nitrite (as N)	**1.66**		**0.100**	**mg/L**	1	6/24/2009 11:09 PM
Surr: Selenate (surr)	*98.1*		*85-115*	*%REC*	5	6/24/2009 02:05 PM
Surr: Selenate (surr)	*97.8*		*85-115*	*%REC*	1	6/23/2009 10:30 PM
Surr: Selenate (surr)	*97.9*		*85-115*	*%REC*	1	6/24/2009 11:09 PM
ALKALINITY			**SM2320B**			Analyst: **RPM**

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: MW #7
Lab ID: 0906543-08
Collection Date: 6/19/2009 03:15 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**182**		**5.00**	**mg/L**	1	6/30/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**182**		**5.00**	**mg/L**	1	6/30/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**646**		**1.00**	**µmhos/cm**	1	6/22/2009 10:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.28**	H	**0.100**	**pH units**	1	6/22/2009 01:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**384**		**10.0**	**mg/L**	1	6/23/2009 03:00 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: RW-1
Collection Date: 6/19/2009 04:16 PM

Work Order: 0906543
Lab ID: 0906543-09
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/30/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/30/2009 04:30 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	7/1/2009 01:02 AM
Arsenic	**0.0100**		**0.00500**	**mg/L**	1	7/1/2009 01:02 AM
Barium	**0.160**		**0.00500**	**mg/L**	1	7/1/2009 01:02 AM
Boron	**0.161**		**0.0200**	**mg/L**	1	7/1/2009 01:02 AM
Cadmium	ND		0.00200	mg/L	1	7/1/2009 01:02 AM
Calcium	**51.3**		**0.500**	**mg/L**	1	7/1/2009 01:02 AM
Chromium	ND		0.00500	mg/L	1	7/1/2009 01:02 AM
Cobalt	ND		0.00500	mg/L	1	7/1/2009 01:02 AM
Copper	ND		0.00500	mg/L	1	7/1/2009 01:02 AM
Iron	ND		0.200	mg/L	1	7/1/2009 01:02 AM
Lead	ND		0.00500	mg/L	1	7/1/2009 01:02 AM
Magnesium	**5.99**		**0.200**	**mg/L**	1	7/1/2009 01:02 AM
Manganese	**0.0380**		**0.00500**	**mg/L**	1	7/1/2009 01:02 AM
Molybdenum	ND		0.00500	mg/L	1	7/1/2009 01:02 AM
Nickel	ND		0.00500	mg/L	1	7/1/2009 01:02 AM
Potassium	**2.40**		**0.200**	**mg/L**	1	7/1/2009 01:02 AM
Selenium	ND		0.00500	mg/L	1	7/1/2009 01:02 AM
Silver	ND		0.00500	mg/L	1	7/1/2009 01:02 AM
Sodium	**59.7**		**0.200**	**mg/L**	1	7/1/2009 01:02 AM
Zinc	**0.00548**		**0.00500**	**mg/L**	1	7/1/2009 01:02 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
2,4-Dimethylphenol	**0.00021**		**0.00020**	**mg/L**	1	7/1/2009 08:31 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	7/1/2009 08:31 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
2-Chlorophenol	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
2-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
2-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
2-Nitrophenol	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
3&4-Methylphenol	ND		0.00020	mg/L	1	7/1/2009 08:31 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: RW-1
Lab ID: 0906543-09
Collection Date: 6/19/2009 04:16 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
3-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
4-Chloroaniline	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
4-Nitroaniline	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
4-Nitrophenol	ND		0.0010	mg/L	1	7/1/2009 08:31 PM
Acenaphthene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Acenaphthylene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Acetophenone	**0.00021**		**0.00020**	**mg/L**	1	7/1/2009 08:31 PM
Anthracene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Atrazine	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Benzaldehyde	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Bis(2-ethylhexyl)phthalate	**0.00076**		**0.00020**	**mg/L**	1	7/1/2009 08:31 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Caprolactam	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Carbazole	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Chrysene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Dibenzofuran	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Diethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Fluoranthene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Fluorene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Hexachloroethane	ND		0.00020	mg/L	1	7/1/2009 08:31 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: RW-1
Lab ID: 0906543-09
Collection Date: 6/19/2009 04:16 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Isophorone	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Naphthalene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Nitrobenzene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Pentachlorophenol	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Phenanthrene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Phenol	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Pyrene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
Surr: 2,4,6-Tribromophenol	*48.5*		*34-129*	*%REC*	1	7/1/2009 08:31 PM
Surr: 2-Fluorobiphenyl	*67.9*		*40-125*	*%REC*	1	7/1/2009 08:31 PM
Surr: 2-Fluorophenol	*50.7*		*20-120*	*%REC*	1	7/1/2009 08:31 PM
Surr: 4-Terphenyl-d14	*62.5*		*40-135*	*%REC*	1	7/1/2009 08:31 PM
Surr: Nitrobenzene-d5	*64.1*		*41-120*	*%REC*	1	7/1/2009 08:31 PM
Surr: Phenol-d6	*62.9*		*20-120*	*%REC*	1	7/1/2009 08:31 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/23/2009**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	7/1/2009 08:31 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
2-Butanone	**0.038**		**0.010**	**mg/L**	1	6/28/2009 06:35 PM
2-Hexanone	ND		0.010	mg/L	1	6/28/2009 06:35 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/28/2009 06:35 PM
Acetone	ND		0.010	mg/L	1	6/28/2009 06:35 PM
Benzene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Bromoform	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Bromomethane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Carbon disulfide	ND		0.010	mg/L	1	6/28/2009 06:35 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: RW-1
Collection Date: 6/19/2009 04:16 PM

Work Order: 0906543
Lab ID: 0906543-09
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Chloroethane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Chloroform	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Chloromethane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
m,p-Xylene	ND		0.010	mg/L	1	6/28/2009 06:35 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Methylene chloride	ND		0.010	mg/L	1	6/28/2009 06:35 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Naphthalene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
o-Xylene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Styrene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Toluene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Trichloroethene	ND		0.0050	mg/L	1	6/28/2009 06:35 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/28/2009 06:35 PM
Xylenes, Total	ND		0.015	mg/L	1	6/28/2009 06:35 PM
Surr: 1,2-Dichloroethane-d4	*104*		*70-125*	*%REC*	1	6/28/2009 06:35 PM
Surr: 4-Bromofluorobenzene	*97.3*		*72-125*	*%REC*	1	6/28/2009 06:35 PM
Surr: Dibromofluoromethane	*103*		*71-125*	*%REC*	1	6/28/2009 06:35 PM
Surr: Toluene-d8	*98.0*		*75-125*	*%REC*	1	6/28/2009 06:35 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**34.8**		**0.500**	**mg/L**	1	6/23/2009 10:53 PM
Fluoride	**1.21**		**0.100**	**mg/L**	1	6/23/2009 10:53 PM
Sulfate	**70.8**		**2.50**	**mg/L**	5	6/24/2009 03:15 PM
Surr: Selenate (surr)	*97.1*		*85-115*	*%REC*	1	6/23/2009 10:53 PM
Surr: Selenate (surr)	*98.3*		*85-115*	*%REC*	5	6/24/2009 03:15 PM
ALKALINITY			**SM2320B**			Analyst: **RPM**
Alkalinity, Bicarbonate (As CaCO3)	**187**		**5.00**	**mg/L**	1	6/30/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 03:00 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: RW-1
Lab ID: 0906543-09
Collection Date: 6/19/2009 04:16 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**187**		**5.00**	**mg/L**	1	6/30/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**682**		**1.00**	**µmhos/cm**	1	6/22/2009 10:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.33**	H	**0.100**	**pH units**	1	6/22/2009 01:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**398**		**10.0**	**mg/L**	1	6/23/2009 03:00 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: Trip Blank 2400
Lab ID: 0906543-10
Collection Date: 6/19/2009 05:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
2-Butanone	ND		0.010	mg/L	1	6/28/2009 04:08 PM
2-Hexanone	ND		0.010	mg/L	1	6/28/2009 04:08 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/28/2009 04:08 PM
Acetone	ND		0.010	mg/L	1	6/28/2009 04:08 PM
Benzene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Bromoform	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Bromomethane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Carbon disulfide	ND		0.010	mg/L	1	6/28/2009 04:08 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Chloroethane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Chloroform	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Chloromethane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
m,p-Xylene	ND		0.010	mg/L	1	6/28/2009 04:08 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Methylene chloride	ND		0.010	mg/L	1	6/28/2009 04:08 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Naphthalene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
o-Xylene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Styrene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: Trip Blank 2400
Lab ID: 0906543-10
Collection Date: 6/19/2009 05:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Toluene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Trichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:08 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/28/2009 04:08 PM
Xylenes, Total	ND		0.015	mg/L	1	6/28/2009 04:08 PM
Surr: 1,2-Dichloroethane-d4	*101*		*70-125*	*%REC*	1	6/28/2009 04:08 PM
Surr: 4-Bromofluorobenzene	*95.2*		*72-125*	*%REC*	1	6/28/2009 04:08 PM
Surr: Dibromofluoromethane	*103*		*71-125*	*%REC*	1	6/28/2009 04:08 PM
Surr: Toluene-d8	*97.4*		*75-125*	*%REC*	1	6/28/2009 04:08 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: Trip Blank 1837
Lab ID: 0906543-11
Collection Date: 6/19/2009 05:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
2-Butanone	ND		0.010	mg/L	1	6/28/2009 04:32 PM
2-Hexanone	ND		0.010	mg/L	1	6/28/2009 04:32 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/28/2009 04:32 PM
Acetone	ND		0.010	mg/L	1	6/28/2009 04:32 PM
Benzene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Bromoform	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Bromomethane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Carbon disulfide	ND		0.010	mg/L	1	6/28/2009 04:32 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Chloroethane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Chloroform	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Chloromethane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
m,p-Xylene	ND		0.010	mg/L	1	6/28/2009 04:32 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Methylene chloride	ND		0.010	mg/L	1	6/28/2009 04:32 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Naphthalene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
o-Xylene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Styrene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Trip Blank 1837
Collection Date: 6/19/2009 05:00 PM

Work Order: 0906543
Lab ID: 0906543-11
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Toluene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Trichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:32 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/28/2009 04:32 PM
Xylenes, Total	ND		0.015	mg/L	1	6/28/2009 04:32 PM
Surr: 1,2-Dichloroethane-d4	*104*		*70-125*	*%REC*	1	6/28/2009 04:32 PM
Surr: 4-Bromofluorobenzene	*95.7*		*72-125*	*%REC*	1	6/28/2009 04:32 PM
Surr: Dibromofluoromethane	*104*		*71-125*	*%REC*	1	6/28/2009 04:32 PM
Surr: Toluene-d8	*99.0*		*75-125*	*%REC*	1	6/28/2009 04:32 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: Trip Blank 2354
Lab ID: 0906543-12
Collection Date: 6/19/2009 05:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
2-Butanone	ND		0.010	mg/L	1	6/28/2009 04:57 PM
2-Hexanone	ND		0.010	mg/L	1	6/28/2009 04:57 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/28/2009 04:57 PM
Acetone	ND		0.010	mg/L	1	6/28/2009 04:57 PM
Benzene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Bromoform	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Bromomethane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Carbon disulfide	ND		0.010	mg/L	1	6/28/2009 04:57 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Chloroethane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Chloroform	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Chloromethane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
m,p-Xylene	ND		0.010	mg/L	1	6/28/2009 04:57 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Methylene chloride	ND		0.010	mg/L	1	6/28/2009 04:57 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Naphthalene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
o-Xylene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Styrene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM

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

ALS Laboratory Group

Date: *02-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906543
Sample ID: Trip Blank 2354
Lab ID: 0906543-12
Collection Date: 6/19/2009 05:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Toluene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Trichloroethene	ND		0.0050	mg/L	1	6/28/2009 04:57 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/28/2009 04:57 PM
Xylenes, Total	ND		0.015	mg/L	1	6/28/2009 04:57 PM
Surr: 1,2-Dichloroethane-d4	*103*		*70-125*	*%REC*	1	6/28/2009 04:57 PM
Surr: 4-Bromofluorobenzene	*96.0*		*72-125*	*%REC*	1	6/28/2009 04:57 PM
Surr: Dibromofluoromethane	*104*		*71-125*	*%REC*	1	6/28/2009 04:57 PM
Surr: Toluene-d8	*99.1*		*75-125*	*%REC*	1	6/28/2009 04:57 PM

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

ALS Laboratory Group

Date: 06-Jul-09

Client: Navajo Refining Company

Work Order: 0906543

Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36852** Instrument ID **ICPMS02** Method: **SW6020** **(Dissolve)**

MBLK Sample ID: **MBLKW3-062909-36852** Units: **mg/L** Analysis Date: **6/30/2009 02:59 AM**

Client ID: Run ID: **ICPMS02_090629A** SeqNo: **1707215** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0050								
Barium	ND	0.0050								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Chromium	ND	0.0050								
Lead	0.0004722	0.0050								J
Magnesium	ND	0.20								
Potassium	0.1516	0.20								J
Selenium	ND	0.0050								
Silver	ND	0.0050								
Sodium	ND	0.20								

LCS Sample ID: **MLCSW3-062909-36852** Units: **mg/L** Analysis Date: **6/30/2009 03:06 AM**

Client ID: Run ID: **ICPMS02_090629A** SeqNo: **1707219** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05204	0.0050	0.05	0	104	80-120	0			
Barium	0.0587	0.0050	0.05	0	117	80-120	0			
Cadmium	0.04887	0.0020	0.05	0	97.7	80-120	0			
Calcium	5.097	0.50	5	0	102	80-120	0			
Chromium	0.04946	0.0050	0.05	0	98.9	80-120	0			
Lead	0.05027	0.0050	0.05	0	101	80-120	0			
Magnesium	5.263	0.20	5	0	105	80-120	0			
Potassium	5.098	0.20	5	0	102	80-120	0			
Selenium	0.04922	0.0050	0.05	0	98.4	80-120	0			
Silver	0.05123	0.0050	0.05	0	102	80-120	0			

LCS Sample ID: **MLCSW3-062909-36852** Units: **mg/L** Analysis Date: **6/30/2009 02:33 PM**

Client ID: Run ID: **ICPMS02_090630A** SeqNo: **1708072** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	5.026	0.20	5	0	101	80-120	0			

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36852** Instrument ID **ICPMS02** Method: **SW6020** **(Dissolve)**

MS Sample ID: **0906535-20DMS** Units: **mg/L** Analysis Date: **6/30/2009 03:32 AM**
Client ID: Run ID: **ICPMS02_090629A** SeqNo: **1707228** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05457	0.0050	0.05	0.002463	104	75-125	0			
Barium	0.1135	0.0050	0.05	0.05365	120	75-125	0			
Cadmium	0.04975	0.0020	0.05	0.0003148	98.9	75-125	0			
Calcium	7.914	0.50	5	2.685	105	75-125	0			
Chromium	0.04901	0.0050	0.05	0.0002281	97.6	75-125	0			
Lead	0.05035	0.0050	0.05	0.0005099	99.7	75-125	0			
Magnesium	13.53	0.20	5	8.724	96.1	75-125	0			
Potassium	4.952	0.20	5	0.3725	91.6	75-125	0			
Selenium	0.0513	0.0050	0.05	0.001509	99.6	75-125	0			
Silver	0.05159	0.0050	0.05	0.0002785	103	75-125	0			

MS Sample ID: **0906535-20DMS** Units: **mg/L** Analysis Date: **6/30/2009 03:05 PM**
Client ID: Run ID: **ICPMS02_090630A** SeqNo: **1708077** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	10.59	0.20	5	5.704	97.7	75-125	0			

MSD Sample ID: **0906535-20DMSD** Units: **mg/L** Analysis Date: **6/30/2009 03:38 AM**
Client ID: Run ID: **ICPMS02_090629A** SeqNo: **1707231** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05178	0.0050	0.05	0.002463	98.6	75-125	0.05457	5.25	25	
Barium	0.1071	0.0050	0.05	0.05365	107	75-125	0.1135	5.8	25	
Cadmium	0.04741	0.0020	0.05	0.0003148	94.2	75-125	0.04975	4.82	25	
Calcium	7.575	0.50	5	2.685	97.8	75-125	7.914	4.38	25	
Chromium	0.04811	0.0050	0.05	0.0002281	95.8	75-125	0.04901	1.85	25	
Lead	0.04908	0.0050	0.05	0.0005099	97.1	75-125	0.05035	2.55	25	
Magnesium	13.12	0.20	5	8.724	87.9	75-125	13.53	3.08	25	
Potassium	4.805	0.20	5	0.3725	88.6	75-125	4.952	3.01	25	
Selenium	0.05193	0.0050	0.05	0.001509	101	75-125	0.0513	1.22	25	
Silver	0.05088	0.0050	0.05	0.0002785	101	75-125	0.05159	1.39	25	

MSD Sample ID: **0906535-20DMSD** Units: **mg/L** Analysis Date: **6/30/2009 03:12 PM**
Client ID: Run ID: **ICPMS02_090630A** SeqNo: **1708078** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	10.22	0.20	5	5.704	90.3	75-125	10.59	3.56	25	

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36852** Instrument ID **ICPMS02** Method: **SW6020** **(Dissolve)**

DUP Sample ID: **0906535-20DDUP** Units: **mg/L** Analysis Date: **6/30/2009 03:19 AM**

Client ID: Run ID: **ICPMS02_090629A** SeqNo: **1707223** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.0023	0.0050	0	0	0	0-0	0.002463	0	25	J
Barium	0.05305	0.0050	0	0	0	0-0	0.05365	1.12	25	
Cadmium	ND	0.0020	0	0	0	0-0	0.0003148	0	25	
Calcium	2.603	0.50	0	0	0	0-0	2.685	3.1	25	
Chromium	ND	0.0050	0	0	0	0-0	0.0002281	0	25	
Lead	0.0004661	0.0050	0	0	0	0-0	0.0005099	0	25	J
Magnesium	8.46	0.20	0	0	0	0-0	8.724	3.07	25	
Potassium	0.3074	0.20	0	0	0	0-0	0.3725	19.1	25	
Selenium	ND	0.0050	0	0	0	0-0	0.001509	0	25	
Silver	ND	0.0050	0	0	0	0-0	0.0002785	0	25	

DUP Sample ID: **0906535-20DDUP** Units: **mg/L** Analysis Date: **6/30/2009 02:46 PM**

Client ID: Run ID: **ICPMS02_090630A** SeqNo: **1708075** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	5.427	0.20	0	0	0	0-0	5.704	4.98	25	

The following samples were analyzed in this batch:

0906543-01D	0906543-02D	0906543-03D
0906543-04D	0906543-05D	0906543-06D
0906543-07D	0906543-08D	0906543-09D

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36867** Instrument ID **Mercury** Method: **SW7470**

MBLK Sample ID: **GBLKW3-063009-36867** Units: **mg/L** Analysis Date: **6/30/2009 03:55 PM**
Client ID: Run ID: **MERCURY_090630A** SeqNo: **1708124** Prep Date: **6/30/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: **GLCSW3-063009-36867** Units: **mg/L** Analysis Date: **6/30/2009 04:00 PM**
Client ID: Run ID: **MERCURY_090630A** SeqNo: **1708125** Prep Date: **6/30/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00546	0.00020	0.005	0	109	85-115	0			

MS Sample ID: **0906543-01BMS** Units: **mg/L** Analysis Date: **6/30/2009 04:06 PM**
Client ID: **MW-6** Run ID: **MERCURY_090630A** SeqNo: **1708128** Prep Date: **6/30/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00571	0.00020	0.005	-0.000057	115	85-115	0			S

MSD Sample ID: **0906543-01BMSD** Units: **mg/L** Analysis Date: **6/30/2009 04:08 PM**
Client ID: **MW-6** Run ID: **MERCURY_090630A** SeqNo: **1708129** Prep Date: **6/30/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0058	0.00020	0.005	-0.000057	117	85-115	0.00571	1.56	20	S

DUP Sample ID: **0906543-01BDUP** Units: **mg/L** Analysis Date: **6/30/2009 04:04 PM**
Client ID: **MW-6** Run ID: **MERCURY_090630A** SeqNo: **1708127** Prep Date: **6/30/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020	0	0	0	0-0	-0.000057	0	20	

The following samples were analyzed in this batch:

0906543-01B	0906543-02B	0906543-03B
0906543-04B	0906543-05B	0906543-06B
0906543-07B	0906543-08B	0906543-09B

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36746** Instrument ID: **SV-4** Method: **SW8270**

MBLK Sample ID: **SBLKW1-090623-36746** Units: **µg/L** Analysis Date: **7/1/2009 10:15 AM**

Client ID: Run ID: **SV-4_090701A** SeqNo: **1709724** Prep Date: **6/23/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
2,4-Dichlorophenol	ND	0.20								
2,4-Dimethylphenol	ND	0.20								
2,4-Dinitrophenol	ND	1.0								
2,4-Dinitrotoluene	ND	0.20								
2,6-Dinitrotoluene	ND	0.20								
2-Chloronaphthalene	ND	0.20								
2-Chlorophenol	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.20								
2-Nitroaniline	ND	0.20								
2-Nitrophenol	ND	0.20								
3&4-Methylphenol	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.20								
3-Nitroaniline	ND	0.20								
4,6-Dinitro-2-methylphenol	ND	0.20								
4-Bromophenyl phenyl ether	ND	0.20								
4-Chloro-3-methylphenol	ND	0.20								
4-Chloroaniline	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
4-Nitroaniline	ND	0.20								
4-Nitrophenol	ND	1.0								
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Acetophenone	ND	0.20								
Anthracene	ND	0.20								
Atrazine	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzaldehyde	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Caprolactam	ND	0.20								
Carbazole	ND	0.20								

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36746**	Instrument ID **SV-4**		Method: **SW8270**				
Chrysene	ND	0.20					
Di-n-butyl phthalate	ND	0.20					
Di-n-octyl phthalate	ND	0.20					
Dibenz(a,h)anthracene	ND	0.20					
Dibenzofuran	ND	0.20					
Diethyl phthalate	ND	0.20					
Dimethyl phthalate	ND	0.20					
Fluoranthene	ND	0.20					
Fluorene	ND	0.20					
Hexachlorobenzene	ND	0.20					
Hexachlorobutadiene	ND	0.20					
Hexachlorocyclopentadiene	ND	0.20					
Hexachloroethane	ND	0.20					
Indeno(1,2,3-cd)pyrene	ND	0.20					
Isophorone	ND	0.20					
N-Nitrosodi-n-propylamine	ND	0.20					
N-Nitrosodiphenylamine	ND	0.20					
Naphthalene	ND	0.20					
Nitrobenzene	ND	0.20					
Pentachlorophenol	ND	0.20					
Phenanthrene	ND	0.20					
Phenol	ND	0.20					
Pyrene	ND	0.20					
Surr: 2,4,6-Tribromophenol	*3.222*	0.20	*5*	0	*64.4*	*34-129*	0
Surr: 2-Fluorobiphenyl	*3.394*	0.20	*5*	0	*67.9*	*40-125*	0
Surr: 2-Fluorophenol	*3.339*	0.20	*5*	0	*66.8*	*20-120*	0
Surr: 4-Terphenyl-d14	*3.398*	0.20	*5*	0	*68*	*40-135*	0
Surr: Nitrobenzene-d5	*3.437*	0.20	*5*	0	*68.7*	*41-120*	0
Surr: Phenol-d6	*3.971*	0.20	*5*	0	*79.4*	*20-120*	0

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36746** Instrument ID **SV-4** Method: **SW8270**

LCS Sample ID: **SLCSW1-090623-36746** Units: **µg/L** Analysis Date: **7/1/2009 10:36 AM**

Client ID: Run ID: **SV-4_090701A** SeqNo: **1709725** Prep Date: **6/23/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	3.273	0.20	5	0	65.5	45-125	0			
2,4,5-Trichlorophenol	3.544	0.20	5	0	70.9	46-120	0			
2,4,6-Trichlorophenol	3.36	0.20	5	0	67.2	42-120	0			
2,4-Dichlorophenol	3.385	0.20	5	0	67.7	49-120	0			
2,4-Dimethylphenol	2.961	0.20	5	0	59.2	35-120	0			
2,4-Dinitrophenol	2.726	1.0	5	0	54.5	15-120	0			
2,4-Dinitrotoluene	3.445	0.20	5	0	68.9	50-122	0			
2,6-Dinitrotoluene	3.529	0.20	5	0	70.6	50-120	0			
2-Chloronaphthalene	3.663	0.20	5	0	73.3	50-120	0			
2-Chlorophenol	3.178	0.20	5	0	63.6	40-120	0			
2-Methylnaphthalene	3.419	0.20	5	0	68.4	50-120	0			
2-Methylphenol	3.349	0.20	5	0	67	45-120	0			
2-Nitroaniline	4.373	0.20	5	0	87.5	28-139	0			
2-Nitrophenol	3.4	0.20	5	0	68	40-120	0			
3&4-Methylphenol	3.286	0.20	5	0	65.7	35-120	0			
3,3'-Dichlorobenzidine	2.984	0.20	5	0	59.7	15-120	0			
3-Nitroaniline	3.135	0.20	5	0	62.7	30-120	0			
4,6-Dinitro-2-methylphenol	2.965	0.20	5	0	59.3	25-121	0			
4-Bromophenyl phenyl ether	2.881	0.20	5	0	57.6	45-120	0			
4-Chloro-3-methylphenol	3.68	0.20	5	0	73.6	47-120	0			
4-Chloroaniline	2.857	0.20	5	0	57.1	20-120	0			
4-Chlorophenyl phenyl ether	3.527	0.20	5	0	70.5	50-120	0			
4-Nitroaniline	3.414	0.20	5	0	68.3	30-133	0			
4-Nitrophenol	4.215	1.0	5	0	84.3	30-130	0			
Acenaphthene	3.304	0.20	5	0	66.1	45-120	0			
Acenaphthylene	3.393	0.20	5	0	67.9	47-120	0			
Acetophenone	3.425	0.20	5	0	68.5	40-120	0			
Anthracene	3.406	0.20	5	0	68.1	45-120	0			
Atrazine	3.016	0.20	5	0	60.3	40-130	0			
Benz(a)anthracene	3.605	0.20	5	0	72.1	40-120	0			
Benzaldehyde	2.646	0.20	5	0	52.9	35-130	0			
Benzo(a)pyrene	3.465	0.20	5	0	69.3	45-120	0			
Benzo(b)fluoranthene	3.485	0.20	5	0	69.7	50-120	0			
Benzo(g,h,i)perylene	3.36	0.20	5	0	67.2	42-127	0			
Benzo(k)fluoranthene	3.006	0.20	5	0	60.1	45-127	0			
Bis(2-chloroethoxy)methane	3.745	0.20	5	0	74.9	45-120	0			
Bis(2-chloroethyl)ether	3.99	0.20	5	0	79.8	37-121	0			
Bis(2-chloroisopropyl)ether	3.419	0.20	5	0	68.4	40-120	0			
Bis(2-ethylhexyl)phthalate	3.719	0.20	5	0	74.4	40-139	0			
Butyl benzyl phthalate	3.627	0.20	5	0	72.5	47-123	0			
Caprolactam	3.678	0.20	5	0	73.6	35-134	0			
Carbazole	3.066	0.20	5	0	61.3	42-128	0			

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36746** Instrument ID **SV-4** Method: **SW8270**

Chrysene	3.482	0.20	5	0	69.6	43-120	0
Di-n-butyl phthalate	3.188	0.20	5	0	63.8	45-123	0
Di-n-octyl phthalate	3.781	0.20	5	0	75.6	45-129	0
Dibenz(a,h)anthracene	3.576	0.20	5	0	71.5	45-125	0
Dibenzofuran	3.376	0.20	5	0	67.5	50-120	0
Diethyl phthalate	3.338	0.20	5	0	66.8	41-120	0
Dimethyl phthalate	3.6	0.20	5	0	72	40-122	0
Fluoranthene	3.054	0.20	5	0	61.1	45-125	0
Fluorene	3.637	0.20	5	0	72.7	49-120	0
Hexachlorobenzene	3.084	0.20	5	0	61.7	48-120	0
Hexachlorobutadiene	3.388	0.20	5	0	67.8	40-120	0
Hexachlorocyclopentadiene	3.058	0.20	5	0	61.2	34-136	0
Hexachloroethane	3.288	0.20	5	0	65.8	40-120	0
Indeno(1,2,3-cd)pyrene	4.139	0.20	5	0	82.8	41-128	0
Isophorone	3.784	0.20	5	0	75.7	40-121	0
N-Nitrosodi-n-propylamine	3.119	0.20	5	0	62.4	40-120	0
N-Nitrosodiphenylamine	3.004	0.20	5	0	60.1	40-125	0
Naphthalene	3.641	0.20	5	0	72.8	45-120	0
Nitrobenzene	3.424	0.20	5	0	68.5	44-120	0
Pentachlorophenol	1.778	0.20	5	0	35.6	19-121	0
Phenanthrene	3.441	0.20	5	0	68.8	45-121	0
Phenol	3.804	0.20	5	0	76.1	20-124	0
Pyrene	3.689	0.20	5	0	73.8	40-130	0
Surr: 2,4,6-Tribromophenol	*3.024*	0.20	*5*	0	*60.5*	*34-129*	0
Surr: 2-Fluorobiphenyl	*3.281*	0.20	*5*	0	*65.6*	*40-125*	0
Surr: 2-Fluorophenol	*2.693*	0.20	*5*	0	*53.9*	*20-120*	0
Surr: 4-Terphenyl-d14	*3.022*	0.20	*5*	0	*60.4*	*40-135*	0
Surr: Nitrobenzene-d5	*3.319*	0.20	*5*	0	*66.4*	*41-120*	0
Surr: Phenol-d6	*3.065*	0.20	*5*	0	*61.3*	*20-120*	0

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36746** Instrument ID **SV-4** Method: **SW8270**

LCSD Sample ID: **SLCSDW1-090623-36746** Units: **µg/L** Analysis Date: **7/1/2009 11:35 AM**

Client ID: Run ID: **SV-4_090701A** SeqNo: **1709726** Prep Date: **6/23/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	4.457	0.20	5	0	89.1	45-125	3.273	30.6	20	R
2,4,5-Trichlorophenol	4.838	0.20	5	0	96.8	46-120	3.544	30.9	20	R
2,4,6-Trichlorophenol	4.698	0.20	5	0	94	42-120	3.36	33.2	20	R
2,4-Dichlorophenol	4.747	0.20	5	0	94.9	49-120	3.385	33.5	20	R
2,4-Dimethylphenol	4.07	0.20	5	0	81.4	35-120	2.961	31.6	20	R
2,4-Dinitrophenol	5.046	1.0	5	0	101	15-120	2.726	59.7	20	R
2,4-Dinitrotoluene	4.68	0.20	5	0	93.6	50-122	3.445	30.4	20	R
2,6-Dinitrotoluene	4.977	0.20	5	0	99.5	50-120	3.529	34.1	20	R
2-Chloronaphthalene	5.256	0.20	5	0	105	50-120	3.663	35.7	20	R
2-Chlorophenol	5.25	0.20	5	0	105	40-120	3.178	49.1	20	R
2-Methylnaphthalene	4.547	0.20	5	0	90.9	50-120	3.419	28.3	20	R
2-Methylphenol	5.083	0.20	5	0	102	45-120	3.349	41.1	20	R
2-Nitroaniline	4.91	0.20	5	0	98.2	28-139	4.373	11.6	20	
2-Nitrophenol	4.736	0.20	5	0	94.7	40-120	3.4	32.8	20	R
3&4-Methylphenol	5.243	0.20	5	0	105	35-120	3.286	45.9	20	R
3,3'-Dichlorobenzidine	4.772	0.20	5	0	95.4	15-120	2.984	46.1	20	R
3-Nitroaniline	4.269	0.20	5	0	85.4	30-120	3.135	30.6	20	R
4,6-Dinitro-2-methylphenol	4.627	0.20	5	0	92.5	25-121	2.965	43.8	20	R
4-Bromophenyl phenyl ether	4.021	0.20	5	0	80.4	45-120	2.881	33	20	R
4-Chloro-3-methylphenol	5.146	0.20	5	0	103	47-120	3.68	33.2	20	R
4-Chloroaniline	4.037	0.20	5	0	80.7	20-120	2.857	34.2	20	R
4-Chlorophenyl phenyl ether	4.918	0.20	5	0	98.4	50-120	3.527	32.9	20	R
4-Nitroaniline	4.277	0.20	5	0	85.5	30-133	3.414	22.4	20	R
4-Nitrophenol	5.938	1.0	5	0	119	30-130	4.215	33.9	20	R
Acenaphthene	4.448	0.20	5	0	89	45-120	3.304	29.5	20	R
Acenaphthylene	4.672	0.20	5	0	93.4	47-120	3.393	31.7	20	R
Acetophenone	4.559	0.20	5	0	91.2	40-120	3.425	28.4	20	R
Anthracene	4.588	0.20	5	0	91.8	45-120	3.406	29.6	20	R
Atrazine	4.47	0.20	5	0	89.4	40-130	3.016	38.8	20	R
Benz(a)anthracene	4.916	0.20	5	0	98.3	40-120	3.605	30.8	20	R
Benzaldehyde	3.923	0.20	5	0	78.5	35-130	2.646	38.9	20	R
Benzo(a)pyrene	4.658	0.20	5	0	93.2	45-120	3.465	29.4	20	R
Benzo(b)fluoranthene	4.788	0.20	5	0	95.8	50-120	3.485	31.5	20	R
Benzo(g,h,i)perylene	4.503	0.20	5	0	90.1	42-127	3.36	29.1	20	R
Benzo(k)fluoranthene	4.011	0.20	5	0	80.2	45-127	3.006	28.7	20	R
Bis(2-chloroethoxy)methane	4.841	0.20	5	0	96.8	45-120	3.745	25.6	20	R
Bis(2-chloroethyl)ether	5.729	0.20	5	0	115	37-121	3.99	35.8	20	R
Bis(2-chloroisopropyl)ether	5.322	0.20	5	0	106	40-120	3.419	43.5	20	R
Bis(2-ethylhexyl)phthalate	5.019	0.20	5	0	100	40-139	3.719	29.8	20	R
Butyl benzyl phthalate	4.984	0.20	5	0	99.7	47-123	3.627	31.5	20	R
Caprolactam	5.144	0.20	5	0	103	35-134	3.678	33.2	20	R
Carbazole	4.227	0.20	5	0	84.5	42-128	3.066	31.8	20	R

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36746**	Instrument ID **SV-4**			Method: **SW8270**						
Chrysene	4.722	0.20	5	0	94.4	43-120	3.482	30.2	20	R
Di-n-butyl phthalate	4.498	0.20	5	0	90	45-123	3.188	34.1	20	R
Di-n-octyl phthalate	4.925	0.20	5	0	98.5	45-129	3.781	26.3	20	R
Dibenz(a,h)anthracene	4.949	0.20	5	0	99	45-125	3.576	32.2	20	R
Dibenzofuran	4.625	0.20	5	0	92.5	50-120	3.376	31.2	20	R
Diethyl phthalate	4.438	0.20	5	0	88.8	41-120	3.338	28.3	20	R
Dimethyl phthalate	4.849	0.20	5	0	97	40-122	3.6	29.6	20	R
Fluoranthene	4.253	0.20	5	0	85.1	45-125	3.054	32.8	20	R
Fluorene	4.736	0.20	5	0	94.7	49-120	3.637	26.2	20	R
Hexachlorobenzene	4.15	0.20	5	0	83	48-120	3.084	29.5	20	R
Hexachlorobutadiene	4.387	0.20	5	0	87.7	40-120	3.388	25.7	20	R
Hexachlorocyclopentadiene	4.281	0.20	5	0	85.6	34-136	3.058	33.3	20	R
Hexachloroethane	5.452	0.20	5	0	109	40-120	3.288	49.5	20	R
Indeno(1,2,3-cd)pyrene	5.486	0.20	5	0	110	41-128	4.139	28	20	R
Isophorone	5.052	0.20	5	0	101	40-121	3.784	28.7	20	R
N-Nitrosodi-n-propylamine	5.031	0.20	5	0	101	40-120	3.119	46.9	20	R
N-Nitrosodiphenylamine	4.089	0.20	5	0	81.8	40-125	3.004	30.6	20	R
Naphthalene	4.772	0.20	5	0	95.4	45-120	3.641	26.9	20	R
Nitrobenzene	4.498	0.20	5	0	90	44-120	3.424	27.1	20	R
Pentachlorophenol	4.231	0.20	5	0	84.6	19-121	1.778	81.7	20	R
Phenanthrene	4.776	0.20	5	0	95.5	45-121	3.441	32.5	20	R
Phenol	5.821	0.20	5	0	116	20-124	3.804	41.9	20	R
Pyrene	5.019	0.20	5	0	100	40-130	3.689	30.6	20	R
Surr: 2,4,6-Tribromophenol	*3.764*	0.20	*5*	0	*75.3*	*34-129*	3.024	*21.8*	*20*	*R*
Surr: 2-Fluorobiphenyl	*4.404*	0.20	*5*	0	*88.1*	*40-125*	3.281	*29.2*	*20*	*R*
Surr: 2-Fluorophenol	*4.492*	0.20	*5*	0	*89.8*	*20-120*	2.693	*50.1*	*20*	*R*
Surr: 4-Terphenyl-d14	*4.061*	0.20	*5*	0	*81.2*	*40-135*	3.022	*29.3*	*20*	*R*
Surr: Nitrobenzene-d5	*4.367*	0.20	*5*	0	*87.3*	*41-120*	3.319	*27.3*	*20*	*R*
Surr: Phenol-d6	*4.736*	0.20	*5*	0	*94.7*	*20-120*	3.065	*42.8*	*20*	*R*

The following samples were analyzed in this batch:

0906543-01F	0906543-02F	0906543-03F
0906543-04F	0906543-05F	0906543-06F
0906543-08F	0906543-09F	

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78545** Instrument ID **VOA1** Method: **SW8260**

MBLK Sample ID: **VBLKW-062609-R78545** Units: **µg/L** Analysis Date: **6/26/2009 11:16 AM**

Client ID: Run ID: **VOA1_090626A** SeqNo: **1706384** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
2-Butanone	ND	10								
2-Hexanone	ND	10								
4-Isopropyltoluene	ND	5.0								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
Isopropylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methyl tert-butyl ether	ND	5.0								
Methylene chloride	ND	10								
n-Butylbenzene	ND	5.0								
n-Propylbenzene	ND	5.0								
Naphthalene	ND	5.0								
o-Xylene	ND	5.0								
sec-Butylbenzene	ND	5.0								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,2-Dichloroethene	ND	5.0								

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78545** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Vinyl chloride	ND	2.0					
Xylenes, Total	ND	15					
Surr: 1,2-Dichloroethane-d4	*47.01*	5.0	*50*	0	*94*	*70-125*	0
Surr: 4-Bromofluorobenzene	*48.04*	5.0	*50*	0	*96.1*	*72-125*	0
Surr: Dibromofluoromethane	*51.96*	5.0	*50*	0	*104*	*71-125*	0
Surr: Toluene-d8	*46.13*	5.0	*50*	0	*92.3*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78545** Instrument ID **VOA1** Method: **SW8260**

LCS Sample ID: **VLCSW-062609-R78545** Units: **µg/L** Analysis Date: **6/26/2009 10:25 AM**

Client ID: Run ID: **VOA1_090626A** SeqNo: **1706383** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	49.23	5.0	50	0	98.5	80-120	0			
1,1,2,2-Tetrachloroethane	48.69	5.0	50	0	97.4	72-120	0			
1,1,2-Trichloroethane	44.03	5.0	50	0	88.1	80-120	0			
1,1-Dichloroethane	51.13	5.0	50	0	102	76-120	0			
1,1-Dichloroethene	50.71	5.0	50	0	101	73-124	0			
1,2,4-Trimethylbenzene	52.57	5.0	50	0	105	68-123	0			
1,2-Dibromoethane	45.12	5.0	50	0	90.2	80-120	0			
1,2-Dichloroethane	50.26	5.0	50	0	101	78-120	0			
1,2-Dichloropropane	49	5.0	50	0	98	80-120	0			
1,3,5-Trimethylbenzene	52.42	5.0	50	0	105	80-120	0			
2-Butanone	101.4	10	100	0	101	58-132	0			
2-Hexanone	93.9	10	100	0	93.9	61-130	0			
4-Isopropyltoluene	49.17	5.0	50	0	98.3	79-120	0			
4-Methyl-2-pentanone	96.23	10	100	0	96.2	65-127	0			
Acetone	103	10	100	0	103	59-137	0			
Benzene	49.14	5.0	50	0	98.3	73-121	0			
Bromodichloromethane	50.01	5.0	50	0	100	80-120	0			
Bromoform	47.68	5.0	50	0	95.4	79-120	0			
Bromomethane	47.11	5.0	50	0	94.2	66-137	0			
Carbon disulfide	98.67	10	100	0	98.7	68-141	0			
Carbon tetrachloride	51.13	5.0	50	0	102	75-124	0			
Chlorobenzene	48.73	5.0	50	0	97.5	80-120	0			
Chloroethane	46.45	5.0	50	0	92.9	76-121	0			
Chloroform	50.58	5.0	50	0	101	80-120	0			
Chloromethane	47.89	5.0	50	0	95.8	67-123	0			
cis-1,2-Dichloroethene	48.32	5.0	50	0	96.6	78-120	0			
cis-1,3-Dichloropropene	51.31	5.0	50	0	103	80-120	0			
Dibromochloromethane	50.35	5.0	50	0	101	80-120	0			
Ethylbenzene	45.39	5.0	50	0	90.8	80-120	0			
Isopropylbenzene	44.61	5.0	50	0	89.2	80-120	0			
m,p-Xylene	94.66	10	100	0	94.7	78-121	0			
Methyl tert-butyl ether	54.85	5.0	50	0	110	73-121	0			
Methylene chloride	46.51	10	50	0	93	65-133	0			
n-Butylbenzene	49.4	5.0	50	0	98.8	77-120	0			
n-Propylbenzene	50.91	5.0	50	0	102	78-120	0			
Naphthalene	50.65	5.0	50	0	101	65-127	0			
o-Xylene	47.2	5.0	50	0	94.4	80-120	0			
sec-Butylbenzene	53.01	5.0	50	0	106	78-120	0			
Styrene	45.25	5.0	50	0	90.5	80-120	0			
Tetrachloroethene	45.95	5.0	50	0	91.9	79-120	0			
Toluene	43.72	5.0	50	0	87.4	80-120	0			
trans-1,2-Dichloroethene	50.65	5.0	50	0	101	78-120	0			

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78545**	Instrument ID **VOA1**		Method: **SW8260**				
trans-1,3-Dichloropropene	52.83	5.0	50	0	106	80-120	0
Trichloroethene	53.37	5.0	50	0	107	80-120	0
Vinyl chloride	46.94	2.0	50	0	93.9	70-127	0
Xylenes, Total	141.9	15	150	0	94.6	80-120	0
Surr: 1,2-Dichloroethane-d4	*52.37*	5.0	*50*	0	*105*	*70-125*	0
Surr: 4-Bromofluorobenzene	*48.74*	5.0	*50*	0	*97.5*	*72-125*	0
Surr: Dibromofluoromethane	*50.63*	5.0	*50*	0	*101*	*71-125*	0
Surr: Toluene-d8	*46.75*	5.0	*50*	0	*93.5*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78545** Instrument ID **VOA1** Method: **SW8260**

MS Sample ID: **0906566-09AMS** Units: **µg/L** Analysis Date: **6/26/2009 12:57 PM**

Client ID: Run ID: **VOA1_090626A** SeqNo: **1706388** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	45.46	5.0	50	0	90.9	80-120	0			
1,1,2,2-Tetrachloroethane	47.57	5.0	50	0	95.1	72-120	0			
1,1,2-Trichloroethane	45.47	5.0	50	0	90.9	80-120	0			
1,1-Dichloroethane	48.94	5.0	50	1.776	94.3	76-120	0			
1,1-Dichloroethene	96.74	5.0	50	64.75	64	73-124	0			S
1,2,4-Trimethylbenzene	47.93	5.0	50	0	95.9	68-123	0			
1,2-Dibromoethane	47.53	5.0	50	0	95.1	80-120	0			
1,2-Dichloroethane	44.7	5.0	50	0	89.4	78-120	0			
1,2-Dichloropropane	46.79	5.0	50	0	93.6	80-120	0			
1,3,5-Trimethylbenzene	46.43	5.0	50	0	92.9	80-120	0			
2-Butanone	106.5	10	100	0	107	58-132	0			
2-Hexanone	99.02	10	100	0	99	61-130	0			
4-Isopropyltoluene	43.5	5.0	50	0	87	79-120	0			
4-Methyl-2-pentanone	102.3	10	100	0	102	65-127	0			
Acetone	98.01	10	100	0	98	59-137	0			
Benzene	43.45	5.0	50	0	86.9	73-121	0			
Bromodichloromethane	46.93	5.0	50	0	93.9	80-120	0			
Bromoform	49.63	5.0	50	0	99.3	79-120	0			
Bromomethane	46.21	5.0	50	0	92.4	66-137	0			
Carbon disulfide	92.34	10	100	0	92.3	68-141	0			
Carbon tetrachloride	43.5	5.0	50	0	87	75-124	0			
Chlorobenzene	46.06	5.0	50	0	92.1	80-120	0			
Chloroethane	44.19	5.0	50	0	88.4	76-121	0			
Chloroform	48.72	5.0	50	0	97.4	80-120	0			
Chloromethane	40.33	5.0	50	0	80.7	67-123	0			
cis-1,2-Dichloroethene	51.11	5.0	50	0	102	78-120	0			
cis-1,3-Dichloropropene	50.09	5.0	50	0	100	80-120	0			
Dibromochloromethane	49.48	5.0	50	0	99	80-120	0			
Ethylbenzene	45.24	5.0	50	0	90.5	80-120	0			
Isopropylbenzene	44.43	5.0	50	0	88.9	80-120	0			
m,p-Xylene	88.62	10	100	0	88.6	78-121	0			
Methyl tert-butyl ether	52.52	5.0	50	0	105	73-121	0			
Methylene chloride	46.14	10	50	0.4314	91.4	65-133	0			
n-Butylbenzene	40.57	5.0	50	0	81.1	77-120	0			
n-Propylbenzene	46.86	5.0	50	0	93.7	78-120	0			
Naphthalene	46.63	5.0	50	0	93.3	65-127	0			
o-Xylene	45.63	5.0	50	0	91.3	80-120	0			
sec-Butylbenzene	43.22	5.0	50	0	86.4	78-120	0			
Styrene	45.96	5.0	50	0	91.9	80-120	0			
Tetrachloroethene	40.17	5.0	50	0	80.3	79-120	0			
Toluene	45.85	5.0	50	0	91.7	80-120	0			
trans-1,2-Dichloroethene	48.06	5.0	50	0	96.1	78-120	0			

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78545** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	47.43	5.0	50	0	94.9	80-120	0
Trichloroethene	46.52	5.0	50	0	93	80-120	0
Vinyl chloride	40.21	2.0	50	0	80.4	70-127	0
Xylenes, Total	134.3	15	150	0	89.5	80-120	0
Surr: 1,2-Dichloroethane-d4	*54*	5.0	*50*	0	*108*	*70-125*	0
Surr: 4-Bromofluorobenzene	*47.86*	5.0	*50*	0	*95.7*	*72-125*	0
Surr: Dibromofluoromethane	*51.11*	5.0	*50*	0	*102*	*71-125*	0
Surr: Toluene-d8	*48.72*	5.0	*50*	0	*97.4*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78545** Instrument ID **VOA1** Method: **SW8260**

MSD Sample ID: **0906566-09AMSD** Units: **µg/L** Analysis Date: **6/26/2009 01:22 PM**

Client ID: Run ID: **VOA1_090626A** SeqNo: **1706389** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	49.69	5.0	50	0	99.4	80-120	45.46	8.89	20	
1,1,2,2-Tetrachloroethane	46.59	5.0	50	0	93.2	72-120	47.57	2.08	20	
1,1,2-Trichloroethane	44.81	5.0	50	0	89.6	80-120	45.47	1.46	20	
1,1-Dichloroethane	51.12	5.0	50	1.776	98.7	76-120	48.94	4.35	20	
1,1-Dichloroethene	102.2	5.0	50	64.75	74.9	73-124	96.74	5.51	20	
1,2,4-Trimethylbenzene	49.99	5.0	50	0	100	68-123	47.93	4.21	20	
1,2-Dibromoethane	49.89	5.0	50	0	99.8	80-120	47.53	4.84	20	
1,2-Dichloroethane	51.6	5.0	50	0	103	78-120	44.7	14.3	20	
1,2-Dichloropropane	49.44	5.0	50	0	98.9	80-120	46.79	5.5	20	
1,3,5-Trimethylbenzene	47.82	5.0	50	0	95.6	80-120	46.43	2.95	20	
2-Butanone	112	10	100	0	112	58-132	106.5	5.02	20	
2-Hexanone	101.5	10	100	0	101	61-130	99.02	2.42	20	
4-Isopropyltoluene	43.94	5.0	50	0	87.9	79-120	43.5	1.02	20	
4-Methyl-2-pentanone	111.4	10	100	0	111	65-127	102.3	8.51	20	
Acetone	106.5	10	100	0	106	59-137	98.01	8.29	20	
Benzene	48.9	5.0	50	0	97.8	73-121	43.45	11.8	20	
Bromodichloromethane	48.5	5.0	50	0	97	80-120	46.93	3.29	20	
Bromoform	52.72	5.0	50	0	105	79-120	49.63	6.03	20	
Bromomethane	48.09	5.0	50	0	96.2	66-137	46.21	4	20	
Carbon disulfide	94.71	10	100	0	94.7	68-141	92.34	2.53	20	
Carbon tetrachloride	45.37	5.0	50	0	90.7	75-124	43.5	4.21	20	
Chlorobenzene	46.93	5.0	50	0	93.9	80-120	46.06	1.87	20	
Chloroethane	45.1	5.0	50	0	90.2	76-121	44.19	2.04	20	
Chloroform	49.72	5.0	50	0	99.4	80-120	48.72	2.03	20	
Chloromethane	45.44	5.0	50	0	90.9	67-123	40.33	11.9	20	
cis-1,2-Dichloroethene	53.8	5.0	50	0	108	78-120	51.11	5.13	20	
cis-1,3-Dichloropropene	52.11	5.0	50	0	104	80-120	50.09	3.95	20	
Dibromochloromethane	50.94	5.0	50	0	102	80-120	49.48	2.92	20	
Ethylbenzene	48.22	5.0	50	0	96.4	80-120	45.24	6.38	20	
Isopropylbenzene	44.74	5.0	50	0	89.5	80-120	44.43	0.711	20	
m,p-Xylene	97.81	10	100	0	97.8	78-121	88.62	9.86	20	
Methyl tert-butyl ether	57.03	5.0	50	0	114	73-121	52.52	8.24	20	
Methylene chloride	47.37	10	50	0.4314	93.9	65-133	46.14	2.63	20	
n-Butylbenzene	41.99	5.0	50	0	84	77-120	40.57	3.42	20	
n-Propylbenzene	46.59	5.0	50	0	93.2	78-120	46.86	0.581	20	
Naphthalene	49.08	5.0	50	0	98.2	65-127	46.63	5.1	20	
o-Xylene	49.17	5.0	50	0	98.3	80-120	45.63	7.46	20	
sec-Butylbenzene	46.32	5.0	50	0	92.6	78-120	43.22	6.92	20	
Styrene	48.75	5.0	50	0	97.5	80-120	45.96	5.89	20	
Tetrachloroethene	45.65	5.0	50	0	91.3	79-120	40.17	12.8	20	
Toluene	46.63	5.0	50	0	93.3	80-120	45.85	1.7	20	
trans-1,2-Dichloroethene	51.71	5.0	50	0	103	78-120	48.06	7.32	20	

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78545** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	52.49	5.0	50	0	105	80-120	47.43	10.1	20
Trichloroethene	49.9	5.0	50	0	99.8	80-120	46.52	7.01	20
Vinyl chloride	45.11	2.0	50	0	90.2	70-127	40.21	11.5	20
Xylenes, Total	147	15	150	0	98	80-120	134.3	9.05	20
Surr: 1,2-Dichloroethane-d4	*54.94*	5.0	*50*	0	*110*	*70-125*	54	*1.72*	*20*
Surr: 4-Bromofluorobenzene	*51.34*	5.0	*50*	0	*103*	*72-125*	47.86	*7.01*	*20*
Surr: Dibromofluoromethane	*54.18*	5.0	*50*	0	*108*	*71-125*	51.11	*5.83*	*20*
Surr: Toluene-d8	*50.62*	5.0	*50*	0	*101*	*75-125*	48.72	*3.83*	*20*

The following samples were analyzed in this batch:

0906543-01A	0906543-02A	0906543-03A
0906543-04A	0906543-05A	0906543-06A
0906543-07A	0906543-08A	

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78552** Instrument ID **VOA2** Method: **SW8260**

MBLK Sample ID: **VBLKW-062809-R78552** Units: **µg/L** Analysis Date: **6/28/2009 12:52 PM**

Client ID: Run ID: **VOA2_090628A** SeqNo: **1706557** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
2-Butanone	ND	10								
2-Hexanone	ND	10								
4-Isopropyltoluene	ND	5.0								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
Isopropylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methyl tert-butyl ether	ND	5.0								
Methylene chloride	ND	10								
n-Butylbenzene	ND	5.0								
n-Propylbenzene	ND	5.0								
Naphthalene	ND	5.0								
o-Xylene	ND	5.0								
sec-Butylbenzene	ND	5.0								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,2-Dichloroethene	ND	5.0								

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78552**	Instrument ID **VOA2**		Method: **SW8260**				
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Vinyl chloride	ND	2.0					
Xylenes, Total	ND	15					
Surr: 1,2-Dichloroethane-d4	*48.89*	5.0	*50*	0	*97.8*	*70-125*	0
Surr: 4-Bromofluorobenzene	*48.1*	5.0	*50*	0	*96.2*	*72-125*	0
Surr: Dibromofluoromethane	*50.46*	5.0	*50*	0	*101*	*71-125*	0
Surr: Toluene-d8	*49.01*	5.0	*50*	0	*98*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78552** Instrument ID **VOA2** Method: **SW8260**

LCS Sample ID: **VLCSW-062809-R78552** Units: **µg/L** Analysis Date: **6/28/2009 11:38 AM**

Client ID: Run ID: **VOA2_090628A** SeqNo: **1706556** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	48.63	5.0	50	0	97.3	80-120	0			
1,1,2,2-Tetrachloroethane	47.88	5.0	50	0	95.8	72-120	0			
1,1,2-Trichloroethane	47.76	5.0	50	0	95.5	80-120	0			
1,1-Dichloroethane	48.61	5.0	50	0	97.2	76-120	0			
1,1-Dichloroethene	49.79	5.0	50	0	99.6	73-124	0			
1,2,4-Trimethylbenzene	49.43	5.0	50	0	98.9	68-123	0			
1,2-Dibromoethane	49.23	5.0	50	0	98.5	80-120	0			
1,2-Dichloroethane	46.22	5.0	50	0	92.4	78-120	0			
1,2-Dichloropropane	48.91	5.0	50	0	97.8	80-120	0			
1,3,5-Trimethylbenzene	49.58	5.0	50	0	99.2	80-120	0			
2-Butanone	91.81	10	100	0	91.8	58-132	0			
2-Hexanone	96.56	10	100	0	96.6	61-130	0			
4-Isopropyltoluene	50.85	5.0	50	0	102	79-120	0			
4-Methyl-2-pentanone	99.31	10	100	0	99.3	65-127	0			
Acetone	97.05	10	100	0	97.1	59-137	0			
Benzene	48.7	5.0	50	0	97.4	73-121	0			
Bromodichloromethane	50.92	5.0	50	0	102	80-120	0			
Bromoform	45.94	5.0	50	0	91.9	79-120	0			
Bromomethane	53.63	5.0	50	0	107	66-137	0			
Carbon disulfide	102.1	10	100	0	102	68-141	0			
Carbon tetrachloride	48.34	5.0	50	0	96.7	75-124	0			
Chlorobenzene	47.37	5.0	50	0	94.7	80-120	0			
Chloroethane	46.87	5.0	50	0	93.7	76-121	0			
Chloroform	46.75	5.0	50	0	93.5	80-120	0			
Chloromethane	47.91	5.0	50	0	95.8	67-123	0			
cis-1,2-Dichloroethene	47.9	5.0	50	0	95.8	78-120	0			
cis-1,3-Dichloropropene	47.79	5.0	50	0	95.6	80-120	0			
Dibromochloromethane	45.87	5.0	50	0	91.7	80-120	0			
Ethylbenzene	49.68	5.0	50	0	99.4	80-120	0			
Isopropylbenzene	50.19	5.0	50	0	100	80-120	0			
m,p-Xylene	99.62	10	100	0	99.6	78-121	0			
Methyl tert-butyl ether	48.33	5.0	50	0	96.7	73-121	0			
Methylene chloride	48.14	10	50	0	96.3	65-133	0			
n-Butylbenzene	51.55	5.0	50	0	103	77-120	0			
n-Propylbenzene	49.89	5.0	50	0	99.8	78-120	0			
Naphthalene	48.15	5.0	50	0	96.3	65-127	0			
o-Xylene	49.13	5.0	50	0	98.3	80-120	0			
sec-Butylbenzene	51.04	5.0	50	0	102	78-120	0			
Styrene	49.36	5.0	50	0	98.7	80-120	0			
Tetrachloroethene	47.79	5.0	50	0	95.6	79-120	0			
Toluene	47.68	5.0	50	0	95.4	80-120	0			
trans-1,2-Dichloroethene	49.44	5.0	50	0	98.9	78-120	0			

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78552** Instrument ID **VOA2** Method: **SW8260**

trans-1,3-Dichloropropene	45.35	5.0	50	0	90.7	80-120	0
Trichloroethene	50.23	5.0	50	0	100	80-120	0
Vinyl chloride	47.8	2.0	50	0	95.6	70-127	0
Xylenes, Total	148.7	15	150	0	99.2	80-120	0
Surr: 1,2-Dichloroethane-d4	*47.52*	5.0	*50*	0	*95*	*70-125*	0
Surr: 4-Bromofluorobenzene	*48.75*	5.0	*50*	0	*97.5*	*72-125*	0
Surr: Dibromofluoromethane	*48.81*	5.0	*50*	0	*97.6*	*71-125*	0
Surr: Toluene-d8	*48.45*	5.0	*50*	0	*96.9*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78552** Instrument ID **VOA2** Method: **SW8260**

MS Sample ID: **0906547-01AMS** Units: **µg/L** Analysis Date: **6/28/2009 02:05 PM**

Client ID: Run ID: **VOA2_090628A** SeqNo: **1706559** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	47.26	5.0	50	0	94.5	80-120	0			
1,1,2,2-Tetrachloroethane	52.89	5.0	50	0	106	72-120	0			
1,1,2-Trichloroethane	51.39	5.0	50	0	103	80-120	0			
1,1-Dichloroethane	47.48	5.0	50	0	95	76-120	0			
1,1-Dichloroethene	47.1	5.0	50	0	94.2	73-124	0			
1,2,4-Trimethylbenzene	49.22	5.0	50	0	98.4	68-123	0			
1,2-Dibromoethane	53.28	5.0	50	0	107	80-120	0			
1,2-Dichloroethane	49.73	5.0	50	0	99.5	78-120	0			
1,2-Dichloropropane	48.61	5.0	50	0	97.2	80-120	0			
1,3,5-Trimethylbenzene	48.66	5.0	50	0	97.3	80-120	0			
2-Butanone	106.3	10	100	0	106	58-132	0			
2-Hexanone	108	10	100	0	108	61-130	0			
4-Isopropyltoluene	49.46	5.0	50	0	98.9	79-120	0			
4-Methyl-2-pentanone	110.7	10	100	0	111	65-127	0			
Acetone	103.9	10	100	0	104	59-137	0			
Benzene	49.22	5.0	50	0	98.4	73-121	0			
Bromodichloromethane	54.11	5.0	50	0	108	80-120	0			
Bromoform	51.07	5.0	50	0	102	79-120	0			
Bromomethane	55.81	5.0	50	0	112	66-137	0			
Carbon disulfide	97.14	10	100	0	97.1	68-141	0			
Carbon tetrachloride	47.01	5.0	50	0	94	75-124	0			
Chlorobenzene	48.37	5.0	50	0	96.7	80-120	0			
Chloroethane	45.65	5.0	50	0	91.3	76-121	0			
Chloroform	50.17	5.0	50	0	100	80-120	0			
Chloromethane	48.09	5.0	50	0	96.2	67-123	0			
cis-1,2-Dichloroethene	53.01	5.0	50	0	106	78-120	0			
cis-1,3-Dichloropropene	49.34	5.0	50	0	98.7	80-120	0			
Dibromochloromethane	49.83	5.0	50	0	99.7	80-120	0			
Ethylbenzene	49.11	5.0	50	0	98.2	80-120	0			
Isopropylbenzene	49.1	5.0	50	0	98.2	80-120	0			
m,p-Xylene	98.7	10	100	0	98.7	78-121	0			
Methyl tert-butyl ether	49.84	5.0	50	0	99.7	73-121	0			
Methylene chloride	50.22	10	50	0	100	65-133	0			
n-Butylbenzene	50.16	5.0	50	0	100	77-120	0			
n-Propylbenzene	48.48	5.0	50	0	97	78-120	0			
Naphthalene	50.7	5.0	50	0	101	65-127	0			
o-Xylene	49.52	5.0	50	0	99	80-120	0			
sec-Butylbenzene	48.43	5.0	50	0	96.9	78-120	0			
Styrene	50.71	5.0	50	0	101	80-120	0			
Tetrachloroethene	45.89	5.0	50	0	91.8	79-120	0			
Toluene	47.65	5.0	50	0	95.3	80-120	0			
trans-1,2-Dichloroethene	48.33	5.0	50	0	96.7	78-120	0			

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78552**	Instrument ID **VOA2**		Method: **SW8260**				
trans-1,3-Dichloropropene	47.27	5.0	50	0	94.5	80-120	0
Trichloroethene	49.69	5.0	50	0	99.4	80-120	0
Vinyl chloride	45.21	2.0	50	0	90.4	70-127	0
Xylenes, Total	148.2	15	150	0	98.8	80-120	0
Surr: 1,2-Dichloroethane-d4	*49.41*	5.0	*50*	0	*98.8*	*70-125*	0
Surr: 4-Bromofluorobenzene	*49.83*	5.0	*50*	0	*99.7*	*72-125*	0
Surr: Dibromofluoromethane	*51.91*	5.0	*50*	0	*104*	*71-125*	0
Surr: Toluene-d8	*50*	5.0	*50*	0	*100*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78552** Instrument ID **VOA2** Method: **SW8260**

MSD Sample ID: **0906547-01AMSD** Units: **µg/L** Analysis Date: **6/28/2009 02:54 PM**

Client ID: Run ID: **VOA2_090628A** SeqNo: **1706561** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	46.65	5.0	50	0	93.3	80-120	47.26	1.31	20	
1,1,2,2-Tetrachloroethane	53.39	5.0	50	0	107	72-120	52.89	0.947	20	
1,1,2-Trichloroethane	50.91	5.0	50	0	102	80-120	51.39	0.945	20	
1,1-Dichloroethane	47.24	5.0	50	0	94.5	76-120	47.48	0.5	20	
1,1-Dichloroethene	46.82	5.0	50	0	93.6	73-124	47.1	0.598	20	
1,2,4-Trimethylbenzene	48.13	5.0	50	0	96.3	68-123	49.22	2.24	20	
1,2-Dibromoethane	53.26	5.0	50	0	107	80-120	53.28	0.0411	20	
1,2-Dichloroethane	49.05	5.0	50	0	98.1	78-120	49.73	1.38	20	
1,2-Dichloropropane	49.92	5.0	50	0	99.8	80-120	48.61	2.65	20	
1,3,5-Trimethylbenzene	47.11	5.0	50	0	94.2	80-120	48.66	3.23	20	
2-Butanone	103.6	10	100	0	104	58-132	106.3	2.57	20	
2-Hexanone	107.5	10	100	0	107	61-130	108	0.527	20	
4-Isopropyltoluene	46.95	5.0	50	0	93.9	79-120	49.46	5.21	20	
4-Methyl-2-pentanone	107.6	10	100	0	108	65-127	110.7	2.83	20	
Acetone	99.3	10	100	0	99.3	59-137	103.9	4.52	20	
Benzene	48.95	5.0	50	0	97.9	73-121	49.22	0.564	20	
Bromodichloromethane	53.7	5.0	50	0	107	80-120	54.11	0.763	20	
Bromoform	51.69	5.0	50	0	103	79-120	51.07	1.21	20	
Bromomethane	53.11	5.0	50	0	106	66-137	55.81	4.95	20	
Carbon disulfide	96.32	10	100	0	96.3	68-141	97.14	0.848	20	
Carbon tetrachloride	45.69	5.0	50	0	91.4	75-124	47.01	2.85	20	
Chlorobenzene	48.4	5.0	50	0	96.8	80-120	48.37	0.0621	20	
Chloroethane	45.49	5.0	50	0	91	76-121	45.65	0.343	20	
Chloroform	49.98	5.0	50	0	100	80-120	50.17	0.395	20	
Chloromethane	47.59	5.0	50	0	95.2	67-123	48.09	1.06	20	
cis-1,2-Dichloroethene	38.48	5.0	50	0	77	78-120	53.01	31.8	20	SR
cis-1,3-Dichloropropene	49.23	5.0	50	0	98.5	80-120	49.34	0.227	20	
Dibromochloromethane	49.92	5.0	50	0	99.8	80-120	49.83	0.186	20	
Ethylbenzene	48.98	5.0	50	0	98	80-120	49.11	0.266	20	
Isopropylbenzene	48	5.0	50	0	96	80-120	49.1	2.28	20	
m,p-Xylene	98.69	10	100	0	98.7	78-121	98.7	0.0119	20	
Methyl tert-butyl ether	49.81	5.0	50	0	99.6	73-121	49.84	0.0579	20	
Methylene chloride	49.43	10	50	0	98.9	65-133	50.22	1.59	20	
n-Butylbenzene	46.48	5.0	50	0	93	77-120	50.16	7.61	20	
n-Propylbenzene	46.96	5.0	50	0	93.9	78-120	48.48	3.17	20	
Naphthalene	50.01	5.0	50	0	100	65-127	50.7	1.36	20	
o-Xylene	49.32	5.0	50	0	98.6	80-120	49.52	0.389	20	
sec-Butylbenzene	45.92	5.0	50	0	91.8	78-120	48.43	5.32	20	
Styrene	50.1	5.0	50	0	100	80-120	50.71	1.22	20	
Tetrachloroethene	45.24	5.0	50	0	90.5	79-120	45.89	1.43	20	
Toluene	47.88	5.0	50	0	95.8	80-120	47.65	0.481	20	
trans-1,2-Dichloroethene	48.29	5.0	50	0	96.6	78-120	48.33	0.0891	20	

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78552** Instrument ID **VOA2** Method: **SW8260**

trans-1,3-Dichloropropene	47.5	5.0	50	0	95	80-120	47.27	0.493	20
Trichloroethene	48.79	5.0	50	0	97.6	80-120	49.69	1.83	20
Vinyl chloride	44.78	2.0	50	0	89.6	70-127	45.21	0.941	20
Xylenes, Total	148	15	150	0	98.7	80-120	148.2	0.138	20
Surr: 1,2-Dichloroethane-d4	*48.05*	5.0	*50*	0	*96.1*	*70-125*	49.41	*2.78*	*20*
Surr: 4-Bromofluorobenzene	*49.85*	5.0	*50*	0	*99.7*	*72-125*	49.83	*0.0553*	*20*
Surr: Dibromofluoromethane	*51.31*	5.0	*50*	0	*103*	*71-125*	51.91	*1.18*	*20*
Surr: Toluene-d8	*49.43*	5.0	*50*	0	*98.9*	*75-125*	50	*1.16*	*20*

The following samples were analyzed in this batch: 0906543-09A 0906543-10A 0906543-11A 0906543-12A

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78268** Instrument ID **WetChem** Method: **SM4500H+ B**

LCS Sample ID: **WLCSW1-062209-R78268** Units: **pH units** Analysis Date: **6/22/2009 01:00 PM**

Client ID: Run ID: **BALANCE1_090622A** SeqNo: **1701043** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	5.98	0.10	6	0	99.7	90-110	0			

DUP Sample ID: **0906543-01edup** Units: **pH units** Analysis Date: **6/22/2009 01:00 PM**

Client ID: **MW-6** Run ID: **BALANCE1_090622A** SeqNo: **1701054** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.8	0.10	0	0	0	0-0	6.78	0.295	20	H

The following samples were analyzed in this batch:

0906543-01E	0906543-02E	0906543-03E
0906543-04E	0906543-05E	0906543-06E
0906543-07E	0906543-08E	0906543-09E

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78307** Instrument ID **WetChem** Method: **M2510 B**

MBLK Sample ID: **WBLKW1-062209-R78307** Units: **µmhos/cm** Analysis Date: **6/22/2009 10:00 AM**
Client ID: Run ID: **WETCHEM_090622D** SeqNo: **1701427** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	ND	1.0								

LCS Sample ID: **WLCSW1-062209-R78307** Units: **µmhos/cm** Analysis Date: **6/22/2009 10:00 AM**
Client ID: Run ID: **WETCHEM_090622D** SeqNo: **1701428** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1420	1.0	1413	0	100	80-120	0			

DUP Sample ID: **0906543-01edup** Units: **µmhos/cm** Analysis Date: **6/22/2009 10:00 AM**
Client ID: **MW-6** Run ID: **WETCHEM_090622D** SeqNo: **1701439** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1370	1.0	0	0	0		1370	0	20	

The following samples were analyzed in this batch:

0906543-01E	0906543-02E	0906543-03E
0906543-04E	0906543-05E	0906543-06E
0906543-07E	0906543-08E	0906543-09E

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78375** Instrument ID **Balance1** Method: **M2540C**

MBLK Sample ID: **BLANK-R78375** Units: **mg/L** Analysis Date: **6/23/2009 03:00 PM**
Client ID: Run ID: **BALANCE1_090623B** SeqNo: **1702965** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	ND	10								

LCS Sample ID: **LCS-R78375** Units: **mg/L** Analysis Date: **6/23/2009 03:00 PM**
Client ID: Run ID: **BALANCE1_090623B** SeqNo: **1702966** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	938	10	1000	0	93.8	85-115	0			

DUP Sample ID: **0906508-07ADUP** Units: **mg/L** Analysis Date: **6/23/2009 03:00 PM**
Client ID: Run ID: **BALANCE1_090623B** SeqNo: **1702952** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	806	10	0	0	0	0-0	736	9.08	20	

The following samples were analyzed in this batch:

0906543-01E	0906543-02E	0906543-03E
0906543-04E	0906543-05E	0906543-06E
0906543-07E	0906543-08E	0906543-09E

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78376** Instrument ID **ICS3000** Method: **E300**

MBLK Sample ID: **WBLKW1-062309-R78376** Units: **mg/L** Analysis Date: **6/23/2009 10:30 AM**
Client ID: Run ID: **ICS3000_090623A** SeqNo: **1702996** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	0.50								
Surr: Selenate (surr)	*4.78*	0.10	*5*	0	*95.6*	*85-115*	0			

LCS Sample ID: **WLCSW1-062309-R78376** Units: **mg/L** Analysis Date: **6/23/2009 10:53 AM**
Client ID: Run ID: **ICS3000_090623A** SeqNo: **1702998** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.46	0.50	20	0	102	90-110	0			
Fluoride	4.211	0.10	4	0	105	90-110	0			
Sulfate	20.03	0.50	20	0	100	90-110	0			
Surr: Selenate (surr)	*4.693*	0.10	*5*	0	*93.9*	*85-115*	0			

MS Sample ID: **0906573-01AMS** Units: **mg/L** Analysis Date: **6/23/2009 12:03 PM**
Client ID: Run ID: **ICS3000_090623A** SeqNo: **1703003** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	698.3	2.5	50	662.3	72	80-120	0			SEO
Fluoride	10.37	0.50	10	0.109	103	80-120	0			
Sulfate	1432	2.5	50	1425	14.1	80-120	0			SEO
Surr: Selenate (surr)	*24.62*	0.50	*25*	0	*98.5*	*85-115*	0			

MS Sample ID: **0906540-05AMS** Units: **mg/L** Analysis Date: **6/23/2009 03:32 PM**
Client ID: Run ID: **ICS3000_090623A** SeqNo: **1703023** Prep Date: DF: **1000**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	11910	500	10000	974.1	109	80-120	0			
Fluoride	2274	100	2000	-33.7	115	80-120	0			
Sulfate	24340	500	10000	12620	117	80-120	0			
Surr: Selenate (surr)	*5455*	100	*5000*	0	*109*	*85-115*	0			

MSD Sample ID: **0906573-01AMSD** Units: **mg/L** Analysis Date: **6/23/2009 12:26 PM**
Client ID: Run ID: **ICS3000_090623A** SeqNo: **1703005** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	698	2.5	50	662.3	71.5	80-120	698.3	0.0384	20	SEO
Fluoride	10.37	0.50	10	0.109	103	80-120	10.37	0.0482	20	
Sulfate	1433	2.5	50	1425	15.5	80-120	1432	0.0505	20	SEO
Surr: Selenate (surr)	*24.66*	0.50	*25*	0	*98.6*	*85-115*	24.62	*0.142*	*20*	

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78376** Instrument ID **ICS3000** Method: **E300**

MSD Sample ID: **0906540-05AMSD** Units: **mg/L** Analysis Date: **6/23/2009 03:55 PM**

Client ID: Run ID: **ICS3000_090623A** SeqNo: **1703026** Prep Date: DF: **1000**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	11900	500	10000	974.1	109	80-120	11910	0.154	20	
Fluoride	2269	100	2000	-33.7	115	80-120	2274	0.22	20	
Sulfate	24330	500	10000	12620	117	80-120	24340	0.0588	20	
Surr: Selenate (surr)	*5452*	100	*5000*	0	*109*	*85-115*	5455	*0.044*	*20*	

The following samples were analyzed in this batch:

0906543-01E	0906543-02E	0906543-03E
0906543-04E	0906543-05E	0906543-06E
0906543-07E	0906543-08E	0906543-09E

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78443** Instrument ID **ICS3000** Method: **E300**

MBLK Sample ID: **WBLKW1-062409-R78443** Units: **mg/L** Analysis Date: **6/24/2009 10:26 AM**
Client ID: Run ID: **ICS3000_090624A** SeqNo: **1704347** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								
Surr: Selenate (surr)	*4.697*	0.10	*5*	0	*93.9*	*85-115*	0			

LCS Sample ID: **WLCSW1-062409-R78443** Units: **mg/L** Analysis Date: **6/24/2009 10:49 AM**
Client ID: Run ID: **ICS3000_090624A** SeqNo: **1704348** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.44	0.50	20	0	102	90-110	0			
Sulfate	19.97	0.50	20	0	99.9	90-110	0			
Surr: Selenate (surr)	*4.682*	0.10	*5*	0	*93.6*	*85-115*	0			

MSD Sample ID: **0906543-09EMS** Units: **mg/L** Analysis Date: **6/24/2009 03:38 PM**
Client ID: **RW-1** Run ID: **ICS3000_090624A** SeqNo: **1704360** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	84.72	2.5	50	35.22	99	80-120	0			
Sulfate	119.4	2.5	50	70.78	97.3	80-120	0			
Surr: Selenate (surr)	*24.05*	0.50	*25*	0	*96.2*	*85-115*	0			

MSD Sample ID: **0906543-09EMSD** Units: **mg/L** Analysis Date: **6/24/2009 04:02 PM**
Client ID: **RW-1** Run ID: **ICS3000_090624A** SeqNo: **1704361** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	84.57	2.5	50	35.22	98.7	80-120	84.72	0.18	20	
Sulfate	119.3	2.5	50	70.78	97.1	80-120	119.4	0.0947	20	
Surr: Selenate (surr)	*24.03*	0.50	*25*	0	*96.1*	*85-115*	24.05	*0.0707*	*20*	

MSD Sample ID: **0906543-06EMS** Units: **mg/L** Analysis Date: **6/24/2009 04:25 PM**
Client ID: **Duplicate #1** Run ID: **ICS3000_090624A** SeqNo: **1704362** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	238.2	2.5	50	167.9	141	80-120	0			S
Sulfate	146.3	2.5	50	90.37	112	80-120	0			
Surr: Selenate (surr)	*25.15*	0.50	*25*	0	*101*	*85-115*	0			

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78443** Instrument ID **ICS3000** Method: **E300**

MSD Sample ID: **0906543-06EMSD** Units: **mg/L** Analysis Date: **6/24/2009 04:48 PM**

Client ID: **Duplicate #1** Run ID: **ICS3000_090624A** SeqNo: **1704363** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	238.5	2.5	50	167.9	141	80-120	238.2	0.13	20	S
Sulfate	147	2.5	50	90.37	113	80-120	146.3	0.446	20	
Surr: Selenate (surr)	*25.12*	0.50	*25*	0	*100*	*85-115*	25.15	*0.111*	*20*	

The following samples were analyzed in this batch:

0906543-01E	0906543-02E	0906543-03E
0906543-04E	0906543-05E	0906543-06E
0906543-07E	0906543-08E	0906543-09E

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78452** Instrument ID **ICS3K2** Method: **E300**

MBLK Sample ID: **WBLKW4+-062409-R78452** Units: **mg/L** Analysis Date: **6/24/2009 06:11 PM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704492** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	0.03	0.10								J
Surr: Selenate (surr)	*4.336*	0.10	*5*	0	*86.7*	*85-115*	0			

LCS Sample ID: **WLCSW4+-062409-R78452** Units: **mg/L** Analysis Date: **6/24/2009 06:34 PM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704493** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	8.006	0.10	8	0	100	90-110	0			
Surr: Selenate (surr)	*4.703*	0.10	*5*	0	*94.1*	*85-115*	0			

LCSD Sample ID: **WLCSDW4+-062409-R78452** Units: **mg/L** Analysis Date: **6/24/2009 06:57 PM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704494** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	8.16	0.10	8	0	102	90-110	8.006	1.91	20	
Surr: Selenate (surr)	*4.766*	0.10	*5*	0	*95.3*	*85-115*	4.703	*1.33*	*20*	

MS Sample ID: **0906543-08CMS** Units: **mg/L** Analysis Date: **6/24/2009 11:32 PM**
Client ID: **MW #7** Run ID: **ICS3K2_090624B** SeqNo: **1704505** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	5.494	0.10	4	1.665	95.7	80-120	0			
Surr: Selenate (surr)	*4.975*	0.10	*5*	0	*99.5*	*85-115*	0			

MS Sample ID: **0906543-09CMS** Units: **mg/L** Analysis Date: **6/25/2009 12:41 AM**
Client ID: **RW-1** Run ID: **ICS3K2_090624B** SeqNo: **1704508** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	5.451	0.10	4	1.616	95.9	80-120	0			
Surr: Selenate (surr)	*4.983*	0.10	*5*	0	*99.7*	*85-115*	0			

MS Sample ID: **0906513-04CMS** Units: **mg/L** Analysis Date: **6/25/2009 10:23 AM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704519** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	4.123	0.10	4	0.244	97	80-120	0			
Surr: Selenate (surr)	*4.959*	0.10	*5*	0	*99.2*	*85-115*	0			

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78452** Instrument ID **ICS3K2** Method: **E300**

MSD Sample ID: **0906543-08CMSD** Units: **mg/L** Analysis Date: **6/24/2009 11:55 PM**

Client ID: **MW #7** Run ID: **ICS3K2_090624B** SeqNo: **1704506** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	5.481	0.10	4	1.665	95.4	80-120	5.494	0.237	20	
Surr: Selenate (surr)	*4.976*	0.10	*5*	0	*99.5*	*85-115*	4.975	*0.0201*	*20*	

MSD Sample ID: **0906543-09CMSD** Units: **mg/L** Analysis Date: **6/25/2009 01:04 AM**

Client ID: **RW-1** Run ID: **ICS3K2_090624B** SeqNo: **1704509** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	5.411	0.10	4	1.616	94.9	80-120	5.451	0.737	20	
Surr: Selenate (surr)	*4.988*	0.10	*5*	0	*99.8*	*85-115*	4.983	*0.1*	*20*	

MSD Sample ID: **0906513-04CMSD** Units: **mg/L** Analysis Date: **6/25/2009 10:46 AM**

Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704520** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	4.156	0.10	4	0.244	97.8	80-120	4.123	0.797	20	
Surr: Selenate (surr)	*5.02*	0.10	*5*	0	*100*	*85-115*	4.959	*1.22*	*20*	

The following samples were analyzed in this batch:

0906543-01C	0906543-02C	0906543-03C
0906543-04C	0906543-05C	0906543-06C
0906543-07C	0906543-08C	0906543-09C

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78629** Instrument ID **WetChem** Method: **SM2320B**

MBLK Sample ID: **WBLKW1-063009-R78629** Units: **mg/L** Analysis Date: **6/30/2009 12:00 PM**
Client ID: Run ID: **WETCHEM_090630E** SeqNo: **1708023** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-063009-R78629** Units: **mg/L** Analysis Date: **6/30/2009 12:00 PM**
Client ID: Run ID: **WETCHEM_090630E** SeqNo: **1708024** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	964	5.0	1000	0	96.4	80-120	0			
Alkalinity, Total (As CaCO3)	964	5.0	1000	0	96.4	80-120	0			

DUP Sample ID: **0906569-01EDUP** Units: **mg/L** Analysis Date: **6/30/2009 12:00 PM**
Client ID: Run ID: **WETCHEM_090630E** SeqNo: **1708036** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	323	5.0	0	0	0	0-0	328	1.54	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	323	5.0	0	0	0	0-0	328	1.54	20	

The following samples were analyzed in this batch:

0906543-01E	0906543-02E	0906543-03E
0906543-06E	0906543-07E	

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

Client: Navajo Refining Company
Work Order: 0906543
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78631** Instrument ID **WetChem** Method: **SM2320B**

MBLK Sample ID: **WBLKW1-063009-R78631** Units: **mg/L** Analysis Date: **6/30/2009 03:00 PM**

Client ID: Run ID: **WETCHEM_090630F** SeqNo: **1708065** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-063009-R78631** Units: **mg/L** Analysis Date: **6/30/2009 03:00 PM**

Client ID: Run ID: **WETCHEM_090630F** SeqNo: **1708066** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	981	5.0	1000	0	98.1	80-120	0			
Alkalinity, Total (As CaCO3)	981	5.0	1000	0	98.1	80-120	0			

DUP Sample ID: **0906569-02EDUP** Units: **mg/L** Analysis Date: **6/30/2009 03:00 PM**

Client ID: Run ID: **WETCHEM_090630F** SeqNo: **1708073** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	168	5.0	0	0	0	0-0	168	0	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	168	5.0	0	0	0	0-0	168	0	20	

The following samples were analyzed in this batch: 0906543-04E 0906543-05E 0906543-08E 0906543-09E

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

ALS Laboratory Group

Date: 06-Jul-09

Client: Navajo Refining Company
Project: Navajo Lea Refinery Semi-Annual
WorkOrder: 0906543

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	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	Description
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
µg/L	Micrograms per Liter
µmhos/cm	
mg/L	Milligrams per Liter
pH units	

☐ **ALS Laboratory Group**
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Fax. +1 281 530 5887

Chain of Custody Form

Page 1 of 1

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

ALS Project Manager: | ALS Work Order #: 10054[illegible]

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Navajo ~~Artesia~~ Refinery Semi-Annual LGA	A	VOC (8260) Select
Work Order		Project Number		B	~~TPH (8015M) GRO, DRO, ORO~~ TOTAL MERCURY
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	SVOC (8270) LL TCL
Send Report To	Darrell Moore	Invoice Attn	Darrell Moore	D	Dissolved Metals (6020/7000) Select
Address	P.O. Box 159	Address	P.O. Box 159	E	Anions (300) Cl, F, SO4, NO3, NO2
				F	Alkalinity
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	pH/Specific Conductivity
Phone	(515) 748-3311	Phone	(505) 748-3311	H	TDS
Fax	(515) 746-5421	Fax	(505) 746-5421	I	Nitrate/Nitrite (300)
e-Mail Address	dgoyer@SESI-NM.com	e-Mail Address		J	Cations

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW #6	06-18-09	1240	H2O	1,2,3,8	9	X	X	X	X	X	X	X	X	X	X	
2	MW #8	06-18-09	1430			9	X	X	X	X	X	X	X	X	X	X	
3	MW #11	06-18-09	1515			9	X	X	X	X	X	X	X	X	X	X	
4	NORTH WELL	06-18-09	1600			9	X	X	X	X	X	X	X	X	X	X	
5	EAST WELL	06-18-09	1620			9	X	X	X	X	X	X	X	X	X	X	
6	DUPLICATE #1					9	X	X	X	X	X	X	X	X	X	X	
7	MW #1	06-19-09	1400			9	X	X	X	X	X	X	X	X	X	X	
8	MW #7	06-19-09	1515			9	X	X	X	X	X	X	X	X	X	X	
9	RW-1	06-19-09	1616			9	X	X	X	X	X	X	X	X	X	X	
10	TRIP BLANK (3)	06-19-09	1700		1,8	6	X										

Sampler(s) Please Print & Sign: [signature] | Shipment Method: FED-X

Required Turnaround Time: (Check Box) ☑ Std. 10 W.K. Days ☐ 5 W.K. Days ☐ 2 W.K. Days ☐ 24 Hour ☐ Other | Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
[signature]	06-19-09	1700		10 Work Days TAT.
Relinquished by:	Date: 6/20/09	Time: ~~0800~~ 0845	Received by (Laboratory):	

Cooler ID	Cooler Temp

QC Package: (Check One Box Below)
☑ Level II Std QC ☐ TRRP CheckList
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other _____

Logged by (Laboratory): | Date: | Time: | Checked by (Laboratory):

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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 Laboratory Group

Sample Receipt Checklist

Client Name: **NAVAJO REFINING** Date/Time Received: **20-Jun-09 08:45**

Work Order: **0906543** Received by: **RDH**

Checklist completed by Robert D. Harris (eSignature) 20-Jun-09 (Date) Reviewed by: Jay Lynn F Thibault (eSignature) 23-Jun-09 (Date)

Matrices: waters
Carrier name: FedEx

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):	3.7c,2.8c,3.1c	002	
Cooler(s)/Kit(s):	2400,1837,2354		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes: Sample MW #1 amber bottles for SVOC's were broken in transit.

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Duplicates

...this portion can be removed for Recipient's records.

Date 6/17/09 FedEx Tracking Number 869790880571

Sender's Name L Reyes Phone 575 394-2176

Company EST

Address 703 E Clinton

City Hobbs State NM ZIP 88240

Dept/Floor/Suite/Room

Your Internal Billing Reference NNU-07-003

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

CUSTODY SEAL 2400
Date: 6/17 Time: 1700
Name: Jerry Sosa
Company: EST

Seal Broken By:
Date: 6/20/09

...this portion can be removed for Recipient's records.

Date 6/19/09 FedEx Tracking Number 869790880560

Sender's Name L Reyes Phone 575 390-2176

Company EST

Address 703 E Clinton

City Hobbs State NM ZIP 88240

Dept/Floor/Suite/Room

Your Internal Billing Reference NV

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

CUSTODY SEAL 1835
Date: 6/19/09 Time: 0800
Name: Jerry Sosa
Company: EST

Seal Broken By:
Date: 6/20/09

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

CUSTODY SEAL 2341
Date: 06-19-09 Time: 1400
Name: Sosa
Company: EST

Seal Broken By:
Date: 6/20/09

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

01-Jul-2009

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

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

Re: Navajo Lea Refinery Semi-Annual

Work Order: **0906569**

Dear Darrell,

ALS Laboratory Group received 4 samples on 23-Jun-2009 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 47.

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

Sincerely,

JayLynn F Thibault

Electronically approved by: Lora Terrill

JayLynn F Thibault
Project Manager

ACCREDITED IN ACCORDANCE WITH nelac

Certificate No: T104704231-08-TX

ALS Laboratory Group

Date: 01-Jul-09

Client: Navajo Refining Company
Project: Navajo Lea Refinery Semi-Annual
Work Order: **0906569**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
0906569-01	MW #2	Water		6/22/2009 08:45	6/23/2009 09:10	☐
0906569-02	South Well	Water		6/22/2009 09:20	6/23/2009 09:10	☐
0906569-03	MW #1	Water		6/22/2009 10:45	6/23/2009 09:10	☐
0906569-04	Trip Blank	Water		6/22/2009 11:30	6/23/2009 09:10	☐

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW #2
Collection Date: 6/22/2009 08:45 AM

Work Order: 0906569
Lab ID: 0906569-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/26/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/26/2009 03:13 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Aluminum	**0.0657**		**0.0100**	**mg/L**	1	6/30/2009 03:51 PM
Arsenic	**0.0386**		**0.00500**	**mg/L**	1	6/30/2009 03:51 PM
Barium	**0.0803**		**0.00500**	**mg/L**	1	6/30/2009 03:51 PM
Boron	**0.190**		**0.0200**	**mg/L**	1	6/30/2009 03:51 PM
Cadmium	ND		0.00200	mg/L	1	6/30/2009 03:51 PM
Calcium	**34.4**		**0.500**	**mg/L**	1	6/30/2009 03:51 PM
Chromium	ND		0.00500	mg/L	1	6/30/2009 03:51 PM
Cobalt	ND		0.00500	mg/L	1	6/30/2009 03:51 PM
Copper	**0.00621**		**0.00500**	**mg/L**	1	6/30/2009 03:51 PM
Iron	ND		0.200	mg/L	1	6/30/2009 03:51 PM
Lead	ND		0.00500	mg/L	1	6/30/2009 03:51 PM
Magnesium	**6.52**		**0.200**	**mg/L**	1	6/30/2009 03:51 PM
Manganese	**0.00583**		**0.00500**	**mg/L**	1	6/30/2009 03:51 PM
Molybdenum	ND		0.00500	mg/L	1	6/30/2009 03:51 PM
Nickel	ND		0.00500	mg/L	1	6/30/2009 03:51 PM
Potassium	**2.65**		**0.200**	**mg/L**	1	6/30/2009 03:51 PM
Selenium	ND		0.00500	mg/L	1	6/30/2009 03:51 PM
Silver	ND		0.00500	mg/L	1	6/30/2009 03:51 PM
Sodium	**256**		**10.0**	**mg/L**	50	6/30/2009 03:44 PM
Zinc	**0.110**		**0.00500**	**mg/L**	1	6/30/2009 03:51 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/25/2009**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	6/30/2009 01:29 AM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2-Chloronaphthalene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2-Chlorophenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
2-Nitrophenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
3&4-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM

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

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906569
Sample ID: MW #2
Lab ID: 0906569-01
Collection Date: 6/22/2009 08:45 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
3-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
4-Chloroaniline	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
4-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
4-Nitrophenol	ND		0.0010	mg/L	1	6/30/2009 01:29 AM
Acenaphthene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Acenaphthylene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Acetophenone	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Anthracene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Atrazine	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Benz(a)anthracene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Benzaldehyde	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Benzo(a)pyrene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Bis(2-ethylhexyl)phthalate	**0.0017**		**0.00020**	**mg/L**	1	6/30/2009 01:29 AM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Caprolactam	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Carbazole	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Chrysene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Di-n-butyl phthalate	**0.00031**		**0.00020**	**mg/L**	1	6/30/2009 01:29 AM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Dibenzofuran	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Diethyl phthalate	**0.00021**		**0.00020**	**mg/L**	1	6/30/2009 01:29 AM
Dimethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Fluoranthene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Fluorene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Hexachlorobenzene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Hexachlorobutadiene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Hexachloroethane	ND		0.00020	mg/L	1	6/30/2009 01:29 AM

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

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906569
Sample ID: MW #2
Lab ID: 0906569-01
Collection Date: 6/22/2009 08:45 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Isophorone	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Naphthalene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Nitrobenzene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Pentachlorophenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Phenanthrene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Phenol	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Pyrene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
Surr: 2,4,6-Tribromophenol	*68.2*		*34-129*	*%REC*	1	6/30/2009 01:29 AM
Surr: 2-Fluorobiphenyl	*63.7*		*40-125*	*%REC*	1	6/30/2009 01:29 AM
Surr: 2-Fluorophenol	*58.0*		*20-120*	*%REC*	1	6/30/2009 01:29 AM
Surr: 4-Terphenyl-d14	*60.9*		*40-135*	*%REC*	1	6/30/2009 01:29 AM
Surr: Nitrobenzene-d5	*53.9*		*41-120*	*%REC*	1	6/30/2009 01:29 AM
Surr: Phenol-d6	*61.1*		*20-120*	*%REC*	1	6/30/2009 01:29 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/25/2009**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 01:29 AM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 08:18 PM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 08:18 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 08:18 PM
Acetone	ND		0.010	mg/L	1	6/24/2009 08:18 PM
Benzene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 08:18 PM

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

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW #2
Collection Date: 6/22/2009 08:45 AM

Work Order: 0906569
Lab ID: 0906569-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 08:18 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 08:18 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Styrene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Toluene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 08:18 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 08:18 PM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 08:18 PM
Surr: 1,2-Dichloroethane-d4	*115*		*70-125*	*%REC*	1	6/24/2009 08:18 PM
Surr: 4-Bromofluorobenzene	*108*		*72-125*	*%REC*	1	6/24/2009 08:18 PM
Surr: Dibromofluoromethane	*112*		*71-125*	*%REC*	1	6/24/2009 08:18 PM
Surr: Toluene-d8	*109*		*75-125*	*%REC*	1	6/24/2009 08:18 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**252**		**5.00**	**mg/L**	10	6/25/2009 07:10 PM
Fluoride	**0.765**		**0.100**	**mg/L**	1	6/25/2009 06:47 PM
Sulfate	**66.8**		**5.00**	**mg/L**	10	6/25/2009 07:10 PM
Nitrate/Nitrite (as N)	**2.69**		**0.100**	**mg/L**	1	6/25/2009 01:27 AM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	10	6/25/2009 07:10 PM
Surr: Selenate (surr)	*100*		*85-115*	*%REC*	1	6/25/2009 06:47 PM
Surr: Selenate (surr)	*100*		*85-115*	*%REC*	1	6/25/2009 01:27 AM
ALKALINITY			**SM2320B**			Analyst: **RPM**

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

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906569
Sample ID: MW #2
Lab ID: 0906569-01
Collection Date: 6/22/2009 08:45 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**328**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 12:00 PM
Alkalinity, Total (As CaCO3)	**328**		**5.00**	**mg/L**	1	6/30/2009 12:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**1,700**		**1.00**	**µmhos/cm**	1	6/23/2009 06:00 PM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.91**	H	**0.100**	**pH units**	1	6/23/2009 06:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**988**		**10.0**	**mg/L**	1	6/25/2009 03:00 PM

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

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906569
Sample ID: South Well
Lab ID: 0906569-02
Collection Date: 6/22/2009 09:20 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **6/26/2009**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	6/26/2009 03:15 PM
DISSOLVED METALS			**SW6020**		Prep Date: **6/29/2009**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	6/30/2009 03:57 PM
Arsenic	ND		0.00500	mg/L	1	6/30/2009 03:57 PM
Barium	**0.154**		**0.00500**	**mg/L**	1	6/30/2009 03:57 PM
Boron	**0.189**		**0.0200**	**mg/L**	1	6/30/2009 03:57 PM
Cadmium	ND		0.00200	mg/L	1	6/30/2009 03:57 PM
Calcium	**205**		**10.0**	**mg/L**	20	6/30/2009 10:26 PM
Chromium	ND		0.00500	mg/L	1	6/30/2009 03:57 PM
Cobalt	ND		0.00500	mg/L	1	6/30/2009 03:57 PM
Copper	ND		0.00500	mg/L	1	6/30/2009 03:57 PM
Iron	ND		0.200	mg/L	1	6/30/2009 03:57 PM
Lead	ND		0.00500	mg/L	1	6/30/2009 03:57 PM
Magnesium	**21.0**		**0.200**	**mg/L**	1	6/30/2009 03:57 PM
Manganese	ND		0.00500	mg/L	1	6/30/2009 03:57 PM
Molybdenum	ND		0.00500	mg/L	1	6/30/2009 03:57 PM
Nickel	ND		0.00500	mg/L	1	6/30/2009 03:57 PM
Potassium	**2.65**		**0.200**	**mg/L**	1	6/30/2009 03:57 PM
Selenium	ND		0.00500	mg/L	1	6/30/2009 03:57 PM
Silver	ND		0.00500	mg/L	1	6/30/2009 03:57 PM
Sodium	**97.3**		**0.200**	**mg/L**	1	6/30/2009 03:57 PM
Zinc	**0.0195**		**0.00500**	**mg/L**	1	6/30/2009 03:57 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/25/2009**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	6/30/2009 01:51 AM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2-Chloronaphthalene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2-Chlorophenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
2-Nitrophenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
3&4-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM

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

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906569
Sample ID: South Well
Lab ID: 0906569-02
Collection Date: *6/22/2009 09:20 AM*
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
3-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
4-Chloroaniline	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
4-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
4-Nitrophenol	ND		0.0010	mg/L	1	6/30/2009 01:51 AM
Acenaphthene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Acenaphthylene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Acetophenone	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Anthracene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Atrazine	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Benz(a)anthracene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Benzaldehyde	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Benzo(a)pyrene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Bis(2-ethylhexyl)phthalate	**0.0039**		**0.00020**	**mg/L**	1	6/30/2009 01:51 AM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Caprolactam	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Carbazole	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Chrysene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Dibenzofuran	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Diethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Dimethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Fluoranthene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Fluorene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Hexachlorobenzene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Hexachlorobutadiene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Hexachloroethane	ND		0.00020	mg/L	1	6/30/2009 01:51 AM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 0906569
Sample ID: South Well **Lab ID:** 0906569-02
Collection Date: 6/22/2009 09:20 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Isophorone	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Naphthalene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Nitrobenzene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Pentachlorophenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Phenanthrene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Phenol	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Pyrene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
Surr: 2,4,6-Tribromophenol	*58.0*		*34-129*	*%REC*	1	6/30/2009 01:51 AM
Surr: 2-Fluorobiphenyl	*61.4*		*40-125*	*%REC*	1	6/30/2009 01:51 AM
Surr: 2-Fluorophenol	*53.1*		*20-120*	*%REC*	1	6/30/2009 01:51 AM
Surr: 4-Terphenyl-d14	*59.3*		*40-135*	*%REC*	1	6/30/2009 01:51 AM
Surr: Nitrobenzene-d5	*50.9*		*41-120*	*%REC*	1	6/30/2009 01:51 AM
Surr: Phenol-d6	*57.4*		*20-120*	*%REC*	1	6/30/2009 01:51 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/25/2009**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 01:51 AM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 08:44 PM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 08:44 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 08:44 PM
Acetone	ND		0.010	mg/L	1	6/24/2009 08:44 PM
Benzene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 08:44 PM

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

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906569
Sample ID: South Well
Lab ID: 0906569-02
Collection Date: *6/22/2009 09:20 AM*
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 08:44 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 08:44 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Styrene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Toluene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 08:44 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 08:44 PM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 08:44 PM
Surr: 1,2-Dichloroethane-d4	*119*		*70-125*	*%REC*	1	6/24/2009 08:44 PM
Surr: 4-Bromofluorobenzene	*102*		*72-125*	*%REC*	1	6/24/2009 08:44 PM
Surr: Dibromofluoromethane	*103*		*71-125*	*%REC*	1	6/24/2009 08:44 PM
Surr: Toluene-d8	*107*		*75-125*	*%REC*	1	6/24/2009 08:44 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**497**		**10.0**	**mg/L**	20	6/26/2009 10:08 PM
Fluoride	**0.665**		**0.100**	**mg/L**	1	6/25/2009 07:33 PM
Sulfate	**106**		**5.00**	**mg/L**	10	6/25/2009 07:56 PM
Nitrate/Nitrite (as N)	**3.02**		**0.100**	**mg/L**	1	6/25/2009 01:49 AM
Surr: Selenate (surr)	*97.5*		*85-115*	*%REC*	20	6/26/2009 10:08 PM
Surr: Selenate (surr)	*99.4*		*85-115*	*%REC*	1	6/25/2009 01:49 AM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1	6/25/2009 07:33 PM
Surr: Selenate (surr)	*99.7*		*85-115*	*%REC*	10	6/25/2009 07:56 PM

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

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: South Well
Collection Date: 6/22/2009 09:20 AM

Work Order: 0906569
Lab ID: 0906569-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
ALKALINITY			**SM2320B**			Analyst: **RPM**
Alkalinity, Bicarbonate (As CaCO3)	**168**		**5.00**	**mg/L**	1	6/30/2009 03:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 03:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	6/30/2009 03:00 PM
Alkalinity, Total (As CaCO3)	**168**		**5.00**	**mg/L**	1	6/30/2009 03:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**2,130**		**1.00**	**µmhos/cm**	1	6/23/2009 06:00 PM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**6.99**	H	**0.100**	**pH units**	1	6/23/2009 06:00 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**1,450**		**10.0**	**mg/L**	1	6/25/2009 03:00 PM

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

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW #1
Collection Date: 6/22/2009 10:45 AM

Work Order: 0906569
Lab ID: 0906569-03
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/25/2009**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
2,4-Dimethylphenol	**0.00039**		**0.00020**	**mg/L**	1	6/30/2009 02:12 AM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	6/30/2009 02:12 AM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
2-Chloronaphthalene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
2-Chlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
2-Methylnaphthalene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
2-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
2-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
2-Nitrophenol	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
3&4-Methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
3-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
4-Chloroaniline	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
4-Nitroaniline	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
4-Nitrophenol	ND		0.0010	mg/L	1	6/30/2009 02:12 AM
Acenaphthene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Acenaphthylene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Acetophenone	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Anthracene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Atrazine	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Benz(a)anthracene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Benzaldehyde	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Benzo(a)pyrene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Bis(2-ethylhexyl)phthalate	**0.00054**		**0.00020**	**mg/L**	1	6/30/2009 02:12 AM

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

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW #1
Collection Date: 6/22/2009 10:45 AM

Work Order: 0906569
Lab ID: 0906569-03
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Butyl benzyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Caprolactam	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Carbazole	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Chrysene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Dibenzofuran	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Diethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Dimethyl phthalate	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Fluoranthene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Fluorene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Hexachlorobenzene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Hexachlorobutadiene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Hexachloroethane	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Isophorone	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Naphthalene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Nitrobenzene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Pentachlorophenol	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Phenanthrene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Phenol	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Pyrene	ND		0.00020	mg/L	1	6/30/2009 02:12 AM
Surr: 2,4,6-Tribromophenol	*66.3*		*34-129*	*%REC*	1	6/30/2009 02:12 AM
Surr: 2-Fluorobiphenyl	*64.8*		*40-125*	*%REC*	1	6/30/2009 02:12 AM
Surr: 2-Fluorophenol	*62.6*		*20-120*	*%REC*	1	6/30/2009 02:12 AM
Surr: 4-Terphenyl-d14	*61.1*		*40-135*	*%REC*	1	6/30/2009 02:12 AM
Surr: Nitrobenzene-d5	*55.1*		*41-120*	*%REC*	1	6/30/2009 02:12 AM
Surr: Phenol-d6	*63.1*		*20-120*	*%REC*	1	6/30/2009 02:12 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **6/25/2009**	Analyst: **LG**
1-Methylnaphthalene	**0.00037**		**0.00020**	**mg/L**	1	6/30/2009 02:12 AM

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

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Trip Blank
Collection Date: 6/22/2009 11:30 AM

Work Order: 0906569
Lab ID: 0906569-04
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
2-Butanone	ND		0.010	mg/L	1	6/24/2009 07:53 PM
2-Hexanone	ND		0.010	mg/L	1	6/24/2009 07:53 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	6/24/2009 07:53 PM
Acetone	ND		0.010	mg/L	1	6/24/2009 07:53 PM
Benzene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Bromodichloromethane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Bromoform	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Bromomethane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Carbon disulfide	ND		0.010	mg/L	1	6/24/2009 07:53 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Chlorobenzene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Chloroethane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Chloroform	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Chloromethane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Dibromochloromethane	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Ethylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Isopropylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
m,p-Xylene	ND		0.010	mg/L	1	6/24/2009 07:53 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Methylene chloride	ND		0.010	mg/L	1	6/24/2009 07:53 PM
n-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
n-Propylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Naphthalene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
o-Xylene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Styrene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM

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

ALS Laboratory Group

Date: *07-Oct-09*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 0906569
Sample ID: Trip Blank
Lab ID: 0906569-04
Collection Date: 6/22/2009 11:30 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Toluene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Trichloroethene	ND		0.0050	mg/L	1	6/24/2009 07:53 PM
Vinyl chloride	ND		0.0020	mg/L	1	6/24/2009 07:53 PM
Xylenes, Total	ND		0.015	mg/L	1	6/24/2009 07:53 PM
Surr: 1,2-Dichloroethane-d4	*122*		*70-125*	*%REC*	1	6/24/2009 07:53 PM
Surr: 4-Bromofluorobenzene	*106*		*72-125*	*%REC*	1	6/24/2009 07:53 PM
Surr: Dibromofluoromethane	*118*		*71-125*	*%REC*	1	6/24/2009 07:53 PM
Surr: Toluene-d8	*109*		*75-125*	*%REC*	1	6/24/2009 07:53 PM

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

ALS Laboratory Group

Date: 01-Jul-09

Client: Navajo Refining Company
Project: Navajo Lea Refinery Semi-Annual
WorkOrder: 0906569

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	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	Description
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
µg/L	Micrograms per Liter
µmhos/cm	
mg/L	Milligrams per Liter
pH units	

ALS Laboratory Group

Date: 01-Jul-09

Client: Navajo Refining Company

Work Order: 0906569

Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36819** Instrument ID **Mercury** Method: **SW7470**

MBLK Sample ID: **GBLKW1-062609-36819** Units: **mg/L** Analysis Date: **6/26/2009 02:34 PM**

Client ID: Run ID: **MERCURY_090626A** SeqNo: **1705742** Prep Date: **6/26/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: **GLCSW1-062609-36819** Units: **mg/L** Analysis Date: **6/26/2009 02:36 PM**

Client ID: Run ID: **MERCURY_090626A** SeqNo: **1705743** Prep Date: **6/26/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00481	0.00020	0.005	0	96.2	85-115	0			

MS Sample ID: **0906513-04FMS** Units: **mg/L** Analysis Date: **6/26/2009 02:47 PM**

Client ID: Run ID: **MERCURY_090626A** SeqNo: **1705747** Prep Date: **6/26/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00509	0.00020	0.005	-0.000022	102	85-115	0			

MSD Sample ID: **0906513-04FMSD** Units: **mg/L** Analysis Date: **6/26/2009 02:49 PM**

Client ID: Run ID: **MERCURY_090626A** SeqNo: **1705748** Prep Date: **6/26/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00515	0.00020	0.005	-0.000022	103	85-115	0.00509	1.17	20	

DUP Sample ID: **0906513-04FDUP** Units: **mg/L** Analysis Date: **6/26/2009 02:45 PM**

Client ID: Run ID: **MERCURY_090626A** SeqNo: **1705745** Prep Date: **6/26/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020	0	0	0	0-0	-0.000022	0	20	

The following samples were analyzed in this batch: 0906569-01B 0906569-02B

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36852** Instrument ID **ICPMS02** Method: **SW6020** **(Dissolve)**

MBLK Sample ID: **MBLKW3-062909-36852** Units: **mg/L** Analysis Date: **6/30/2009 02:59 AM**
Client ID: Run ID: **ICPMS02_090629A** SeqNo: **1707215** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0050								
Barium	ND	0.0050								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Chromium	ND	0.0050								
Lead	0.0004722	0.0050								J
Magnesium	ND	0.20								
Potassium	0.1516	0.20								J
Selenium	ND	0.0050								
Silver	ND	0.0050								
Sodium	ND	0.20								

LCS Sample ID: **MLCSW3-062909-36852** Units: **mg/L** Analysis Date: **6/30/2009 03:06 AM**
Client ID: Run ID: **ICPMS02_090629A** SeqNo: **1707219** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05204	0.0050	0.05	0	104	80-120	0			
Barium	0.0587	0.0050	0.05	0	117	80-120	0			
Cadmium	0.04887	0.0020	0.05	0	97.7	80-120	0			
Calcium	5.097	0.50	5	0	102	80-120	0			
Chromium	0.04946	0.0050	0.05	0	98.9	80-120	0			
Lead	0.05027	0.0050	0.05	0	101	80-120	0			
Magnesium	5.263	0.20	5	0	105	80-120	0			
Potassium	5.098	0.20	5	0	102	80-120	0			
Selenium	0.04922	0.0050	0.05	0	98.4	80-120	0			
Silver	0.05123	0.0050	0.05	0	102	80-120	0			

LCS Sample ID: **MLCSW3-062909-36852** Units: **mg/L** Analysis Date: **6/30/2009 02:33 PM**
Client ID: Run ID: **ICPMS02_090630A** SeqNo: **1708072** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	5.026	0.20	5	0	101	80-120	0			

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36852** Instrument ID **ICPMS02** Method: **SW6020** **(Dissolve)**

MS Sample ID: **0906535-20DMS** Units: **mg/L** Analysis Date: **6/30/2009 03:32 AM**
Client ID: Run ID: **ICPMS02_090629A** SeqNo: **1707228** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05457	0.0050	0.05	0.002463	104	75-125	0			
Barium	0.1135	0.0050	0.05	0.05365	120	75-125	0			
Cadmium	0.04975	0.0020	0.05	0.0003148	98.9	75-125	0			
Calcium	7.914	0.50	5	2.685	105	75-125	0			
Chromium	0.04901	0.0050	0.05	0.0002281	97.6	75-125	0			
Lead	0.05035	0.0050	0.05	0.0005099	99.7	75-125	0			
Magnesium	13.53	0.20	5	8.724	96.1	75-125	0			
Potassium	4.952	0.20	5	0.3725	91.6	75-125	0			
Selenium	0.0513	0.0050	0.05	0.001509	99.6	75-125	0			
Silver	0.05159	0.0050	0.05	0.0002785	103	75-125	0			

MS Sample ID: **0906535-20DMS** Units: **mg/L** Analysis Date: **6/30/2009 03:05 PM**
Client ID: Run ID: **ICPMS02_090630A** SeqNo: **1708077** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	10.59	0.20	5	5.704	97.7	75-125	0			

MSD Sample ID: **0906535-20DMSD** Units: **mg/L** Analysis Date: **6/30/2009 03:38 AM**
Client ID: Run ID: **ICPMS02_090629A** SeqNo: **1707231** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05178	0.0050	0.05	0.002463	98.6	75-125	0.05457	5.25	25	
Barium	0.1071	0.0050	0.05	0.05365	107	75-125	0.1135	5.8	25	
Cadmium	0.04741	0.0020	0.05	0.0003148	94.2	75-125	0.04975	4.82	25	
Calcium	7.575	0.50	5	2.685	97.8	75-125	7.914	4.38	25	
Chromium	0.04811	0.0050	0.05	0.0002281	95.8	75-125	0.04901	1.85	25	
Lead	0.04908	0.0050	0.05	0.0005099	97.1	75-125	0.05035	2.55	25	
Magnesium	13.12	0.20	5	8.724	87.9	75-125	13.53	3.08	25	
Potassium	4.805	0.20	5	0.3725	88.6	75-125	4.952	3.01	25	
Selenium	0.05193	0.0050	0.05	0.001509	101	75-125	0.0513	1.22	25	
Silver	0.05088	0.0050	0.05	0.0002785	101	75-125	0.05159	1.39	25	

MSD Sample ID: **0906535-20DMSD** Units: **mg/L** Analysis Date: **6/30/2009 03:12 PM**
Client ID: Run ID: **ICPMS02_090630A** SeqNo: **1708078** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	10.22	0.20	5	5.704	90.3	75-125	10.59	3.56	25	

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36852** Instrument ID **ICPMS02** Method: **SW6020** **(Dissolve)**

DUP Sample ID: **0906535-20DDUP** Units: **mg/L** Analysis Date: **6/30/2009 03:19 AM**

Client ID: Run ID: **ICPMS02_090629A** SeqNo: **1707223** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.0023	0.0050	0	0	0	0-0	0.002463	0	25	J
Barium	0.05305	0.0050	0	0	0	0-0	0.05365	1.12	25	
Cadmium	ND	0.0020	0	0	0	0-0	0.0003148	0	25	
Calcium	2.603	0.50	0	0	0	0-0	2.685	3.1	25	
Chromium	ND	0.0050	0	0	0	0-0	0.0002281	0	25	
Lead	0.0004661	0.0050	0	0	0	0-0	0.0005099	0	25	J
Magnesium	8.46	0.20	0	0	0	0-0	8.724	3.07	25	
Potassium	0.3074	0.20	0	0	0	0-0	0.3725	19.1	25	
Selenium	ND	0.0050	0	0	0	0-0	0.001509	0	25	
Silver	ND	0.0050	0	0	0	0-0	0.0002785	0	25	

DUP Sample ID: **0906535-20DDUP** Units: **mg/L** Analysis Date: **6/30/2009 02:46 PM**

Client ID: Run ID: **ICPMS02_090630A** SeqNo: **1708075** Prep Date: **6/29/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	5.427	0.20	0	0	0	0-0	5.704	4.98	25	

The following samples were analyzed in this batch: 0906569-01D 0906569-02D

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36789** Instrument ID **SV-2** Method: **SW8270**

MBLK Sample ID: **SBLKW1-090625-36789** Units: **µg/L** Analysis Date: **6/30/2009 12:25 AM**

Client ID: Run ID: **SV-2_090629A** SeqNo: **1707484** Prep Date: **6/25/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
2,4-Dichlorophenol	ND	0.20								
2,4-Dimethylphenol	ND	0.20								
2,4-Dinitrophenol	ND	1.0								
2,4-Dinitrotoluene	ND	0.20								
2,6-Dinitrotoluene	ND	0.20								
2-Chloronaphthalene	ND	0.20								
2-Chlorophenol	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.20								
2-Nitroaniline	ND	0.20								
2-Nitrophenol	ND	0.20								
3&4-Methylphenol	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.20								
3-Nitroaniline	ND	0.20								
4,6-Dinitro-2-methylphenol	ND	0.20								
4-Bromophenyl phenyl ether	ND	0.20								
4-Chloro-3-methylphenol	ND	0.20								
4-Chloroaniline	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
4-Nitroaniline	ND	0.20								
4-Nitrophenol	ND	1.0								
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Acetophenone	ND	0.20								
Anthracene	ND	0.20								
Atrazine	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzaldehyde	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Caprolactam	ND	0.20								
Carbazole	ND	0.20								

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

Batch ID: **36789** Instrument ID **SV-2** Method: **SW8270**

Chrysene	ND	0.20					
Di-n-butyl phthalate	ND	0.20					
Di-n-octyl phthalate	ND	0.20					
Dibenz(a,h)anthracene	ND	0.20					
Dibenzofuran	ND	0.20					
Diethyl phthalate	ND	0.20					
Dimethyl phthalate	ND	0.20					
Fluoranthene	ND	0.20					
Fluorene	ND	0.20					
Hexachlorobenzene	ND	0.20					
Hexachlorobutadiene	ND	0.20					
Hexachlorocyclopentadiene	ND	0.20					
Hexachloroethane	ND	0.20					
Indeno(1,2,3-cd)pyrene	ND	0.20					
Isophorone	ND	0.20					
N-Nitrosodi-n-propylamine	ND	0.20					
N-Nitrosodiphenylamine	ND	0.20					
Naphthalene	ND	0.20					
Nitrobenzene	ND	0.20					
Pentachlorophenol	ND	0.20					
Phenanthrene	ND	0.20					
Phenol	ND	0.20					
Pyrene	ND	0.20					
Surr: 2,4,6-Tribromophenol	*3.498*	0.20	*5*	0	*70*	*34-129*	0
Surr: 2-Fluorobiphenyl	*3.84*	0.20	*5*	0	*76.8*	*40-125*	0
Surr: 2-Fluorophenol	*3.328*	0.20	*5*	0	*66.6*	*20-120*	0
Surr: 4-Terphenyl-d14	*3.507*	0.20	*5*	0	*70.1*	*40-135*	0
Surr: Nitrobenzene-d5	*3.297*	0.20	*5*	0	*65.9*	*41-120*	0
Surr: Phenol-d6	*3.67*	0.20	*5*	0	*73.4*	*20-120*	0

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36789** Instrument ID **SV-2** Method: **SW8270**

LCS Sample ID: **SLCSW1-090625-36789** Units: **µg/L** Analysis Date: **6/30/2009 12:46 AM**

Client ID: Run ID: **SV-2_090629A** SeqNo: **1707485** Prep Date: **6/25/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	3.824	0.20	5	0	76.5	45-125	0			
2,4,5-Trichlorophenol	4.172	0.20	5	0	83.4	46-120	0			
2,4,6-Trichlorophenol	3.959	0.20	5	0	79.2	42-120	0			
2,4-Dichlorophenol	4.062	0.20	5	0	81.2	49-120	0			
2,4-Dimethylphenol	3.36	0.20	5	0	67.2	35-120	0			
2,4-Dinitrophenol	3.938	1.0	5	0	78.8	15-120	0			
2,4-Dinitrotoluene	4.048	0.20	5	0	81	50-122	0			
2,6-Dinitrotoluene	3.932	0.20	5	0	78.6	50-120	0			
2-Chloronaphthalene	4.2	0.20	5	0	84	50-120	0			
2-Chlorophenol	3.749	0.20	5	0	75	40-120	0			
2-Methylnaphthalene	4.113	0.20	5	0	82.3	50-120	0			
2-Methylphenol	3.983	0.20	5	0	79.7	45-120	0			
2-Nitroaniline	4.282	0.20	5	0	85.6	28-139	0			
2-Nitrophenol	3.818	0.20	5	0	76.4	40-120	0			
3&4-Methylphenol	3.937	0.20	5	0	78.7	35-120	0			
3,3'-Dichlorobenzidine	3.414	0.20	5	0	68.3	15-120	0			
3-Nitroaniline	3.235	0.20	5	0	64.7	30-120	0			
4,6-Dinitro-2-methylphenol	4.358	0.20	5	0	87.2	25-121	0			
4-Bromophenyl phenyl ether	4.15	0.20	5	0	83	45-120	0			
4-Chloro-3-methylphenol	3.771	0.20	5	0	75.4	47-120	0			
4-Chloroaniline	3.183	0.20	5	0	63.7	20-120	0			
4-Chlorophenyl phenyl ether	4.054	0.20	5	0	81.1	50-120	0			
4-Nitroaniline	3.583	0.20	5	0	71.7	30-133	0			
4-Nitrophenol	3.447	1.0	5	0	68.9	30-130	0			
Acenaphthene	3.942	0.20	5	0	78.8	45-120	0			
Acenaphthylene	3.896	0.20	5	0	77.9	47-120	0			
Acetophenone	3.789	0.20	5	0	75.8	40-120	0			
Anthracene	4.192	0.20	5	0	83.8	45-120	0			
Atrazine	4.116	0.20	5	0	82.3	40-130	0			
Benz(a)anthracene	4.23	0.20	5	0	84.6	40-120	0			
Benzaldehyde	3.221	0.20	5	0	64.4	35-130	0			
Benzo(a)pyrene	4.244	0.20	5	0	84.9	45-120	0			
Benzo(b)fluoranthene	4.168	0.20	5	0	83.4	50-120	0			
Benzo(g,h,i)perylene	4.156	0.20	5	0	83.1	42-127	0			
Benzo(k)fluoranthene	4.328	0.20	5	0	86.6	45-127	0			
Bis(2-chloroethoxy)methane	3.622	0.20	5	0	72.4	45-120	0			
Bis(2-chloroethyl)ether	3.64	0.20	5	0	72.8	37-121	0			
Bis(2-chloroisopropyl)ether	3.02	0.20	5	0	60.4	40-120	0			
Bis(2-ethylhexyl)phthalate	4.228	0.20	5	0	84.6	40-139	0			
Butyl benzyl phthalate	4.235	0.20	5	0	84.7	47-123	0			
Caprolactam	4.197	0.20	5	0	83.9	35-134	0			
Carbazole	4.03	0.20	5	0	80.6	42-128	0			

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

Batch ID: **36789**	Instrument ID **SV-2**			Method: **SW8270**			
Chrysene	4.098	0.20	5	0	82	43-120	0
Di-n-butyl phthalate	4.211	0.20	5	0	84.2	45-123	0
Di-n-octyl phthalate	4.46	0.20	5	0	89.2	45-129	0
Dibenz(a,h)anthracene	4.128	0.20	5	0	82.6	45-125	0
Dibenzofuran	3.957	0.20	5	0	79.1	50-120	0
Diethyl phthalate	3.92	0.20	5	0	78.4	41-120	0
Dimethyl phthalate	3.942	0.20	5	0	78.8	40-122	0
Fluoranthene	4.269	0.20	5	0	85.4	45-125	0
Fluorene	4.115	0.20	5	0	82.3	49-120	0
Hexachlorobenzene	4.121	0.20	5	0	82.4	48-120	0
Hexachlorobutadiene	3.829	0.20	5	0	76.6	40-120	0
Hexachlorocyclopentadiene	3.492	0.20	5	0	69.8	34-136	0
Hexachloroethane	3.383	0.20	5	0	67.7	40-120	0
Indeno(1,2,3-cd)pyrene	4.268	0.20	5	0	85.4	41-128	0
Isophorone	3.532	0.20	5	0	70.6	40-121	0
N-Nitrosodi-n-propylamine	3.548	0.20	5	0	71	40-120	0
N-Nitrosodiphenylamine	3.965	0.20	5	0	79.3	40-125	0
Naphthalene	3.935	0.20	5	0	78.7	45-120	0
Nitrobenzene	3.434	0.20	5	0	68.7	44-120	0
Pentachlorophenol	3.802	0.20	5	0	76	19-121	0
Phenanthrene	4.172	0.20	5	0	83.4	45-121	0
Phenol	3.723	0.20	5	0	74.5	20-124	0
Pyrene	4.145	0.20	5	0	82.9	40-130	0
Surr: 2,4,6-Tribromophenol	*3.673*	0.20	*5*	0	*73.5*	*34-129*	0
Surr: 2-Fluorobiphenyl	*3.657*	0.20	*5*	0	*73.1*	*40-125*	0
Surr: 2-Fluorophenol	*3.349*	0.20	*5*	0	*67*	*20-120*	0
Surr: 4-Terphenyl-d14	*3.347*	0.20	*5*	0	*66.9*	*40-135*	0
Surr: Nitrobenzene-d5	*3.175*	0.20	*5*	0	*63.5*	*41-120*	0
Surr: Phenol-d6	*3.522*	0.20	*5*	0	*70.4*	*20-120*	0

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36789** Instrument ID **SV-2** Method: **SW8270**

LCSD Sample ID: **SLCSDW1-090625-36789** Units: **µg/L** Analysis Date: **6/30/2009 01:08 AM**
Client ID: Run ID: **SV-2_090629A** SeqNo: **1707486** Prep Date: **6/25/2009** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	3.736	0.20	5	0	74.7	45-125	3.824	2.33	20	
2,4,5-Trichlorophenol	3.994	0.20	5	0	79.9	46-120	4.172	4.37	20	
2,4,6-Trichlorophenol	4.043	0.20	5	0	80.9	42-120	3.959	2.1	20	
2,4-Dichlorophenol	4.01	0.20	5	0	80.2	49-120	4.062	1.29	20	
2,4-Dimethylphenol	3.294	0.20	5	0	65.9	35-120	3.36	2	20	
2,4-Dinitrophenol	4.084	1.0	5	0	81.7	15-120	3.938	3.65	20	
2,4-Dinitrotoluene	4.033	0.20	5	0	80.7	50-122	4.048	0.374	20	
2,6-Dinitrotoluene	3.927	0.20	5	0	78.5	50-120	3.932	0.123	20	
2-Chloronaphthalene	4.227	0.20	5	0	84.5	50-120	4.2	0.648	20	
2-Chlorophenol	3.876	0.20	5	0	77.5	40-120	3.749	3.33	20	
2-Methylnaphthalene	3.927	0.20	5	0	78.5	50-120	4.113	4.61	20	
2-Methylphenol	4.022	0.20	5	0	80.4	45-120	3.983	0.966	20	
2-Nitroaniline	4.223	0.20	5	0	84.5	28-139	4.282	1.4	20	
2-Nitrophenol	3.76	0.20	5	0	75.2	40-120	3.818	1.53	20	
3&4-Methylphenol	4.054	0.20	5	0	81.1	35-120	3.937	2.93	20	
3,3'-Dichlorobenzidine	3.695	0.20	5	0	73.9	15-120	3.414	7.9	20	
3-Nitroaniline	3.545	0.20	5	0	70.9	30-120	3.235	9.15	20	
4,6-Dinitro-2-methylphenol	4.301	0.20	5	0	86	25-121	4.358	1.33	20	
4-Bromophenyl phenyl ether	4.06	0.20	5	0	81.2	45-120	4.15	2.19	20	
4-Chloro-3-methylphenol	3.603	0.20	5	0	72.1	47-120	3.771	4.57	20	
4-Chloroaniline	3.62	0.20	5	0	72.4	20-120	3.183	12.8	20	
4-Chlorophenyl phenyl ether	3.858	0.20	5	0	77.2	50-120	4.054	4.95	20	
4-Nitroaniline	3.585	0.20	5	0	71.7	30-133	3.583	0.0492	20	
4-Nitrophenol	3.417	1.0	5	0	68.3	30-130	3.447	0.859	20	
Acenaphthene	3.595	0.20	5	0	71.9	45-120	3.942	9.21	20	
Acenaphthylene	3.725	0.20	5	0	74.5	47-120	3.896	4.51	20	
Acetophenone	3.709	0.20	5	0	74.2	40-120	3.789	2.15	20	
Anthracene	4.199	0.20	5	0	84	45-120	4.192	0.168	20	
Atrazine	4.047	0.20	5	0	80.9	40-130	4.116	1.69	20	
Benz(a)anthracene	4.082	0.20	5	0	81.6	40-120	4.23	3.57	20	
Benzaldehyde	3.258	0.20	5	0	65.2	35-130	3.221	1.16	20	
Benzo(a)pyrene	4.218	0.20	5	0	84.4	45-120	4.244	0.624	20	
Benzo(b)fluoranthene	4.861	0.20	5	0	97.2	50-120	4.168	15.4	20	
Benzo(g,h,i)perylene	4.275	0.20	5	0	85.5	42-127	4.156	2.82	20	
Benzo(k)fluoranthene	3.844	0.20	5	0	76.9	45-127	4.328	11.8	20	
Bis(2-chloroethoxy)methane	3.592	0.20	5	0	71.8	45-120	3.622	0.829	20	
Bis(2-chloroethyl)ether	3.722	0.20	5	0	74.4	37-121	3.64	2.22	20	
Bis(2-chloroisopropyl)ether	3.091	0.20	5	0	61.8	40-120	3.02	2.34	20	
Bis(2-ethylhexyl)phthalate	4.107	0.20	5	0	82.1	40-139	4.228	2.92	20	
Butyl benzyl phthalate	4.235	0.20	5	0	84.7	47-123	4.235	0.0137	20	
Caprolactam	4.142	0.20	5	0	82.8	35-134	4.197	1.31	20	
Carbazole	3.927	0.20	5	0	78.5	42-128	4.03	2.61	20	

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **36789** Instrument ID **SV-2** Method: **SW8270**

Chrysene	4.239	0.20	5	0	84.8	43-120	4.098	3.38	20
Di-n-butyl phthalate	4.071	0.20	5	0	81.4	45-123	4.211	3.38	20
Di-n-octyl phthalate	4.497	0.20	5	0	89.9	45-129	4.46	0.818	20
Dibenz(a,h)anthracene	4.017	0.20	5	0	80.3	45-125	4.128	2.71	20
Dibenzofuran	3.928	0.20	5	0	78.6	50-120	3.957	0.751	20
Diethyl phthalate	3.864	0.20	5	0	77.3	41-120	3.92	1.45	20
Dimethyl phthalate	3.915	0.20	5	0	78.3	40-122	3.942	0.686	20
Fluoranthene	4.199	0.20	5	0	84	45-125	4.269	1.65	20
Fluorene	3.982	0.20	5	0	79.6	49-120	4.115	3.3	20
Hexachlorobenzene	4.038	0.20	5	0	80.8	48-120	4.121	2.02	20
Hexachlorobutadiene	3.667	0.20	5	0	73.3	40-120	3.829	4.3	20
Hexachlorocyclopentadiene	3.382	0.20	5	0	67.6	34-136	3.492	3.2	20
Hexachloroethane	3.525	0.20	5	0	70.5	40-120	3.383	4.1	20
Indeno(1,2,3-cd)pyrene	4.594	0.20	5	0	91.9	41-128	4.268	7.36	20
Isophorone	3.609	0.20	5	0	72.2	40-121	3.532	2.15	20
N-Nitrosodi-n-propylamine	3.604	0.20	5	0	72.1	40-120	3.548	1.55	20
N-Nitrosodiphenylamine	4.015	0.20	5	0	80.3	40-125	3.965	1.24	20
Naphthalene	3.919	0.20	5	0	78.4	45-120	3.935	0.408	20
Nitrobenzene	3.351	0.20	5	0	67	44-120	3.434	2.44	20
Pentachlorophenol	3.952	0.20	5	0	79	19-121	3.802	3.87	20
Phenanthrene	4.147	0.20	5	0	82.9	45-121	4.172	0.601	20
Phenol	3.784	0.20	5	0	75.7	20-124	3.723	1.62	20
Pyrene	4.33	0.20	5	0	86.6	40-130	4.145	4.37	20
Surr: 2,4,6-Tribromophenol	*3.732*	0.20	*5*	0	*74.6*	*34-129*	3.673	*1.58*	*20*
Surr: 2-Fluorobiphenyl	*3.582*	0.20	*5*	0	*71.6*	*40-125*	3.657	*2.07*	*20*
Surr: 2-Fluorophenol	*3.36*	0.20	*5*	0	*67.2*	*20-120*	3.349	*0.304*	*20*
Surr: 4-Terphenyl-d14	*3.396*	0.20	*5*	0	*67.9*	*40-135*	3.347	*1.46*	*20*
Surr: Nitrobenzene-d5	*3.016*	0.20	*5*	0	*60.3*	*41-120*	3.175	*5.16*	*20*
Surr: Phenol-d6	*3.636*	0.20	*5*	0	*72.7*	*20-120*	3.522	*3.18*	*20*

The following samples were analyzed in this batch: 0906569-01F 0906569-02F 0906569-03A

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

MBLK Sample ID: **VBLKW-062409-R78455** Units: **µg/L** Analysis Date: **6/24/2009 10:32 AM**

Client ID: Run ID: **VOA1_090624B** SeqNo: **1704552** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
2-Butanone	ND	10								
2-Hexanone	ND	10								
4-Isopropyltoluene	ND	5.0								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
Isopropylbenzene	0.9263	5.0								J
m,p-Xylene	ND	10								
Methyl tert-butyl ether	ND	5.0								
Methylene chloride	ND	10								
n-Butylbenzene	ND	5.0								
n-Propylbenzene	ND	5.0								
Naphthalene	ND	5.0								
o-Xylene	ND	5.0								
sec-Butylbenzene	ND	5.0								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,2-Dichloroethene	ND	5.0								

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Vinyl chloride	ND	2.0					
Xylenes, Total	ND	15					
Surr: 1,2-Dichloroethane-d4	*51*	5.0	*50*	0	*102*	*70-125*	0
Surr: 4-Bromofluorobenzene	*50.51*	5.0	*50*	0	*101*	*72-125*	0
Surr: Dibromofluoromethane	*52.86*	5.0	*50*	0	*106*	*71-125*	0
Surr: Toluene-d8	*47.37*	5.0	*50*	0	*94.7*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

LCS Sample ID: **VLCSW-062409-R78455** Units: **µg/L** Analysis Date: **6/24/2009 09:41 AM**

Client ID: Run ID: **VOA1_090624B** SeqNo: **1704551** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	53.79	5.0	50	0	108	80-120	0			
1,1,2,2-Tetrachloroethane	44.98	5.0	50	0	90	72-120	0			
1,1,2-Trichloroethane	45.42	5.0	50	0	90.8	80-120	0			
1,1-Dichloroethane	50.55	5.0	50	0	101	76-120	0			
1,1-Dichloroethene	49.01	5.0	50	0	98	73-124	0			
1,2,4-Trimethylbenzene	50.51	5.0	50	0	101	68-123	0			
1,2-Dibromoethane	44.29	5.0	50	0	88.6	80-120	0			
1,2-Dichloroethane	49.11	5.0	50	0	98.2	78-120	0			
1,2-Dichloropropane	48.3	5.0	50	0	96.6	80-120	0			
1,3,5-Trimethylbenzene	47.98	5.0	50	0	96	80-120	0			
2-Butanone	99.09	10	100	0	99.1	58-132	0			
2-Hexanone	90.94	10	100	0	90.9	61-130	0			
4-Isopropyltoluene	49.2	5.0	50	0	98.4	79-120	0			
4-Methyl-2-pentanone	96.85	10	100	0	96.8	65-127	0			
Acetone	86.75	10	100	0	86.7	59-137	0			
Benzene	48.16	5.0	50	0	96.3	73-121	0			
Bromodichloromethane	48.07	5.0	50	0	96.1	80-120	0			
Bromoform	48.75	5.0	50	0	97.5	79-120	0			
Bromomethane	49.49	5.0	50	0	99	66-137	0			
Carbon disulfide	99.86	10	100	0	99.9	68-141	0			
Carbon tetrachloride	50.62	5.0	50	0	101	75-124	0			
Chlorobenzene	48.1	5.0	50	0	96.2	80-120	0			
Chloroethane	43.53	5.0	50	0	87.1	76-121	0			
Chloroform	48.32	5.0	50	0	96.6	80-120	0			
Chloromethane	47.53	5.0	50	0	95.1	67-123	0			
cis-1,2-Dichloroethene	50.56	5.0	50	0	101	78-120	0			
cis-1,3-Dichloropropene	49.95	5.0	50	0	99.9	80-120	0			
Dibromochloromethane	50.32	5.0	50	0	101	80-120	0			
Ethylbenzene	47.96	5.0	50	0	95.9	80-120	0			
Isopropylbenzene	49.8	5.0	50	0	99.6	80-120	0			
m,p-Xylene	92.82	10	100	0	92.8	78-121	0			
Methyl tert-butyl ether	48.35	5.0	50	0	96.7	73-121	0			
Methylene chloride	48.3	10	50	0	96.6	65-133	0			
n-Butylbenzene	47.06	5.0	50	0	94.1	77-120	0			
n-Propylbenzene	47.6	5.0	50	0	95.2	78-120	0			
Naphthalene	46.79	5.0	50	0	93.6	65-127	0			
o-Xylene	47.66	5.0	50	0	95.3	80-120	0			
sec-Butylbenzene	49.83	5.0	50	0	99.7	78-120	0			
Styrene	48.16	5.0	50	0	96.3	80-120	0			
Tetrachloroethene	48.22	5.0	50	0	96.4	79-120	0			
Toluene	47.27	5.0	50	0	94.5	80-120	0			
trans-1,2-Dichloroethene	48.64	5.0	50	0	97.3	78-120	0			

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	52.18	5.0	50	0	104	80-120	0
Trichloroethene	53.01	5.0	50	0	106	80-120	0
Vinyl chloride	44.95	2.0	50	0	89.9	70-127	0
Xylenes, Total	140.5	15	150	0	93.7	80-120	0
Surr: 1,2-Dichloroethane-d4	*49.32*	5.0	*50*	0	*98.6*	*70-125*	0
Surr: 4-Bromofluorobenzene	*53.42*	5.0	*50*	0	*107*	*72-125*	0
Surr: Dibromofluoromethane	*51.97*	5.0	*50*	0	*104*	*71-125*	0
Surr: Toluene-d8	*50.86*	5.0	*50*	0	*102*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

MS Sample ID: **0906452-02AMS** Units: **µg/L** Analysis Date: **6/24/2009 01:55 PM**

Client ID: Run ID: **VOA1_090624B** SeqNo: **1704556** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	50.79	5.0	50	0	102	80-120	0			
1,1,2,2-Tetrachloroethane	53.12	5.0	50	0	106	72-120	0			
1,1,2-Trichloroethane	46.4	5.0	50	0	92.8	80-120	0			
1,1-Dichloroethane	52.92	5.0	50	0	106	76-120	0			
1,1-Dichloroethene	50.45	5.0	50	0	101	73-124	0			
1,2,4-Trimethylbenzene	45.76	5.0	50	0	91.5	68-123	0			
1,2-Dibromoethane	48.09	5.0	50	0	96.2	80-120	0			
1,2-Dichloroethane	49.59	5.0	50	0	99.2	78-120	0			
1,2-Dichloropropane	48.63	5.0	50	0	97.3	80-120	0			
1,3,5-Trimethylbenzene	51.45	5.0	50	0	103	80-120	0			
2-Butanone	116.3	10	100	0	116	58-132	0			
2-Hexanone	104.2	10	100	0	104	61-130	0			
4-Isopropyltoluene	44.81	5.0	50	0	89.6	79-120	0			
4-Methyl-2-pentanone	103.7	10	100	0	104	65-127	0			
Acetone	101.1	10	100	0	101	59-137	0			
Benzene	46.36	5.0	50	0	92.7	73-121	0			
Bromodichloromethane	50.39	5.0	50	0	101	80-120	0			
Bromoform	48.67	5.0	50	0	97.3	79-120	0			
Bromomethane	59.01	5.0	50	0	118	66-137	0			
Carbon disulfide	99.31	10	100	0	99.3	68-141	0			
Carbon tetrachloride	47.94	5.0	50	0	95.9	75-124	0			
Chlorobenzene	47.11	5.0	50	0	94.2	80-120	0			
Chloroethane	45.18	5.0	50	0	90.4	76-121	0			
Chloroform	51.79	5.0	50	0	104	80-120	0			
Chloromethane	42.55	5.0	50	0	85.1	67-123	0			
cis-1,2-Dichloroethene	52.17	5.0	50	0	104	78-120	0			
cis-1,3-Dichloropropene	47.43	5.0	50	0	94.9	80-120	0			
Dibromochloromethane	49.37	5.0	50	0	98.7	80-120	0			
Ethylbenzene	46.69	5.0	50	0	93.4	80-120	0			
Isopropylbenzene	45.98	5.0	50	0.6308	90.7	80-120	0			
m,p-Xylene	90.16	10	100	0	90.2	78-121	0			
Methyl tert-butyl ether	58.38	5.0	50	0	117	73-121	0			
Methylene chloride	49.61	10	50	0	99.2	65-133	0			
n-Butylbenzene	48.24	5.0	50	0	96.5	77-120	0			
n-Propylbenzene	48.14	5.0	50	0	96.3	78-120	0			
Naphthalene	49.66	5.0	50	0	99.3	65-127	0			
o-Xylene	47.94	5.0	50	0	95.9	80-120	0			
sec-Butylbenzene	50.01	5.0	50	0	100	78-120	0			
Styrene	46.05	5.0	50	0	92.1	80-120	0			
Tetrachloroethene	45	5.0	50	0	90	79-120	0			
Toluene	45.29	5.0	50	0	90.6	80-120	0			
trans-1,2-Dichloroethene	52.19	5.0	50	0	104	78-120	0			

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	54.28	5.0	50	0	109	80-120	0
Trichloroethene	50.51	5.0	50	0	101	80-120	0
Vinyl chloride	47.05	2.0	50	0	94.1	70-127	0
Xylenes, Total	138.1	15	150	0	92.1	80-120	0
Surr: 1,2-Dichloroethane-d4	*54.41*	5.0	*50*	0	*109*	*70-125*	0
Surr: 4-Bromofluorobenzene	*49.09*	5.0	*50*	0	*98.2*	*72-125*	0
Surr: Dibromofluoromethane	*53.22*	5.0	*50*	0	*106*	*71-125*	0
Surr: Toluene-d8	*48.87*	5.0	*50*	0	*97.7*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

MSD Sample ID: **0906452-02AMSD** Units: **µg/L** Analysis Date: **6/24/2009 02:21 PM**

Client ID: Run ID: **VOA1_090624B** SeqNo: **1704557** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	48.34	5.0	50	0	96.7	80-120	50.79	4.94	20	
1,1,2,2-Tetrachloroethane	51.09	5.0	50	0	102	72-120	53.12	3.89	20	
1,1,2-Trichloroethane	46.2	5.0	50	0	92.4	80-120	46.4	0.427	20	
1,1-Dichloroethane	49.05	5.0	50	0	98.1	76-120	52.92	7.58	20	
1,1-Dichloroethene	45.05	5.0	50	0	90.1	73-124	50.45	11.3	20	
1,2,4-Trimethylbenzene	49.83	5.0	50	0	99.7	68-123	45.76	8.5	20	
1,2-Dibromoethane	50.02	5.0	50	0	100	80-120	48.09	3.94	20	
1,2-Dichloroethane	46.78	5.0	50	0	93.6	78-120	49.59	5.84	20	
1,2-Dichloropropane	46.95	5.0	50	0	93.9	80-120	48.63	3.52	20	
1,3,5-Trimethylbenzene	49.63	5.0	50	0	99.3	80-120	51.45	3.59	20	
2-Butanone	116.2	10	100	0	116	58-132	116.3	0.0744	20	
2-Hexanone	104.7	10	100	0	105	61-130	104.2	0.433	20	
4-Isopropyltoluene	44.08	5.0	50	0	88.2	79-120	44.81	1.64	20	
4-Methyl-2-pentanone	109.2	10	100	0	109	65-127	103.7	5.23	20	
Acetone	97.66	10	100	0	97.7	59-137	101.1	3.44	20	
Benzene	44.38	5.0	50	0	88.8	73-121	46.36	4.36	20	
Bromodichloromethane	46.94	5.0	50	0	93.9	80-120	50.39	7.08	20	
Bromoform	48.71	5.0	50	0	97.4	79-120	48.67	0.0827	20	
Bromomethane	50.26	5.0	50	0	101	66-137	59.01	16	20	
Carbon disulfide	93.76	10	100	0	93.8	68-141	99.31	5.75	20	
Carbon tetrachloride	43.14	5.0	50	0	86.3	75-124	47.94	10.5	20	
Chlorobenzene	46.77	5.0	50	0	93.5	80-120	47.11	0.733	20	
Chloroethane	42.27	5.0	50	0	84.5	76-121	45.18	6.65	20	
Chloroform	49.11	5.0	50	0	98.2	80-120	51.79	5.32	20	
Chloromethane	45.41	5.0	50	0	90.8	67-123	42.55	6.51	20	
cis-1,2-Dichloroethene	51.31	5.0	50	0	103	78-120	52.17	1.67	20	
cis-1,3-Dichloropropene	48.71	5.0	50	0	97.4	80-120	47.43	2.67	20	
Dibromochloromethane	50.31	5.0	50	0	101	80-120	49.37	1.87	20	
Ethylbenzene	47.52	5.0	50	0	95	80-120	46.69	1.78	20	
Isopropylbenzene	45.46	5.0	50	0.6308	89.7	80-120	45.98	1.15	20	
m,p-Xylene	93.71	10	100	0	93.7	78-121	90.16	3.86	20	
Methyl tert-butyl ether	58.99	5.0	50	0	118	73-121	58.38	1.04	20	
Methylene chloride	47.42	10	50	0	94.8	65-133	49.61	4.51	20	
n-Butylbenzene	44.25	5.0	50	0	88.5	77-120	48.24	8.63	20	
n-Propylbenzene	49.59	5.0	50	0	99.2	78-120	48.14	2.96	20	
Naphthalene	51.68	5.0	50	0	103	65-127	49.66	4	20	
o-Xylene	49.28	5.0	50	0	98.6	80-120	47.94	2.75	20	
sec-Butylbenzene	48.14	5.0	50	0	96.3	78-120	50.01	3.81	20	
Styrene	48.2	5.0	50	0	96.4	80-120	46.05	4.56	20	
Tetrachloroethene	42.51	5.0	50	0	85	79-120	45	5.68	20	
Toluene	43.63	5.0	50	0	87.3	80-120	45.29	3.74	20	
trans-1,2-Dichloroethene	49.77	5.0	50	0	99.5	78-120	52.19	4.74	20	

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78455** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	50.81	5.0	50	0	102	80-120	54.28	6.59	20
Trichloroethene	45.27	5.0	50	0	90.5	80-120	50.51	10.9	20
Vinyl chloride	42.07	2.0	50	0	84.1	70-127	47.05	11.2	20
Xylenes, Total	143	15	150	0	95.3	80-120	138.1	3.48	20
Surr: 1,2-Dichloroethane-d4	*51.8*	5.0	*50*	0	*104*	*70-125*	54.41	*4.92*	*20*
Surr: 4-Bromofluorobenzene	*50.34*	5.0	*50*	0	*101*	*72-125*	49.09	*2.5*	*20*
Surr: Dibromofluoromethane	*52.44*	5.0	*50*	0	*105*	*71-125*	53.22	*1.47*	*20*
Surr: Toluene-d8	*49.47*	5.0	*50*	0	*98.9*	*75-125*	48.87	*1.23*	*20*

The following samples were analyzed in this batch: 0906569-01A 0906569-02A 0906569-04A

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78365** Instrument ID **WetChem** Method: **M2510 B**

MBLK Sample ID: **WBLKW1-062309-R78365** Units: **µmhos/cm** Analysis Date: **6/23/2009 06:00 PM**
Client ID: Run ID: **WETCHEM_090623J** SeqNo: **1702768** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	ND	1.0								

LCS Sample ID: **WLCSW1-062309-R78365** Units: **µmhos/cm** Analysis Date: **6/23/2009 06:00 PM**
Client ID: Run ID: **WETCHEM_090623J** SeqNo: **1702769** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1450	1.0	1413	0	103	80-120	0			

DUP Sample ID: **0906569-01edup** Units: **µmhos/cm** Analysis Date: **6/23/2009 06:00 PM**
Client ID: **MW #2** Run ID: **WETCHEM_090623J** SeqNo: **1702775** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1700	1.0	0	0	0		1700	0	20	

The following samples were analyzed in this batch: 0906569-01E 0906569-02E

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78367** Instrument ID **WetChem** Method: **SM4500H+ B**

LCS Sample ID: **WLCSW1-062309-R78367** Units: **pH units** Analysis Date: **6/23/2009 06:00 PM**
Client ID: Run ID: **WETCHEM_090623K** SeqNo: **1702791** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	5.97	0.10	6	0	99.5	90-110	0			

DUP Sample ID: **0906569-01edup** Units: **pH units** Analysis Date: **6/23/2009 06:00 PM**
Client ID: **MW #2** Run ID: **WETCHEM_090623K** SeqNo: **1702795** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.89	0.10	0	0	0	0-0	7.91	0.253	20	H

The following samples were analyzed in this batch: 0906569-01E 0906569-02E

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78452** Instrument ID **ICS3K2** Method: **E300**

MBLK Sample ID: **WBLKW4+-062409-R78452** Units: **mg/L** Analysis Date: **6/24/2009 06:11 PM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704492** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	0.03	0.10								J
Surr: Selenate (surr)	*4.336*	0.10	*5*	0	*86.7*	*85-115*	0			

LCS Sample ID: **WLCSW4+-062409-R78452** Units: **mg/L** Analysis Date: **6/24/2009 06:34 PM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704493** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	8.006	0.10	8	0	100	90-110	0			
Surr: Selenate (surr)	*4.703*	0.10	*5*	0	*94.1*	*85-115*	0			

LCSD Sample ID: **WLCSDW4+-062409-R78452** Units: **mg/L** Analysis Date: **6/24/2009 06:57 PM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704494** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	8.16	0.10	8	0	102	90-110	8.006	1.91	20	
Surr: Selenate (surr)	*4.766*	0.10	*5*	0	*95.3*	*85-115*	4.703	*1.33*	*20*	

MS Sample ID: **0906543-08CMS** Units: **mg/L** Analysis Date: **6/24/2009 11:32 PM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704505** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	5.494	0.10	4	1.665	95.7	80-120	0			
Surr: Selenate (surr)	*4.975*	0.10	*5*	0	*99.5*	*85-115*	0			

MS Sample ID: **0906543-09CMS** Units: **mg/L** Analysis Date: **6/25/2009 12:41 AM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704508** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	5.451	0.10	4	1.616	95.9	80-120	0			
Surr: Selenate (surr)	*4.983*	0.10	*5*	0	*99.7*	*85-115*	0			

MS Sample ID: **0906513-04CMS** Units: **mg/L** Analysis Date: **6/25/2009 10:23 AM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704519** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	4.123	0.10	4	0.244	97	80-120	0			
Surr: Selenate (surr)	*4.959*	0.10	*5*	0	*99.2*	*85-115*	0			

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78452** Instrument ID **ICS3K2** Method: **E300**

MSD Sample ID: **0906543-08CMSD** Units: **mg/L** Analysis Date: **6/24/2009 11:55 PM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704506** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	5.481	0.10	4	1.665	95.4	80-120	5.494	0.237	20	
Surr: Selenate (surr)	*4.976*	0.10	*5*	0	*99.5*	*85-115*	4.975	*0.0201*	*20*	

MSD Sample ID: **0906543-09CMSD** Units: **mg/L** Analysis Date: **6/25/2009 01:04 AM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704509** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	5.411	0.10	4	1.616	94.9	80-120	5.451	0.737	20	
Surr: Selenate (surr)	*4.988*	0.10	*5*	0	*99.8*	*85-115*	4.983	*0.1*	*20*	

MSD Sample ID: **0906513-04CMSD** Units: **mg/L** Analysis Date: **6/25/2009 10:46 AM**
Client ID: Run ID: **ICS3K2_090624B** SeqNo: **1704520** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	4.156	0.10	4	0.244	97.8	80-120	4.123	0.797	20	
Surr: Selenate (surr)	*5.02*	0.10	*5*	0	*100*	*85-115*	4.959	*1.22*	*20*	

The following samples were analyzed in this batch: 0906569-01C 0906569-02C

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78503** Instrument ID **ICS3K2** Method: **E300**

MBLK Sample ID: **WBLKW2-062509-R78503** Units: **mg/L** Analysis Date: **6/25/2009 11:55 AM**
Client ID: Run ID: **ICS3K2_090625C** SeqNo: **1705588** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	0.307	0.50								J
Surr: Selenate (surr)	*4.92*	0.10	*5*	0	*98.4*	*85-115*	0			

LCS Sample ID: **WLCSW2-062509-R78503** Units: **mg/L** Analysis Date: **6/25/2009 12:18 PM**
Client ID: Run ID: **ICS3K2_090625C** SeqNo: **1705589** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.9	0.50	20	0	99.5	90-110	0			
Fluoride	4.086	0.10	4	0	102	90-110	0			
Sulfate	19.29	0.50	20	0	96.5	90-110	0			
Surr: Selenate (surr)	*4.623*	0.10	*5*	0	*92.5*	*85-115*	0			

MS Sample ID: **0906633-03AMS** Units: **mg/L** Analysis Date: **6/25/2009 02:58 PM**
Client ID: Run ID: **ICS3K2_090625C** SeqNo: **1705593** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	367.1	5.0	100	282.9	84.3	80-120	0			
Fluoride	20.8	1.0	20	-0.065	104	80-120	0			
Sulfate	160.4	5.0	100	66.72	93.6	80-120	0			
Surr: Selenate (surr)	*49.82*	1.0	*50*	0	*99.6*	*85-115*	0			

MS Sample ID: **0906633-03AMS** Units: **mg/L** Analysis Date: **6/25/2009 06:01 PM**
Client ID: Run ID: **ICS3K2_090625C** SeqNo: **1705597** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	273.7	0.50	10	262.3	115	80-120	0			EO
Fluoride	2.608	0.10	2	0.588	101	80-120	0			
Sulfate	74.11	0.50	10	61.6	125	80-120	0			SEO
Surr: Selenate (surr)	*5.023*	0.10	*5*	0	*100*	*85-115*	0			

MSD Sample ID: **0906633-03AMSD** Units: **mg/L** Analysis Date: **6/25/2009 03:21 PM**
Client ID: Run ID: **ICS3K2_090625C** SeqNo: **1705594** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	365.2	5.0	100	282.9	82.4	80-120	367.1	0.517	20	
Fluoride	21.21	1.0	20	-0.065	106	80-120	20.8	1.92	20	
Sulfate	159.2	5.0	100	66.72	92.4	80-120	160.4	0.749	20	
Surr: Selenate (surr)	*49.74*	1.0	*50*	0	*99.5*	*85-115*	49.82	*0.163*	*20*	

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78503** Instrument ID **ICS3K2** Method: **E300**

MSD Sample ID: **0906633-03AMSD** Units: **mg/L** Analysis Date: **6/25/2009 06:24 PM**

Client ID: Run ID: **ICS3K2_090625C** SeqNo: **1705598** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	269.9	0.50	10	262.3	75.8	80-120	273.7	1.43	20	SEO
Fluoride	2.692	0.10	2	0.588	105	80-120	2.608	3.17	20	
Sulfate	73.4	0.50	10	61.6	118	80-120	74.11	0.963	20	EO
Surr: Selenate (surr)	*4.968*	0.10	*5*	0	*99.4*	*85-115*	5.023	*1.1*	*20*	

The following samples were analyzed in this batch: 0906569-01E 0906569-02E

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78509** Instrument ID **Balance1** Method: **M2540C**

MBLK Sample ID: **BLANK-R78509** Units: **mg/L** Analysis Date: **6/25/2009 03:00 PM**
Client ID: Run ID: **BALANCE1_090625A** SeqNo: **1705675** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	ND	10								

LCS Sample ID: **LCS-R78509** Units: **mg/L** Analysis Date: **6/25/2009 03:00 PM**
Client ID: Run ID: **BALANCE1_090625A** SeqNo: **1705676** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	946	10	1000	0	94.6	85-115	0			

DUP Sample ID: **0906614-02CDUP** Units: **mg/L** Analysis Date: **6/25/2009 03:00 PM**
Client ID: Run ID: **BALANCE1_090625A** SeqNo: **1705673** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	972	10	0	0	0	0-0	1006	3.44	20	

The following samples were analyzed in this batch: 0906569-01E 0906569-02E

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78543** Instrument ID **ICS3K2** Method: **E300**

MBLK Sample ID: **WBLKW2-062609-R78543** Units: **mg/L** Analysis Date: **6/26/2009 10:27 AM**
Client ID: Run ID: **ICS3K2_090626A** SeqNo: **1706346** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Surr: Selenate (surr)	*4.642*	0.10	*5*	0	*92.8*	*85-115*	0			

LCS Sample ID: **WLCSW2-062609-R78543** Units: **mg/L** Analysis Date: **6/26/2009 10:50 AM**
Client ID: Run ID: **ICS3K2_090626A** SeqNo: **1706347** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.32	0.50	20	0	102	90-110	0			
Surr: Selenate (surr)	*4.776*	0.10	*5*	0	*95.5*	*85-115*	0			

MS Sample ID: **0906674-01DMS** Units: **mg/L** Analysis Date: **6/26/2009 01:44 PM**
Client ID: Run ID: **ICS3K2_090626A** SeqNo: **1706352** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	802.6	5.0	100	729.9	72.7	80-120	0			SEO
Surr: Selenate (surr)	*50.35*	1.0	*50*	0	*101*	*85-115*	0			

MS Sample ID: **0906678-01AMS** Units: **mg/L** Analysis Date: **6/26/2009 05:33 PM**
Client ID: Run ID: **ICS3K2_090626A** SeqNo: **1706361** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	38.16	0.50	10	28.22	99.5	80-120	0			
Surr: Selenate (surr)	*5.333*	0.10	*5*	0	*107*	*85-115*	0			

MSD Sample ID: **0906674-01DMSD** Units: **mg/L** Analysis Date: **6/26/2009 02:07 PM**
Client ID: Run ID: **ICS3K2_090626A** SeqNo: **1706353** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	800.2	5.0	100	729.9	70.3	80-120	802.6	0.299	20	SEO
Surr: Selenate (surr)	*50.51*	1.0	*50*	0	*101*	*85-115*	50.35	*0.319*	*20*	

MSD Sample ID: **0906678-01AMSD** Units: **mg/L** Analysis Date: **6/26/2009 05:56 PM**
Client ID: Run ID: **ICS3K2_090626A** SeqNo: **1706362** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	37.86	0.50	10	28.22	96.5	80-120	38.16	0.784	20	
Surr: Selenate (surr)	*5.286*	0.10	*5*	0	*106*	*85-115*	5.333	*0.885*	*20*	

The following samples were analyzed in this batch: 0906569-02E

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78629** Instrument ID **WetChem** Method: **SM2320B**

MBLK Sample ID: **WBLKW1-063009-R78629** Units: **mg/L** Analysis Date: **6/30/2009 12:00 PM**

Client ID: Run ID: **WETCHEM_090630E** SeqNo: **1708023** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-063009-R78629** Units: **mg/L** Analysis Date: **6/30/2009 12:00 PM**

Client ID: Run ID: **WETCHEM_090630E** SeqNo: **1708024** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	964	5.0	1000	0	96.4	80-120	0			
Alkalinity, Total (As CaCO3)	964	5.0	1000	0	96.4	80-120	0			

DUP Sample ID: **0906569-01EDUP** Units: **mg/L** Analysis Date: **6/30/2009 12:00 PM**

Client ID: **MW #2** Run ID: **WETCHEM_090630E** SeqNo: **1708036** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	323	5.0	0	0	0	0-0	328	1.54	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	323	5.0	0	0	0	0-0	328	1.54	20	

The following samples were analyzed in this batch: 0906569-01E

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

Client: Navajo Refining Company
Work Order: 0906569
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R78631** Instrument ID **WetChem** Method: **SM2320B**

MBLK Sample ID: **WBLKW1-063009-R78631** Units: **mg/L** Analysis Date: **6/30/2009 03:00 PM**
Client ID: Run ID: **WETCHEM_090630F** SeqNo: **1708065** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-063009-R78631** Units: **mg/L** Analysis Date: **6/30/2009 03:00 PM**
Client ID: Run ID: **WETCHEM_090630F** SeqNo: **1708066** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	981	5.0	1000	0	98.1	80-120	0			
Alkalinity, Total (As CaCO3)	981	5.0	1000	0	98.1	80-120	0			

DUP Sample ID: **0906569-02EDUP** Units: **mg/L** Analysis Date: **6/30/2009 03:00 PM**
Client ID: **South Well** Run ID: **WETCHEM_090630F** SeqNo: **1708073** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	168	5.0	0	0	0	0-0	168	0	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	168	5.0	0	0	0	0-0	168	0	20	

The following samples were analyzed in this batch: 0906569-02E

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

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Chain of Custody Form

Page 1 of 1

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Fax: +1 616 399 6185

ALS Project Manager: | ALS Work Order #: 910650

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Navajo ~~Artesia~~ Refinery Semi-Annual	A	VOC (8260) Select
Work Order		Project Number	LEA	B	~~TPH (8015M) GRO, DRO, ORO~~ TOTAL MERCURY
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	SVOC (8270) LL TCL
Send Report To	Darrell Moore	Invoice Attn	Darrell Moore	D	Dissolved Metals (6020/7000) Select
Address	P.O. Box 159	Address	P.O. Box 159	E	Anions (300) Cl, F, SO4, NO3, NO2
				F	Alkalinity
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	pH/Specific Conductivity
Phone	(505) 748-3311	Phone	(505) 748-3311	H	TDS
Fax	(505) 746-5421	Fax	(505) 746-5421	I	Nitrate/Nitrite (300)
e-Mail Address	dgboyer@SESI-NM.com	e-Mail Address		J	Cations

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW #2	06-22-09	0845	H2O	1,2,3,8	9	X	X	X	X	X	X	X	X	X	X	
2	SOUTH WELL	06-22-09	0920	H2O	1,2,3,8	9	X	X	X	X	X	X	X	X	X	X	
3	MW #1	06-22-09	1045	H2O	8	2			X								
4	TRIP BLANK	06-22-09	1130	H2O	1,8	2	X										
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Josh Gurley

Shipment Method: FED X

Required Turnaround Time: (Check Box) ☐ Other ☑ Std 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

Relinquished by: Josh Gurley — Date: 06-22-09 — Time: 1130

Relinquished by: — Date: — Time:

Received by:

Received by (Laboratory): 6/23/09 9:10

Notes: 10 Work Days TAT.

Logged by (Laboratory): — Date: — Time:

Checked by (Laboratory):

Cooler ID | Cooler Temp

QC Package: (Check One Box Below)
☑ Level II Std QC
☐ Level III Std QC/Raw Data
☐ Level IV SW846/CLP
☐ Other _____
☐ TRRP CheckList
☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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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Sample Receipt Checklist

Client Name: **NAVAJO REFINING** Date/Time Received: **23-Jun-09 09:10**

Work Order: **0906569** Received by: **RNG**

Checklist completed by Robert D. Harris (eSignature) 23-Jun-09 (Date) Reviewed by: Jay Lynn F Thibault (eSignature) 24-Jun-09 (Date)

Matrices: waters
Carrier name: FedEx

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):	2.2c	002	
Cooler(s)/Kit(s):	1816		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

29-Jan-2010

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

Tel: (575) 748-6733
Fax: (575) 746-5421

Re: Navajo Lea Refinery Semi-Annual Work Order: **1001316**

Dear Darrell,

ALS Laboratory Group received 11 samples on 15-Jan-2010 08:40 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 99.

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

Sincerely,

JayLynn F Thibault

Electronically approved by: Glenda H. Ramos

JayLynn F Thibault
Project Manager

Certificate No: T104704231-09A-TX

ALS Group USA, Corp.
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ALS Laboratory Group

Date: 29-Jan-10

Client: Navajo Refining Company
Project: Navajo Lea Refinery Semi-Annual
Work Order: **1001316**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1001316-01	MW-4	Water		1/13/2010 15:15	1/15/2010 08:40	☐
1001316-02	MW-10	Water		1/13/2010 16:35	1/15/2010 08:40	☐
1001316-03	MW-9	Water		1/14/2010 11:15	1/15/2010 08:40	☐
1001316-04	MW-3	Water		1/14/2010 12:25	1/15/2010 08:40	☐
1001316-05	North Water Well	Water		1/14/2010 14:25	1/15/2010 08:40	☐
1001316-06	East Water Well	Water		1/14/2010 15:00	1/15/2010 08:40	☐
1001316-07	South Water Well	Water		1/14/2010 15:25	1/15/2010 08:40	☐
1001316-08	Duplicate #1	Water		1/14/2010	1/15/2010 08:40	☐
1001316-09	Trip Blank 9633	Water		1/14/2010	1/15/2010 08:40	☐
1001316-10	Trip Blank 3251	Water		1/14/2010	1/15/2010 08:40	☐
1001316-11	Trip Blank 3248	Water		1/15/2010	1/15/2010 08:40	☐

Client: Navajo Refining Company
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316

Case Narrative

pH recommended holding time had expired prior to request for analysis.

Batch 40572 Metals (sample 100325-06) MS/MSD unrelated sample.

Batch R86055 Volatiles (sample 1001280-13) MS/MSD unrelated sample.

Batch R86161 Anions (sample 1001316-05) MS/MSD recovery out of control limits due to matrix.

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: MW-4
Lab ID: 1001316-01
Collection Date: 1/13/2010 03:15 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **1/20/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	1/20/2010 04:36 PM
DISSOLVED METALS			**SW6020**		Prep Date: **1/19/2010**	Analyst: **ALR**
Aluminum	**0.0345**		**0.0100**	**mg/L**	1	1/19/2010 09:00 PM
Arsenic	ND		0.00500	mg/L	1	1/19/2010 09:00 PM
Barium	**0.0932**		**0.00500**	**mg/L**	1	1/19/2010 09:00 PM
Boron	**0.177**		**0.0200**	**mg/L**	1	1/19/2010 09:00 PM
Cadmium	ND		0.00200	mg/L	1	1/19/2010 09:00 PM
Calcium	**64.8**		**0.500**	**mg/L**	1	1/19/2010 09:00 PM
Chromium	ND		0.00500	mg/L	1	1/19/2010 09:00 PM
Cobalt	ND		0.00500	mg/L	1	1/19/2010 09:00 PM
Copper	ND		0.00500	mg/L	1	1/19/2010 09:00 PM
Iron	ND		0.200	mg/L	1	1/19/2010 09:00 PM
Lead	ND		0.00500	mg/L	1	1/19/2010 09:00 PM
Magnesium	**8.06**		**0.200**	**mg/L**	1	1/19/2010 09:00 PM
Manganese	ND		0.00500	mg/L	1	1/19/2010 09:00 PM
Molybdenum	ND		0.00500	mg/L	1	1/19/2010 09:00 PM
Nickel	ND		0.00500	mg/L	1	1/19/2010 09:00 PM
Potassium	**2.12**		**0.200**	**mg/L**	1	1/19/2010 09:00 PM
Selenium	ND		0.00500	mg/L	1	1/19/2010 09:00 PM
Silver	ND		0.00500	mg/L	1	1/19/2010 09:00 PM
Sodium	**31.8**		**0.200**	**mg/L**	1	1/19/2010 09:00 PM
Uranium	**0.00102**			**mg/L**	1	1/27/2010 10:31 PM
Zinc	ND		0.00500	mg/L	1	1/19/2010 09:00 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/19/2010**	Analyst: **LG**
1,1´-Biphenyl	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	1/26/2010 01:12 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
2-Chlorophenol	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
2-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
2-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
2-Nitrophenol	ND		0.00020	mg/L	1	1/26/2010 01:12 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-4
Collection Date: 1/13/2010 03:15 PM

Work Order: 1001316
Lab ID: 1001316-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3&4-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
3-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
4-Chloroaniline	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
4-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
4-Nitrophenol	ND		0.0010	mg/L	1	1/26/2010 01:12 PM
Acenaphthene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Acenaphthylene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Acetophenone	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Anthracene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Atrazine	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Benzaldehyde	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Bis(2-ethylhexyl)phthalate	**0.0034**		**0.00020**	**mg/L**	1	1/26/2010 01:12 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Caprolactam	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Carbazole	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Chrysene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Dibenzofuran	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Diethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Fluoranthene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Fluorene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 1001316
Sample ID: MW-4 **Lab ID:** 1001316-01
Collection Date: 1/13/2010 03:15 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachloroethane	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Isophorone	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Naphthalene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Nitrobenzene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Pentachlorophenol	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Phenanthrene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Phenol	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Pyrene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
Surr: 2,4,6-Tribromophenol	*76.4*		*34-129*	*%REC*	1	1/26/2010 01:12 PM
Surr: 2-Fluorobiphenyl	*82.8*		*40-125*	*%REC*	1	1/26/2010 01:12 PM
Surr: 2-Fluorophenol	*76.2*		*20-120*	*%REC*	1	1/26/2010 01:12 PM
Surr: 4-Terphenyl-d14	*78.6*		*40-135*	*%REC*	1	1/26/2010 01:12 PM
Surr: Nitrobenzene-d5	*81.7*		*41-120*	*%REC*	1	1/26/2010 01:12 PM
Surr: Phenol-d6	*62.2*		*20-120*	*%REC*	1	1/26/2010 01:12 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/19/2010**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 01:12 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
2-Butanone	ND		0.010	mg/L	1	1/16/2010 05:56 PM
2-Hexanone	ND		0.010	mg/L	1	1/16/2010 05:56 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	1/16/2010 05:56 PM
Acetone	ND		0.010	mg/L	1	1/16/2010 05:56 PM
Benzene	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
Bromodichloromethane	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
Bromoform	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
Bromomethane	ND		0.0050	mg/L	1	1/16/2010 05:56 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-4
Collection Date: 1/13/2010 03:15 PM

Work Order: 1001316
Lab ID: 1001316-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	ND		0.010	mg/L	1	1/16/2010 05:56 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
Chlorobenzene	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
Chloroethane	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
Chloroform	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
Chloromethane	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
Dibromochloromethane	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
Ethylbenzene	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
Isopropylbenzene	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
m,p-Xylene	ND		0.010	mg/L	1	1/16/2010 05:56 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
Methylene chloride	ND		0.010	mg/L	1	1/16/2010 05:56 PM
n-Butylbenzene	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
n-Propylbenzene	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
Naphthalene	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
o-Xylene	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
Styrene	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
Tetrachloroethene	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
Toluene	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
Trichloroethene	ND		0.0050	mg/L	1	1/16/2010 05:56 PM
Vinyl chloride	ND		0.0020	mg/L	1	1/16/2010 05:56 PM
Xylenes, Total	ND		0.015	mg/L	1	1/16/2010 05:56 PM
Surr: 1,2-Dichloroethane-d4	*100*		*70-125*	*%REC*	1	1/16/2010 05:56 PM
Surr: 4-Bromofluorobenzene	*92.9*		*72-125*	*%REC*	1	1/16/2010 05:56 PM
Surr: Dibromofluoromethane	*95.8*		*71-125*	*%REC*	1	1/16/2010 05:56 PM
Surr: Toluene-d8	*100*		*75-125*	*%REC*	1	1/16/2010 05:56 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**29.3**		**0.500**	**mg/L**	1	1/19/2010 05:51 PM
Fluoride	**1.10**		**0.100**	**mg/L**	1	1/19/2010 05:51 PM
Sulfate	**66.7**		**2.50**	**mg/L**	5	1/20/2010 12:10 PM
Nitrate/Nitrite (as N)	**1.67**		**0.500**	**mg/L**	5	1/19/2010 12:07 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	5	1/20/2010 12:10 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1	1/19/2010 05:51 PM
Surr: Selenate (surr)	*86.0*		*85-115*	*%REC*	5	1/19/2010 12:07 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-4
Collection Date: 1/13/2010 03:15 PM

Work Order: 1001316
Lab ID: 1001316-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
ALKALINITY			**SM2320B**			Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**233**		**5.00**	**mg/L**	1	1/19/2010 11:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	1/19/2010 11:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	1/19/2010 11:00 AM
Alkalinity, Total (As CaCO3)	**233**		**5.00**	**mg/L**	1	1/19/2010 11:00 AM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**606**		**1.00**	**µmhos/cm**	1	1/19/2010 08:30 AM
PH			**SM4500H+ B**			Analyst: **RPM**
pH	**7.18**	H	**0.100**	**pH units**	1	1/16/2010 11:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**416**		**10.0**	**mg/L**	1	1/19/2010 04:00 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: MW-10
Lab ID: 1001316-02
Collection Date: 1/13/2010 04:35 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **1/20/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	1/20/2010 04:44 PM
DISSOLVED METALS			**SW6020**		Prep Date: **1/19/2010**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	1/19/2010 09:06 PM
Arsenic	ND		0.00500	mg/L	1	1/19/2010 09:06 PM
Barium	**0.0815**		**0.00500**	**mg/L**	1	1/19/2010 09:06 PM
Boron	**0.162**		**0.0200**	**mg/L**	1	1/19/2010 09:06 PM
Cadmium	ND		0.00200	mg/L	1	1/19/2010 09:06 PM
Calcium	**73.3**		**0.500**	**mg/L**	1	1/19/2010 09:06 PM
Chromium	ND		0.00500	mg/L	1	1/19/2010 09:06 PM
Cobalt	ND		0.00500	mg/L	1	1/19/2010 09:06 PM
Copper	ND		0.00500	mg/L	1	1/19/2010 09:06 PM
Iron	ND		0.200	mg/L	1	1/19/2010 09:06 PM
Lead	ND		0.00500	mg/L	1	1/19/2010 09:06 PM
Magnesium	**8.33**		**0.200**	**mg/L**	1	1/19/2010 09:06 PM
Manganese	ND		0.00500	mg/L	1	1/19/2010 09:06 PM
Molybdenum	ND		0.00500	mg/L	1	1/19/2010 09:06 PM
Nickel	ND		0.00500	mg/L	1	1/19/2010 09:06 PM
Potassium	**1.74**		**0.200**	**mg/L**	1	1/19/2010 09:06 PM
Selenium	ND		0.00500	mg/L	1	1/19/2010 09:06 PM
Silver	ND		0.00500	mg/L	1	1/19/2010 09:06 PM
Sodium	**31.0**		**0.200**	**mg/L**	1	1/19/2010 09:06 PM
Uranium	**0.000911**			**mg/L**	1	1/27/2010 11:19 PM
Zinc	**0.0133**		**0.00500**	**mg/L**	1	1/19/2010 09:06 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/19/2010**	Analyst: **LG**
1,1´-Biphenyl	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	1/26/2010 01:33 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
2-Chlorophenol	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
2-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
2-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
2-Nitrophenol	ND		0.00020	mg/L	1	1/26/2010 01:33 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: MW-10
Lab ID: 1001316-02
Collection Date: 1/13/2010 04:35 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3&4-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
3-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
4-Chloroaniline	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
4-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
4-Nitrophenol	ND		0.0010	mg/L	1	1/26/2010 01:33 PM
Acenaphthene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Acenaphthylene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Acetophenone	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Anthracene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Atrazine	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Benzaldehyde	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Bis(2-ethylhexyl)phthalate	**0.0027**		**0.00020**	**mg/L**	1	1/26/2010 01:33 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Caprolactam	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Carbazole	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Chrysene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Dibenzofuran	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Diethyl phthalate	**0.0036**		**0.00020**	**mg/L**	1	1/26/2010 01:33 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Fluoranthene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Fluorene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 1001316
Sample ID: MW-10 **Lab ID:** 1001316-02
Collection Date: 1/13/2010 04:35 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachloroethane	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Isophorone	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Naphthalene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Nitrobenzene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Pentachlorophenol	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Phenanthrene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Phenol	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Pyrene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
Surr: 2,4,6-Tribromophenol	*70.3*		*34-129*	*%REC*	1	1/26/2010 01:33 PM
Surr: 2-Fluorobiphenyl	*78.1*		*40-125*	*%REC*	1	1/26/2010 01:33 PM
Surr: 2-Fluorophenol	*63.4*		*20-120*	*%REC*	1	1/26/2010 01:33 PM
Surr: 4-Terphenyl-d14	*73.3*		*40-135*	*%REC*	1	1/26/2010 01:33 PM
Surr: Nitrobenzene-d5	*69.7*		*41-120*	*%REC*	1	1/26/2010 01:33 PM
Surr: Phenol-d6	*55.6*		*20-120*	*%REC*	1	1/26/2010 01:33 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/19/2010**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 01:33 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
2-Butanone	ND		0.010	mg/L	1	1/16/2010 06:21 PM
2-Hexanone	ND		0.010	mg/L	1	1/16/2010 06:21 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	1/16/2010 06:21 PM
Acetone	ND		0.010	mg/L	1	1/16/2010 06:21 PM
Benzene	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
Bromodichloromethane	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
Bromoform	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
Bromomethane	ND		0.0050	mg/L	1	1/16/2010 06:21 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-10
Collection Date: 1/13/2010 04:35 PM

Work Order: 1001316
Lab ID: 1001316-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	ND		0.010	mg/L	1	1/16/2010 06:21 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
Chlorobenzene	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
Chloroethane	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
Chloroform	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
Chloromethane	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
Dibromochloromethane	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
Ethylbenzene	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
Isopropylbenzene	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
m,p-Xylene	ND		0.010	mg/L	1	1/16/2010 06:21 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
Methylene chloride	ND		0.010	mg/L	1	1/16/2010 06:21 PM
n-Butylbenzene	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
n-Propylbenzene	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
Naphthalene	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
o-Xylene	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
Styrene	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
Tetrachloroethene	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
Toluene	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
Trichloroethene	ND		0.0050	mg/L	1	1/16/2010 06:21 PM
Vinyl chloride	ND		0.0020	mg/L	1	1/16/2010 06:21 PM
Xylenes, Total	ND		0.015	mg/L	1	1/16/2010 06:21 PM
Surr: 1,2-Dichloroethane-d4	*101*		*70-125*	*%REC*	1	1/16/2010 06:21 PM
Surr: 4-Bromofluorobenzene	*87.3*		*72-125*	*%REC*	1	1/16/2010 06:21 PM
Surr: Dibromofluoromethane	*97.8*		*71-125*	*%REC*	1	1/16/2010 06:21 PM
Surr: Toluene-d8	*101*		*75-125*	*%REC*	1	1/16/2010 06:21 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**33.4**		**0.500**	**mg/L**	1	1/19/2010 06:15 PM
Fluoride	**1.05**		**0.100**	**mg/L**	1	1/19/2010 06:15 PM
Sulfate	**77.9**		**2.50**	**mg/L**	5	1/20/2010 12:33 PM
Nitrate/Nitrite (as N)	**1.84**		**0.500**	**mg/L**	5	1/19/2010 12:29 PM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	5	1/20/2010 12:33 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1	1/19/2010 06:15 PM
Surr: Selenate (surr)	*86.2*		*85-115*	*%REC*	5	1/19/2010 12:29 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: MW-10
Lab ID: 1001316-02
Collection Date: 1/13/2010 04:35 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
ALKALINITY			**SM2320B**			Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**188**		**5.00**	**mg/L**	1	1/19/2010 11:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	1/19/2010 11:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	1/19/2010 11:00 AM
Alkalinity, Total (As CaCO3)	**188**		**5.00**	**mg/L**	1	1/19/2010 11:00 AM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**625**		**1.00**	**µmhos/cm**	1	1/19/2010 08:30 AM
PH			**SM4500H+ B**			Analyst: **RPM**
pH	**7.13**	H	**0.100**	**pH units**	1	1/16/2010 11:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**436**		**10.0**	**mg/L**	1	1/19/2010 04:00 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: MW-9
Lab ID: 1001316-03
Collection Date: 1/14/2010 11:15 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **1/20/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	1/20/2010 04:46 PM
DISSOLVED METALS			**SW6020**		Prep Date: **1/19/2010**	Analyst: **ALR**
Aluminum	**0.0164**		**0.0100**	**mg/L**	1	1/19/2010 09:11 PM
Arsenic	**0.0351**		**0.00500**	**mg/L**	1	1/19/2010 09:11 PM
Barium	**0.0676**		**0.00500**	**mg/L**	1	1/19/2010 09:11 PM
Boron	**0.139**		**0.0200**	**mg/L**	1	1/19/2010 09:11 PM
Cadmium	ND		0.00200	mg/L	1	1/19/2010 09:11 PM
Calcium	**13.2**		**0.500**	**mg/L**	1	1/19/2010 09:11 PM
Chromium	ND		0.00500	mg/L	1	1/19/2010 09:11 PM
Cobalt	ND		0.00500	mg/L	1	1/19/2010 09:11 PM
Copper	ND		0.00500	mg/L	1	1/19/2010 09:11 PM
Iron	ND		0.200	mg/L	1	1/19/2010 09:11 PM
Lead	ND		0.00500	mg/L	1	1/19/2010 09:11 PM
Magnesium	**1.37**		**0.200**	**mg/L**	1	1/19/2010 09:11 PM
Manganese	ND		0.00500	mg/L	1	1/19/2010 09:11 PM
Molybdenum	ND		0.00500	mg/L	1	1/19/2010 09:11 PM
Nickel	ND		0.00500	mg/L	1	1/19/2010 09:11 PM
Potassium	**1.95**		**0.200**	**mg/L**	1	1/19/2010 09:11 PM
Selenium	ND		0.00500	mg/L	1	1/19/2010 09:11 PM
Silver	ND		0.00500	mg/L	1	1/19/2010 09:11 PM
Sodium	**109**		**0.200**	**mg/L**	1	1/19/2010 09:11 PM
Uranium	**0.000656**			**mg/L**	1	1/27/2010 11:25 PM
Zinc	ND		0.00500	mg/L	1	1/19/2010 09:11 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/19/2010**	Analyst: **LG**
1,1´-Biphenyl	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	1/26/2010 08:51 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
2-Chlorophenol	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
2-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
2-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
2-Nitrophenol	ND		0.00020	mg/L	1	1/26/2010 08:51 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-9
Collection Date: 1/14/2010 11:15 AM

Work Order: 1001316
Lab ID: 1001316-03
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3&4-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
3-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
4-Chloroaniline	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
4-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
4-Nitrophenol	ND		0.0010	mg/L	1	1/26/2010 08:51 PM
Acenaphthene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Acenaphthylene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Acetophenone	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Anthracene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Atrazine	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Benzaldehyde	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Bis(2-ethylhexyl)phthalate	**0.0011**		**0.00020**	**mg/L**	1	1/26/2010 08:51 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Caprolactam	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Carbazole	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Chrysene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Dibenzofuran	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Diethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Fluoranthene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Fluorene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 1001316
Sample ID: MW-9 **Lab ID:** 1001316-03
Collection Date: 1/14/2010 11:15 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachloroethane	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Isophorone	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Naphthalene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Nitrobenzene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Pentachlorophenol	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Phenanthrene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Phenol	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Pyrene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
Surr: 2,4,6-Tribromophenol	*70.6*		*34-129*	*%REC*	1	1/26/2010 08:51 PM
Surr: 2-Fluorobiphenyl	*72.7*		*40-125*	*%REC*	1	1/26/2010 08:51 PM
Surr: 2-Fluorophenol	*58.8*		*20-120*	*%REC*	1	1/26/2010 08:51 PM
Surr: 4-Terphenyl-d14	*73.3*		*40-135*	*%REC*	1	1/26/2010 08:51 PM
Surr: Nitrobenzene-d5	*68.8*		*41-120*	*%REC*	1	1/26/2010 08:51 PM
Surr: Phenol-d6	*61.3*		*20-120*	*%REC*	1	1/26/2010 08:51 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/19/2010**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 08:51 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
2-Butanone	ND		0.010	mg/L	1	1/16/2010 06:46 PM
2-Hexanone	ND		0.010	mg/L	1	1/16/2010 06:46 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	1/16/2010 06:46 PM
Acetone	ND		0.010	mg/L	1	1/16/2010 06:46 PM
Benzene	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
Bromodichloromethane	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
Bromoform	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
Bromomethane	ND		0.0050	mg/L	1	1/16/2010 06:46 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: MW-9
Lab ID: 1001316-03
Collection Date: 1/14/2010 11:15 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	ND		0.010	mg/L	1	1/16/2010 06:46 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
Chlorobenzene	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
Chloroethane	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
Chloroform	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
Chloromethane	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
Dibromochloromethane	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
Ethylbenzene	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
Isopropylbenzene	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
m,p-Xylene	ND		0.010	mg/L	1	1/16/2010 06:46 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
Methylene chloride	ND		0.010	mg/L	1	1/16/2010 06:46 PM
n-Butylbenzene	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
n-Propylbenzene	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
Naphthalene	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
o-Xylene	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
Styrene	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
Tetrachloroethene	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
Toluene	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
Trichloroethene	ND		0.0050	mg/L	1	1/16/2010 06:46 PM
Vinyl chloride	ND		0.0020	mg/L	1	1/16/2010 06:46 PM
Xylenes, Total	ND		0.015	mg/L	1	1/16/2010 06:46 PM
Surr: 1,2-Dichloroethane-d4	*103*		*70-125*	*%REC*	1	1/16/2010 06:46 PM
Surr: 4-Bromofluorobenzene	*97.1*		*72-125*	*%REC*	1	1/16/2010 06:46 PM
Surr: Dibromofluoromethane	*100*		*71-125*	*%REC*	1	1/16/2010 06:46 PM
Surr: Toluene-d8	*105*		*75-125*	*%REC*	1	1/16/2010 06:46 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**23.9**		**0.500**	**mg/L**	1	1/19/2010 06:38 PM
Fluoride	**1.78**		**0.100**	**mg/L**	1	1/19/2010 06:38 PM
Sulfate	**74.4**		**2.50**	**mg/L**	5	1/20/2010 12:56 PM
Nitrate/Nitrite (as N)	**1.72**		**0.500**	**mg/L**	5	1/19/2010 12:52 PM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	5	1/20/2010 12:56 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1	1/19/2010 06:38 PM
Surr: Selenate (surr)	*85.5*		*85-115*	*%REC*	5	1/19/2010 12:52 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: MW-9
Lab ID: 1001316-03
Collection Date: 1/14/2010 11:15 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
ALKALINITY			**SM2320B**			Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**231**		**5.00**	**mg/L**	1	1/19/2010 11:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	1/19/2010 11:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	1/19/2010 11:00 AM
Alkalinity, Total (As CaCO3)	**231**		**5.00**	**mg/L**	1	1/19/2010 11:00 AM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**667**		**1.00**	**µmhos/cm**	1	1/19/2010 08:30 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.77**	H	**0.100**	**pH units**	1	1/15/2010 03:20 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**450**		**10.0**	**mg/L**	1	1/19/2010 04:00 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: MW-3
Lab ID: 1001316-04
Collection Date: 1/14/2010 12:25 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **1/20/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	1/20/2010 04:48 PM
DISSOLVED METALS			**SW6020**		Prep Date: **1/19/2010**	Analyst: **ALR**
Aluminum	**0.144**		**0.0100**	**mg/L**	1	1/19/2010 09:17 PM
Arsenic	**0.00703**		**0.00500**	**mg/L**	1	1/19/2010 09:17 PM
Barium	**0.119**		**0.00500**	**mg/L**	1	1/19/2010 09:17 PM
Boron	**0.148**		**0.0200**	**mg/L**	1	1/19/2010 09:17 PM
Cadmium	ND		0.00200	mg/L	1	1/19/2010 09:17 PM
Calcium	**29.9**		**0.500**	**mg/L**	1	1/19/2010 09:17 PM
Chromium	**0.00977**		**0.00500**	**mg/L**	1	1/19/2010 09:17 PM
Cobalt	ND		0.00500	mg/L	1	1/19/2010 09:17 PM
Copper	**0.121**		**0.00500**	**mg/L**	1	1/19/2010 09:17 PM
Iron	ND		0.200	mg/L	1	1/19/2010 09:17 PM
Lead	ND		0.00500	mg/L	1	1/19/2010 09:17 PM
Magnesium	**3.64**		**0.200**	**mg/L**	1	1/19/2010 09:17 PM
Manganese	**0.00597**		**0.00500**	**mg/L**	1	1/19/2010 09:17 PM
Molybdenum	**0.0200**		**0.00500**	**mg/L**	1	1/19/2010 09:17 PM
Nickel	**0.00842**		**0.00500**	**mg/L**	1	1/19/2010 09:17 PM
Potassium	**2.41**		**0.200**	**mg/L**	1	1/19/2010 09:17 PM
Selenium	ND		0.00500	mg/L	1	1/19/2010 09:17 PM
Silver	ND		0.00500	mg/L	1	1/19/2010 09:17 PM
Sodium	**118**		**0.200**	**mg/L**	1	1/19/2010 09:17 PM
Uranium	**0.000625**			**mg/L**	1	1/27/2010 11:31 PM
Zinc	**0.0195**		**0.00500**	**mg/L**	1	1/19/2010 09:17 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/19/2010**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	1/26/2010 09:11 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
2-Chlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
2-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
2-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
2-Nitrophenol	ND		0.00020	mg/L	1	1/26/2010 09:11 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: MW-3
Lab ID: 1001316-04
Collection Date: 1/14/2010 12:25 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3&4-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
3-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
4-Chloroaniline	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
4-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
4-Nitrophenol	ND		0.0010	mg/L	1	1/26/2010 09:11 PM
Acenaphthene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Acenaphthylene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Acetophenone	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Anthracene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Atrazine	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Benzaldehyde	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Bis(2-ethylhexyl)phthalate	**0.00080**		**0.00020**	**mg/L**	1	1/26/2010 09:11 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Caprolactam	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Carbazole	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Chrysene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Dibenzofuran	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Diethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Fluoranthene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Fluorene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-3
Collection Date: 1/14/2010 12:25 PM

Work Order: 1001316
Lab ID: 1001316-04
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachloroethane	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Isophorone	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Naphthalene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Nitrobenzene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Pentachlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Phenanthrene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Phenol	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Pyrene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
Surr: 2,4,6-Tribromophenol	*72.9*		*34-129*	*%REC*	1	1/26/2010 09:11 PM
Surr: 2-Fluorobiphenyl	*67.1*		*40-125*	*%REC*	1	1/26/2010 09:11 PM
Surr: 2-Fluorophenol	*60.6*		*20-120*	*%REC*	1	1/26/2010 09:11 PM
Surr: 4-Terphenyl-d14	*68.9*		*40-135*	*%REC*	1	1/26/2010 09:11 PM
Surr: Nitrobenzene-d5	*65.7*		*41-120*	*%REC*	1	1/26/2010 09:11 PM
Surr: Phenol-d6	*57.8*		*20-120*	*%REC*	1	1/26/2010 09:11 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/19/2010**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 09:11 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
2-Butanone	ND		0.010	mg/L	1	1/16/2010 07:11 PM
2-Hexanone	ND		0.010	mg/L	1	1/16/2010 07:11 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	1/16/2010 07:11 PM
Acetone	ND		0.010	mg/L	1	1/16/2010 07:11 PM
Benzene	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
Bromodichloromethane	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
Bromoform	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
Bromomethane	ND		0.0050	mg/L	1	1/16/2010 07:11 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: MW-3
Lab ID: 1001316-04
Collection Date: 1/14/2010 12:25 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	ND		0.010	mg/L	1	1/16/2010 07:11 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
Chlorobenzene	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
Chloroethane	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
Chloroform	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
Chloromethane	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
Dibromochloromethane	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
Ethylbenzene	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
Isopropylbenzene	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
m,p-Xylene	ND		0.010	mg/L	1	1/16/2010 07:11 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
Methylene chloride	ND		0.010	mg/L	1	1/16/2010 07:11 PM
n-Butylbenzene	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
n-Propylbenzene	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
Naphthalene	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
o-Xylene	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
Styrene	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
Tetrachloroethene	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
Toluene	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
Trichloroethene	ND		0.0050	mg/L	1	1/16/2010 07:11 PM
Vinyl chloride	ND		0.0020	mg/L	1	1/16/2010 07:11 PM
Xylenes, Total	ND		0.015	mg/L	1	1/16/2010 07:11 PM
Surr: 1,2-Dichloroethane-d4	*110*		*70-125*	*%REC*	1	1/16/2010 07:11 PM
Surr: 4-Bromofluorobenzene	*91.7*		*72-125*	*%REC*	1	1/16/2010 07:11 PM
Surr: Dibromofluoromethane	*102*		*71-125*	*%REC*	1	1/16/2010 07:11 PM
Surr: Toluene-d8	*102*		*75-125*	*%REC*	1	1/16/2010 07:11 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**49.9**		**0.500**	**mg/L**	1	1/19/2010 07:02 PM
Fluoride	**3.18**		**0.100**	**mg/L**	1	1/19/2010 07:02 PM
Sulfate	**76.5**		**2.50**	**mg/L**	5	1/20/2010 01:19 PM
Nitrate/Nitrite (as N)	**2.11**		**0.500**	**mg/L**	5	1/19/2010 01:15 PM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	5	1/20/2010 01:19 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1	1/19/2010 07:02 PM
Surr: Selenate (surr)	*87.9*		*85-115*	*%REC*	5	1/19/2010 01:15 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-3
Collection Date: 1/14/2010 12:25 PM

Work Order: 1001316
Lab ID: 1001316-04
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
ALKALINITY			**SM2320B**			Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**278**		**5.00**	**mg/L**	1	1/19/2010 11:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	1/19/2010 11:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	1/19/2010 11:00 AM
Alkalinity, Total (As CaCO3)	**278**		**5.00**	**mg/L**	1	1/19/2010 11:00 AM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**836**		**1.00**	**µmhos/cm**	1	1/19/2010 08:30 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.37**	H	**0.100**	**pH units**	1	1/15/2010 03:20 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**540**		**10.0**	**mg/L**	1	1/19/2010 04:00 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: North Water Well
Lab ID: 1001316-05
Collection Date: 1/14/2010 02:25 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **1/20/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	1/20/2010 04:50 PM
DISSOLVED METALS			**SW6020**		Prep Date: **1/19/2010**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	1/19/2010 09:36 PM
Arsenic	ND		0.00500	mg/L	1	1/19/2010 09:36 PM
Barium	**0.107**		**0.00500**	**mg/L**	1	1/19/2010 09:36 PM
Boron	**0.172**		**0.0200**	**mg/L**	1	1/19/2010 09:36 PM
Cadmium	ND		0.00200	mg/L	1	1/19/2010 09:36 PM
Calcium	**102**		**0.500**	**mg/L**	1	1/19/2010 09:36 PM
Chromium	ND		0.00500	mg/L	1	1/19/2010 09:36 PM
Cobalt	ND		0.00500	mg/L	1	1/19/2010 09:36 PM
Copper	ND		0.00500	mg/L	1	1/19/2010 09:36 PM
Iron	ND		0.200	mg/L	1	1/19/2010 09:36 PM
Lead	ND		0.00500	mg/L	1	1/19/2010 09:36 PM
Magnesium	**10.8**		**0.200**	**mg/L**	1	1/19/2010 09:36 PM
Manganese	ND		0.00500	mg/L	1	1/19/2010 09:36 PM
Molybdenum	ND		0.00500	mg/L	1	1/19/2010 09:36 PM
Nickel	ND		0.00500	mg/L	1	1/19/2010 09:36 PM
Potassium	**2.11**		**0.200**	**mg/L**	1	1/19/2010 09:36 PM
Selenium	ND		0.00500	mg/L	1	1/19/2010 09:36 PM
Silver	ND		0.00500	mg/L	1	1/19/2010 09:36 PM
Sodium	**56.5**		**0.200**	**mg/L**	1	1/19/2010 09:36 PM
Uranium	**0.00134**			**mg/L**	1	1/27/2010 11:37 PM
Zinc	ND		0.00500	mg/L	1	1/19/2010 09:36 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/19/2010**	Analyst: **LG**
1,1´-Biphenyl	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	1/26/2010 09:32 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
2-Chlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
2-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
2-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
2-Nitrophenol	ND		0.00020	mg/L	1	1/26/2010 09:32 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: North Water Well
Collection Date: 1/14/2010 02:25 PM

Work Order: 1001316
Lab ID: 1001316-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3&4-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
3,3´-Dichlorobenzidine	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
3-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
4-Chloroaniline	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
4-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
4-Nitrophenol	ND		0.0010	mg/L	1	1/26/2010 09:32 PM
Acenaphthene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Acenaphthylene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Acetophenone	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Anthracene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Atrazine	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Benzaldehyde	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Bis(2-ethylhexyl)phthalate	**0.00098**		**0.00020**	**mg/L**	1	1/26/2010 09:32 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Caprolactam	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Carbazole	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Chrysene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Dibenzofuran	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Diethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Fluoranthene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Fluorene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: North Water Well
Lab ID: 1001316-05
Collection Date: 1/14/2010 02:25 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachloroethane	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Isophorone	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Naphthalene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Nitrobenzene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Pentachlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Phenanthrene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Phenol	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Pyrene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
Surr: 2,4,6-Tribromophenol	*70.1*		*34-129*	*%REC*	1	1/26/2010 09:32 PM
Surr: 2-Fluorobiphenyl	*65.6*		*40-125*	*%REC*	1	1/26/2010 09:32 PM
Surr: 2-Fluorophenol	*59.4*		*20-120*	*%REC*	1	1/26/2010 09:32 PM
Surr: 4-Terphenyl-d14	*67.6*		*40-135*	*%REC*	1	1/26/2010 09:32 PM
Surr: Nitrobenzene-d5	*63.3*		*41-120*	*%REC*	1	1/26/2010 09:32 PM
Surr: Phenol-d6	*58.3*		*20-120*	*%REC*	1	1/26/2010 09:32 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/19/2010**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 09:32 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
2-Butanone	ND		0.010	mg/L	1	1/19/2010 04:55 PM
2-Hexanone	ND		0.010	mg/L	1	1/19/2010 04:55 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	1/19/2010 04:55 PM
Acetone	ND		0.010	mg/L	1	1/19/2010 04:55 PM
Benzene	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
Bromodichloromethane	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
Bromoform	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
Bromomethane	ND		0.0050	mg/L	1	1/19/2010 04:55 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: North Water Well
Collection Date: 1/14/2010 02:25 PM

Work Order: 1001316
Lab ID: 1001316-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	ND		0.010	mg/L	1	1/19/2010 04:55 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
Chlorobenzene	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
Chloroethane	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
Chloroform	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
Chloromethane	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
Dibromochloromethane	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
Ethylbenzene	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
Isopropylbenzene	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
m,p-Xylene	ND		0.010	mg/L	1	1/19/2010 04:55 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
Methylene chloride	ND		0.010	mg/L	1	1/19/2010 04:55 PM
n-Butylbenzene	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
n-Propylbenzene	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
Naphthalene	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
o-Xylene	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
Styrene	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
Tetrachloroethene	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
Toluene	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
Trichloroethene	ND		0.0050	mg/L	1	1/19/2010 04:55 PM
Vinyl chloride	ND		0.0020	mg/L	1	1/19/2010 04:55 PM
Xylenes, Total	ND		0.015	mg/L	1	1/19/2010 04:55 PM
Surr: 1,2-Dichloroethane-d4	*96.7*		*70-125*	*%REC*	1	1/19/2010 04:55 PM
Surr: 4-Bromofluorobenzene	*104*		*72-125*	*%REC*	1	1/19/2010 04:55 PM
Surr: Dibromofluoromethane	*95.9*		*71-125*	*%REC*	1	1/19/2010 04:55 PM
Surr: Toluene-d8	*103*		*75-125*	*%REC*	1	1/19/2010 04:55 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**143**		**2.50**	**mg/L**	5	1/20/2010 01:42 PM
Fluoride	**0.793**		**0.100**	**mg/L**	1	1/20/2010 11:47 AM
Sulfate	**74.2**		**2.50**	**mg/L**	5	1/20/2010 01:42 PM
Nitrate/Nitrite (as N)	**2.90**		**0.500**	**mg/L**	5	1/19/2010 01:38 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	5	1/20/2010 01:42 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1	1/20/2010 11:47 AM
Surr: Selenate (surr)	*82.8*	S	*85-115*	*%REC*	5	1/19/2010 01:38 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: North Water Well
Lab ID: 1001316-05
Collection Date: 1/14/2010 02:25 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
ALKALINITY			**SM2320B**			Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**208**		**5.00**	**mg/L**	1	1/19/2010 11:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	1/19/2010 11:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	1/19/2010 11:00 AM
Alkalinity, Total (As CaCO3)	**208**		**5.00**	**mg/L**	1	1/19/2010 11:00 AM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**984**		**1.00**	**µmhos/cm**	1	1/19/2010 08:30 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.39**	H	**0.100**	**pH units**	1	1/15/2010 03:20 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**638**		**10.0**	**mg/L**	1	1/19/2010 04:00 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: East Water Well
Collection Date: 1/14/2010 03:00 PM

Work Order: 1001316
Lab ID: 1001316-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **1/20/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	1/20/2010 04:56 PM
DISSOLVED METALS			**SW6020**		Prep Date: **1/19/2010**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	1/19/2010 09:41 PM
Arsenic	ND		0.00500	mg/L	1	1/19/2010 09:41 PM
Barium	**0.0941**		**0.00500**	**mg/L**	1	1/19/2010 09:41 PM
Boron	**0.154**		**0.0200**	**mg/L**	1	1/19/2010 09:41 PM
Cadmium	ND		0.00200	mg/L	1	1/19/2010 09:41 PM
Calcium	**104**		**0.500**	**mg/L**	1	1/19/2010 09:41 PM
Chromium	**0.0119**		**0.00500**	**mg/L**	1	1/19/2010 09:41 PM
Cobalt	ND		0.00500	mg/L	1	1/19/2010 09:41 PM
Copper	**0.00953**		**0.00500**	**mg/L**	1	1/19/2010 09:41 PM
Iron	ND		0.200	mg/L	1	1/19/2010 09:41 PM
Lead	ND		0.00500	mg/L	1	1/19/2010 09:41 PM
Magnesium	**13.6**		**0.200**	**mg/L**	1	1/19/2010 09:41 PM
Manganese	ND		0.00500	mg/L	1	1/19/2010 09:41 PM
Molybdenum	ND		0.00500	mg/L	1	1/19/2010 09:41 PM
Nickel	ND		0.00500	mg/L	1	1/19/2010 09:41 PM
Potassium	**1.84**		**0.200**	**mg/L**	1	1/19/2010 09:41 PM
Selenium	ND		0.00500	mg/L	1	1/19/2010 09:41 PM
Silver	ND		0.00500	mg/L	1	1/19/2010 09:41 PM
Sodium	**42.2**		**0.200**	**mg/L**	1	1/19/2010 09:41 PM
Uranium	**0.00111**			**mg/L**	1	1/27/2010 11:43 PM
Zinc	**0.0291**		**0.00500**	**mg/L**	1	1/19/2010 09:41 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/19/2010**	Analyst: **LG**
1,1´-Biphenyl	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	1/26/2010 09:53 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
2-Chlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
2-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
2-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
2-Nitrophenol	ND		0.00020	mg/L	1	1/26/2010 09:53 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: East Water Well
Lab ID: 1001316-06
Collection Date: 1/14/2010 03:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3&4-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
3-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
4-Chloroaniline	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
4-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
4-Nitrophenol	ND		0.0010	mg/L	1	1/26/2010 09:53 PM
Acenaphthene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Acenaphthylene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Acetophenone	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Anthracene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Atrazine	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Benzaldehyde	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Bis(2-ethylhexyl)phthalate	**0.00048**		**0.00020**	**mg/L**	1	1/26/2010 09:53 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Caprolactam	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Carbazole	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Chrysene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Dibenzofuran	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Diethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Fluoranthene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Fluorene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 1001316
Sample ID: East Water Well **Lab ID:** 1001316-06
Collection Date: 1/14/2010 03:00 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachloroethane	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Isophorone	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Naphthalene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Nitrobenzene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Pentachlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Phenanthrene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Phenol	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Pyrene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
Surr: 2,4,6-Tribromophenol	*67.9*		*34-129*	*%REC*	1	1/26/2010 09:53 PM
Surr: 2-Fluorobiphenyl	*65.5*		*40-125*	*%REC*	1	1/26/2010 09:53 PM
Surr: 2-Fluorophenol	*62.6*		*20-120*	*%REC*	1	1/26/2010 09:53 PM
Surr: 4-Terphenyl-d14	*71.5*		*40-135*	*%REC*	1	1/26/2010 09:53 PM
Surr: Nitrobenzene-d5	*62.6*		*41-120*	*%REC*	1	1/26/2010 09:53 PM
Surr: Phenol-d6	*61.4*		*20-120*	*%REC*	1	1/26/2010 09:53 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/19/2010**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 09:53 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
2-Butanone	ND		0.010	mg/L	1	1/18/2010 05:57 PM
2-Hexanone	ND		0.010	mg/L	1	1/18/2010 05:57 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	1/18/2010 05:57 PM
Acetone	ND		0.010	mg/L	1	1/18/2010 05:57 PM
Benzene	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
Bromodichloromethane	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
Bromoform	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
Bromomethane	ND		0.0050	mg/L	1	1/18/2010 05:57 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: East Water Well
Lab ID: 1001316-06
Collection Date: 1/14/2010 03:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	ND		0.010	mg/L	1	1/18/2010 05:57 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
Chlorobenzene	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
Chloroethane	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
Chloroform	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
Chloromethane	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
Dibromochloromethane	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
Ethylbenzene	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
Isopropylbenzene	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
m,p-Xylene	ND		0.010	mg/L	1	1/18/2010 05:57 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
Methylene chloride	ND		0.010	mg/L	1	1/18/2010 05:57 PM
n-Butylbenzene	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
n-Propylbenzene	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
Naphthalene	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
o-Xylene	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
Styrene	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
Tetrachloroethene	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
Toluene	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
Trichloroethene	ND		0.0050	mg/L	1	1/18/2010 05:57 PM
Vinyl chloride	ND		0.0020	mg/L	1	1/18/2010 05:57 PM
Xylenes, Total	ND		0.015	mg/L	1	1/18/2010 05:57 PM
Surr: 1,2-Dichloroethane-d4	*108*		*70-125*	*%REC*	1	1/18/2010 05:57 PM
Surr: 4-Bromofluorobenzene	*95.9*		*72-125*	*%REC*	1	1/18/2010 05:57 PM
Surr: Dibromofluoromethane	*95.6*		*71-125*	*%REC*	1	1/18/2010 05:57 PM
Surr: Toluene-d8	*100*		*75-125*	*%REC*	1	1/18/2010 05:57 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**138**		**2.50**	**mg/L**	5	1/20/2010 03:37 PM
Fluoride	**0.991**		**0.100**	**mg/L**	1	1/19/2010 09:48 PM
Sulfate	**72.7**		**2.50**	**mg/L**	5	1/20/2010 03:37 PM
Nitrate/Nitrite (as N)	**2.70**		**0.500**	**mg/L**	5	1/19/2010 02:01 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	5	1/20/2010 03:37 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1	1/19/2010 09:48 PM
Surr: Selenate (surr)	*85.6*		*85-115*	*%REC*	5	1/19/2010 02:01 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: East Water Well
Lab ID: 1001316-06
Collection Date: 1/14/2010 03:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
ALKALINITY			**SM2320B**			Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**181**		**5.00**	**mg/L**	1	1/19/2010 11:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	1/19/2010 11:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	1/19/2010 11:00 AM
Alkalinity, Total (As CaCO3)	**181**		**5.00**	**mg/L**	1	1/19/2010 11:00 AM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**926**		**1.00**	**µmhos/cm**	1	1/19/2010 08:30 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.17**	H	**0.100**	**pH units**	1	1/15/2010 03:20 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**676**		**10.0**	**mg/L**	1	1/19/2010 04:00 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: South Water Well
Lab ID: 1001316-07
Collection Date: 1/14/2010 03:25 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **1/20/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	1/20/2010 04:58 PM
DISSOLVED METALS			**SW6020**		Prep Date: **1/19/2010**	Analyst: **ALR**
Aluminum	**0.0176**		**0.0100**	**mg/L**	1	1/19/2010 09:47 PM
Arsenic	ND		0.00500	mg/L	1	1/19/2010 09:47 PM
Barium	**0.138**		**0.00500**	**mg/L**	1	1/19/2010 09:47 PM
Boron	**0.229**		**0.0200**	**mg/L**	1	1/19/2010 09:47 PM
Cadmium	ND		0.00200	mg/L	1	1/19/2010 09:47 PM
Calcium	**199**		**25.0**	**mg/L**	50	1/20/2010 01:36 PM
Chromium	ND		0.00500	mg/L	1	1/19/2010 09:47 PM
Cobalt	ND		0.00500	mg/L	1	1/19/2010 09:47 PM
Copper	ND		0.00500	mg/L	1	1/19/2010 09:47 PM
Iron	ND		0.200	mg/L	1	1/19/2010 09:47 PM
Lead	ND		0.00500	mg/L	1	1/19/2010 09:47 PM
Magnesium	**23.4**		**0.200**	**mg/L**	1	1/19/2010 09:47 PM
Manganese	**0.0224**		**0.00500**	**mg/L**	1	1/19/2010 09:47 PM
Molybdenum	ND		0.00500	mg/L	1	1/19/2010 09:47 PM
Nickel	ND		0.00500	mg/L	1	1/19/2010 09:47 PM
Potassium	**3.23**		**0.200**	**mg/L**	1	1/19/2010 09:47 PM
Selenium	ND		0.00500	mg/L	1	1/19/2010 09:47 PM
Silver	ND		0.00500	mg/L	1	1/19/2010 09:47 PM
Sodium	**147**		**10.0**	**mg/L**	50	1/20/2010 01:36 PM
Uranium	**0.00236**			**mg/L**	1	1/27/2010 11:49 PM
Zinc	**0.0198**		**0.00500**	**mg/L**	1	1/19/2010 09:47 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/19/2010**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	1/26/2010 10:13 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
2-Chlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
2-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
2-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
2-Nitrophenol	ND		0.00020	mg/L	1	1/26/2010 10:13 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: South Water Well
Collection Date: 1/14/2010 03:25 PM

Work Order: 1001316
Lab ID: 1001316-07
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3&4-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
3-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
4-Chloroaniline	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
4-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
4-Nitrophenol	ND		0.0010	mg/L	1	1/26/2010 10:13 PM
Acenaphthene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Acenaphthylene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Acetophenone	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Anthracene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Atrazine	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Benzaldehyde	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Bis(2-ethylhexyl)phthalate	**0.0014**		**0.00020**	**mg/L**	1	1/26/2010 10:13 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Caprolactam	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Carbazole	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Chrysene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Dibenzofuran	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Diethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Fluoranthene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Fluorene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 1001316
Sample ID: South Water Well **Lab ID:** 1001316-07
Collection Date: 1/14/2010 03:25 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachloroethane	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Isophorone	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Naphthalene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Nitrobenzene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Pentachlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Phenanthrene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Phenol	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Pyrene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
Surr: 2,4,6-Tribromophenol	*67.7*		*34-129*	*%REC*	1	1/26/2010 10:13 PM
Surr: 2-Fluorobiphenyl	*60.6*		*40-125*	*%REC*	1	1/26/2010 10:13 PM
Surr: 2-Fluorophenol	*56.5*		*20-120*	*%REC*	1	1/26/2010 10:13 PM
Surr: 4-Terphenyl-d14	*68.4*		*40-135*	*%REC*	1	1/26/2010 10:13 PM
Surr: Nitrobenzene-d5	*57.4*		*41-120*	*%REC*	1	1/26/2010 10:13 PM
Surr: Phenol-d6	*55.1*		*20-120*	*%REC*	1	1/26/2010 10:13 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/19/2010**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 10:13 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
2-Butanone	ND		0.010	mg/L	1	1/18/2010 06:22 PM
2-Hexanone	ND		0.010	mg/L	1	1/18/2010 06:22 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	1/18/2010 06:22 PM
Acetone	ND		0.010	mg/L	1	1/18/2010 06:22 PM
Benzene	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
Bromodichloromethane	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
Bromoform	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
Bromomethane	ND		0.0050	mg/L	1	1/18/2010 06:22 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: South Water Well
Collection Date: 1/14/2010 03:25 PM

Work Order: 1001316
Lab ID: 1001316-07
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	ND		0.010	mg/L	1	1/18/2010 06:22 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
Chlorobenzene	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
Chloroethane	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
Chloroform	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
Chloromethane	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
Dibromochloromethane	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
Ethylbenzene	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
Isopropylbenzene	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
m,p-Xylene	ND		0.010	mg/L	1	1/18/2010 06:22 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
Methylene chloride	ND		0.010	mg/L	1	1/18/2010 06:22 PM
n-Butylbenzene	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
n-Propylbenzene	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
Naphthalene	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
o-Xylene	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
Styrene	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
Tetrachloroethene	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
Toluene	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
Trichloroethene	ND		0.0050	mg/L	1	1/18/2010 06:22 PM
Vinyl chloride	ND		0.0020	mg/L	1	1/18/2010 06:22 PM
Xylenes, Total	ND		0.015	mg/L	1	1/18/2010 06:22 PM
Surr: 1,2-Dichloroethane-d4	*106*		*70-125*	*%REC*	1	1/18/2010 06:22 PM
Surr: 4-Bromofluorobenzene	*94.2*		*72-125*	*%REC*	1	1/18/2010 06:22 PM
Surr: Dibromofluoromethane	*103*		*71-125*	*%REC*	1	1/18/2010 06:22 PM
Surr: Toluene-d8	*97.9*		*75-125*	*%REC*	1	1/18/2010 06:22 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**478**		**10.0**	**mg/L**	20	1/20/2010 03:59 PM
Fluoride	**0.686**		**0.100**	**mg/L**	1	1/19/2010 10:12 PM
Sulfate	**113**		**10.0**	**mg/L**	20	1/20/2010 03:59 PM
Nitrate/Nitrite (as N)	**3.27**		**0.500**	**mg/L**	5	1/19/2010 02:24 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	20	1/20/2010 03:59 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	1	1/19/2010 10:12 PM
Surr: Selenate (surr)	*86.7*		*85-115*	*%REC*	5	1/19/2010 02:24 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: South Water Well
Lab ID: 1001316-07
Collection Date: 1/14/2010 03:25 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
ALKALINITY			**SM2320B**			Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**227**		**5.00**	**mg/L**	1	1/19/2010 11:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	1/19/2010 11:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	1/19/2010 11:00 AM
Alkalinity, Total (As CaCO3)	**227**		**5.00**	**mg/L**	1	1/19/2010 11:00 AM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**2,080**		**1.00**	**µmhos/cm**	1	1/19/2010 08:30 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**6.96**	H	**0.100**	**pH units**	1	1/15/2010 03:20 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**1,520**		**10.0**	**mg/L**	1	1/19/2010 04:00 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: Duplicate #1
Lab ID: 1001316-08
Collection Date: 1/14/2010
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **1/20/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	1/20/2010 05:00 PM
DISSOLVED METALS			**SW6020**		Prep Date: **1/19/2010**	Analyst: **ALR**
Aluminum	**0.142**		**0.0100**	**mg/L**	1	1/19/2010 09:54 PM
Arsenic	**0.00798**		**0.00500**	**mg/L**	1	1/19/2010 09:54 PM
Barium	**0.125**		**0.00500**	**mg/L**	1	1/19/2010 09:54 PM
Boron	**0.167**		**0.0200**	**mg/L**	1	1/19/2010 09:54 PM
Cadmium	ND		0.00200	mg/L	1	1/19/2010 09:54 PM
Calcium	**32.6**		**0.500**	**mg/L**	1	1/19/2010 09:54 PM
Chromium	**0.0105**		**0.00500**	**mg/L**	1	1/19/2010 09:54 PM
Cobalt	ND		0.00500	mg/L	1	1/19/2010 09:54 PM
Copper	**0.148**		**0.00500**	**mg/L**	1	1/19/2010 09:54 PM
Iron	ND		0.200	mg/L	1	1/19/2010 09:54 PM
Lead	ND		0.00500	mg/L	1	1/19/2010 09:54 PM
Magnesium	**3.96**		**0.200**	**mg/L**	1	1/19/2010 09:54 PM
Manganese	**0.00699**		**0.00500**	**mg/L**	1	1/19/2010 09:54 PM
Molybdenum	**0.0216**		**0.00500**	**mg/L**	1	1/19/2010 09:54 PM
Nickel	**0.00960**		**0.00500**	**mg/L**	1	1/19/2010 09:54 PM
Potassium	**2.63**		**0.200**	**mg/L**	1	1/19/2010 09:54 PM
Selenium	ND		0.00500	mg/L	1	1/19/2010 09:54 PM
Silver	ND		0.00500	mg/L	1	1/19/2010 09:54 PM
Sodium	**128**		**0.200**	**mg/L**	1	1/19/2010 09:54 PM
Uranium	**0.000721**			**mg/L**	1	1/27/2010 11:55 PM
Zinc	**0.0230**		**0.00500**	**mg/L**	1	1/19/2010 09:54 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/19/2010**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	1/26/2010 10:34 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
2-Chlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
2-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
2-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
2-Nitrophenol	ND		0.00020	mg/L	1	1/26/2010 10:34 PM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 1001316
Sample ID: Duplicate #1 **Lab ID:** 1001316-08
Collection Date: 1/14/2010 **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3&4-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
3-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
4-Chloroaniline	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
4-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
4-Nitrophenol	ND		0.0010	mg/L	1	1/26/2010 10:34 PM
Acenaphthene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Acenaphthylene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Acetophenone	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Anthracene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Atrazine	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Benzaldehyde	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Bis(2-ethylhexyl)phthalate	**0.0011**		**0.00020**	**mg/L**	1	1/26/2010 10:34 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Caprolactam	**0.00021**		**0.00020**	**mg/L**	1	1/26/2010 10:34 PM
Carbazole	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Chrysene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Dibenzofuran	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Diethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Fluoranthene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Fluorene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Duplicate #1
Collection Date: 1/14/2010

Work Order: 1001316
Lab ID: 1001316-08
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachloroethane	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Isophorone	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Naphthalene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Nitrobenzene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Pentachlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Phenanthrene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Phenol	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Pyrene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
Surr: 2,4,6-Tribromophenol	*73.5*		*34-129*	*%REC*	1	1/26/2010 10:34 PM
Surr: 2-Fluorobiphenyl	*67.4*		*40-125*	*%REC*	1	1/26/2010 10:34 PM
Surr: 2-Fluorophenol	*59.0*		*20-120*	*%REC*	1	1/26/2010 10:34 PM
Surr: 4-Terphenyl-d14	*67.5*		*40-135*	*%REC*	1	1/26/2010 10:34 PM
Surr: Nitrobenzene-d5	*64.9*		*41-120*	*%REC*	1	1/26/2010 10:34 PM
Surr: Phenol-d6	*59.2*		*20-120*	*%REC*	1	1/26/2010 10:34 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/19/2010**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 10:34 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
2-Butanone	ND		0.010	mg/L	1	1/18/2010 06:46 PM
2-Hexanone	ND		0.010	mg/L	1	1/18/2010 06:46 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	1/18/2010 06:46 PM
Acetone	ND		0.010	mg/L	1	1/18/2010 06:46 PM
Benzene	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
Bromodichloromethane	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
Bromoform	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
Bromomethane	ND		0.0050	mg/L	1	1/18/2010 06:46 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Duplicate #1
Collection Date: 1/14/2010

Work Order: 1001316
Lab ID: 1001316-08
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	ND		0.010	mg/L	1	1/18/2010 06:46 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
Chlorobenzene	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
Chloroethane	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
Chloroform	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
Chloromethane	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
Dibromochloromethane	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
Ethylbenzene	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
Isopropylbenzene	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
m,p-Xylene	ND		0.010	mg/L	1	1/18/2010 06:46 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
Methylene chloride	ND		0.010	mg/L	1	1/18/2010 06:46 PM
n-Butylbenzene	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
n-Propylbenzene	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
Naphthalene	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
o-Xylene	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
Styrene	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
Tetrachloroethene	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
Toluene	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
Trichloroethene	ND		0.0050	mg/L	1	1/18/2010 06:46 PM
Vinyl chloride	ND		0.0020	mg/L	1	1/18/2010 06:46 PM
Xylenes, Total	ND		0.015	mg/L	1	1/18/2010 06:46 PM
Surr: 1,2-Dichloroethane-d4	*105*		*70-125*	*%REC*	1	1/18/2010 06:46 PM
Surr: 4-Bromofluorobenzene	*93.6*		*72-125*	*%REC*	1	1/18/2010 06:46 PM
Surr: Dibromofluoromethane	*102*		*71-125*	*%REC*	1	1/18/2010 06:46 PM
Surr: Toluene-d8	*97.4*		*75-125*	*%REC*	1	1/18/2010 06:46 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**49.8**		**0.500**	**mg/L**	1	1/19/2010 11:23 PM
Fluoride	**3.18**		**0.100**	**mg/L**	1	1/19/2010 11:23 PM
Sulfate	**75.0**		**2.50**	**mg/L**	5	1/20/2010 04:22 PM
Nitrate/Nitrite (as N)	**2.11**		**0.500**	**mg/L**	5	1/19/2010 03:56 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	5	1/20/2010 04:22 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1	1/19/2010 11:23 PM
Surr: Selenate (surr)	*89.9*		*85-115*	*%REC*	5	1/19/2010 03:56 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Duplicate #1
Collection Date: 1/14/2010

Work Order: 1001316
Lab ID: 1001316-08
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
ALKALINITY			**SM2320B**			Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**271**		**5.00**	**mg/L**	1	1/19/2010 11:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	1/19/2010 11:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	1/19/2010 11:00 AM
Alkalinity, Total (As CaCO3)	**271**		**5.00**	**mg/L**	1	1/19/2010 11:00 AM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**833**		**1.00**	**µmhos/cm**	1	1/19/2010 08:30 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.51**	H	**0.100**	**pH units**	1	1/15/2010 03:20 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**552**		**10.0**	**mg/L**	1	1/19/2010 04:00 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: Trip Blank 9633
Lab ID: 1001316-09
Collection Date: 1/14/2010
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
2-Butanone	ND		0.010	mg/L	1	1/19/2010 05:20 PM
2-Hexanone	ND		0.010	mg/L	1	1/19/2010 05:20 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	1/19/2010 05:20 PM
Acetone	ND		0.010	mg/L	1	1/19/2010 05:20 PM
Benzene	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
Bromodichloromethane	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
Bromoform	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
Bromomethane	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
Carbon disulfide	ND		0.010	mg/L	1	1/19/2010 05:20 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
Chlorobenzene	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
Chloroethane	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
Chloroform	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
Chloromethane	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
Dibromochloromethane	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
Ethylbenzene	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
Isopropylbenzene	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
m,p-Xylene	ND		0.010	mg/L	1	1/19/2010 05:20 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
Methylene chloride	ND		0.010	mg/L	1	1/19/2010 05:20 PM
n-Butylbenzene	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
n-Propylbenzene	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
Naphthalene	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
o-Xylene	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
Styrene	ND		0.0050	mg/L	1	1/19/2010 05:20 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: Trip Blank 9633
Lab ID: 1001316-09
Collection Date: 1/14/2010
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
Toluene	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
Trichloroethene	ND		0.0050	mg/L	1	1/19/2010 05:20 PM
Vinyl chloride	ND		0.0020	mg/L	1	1/19/2010 05:20 PM
Xylenes, Total	ND		0.015	mg/L	1	1/19/2010 05:20 PM
Surr: 1,2-Dichloroethane-d4	*96.0*		*70-125*	*%REC*	1	1/19/2010 05:20 PM
Surr: 4-Bromofluorobenzene	*98.9*		*72-125*	*%REC*	1	1/19/2010 05:20 PM
Surr: Dibromofluoromethane	*93.9*		*71-125*	*%REC*	1	1/19/2010 05:20 PM
Surr: Toluene-d8	*98.7*		*75-125*	*%REC*	1	1/19/2010 05:20 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Trip Blank 3251
Collection Date: 1/14/2010

Work Order: 1001316
Lab ID: 1001316-10
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
2-Butanone	ND		0.010	mg/L	1	1/19/2010 05:46 PM
2-Hexanone	ND		0.010	mg/L	1	1/19/2010 05:46 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	1/19/2010 05:46 PM
Acetone	ND		0.010	mg/L	1	1/19/2010 05:46 PM
Benzene	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
Bromodichloromethane	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
Bromoform	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
Bromomethane	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
Carbon disulfide	ND		0.010	mg/L	1	1/19/2010 05:46 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
Chlorobenzene	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
Chloroethane	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
Chloroform	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
Chloromethane	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
Dibromochloromethane	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
Ethylbenzene	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
Isopropylbenzene	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
m,p-Xylene	ND		0.010	mg/L	1	1/19/2010 05:46 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
Methylene chloride	ND		0.010	mg/L	1	1/19/2010 05:46 PM
n-Butylbenzene	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
n-Propylbenzene	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
Naphthalene	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
o-Xylene	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
Styrene	ND		0.0050	mg/L	1	1/19/2010 05:46 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Trip Blank 3251
Collection Date: 1/14/2010

Work Order: 1001316
Lab ID: 1001316-10
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
Toluene	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
Trichloroethene	ND		0.0050	mg/L	1	1/19/2010 05:46 PM
Vinyl chloride	ND		0.0020	mg/L	1	1/19/2010 05:46 PM
Xylenes, Total	ND		0.015	mg/L	1	1/19/2010 05:46 PM
Surr: 1,2-Dichloroethane-d4	*102*		*70-125*	*%REC*	1	1/19/2010 05:46 PM
Surr: 4-Bromofluorobenzene	*97.4*		*72-125*	*%REC*	1	1/19/2010 05:46 PM
Surr: Dibromofluoromethane	*100*		*71-125*	*%REC*	1	1/19/2010 05:46 PM
Surr: Toluene-d8	*99.5*		*75-125*	*%REC*	1	1/19/2010 05:46 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: Trip Blank 3248
Lab ID: 1001316-11
Collection Date: 1/15/2010
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
2-Butanone	ND		0.010	mg/L	1	1/16/2010 05:30 PM
2-Hexanone	ND		0.010	mg/L	1	1/16/2010 05:30 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	1/16/2010 05:30 PM
Acetone	ND		0.010	mg/L	1	1/16/2010 05:30 PM
Benzene	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
Bromodichloromethane	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
Bromoform	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
Bromomethane	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
Carbon disulfide	ND		0.010	mg/L	1	1/16/2010 05:30 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
Chlorobenzene	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
Chloroethane	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
Chloroform	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
Chloromethane	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
Dibromochloromethane	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
Ethylbenzene	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
Isopropylbenzene	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
m,p-Xylene	ND		0.010	mg/L	1	1/16/2010 05:30 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
Methylene chloride	ND		0.010	mg/L	1	1/16/2010 05:30 PM
n-Butylbenzene	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
n-Propylbenzene	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
Naphthalene	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
o-Xylene	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
Styrene	ND		0.0050	mg/L	1	1/16/2010 05:30 PM

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

ALS Laboratory Group

Date: *29-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001316
Sample ID: Trip Blank 3248
Lab ID: 1001316-11
Collection Date: 1/15/2010
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
Toluene	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
Trichloroethene	ND		0.0050	mg/L	1	1/16/2010 05:30 PM
Vinyl chloride	ND		0.0020	mg/L	1	1/16/2010 05:30 PM
Xylenes, Total	ND		0.015	mg/L	1	1/16/2010 05:30 PM
Surr: 1,2-Dichloroethane-d4	*104*		*70-125*	*%REC*	1	1/16/2010 05:30 PM
Surr: 4-Bromofluorobenzene	*91.9*		*72-125*	*%REC*	1	1/16/2010 05:30 PM
Surr: Dibromofluoromethane	*101*		*71-125*	*%REC*	1	1/16/2010 05:30 PM
Surr: Toluene-d8	*102*		*75-125*	*%REC*	1	1/16/2010 05:30 PM

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

ALS Laboratory Group

Date: 29-Jan-10

Client: Navajo Refining Company

Work Order: 1001316

Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40572** Instrument ID **ICPMS03** Method: **SW6020** **(Dissolve)**

MBLK Sample ID: **MBLKW3-011910-40572** Units: **mg/L** Analysis Date: **1/20/2010 01:42 PM**

Client ID: Run ID: **ICPMS03_100120A** SeqNo: **1859045** Prep Date: **1/19/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	ND	0.010								
Arsenic	ND	0.0050								
Barium	ND	0.0050								
Boron	ND	0.020								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Chromium	ND	0.0050								
Cobalt	ND	0.0050								
Copper	ND	0.0050								
Iron	ND	0.20								
Lead	0.0006138	0.0050								J
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Molybdenum	ND	0.0050								
Nickel	ND	0.0050								
Potassium	ND	0.20								
Selenium	ND	0.0050								
Silver	ND	0.0050								
Sodium	ND	0.20								
Zinc	ND	0.0050								

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40572** Instrument ID **ICPMS03** Method: **SW6020** **(Dissolve)**

LCS Sample ID: **MLCSW3-011910-40572** Units: **mg/L** Analysis Date: **1/19/2010 07:18 PM**

Client ID: Run ID: **ICPMS03_100119A** SeqNo: **1858583** Prep Date: **1/19/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.09426	0.010	0.1	0	94.3	80-120	0			
Arsenic	0.04834	0.0050	0.05	0	96.7	80-120	0			
Barium	0.04901	0.0050	0.05	0	98	80-120	0			
Boron	0.4599	0.020	0.5	0	92	80-120	0			
Cadmium	0.04869	0.0020	0.05	0	97.4	80-120	0			
Calcium	4.562	0.50	5	0	91.2	80-120	0			
Chromium	0.04605	0.0050	0.05	0	92.1	80-120	0			
Cobalt	0.04636	0.0050	0.05	0	92.7	80-120	0			
Copper	0.04642	0.0050	0.05	0	92.8	80-120	0			
Iron	4.596	0.20	5	0	91.9	80-120	0			
Lead	0.04694	0.0050	0.05	0	93.9	80-120	0			
Magnesium	4.602	0.20	5	0	92	80-120	0			
Manganese	0.04704	0.0050	0.05	0	94.1	80-120	0			
Molybdenum	0.04738	0.0050	0.05	0	94.8	80-120	0			
Nickel	0.04674	0.0050	0.05	0	93.5	80-120	0			
Potassium	4.605	0.20	5	0	92.1	80-120	0			
Selenium	0.04842	0.0050	0.05	0	96.8	80-120	0			
Silver	0.04848	0.0050	0.05	0	97	80-120	0			
Sodium	4.643	0.20	5	0	92.9	80-120	0			
Zinc	0.05322	0.0050	0.05	0	106	80-120	0			

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40572** Instrument ID **ICPMS03** Method: **SW6020** **(Dissolve)**

MS Sample ID: **1001325-06CMS** Units: **mg/L** Analysis Date: **1/19/2010 07:42 PM**

Client ID: Run ID: **ICPMS03_100119A** SeqNo: **1858587** Prep Date: **1/19/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.09018	0.010	0.1	0.003778	86.4	75-125	0			
Arsenic	0.04587	0.0050	0.05	0.0003284	91.1	75-125	0			
Barium	0.943	0.0050	0.05	0.9241	37.8	75-125	0			SO
Boron	0.4826	0.020	0.5	0.08207	80.1	75-125	0			
Cadmium	0.04344	0.0020	0.05	-0.00008788	87.1	75-125	0			
Calcium	254.3	0.50	5	256	-34	75-125	0			SEO
Chromium	0.04444	0.0050	0.05	0.00001318	88.9	75-125	0			
Cobalt	0.04387	0.0050	0.05	0.0005466	86.6	75-125	0			
Copper	0.04566	0.0050	0.05	0.0006718	90	75-125	0			
Iron	4.309	0.20	5	-0.02831	86.7	75-125	0			
Lead	0.04495	0.0050	0.05	0.0003765	89.1	75-125	0			
Magnesium	15.4	0.20	5	11.28	82.4	75-125	0			
Manganese	0.07594	0.0050	0.05	0.03341	85.1	75-125	0			
Molybdenum	0.04759	0.0050	0.05	0.001744	91.7	75-125	0			
Nickel	0.04643	0.0050	0.05	0.003272	86.3	75-125	0			
Potassium	5.431	0.20	5	0.9877	88.9	75-125	0			
Selenium	0.05064	0.0050	0.05	0.004158	93	75-125	0			
Silver	0.04382	0.0050	0.05	0.00008501	87.5	75-125	0			
Sodium	145.9	0.20	5	145.2	14	75-125	0			SO
Zinc	0.05797	0.0050	0.05	0.006388	103	75-125	0			

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40572** Instrument ID **ICPMS03** Method: **SW6020** **(Dissolve)**

MSD Sample ID: **1001325-06CMSD** Units: **mg/L** Analysis Date: **1/19/2010 07:48 PM**

Client ID: Run ID: **ICPMS03_100119A** SeqNo: **1858588** Prep Date: **1/19/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.08907	0.010	0.1	0.003778	85.3	75-125	0.09018	1.24	25	
Arsenic	0.04717	0.0050	0.05	0.0003284	93.7	75-125	0.04587	2.79	25	
Barium	0.9526	0.0050	0.05	0.9241	57	75-125	0.943	1.01	25	SO
Boron	0.5037	0.020	0.5	0.08207	84.3	75-125	0.4826	4.28	25	
Cadmium	0.04373	0.0020	0.05	-0.00008788	87.6	75-125	0.04344	0.665	25	
Calcium	255.8	0.50	5	256	-4	75-125	254.3	0.588	25	SEO
Chromium	0.04432	0.0050	0.05	0.00001318	88.6	75-125	0.04444	0.27	25	
Cobalt	0.04461	0.0050	0.05	0.0005466	88.1	75-125	0.04387	1.67	25	
Copper	0.04348	0.0050	0.05	0.0006718	85.6	75-125	0.04566	4.89	25	
Iron	4.392	0.20	5	-0.02831	88.4	75-125	4.309	1.91	25	
Lead	0.04554	0.0050	0.05	0.0003765	90.3	75-125	0.04495	1.3	25	
Magnesium	15.58	0.20	5	11.28	86	75-125	15.4	1.16	25	
Manganese	0.07747	0.0050	0.05	0.03341	88.1	75-125	0.07594	1.99	25	
Molybdenum	0.04774	0.0050	0.05	0.001744	92	75-125	0.04759	0.315	25	
Nickel	0.04623	0.0050	0.05	0.003272	85.9	75-125	0.04643	0.432	25	
Potassium	5.403	0.20	5	0.9877	88.3	75-125	5.431	0.517	25	
Selenium	0.05107	0.0050	0.05	0.004158	93.8	75-125	0.05064	0.846	25	
Silver	0.04378	0.0050	0.05	0.00008501	87.4	75-125	0.04382	0.0913	25	
Sodium	146.6	0.20	5	145.2	28	75-125	145.9	0.479	25	SO
Zinc	0.04991	0.0050	0.05	0.006388	87	75-125	0.05797	14.9	25	

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40572** Instrument ID **ICPMS03** Method: **SW6020** **(Dissolve)**

DUP Sample ID: **1001325-06CDUP** Units: **mg/L** Analysis Date: **1/19/2010 07:30 PM**
Client ID: Run ID: **ICPMS03_100119A** SeqNo: **1858585** Prep Date: **1/19/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.004273	0.010	0	0	0	0-0	0.003778	0	25	J
Arsenic	ND	0.0050	0	0	0	0-0	0.0003284	0	25	
Barium	0.9417	0.0050	0	0	0	0-0	0.9241	1.89	25	
Boron	0.065	0.020	0	0	0	0-0	0.08207	23.2	25	
Cadmium	ND	0.0020	0	0	0	0-0	-0.00008788	0	25	
Chromium	ND	0.0050	0	0	0	0-0	0.00001318	0	25	
Cobalt	0.0005068	0.0050	0	0	0	0-0	0.0005466	0	25	J
Copper	0.0006069	0.0050	0	0	0	0-0	0.0006718	0	25	J
Iron	ND	0.20	0	0	0	0-0	-0.02831	0	25	
Lead	ND	0.0050	0	0	0	0-0	0.0003765	0	25	
Magnesium	11.3	0.20	0	0	0	0-0	11.28	0.177	25	
Manganese	0.03324	0.0050	0	0	0	0-0	0.03341	0.51	25	
Molybdenum	0.001535	0.0050	0	0	0	0-0	0.001744	0	25	J
Nickel	0.003367	0.0050	0	0	0	0-0	0.003272	0	25	J
Potassium	0.966	0.20	0	0	0	0-0	0.9877	2.22	25	
Silver	ND	0.0050	0	0	0	0-0	0.00008501	0	25	
Sodium	145.8	0.20	0	0	0	0-0	145.2	0.412	25	
Zinc	0.006252	0.0050	0	0	0	0-0	0.006388	2.15	25	

DUP Sample ID: **1001325-06CDUP** Units: **mg/L** Analysis Date: **1/20/2010 01:06 PM**
Client ID: Run ID: **ICPMS03_100120A** SeqNo: **1859039** Prep Date: **1/19/2010** DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	278.4	25	0	0	0	0-0	256	8.42	25	

DUP Sample ID: **1001325-06CDUP** Units: **mg/L** Analysis Date: **1/20/2010 02:00 PM**
Client ID: Run ID: **ICPMS03_100120A** SeqNo: **1859067** Prep Date: **1/19/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.004115	0.0050	0	0	0	0-0	0.004158	0	25	J

The following samples were analyzed in this batch:

1001316-01D	1001316-02D	1001316-03D
1001316-04D	1001316-05D	1001316-06D
1001316-07D	1001316-08D	

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40597** Instrument ID **HG02** Method: **SW7470**

MBLK Sample ID: **GBLKW4-012010-40597** Units: **mg/L** Analysis Date: **1/20/2010 04:32 PM**
Client ID: Run ID: **HG02_100120A** SeqNo: **1859578** Prep Date: **1/20/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: **GLCSW4-012010-40597** Units: **mg/L** Analysis Date: **1/20/2010 04:34 PM**
Client ID: Run ID: **HG02_100120A** SeqNo: **1859579** Prep Date: **1/20/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00519	0.00020	0.005	0	104	85-115	0			

MS Sample ID: **1001316-01CMS** Units: **mg/L** Analysis Date: **1/20/2010 04:40 PM**
Client ID: **MW-4** Run ID: **HG02_100120A** SeqNo: **1859582** Prep Date: **1/20/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00523	0.00020	0.005	0.000011	104	85-115	0			

MSD Sample ID: **1001316-01CMSD** Units: **mg/L** Analysis Date: **1/20/2010 04:42 PM**
Client ID: **MW-4** Run ID: **HG02_100120A** SeqNo: **1859583** Prep Date: **1/20/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00531	0.00020	0.005	0.000011	106	85-115	0.00523	1.52	20	

DUP Sample ID: **1001316-01CDUP** Units: **mg/L** Analysis Date: **1/20/2010 04:38 PM**
Client ID: **MW-4** Run ID: **HG02_100120A** SeqNo: **1859581** Prep Date: **1/20/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020	0	0	0	0-0	0.000011	0	20	

The following samples were analyzed in this batch:

1001316-01C	1001316-02C	1001316-03C
1001316-04C	1001316-05C	1001316-06C
1001316-07C	1001316-08C	

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40735** Instrument ID **ICP7500** Method: **SW6020** **(Dissolve)**

MBLK Sample ID: **MBLKW6-012710-40735** Units: **mg/L** Analysis Date: **1/27/2010 10:18 PM**
Client ID: Run ID: **ICP7500_100127A** SeqNo: **1865293** Prep Date: **1/27/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Uranium	ND	0.0050								

LCS Sample ID: **MLCSW6-012710-40735** Units: **mg/L** Analysis Date: **1/27/2010 10:25 PM**
Client ID: Run ID: **ICP7500_100127A** SeqNo: **1865294** Prep Date: **1/27/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Uranium	0.1072	0.0050	0.1	0	107	80-120	0			

MS Sample ID: **1001316-01DMS** Units: **mg/L** Analysis Date: **1/27/2010 10:49 PM**
Client ID: **MW-4** Run ID: **ICP7500_100127A** SeqNo: **1865298** Prep Date: **1/27/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Uranium	0.1083	0.0050	0.1	0.001017	107	75-125	0			

MSD Sample ID: **1001316-01DMSD** Units: **mg/L** Analysis Date: **1/27/2010 10:55 PM**
Client ID: **MW-4** Run ID: **ICP7500_100127A** SeqNo: **1865299** Prep Date: **1/27/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Uranium	0.1076	0.0050	0.1	0.001017	107	75-125	0.1083	0.648	25	

DUP Sample ID: **1001316-01DDUP** Units: **mg/L** Analysis Date: **1/27/2010 10:37 PM**
Client ID: **MW-4** Run ID: **ICP7500_100127A** SeqNo: **1865296** Prep Date: **1/27/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Uranium	ND	0.0050	0	0	0		0.001017	0	25	

The following samples were analyzed in this batch:

1001316-01D	1001316-02D	1001316-03D
1001316-04D	1001316-05D	1001316-06D
1001316-07D	1001316-08D	

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40568** Instrument ID **SV-4** Method: **SW8270**

MBLK Sample ID: **SBLKW1-100119-40568** Units: **µg/L** Analysis Date: **1/19/2010 04:26 PM**

Client ID: Run ID: **SV-4_100119B** SeqNo: **1859274** Prep Date: **1/19/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1´-Biphenyl	ND	0.20								
1-Methylnaphthalene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
2,4-Dichlorophenol	ND	0.20								
2,4-Dimethylphenol	ND	0.20								
2,4-Dinitrophenol	ND	1.0								
2,4-Dinitrotoluene	ND	0.20								
2,6-Dinitrotoluene	ND	0.20								
2-Chloronaphthalene	ND	0.20								
2-Chlorophenol	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.20								
2-Nitroaniline	ND	0.20								
2-Nitrophenol	ND	0.20								
3&4-Methylphenol	ND	0.20								
3,3´-Dichlorobenzidine	ND	0.20								
3-Nitroaniline	ND	0.20								
4,6-Dinitro-2-methylphenol	ND	0.20								
4-Bromophenyl phenyl ether	ND	0.20								
4-Chloro-3-methylphenol	ND	0.20								
4-Chloroaniline	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
4-Nitroaniline	ND	0.20								
4-Nitrophenol	ND	1.0								
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Acetophenone	ND	0.20								
Anthracene	ND	0.20								
Atrazine	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzaldehyde	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Caprolactam	ND	0.20								

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40568**	Instrument ID **SV-4**		Method: **SW8270**				
Carbazole	ND	0.20					
Chrysene	ND	0.20					
Di-n-butyl phthalate	ND	0.20					
Di-n-octyl phthalate	ND	0.20					
Dibenz(a,h)anthracene	ND	0.20					
Dibenzofuran	ND	0.20					
Diethyl phthalate	ND	0.20					
Dimethyl phthalate	ND	0.20					
Fluoranthene	ND	0.20					
Fluorene	ND	0.20					
Hexachlorobenzene	ND	0.20					
Hexachlorobutadiene	ND	0.20					
Hexachlorocyclopentadiene	ND	0.20					
Hexachloroethane	ND	0.20					
Indeno(1,2,3-cd)pyrene	ND	0.20					
Isophorone	ND	0.20					
N-Nitrosodi-n-propylamine	ND	0.20					
N-Nitrosodiphenylamine	ND	0.20					
Naphthalene	ND	0.20					
Nitrobenzene	ND	0.20					
Pentachlorophenol	ND	0.20					
Phenanthrene	ND	0.20					
Phenol	ND	0.20					
Pyrene	ND	0.20					
Surr: 2,4,6-Tribromophenol	*2.113*	0.20	*5*	0	*42.3*	*34-129*	0
Surr: 2-Fluorobiphenyl	*2.649*	0.20	*5*	0	*53*	*40-125*	0
Surr: 2-Fluorophenol	*2.442*	0.20	*5*	0	*48.8*	*20-120*	0
Surr: 4-Terphenyl-d14	*2.67*	0.20	*5*	0	*53.4*	*40-135*	0
Surr: Nitrobenzene-d5	*2.652*	0.20	*5*	0	*53*	*41-120*	0
Surr: Phenol-d6	*2.699*	0.20	*5*	0	*54*	*20-120*	0

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40568** Instrument ID **SV-4** Method: **SW8270**

LCS Sample ID: **SLCSW1-100119-40568** Units: **µg/L** Analysis Date: **1/19/2010 04:46 PM**

Client ID: Run ID: **SV-4_100119B** SeqNo: **1859275** Prep Date: **1/19/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1´-Biphenyl	4.308	0.20	5	0	86.2	45-125	0			
1-Methylnaphthalene	4.307	0.20	5	0	86.1	45-120	0			
2,4,5-Trichlorophenol	4.095	0.20	5	0	81.9	46-120	0			
2,4,6-Trichlorophenol	4.36	0.20	5	0	87.2	42-120	0			
2,4-Dichlorophenol	4.303	0.20	5	0	86.1	49-120	0			
2,4-Dimethylphenol	3.906	0.20	5	0	78.1	35-120	0			
2,4-Dinitrophenol	3.313	1.0	5	0	66.3	15-120	0			
2,4-Dinitrotoluene	4.523	0.20	5	0	90.5	50-122	0			
2,6-Dinitrotoluene	4.576	0.20	5	0	91.5	50-120	0			
2-Chloronaphthalene	4.641	0.20	5	0	92.8	50-120	0			
2-Chlorophenol	4.299	0.20	5	0	86	40-120	0			
2-Methylnaphthalene	4.232	0.20	5	0	84.6	50-120	0			
2-Methylphenol	4.226	0.20	5	0	84.5	45-120	0			
2-Nitroaniline	4.874	0.20	5	0	97.5	28-139	0			
2-Nitrophenol	4.23	0.20	5	0	84.6	40-120	0			
3&4-Methylphenol	4.391	0.20	5	0	87.8	35-120	0			
3,3´-Dichlorobenzidine	3.239	0.20	5	0	64.8	15-120	0			
3-Nitroaniline	3.343	0.20	5	0	66.9	30-120	0			
4,6-Dinitro-2-methylphenol	4.779	0.20	5	0	95.6	25-121	0			
4-Bromophenyl phenyl ether	5.127	0.20	5	0	103	45-120	0			
4-Chloro-3-methylphenol	4.399	0.20	5	0	88	47-120	0			
4-Chloroaniline	2.519	0.20	5	0	50.4	20-120	0			
4-Chlorophenyl phenyl ether	4.476	0.20	5	0	89.5	50-120	0			
4-Nitroaniline	4.104	0.20	5	0	82.1	30-133	0			
4-Nitrophenol	4.768	1.0	5	0	95.4	30-130	0			
Acenaphthene	4.339	0.20	5	0	86.8	45-120	0			
Acenaphthylene	4.489	0.20	5	0	89.8	47-120	0			
Acetophenone	4.192	0.20	5	0	83.8	40-120	0			
Anthracene	4.42	0.20	5	0	88.4	45-120	0			
Atrazine	4.635	0.20	5	0	92.7	40-130	0			
Benz(a)anthracene	4.415	0.20	5	0	88.3	40-120	0			
Benzaldehyde	3.917	0.20	5	0	78.3	35-130	0			
Benzo(a)pyrene	4.5	0.20	5	0	90	45-120	0			
Benzo(b)fluoranthene	4.398	0.20	5	0	88	50-120	0			
Benzo(g,h,i)perylene	4.424	0.20	5	0	88.5	42-127	0			
Benzo(k)fluoranthene	4.668	0.20	5	0	93.4	45-127	0			
Bis(2-chloroethoxy)methane	4.451	0.20	5	0	89	45-120	0			
Bis(2-chloroethyl)ether	4.571	0.20	5	0	91.4	37-121	0			
Bis(2-chloroisopropyl)ether	4.744	0.20	5	0	94.9	40-120	0			
Bis(2-ethylhexyl)phthalate	4.879	0.20	5	0	97.6	40-139	0			
Butyl benzyl phthalate	4.896	0.20	5	0	97.9	47-123	0			
Caprolactam	4.343	0.20	5	0	86.9	35-134	0			

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40568** Instrument ID **SV-4** Method: **SW8270**

Carbazole	4.488	0.20	5	0	89.8	42-128	0
Chrysene	4.533	0.20	5	0	90.7	43-120	0
Di-n-butyl phthalate	4.631	0.20	5	0	92.6	45-123	0
Di-n-octyl phthalate	5.009	0.20	5	0	100	45-129	0
Dibenz(a,h)anthracene	4.335	0.20	5	0	86.7	45-125	0
Dibenzofuran	4.418	0.20	5	0	88.4	50-120	0
Diethyl phthalate	4.482	0.20	5	0	89.6	41-120	0
Dimethyl phthalate	4.375	0.20	5	0	87.5	40-122	0
Fluoranthene	4.48	0.20	5	0	89.6	45-125	0
Fluorene	4.428	0.20	5	0	88.6	49-120	0
Hexachlorobenzene	4.941	0.20	5	0	98.8	48-120	0
Hexachlorobutadiene	3.988	0.20	5	0	79.8	40-120	0
Hexachlorocyclopentadiene	4.294	0.20	5	0	85.9	34-136	0
Hexachloroethane	4.213	0.20	5	0	84.3	40-120	0
Indeno(1,2,3-cd)pyrene	4.133	0.20	5	0	82.7	41-128	0
Isophorone	4.427	0.20	5	0	88.5	40-121	0
N-Nitrosodi-n-propylamine	4.554	0.20	5	0	91.1	40-120	0
N-Nitrosodiphenylamine	4.584	0.20	5	0	91.7	40-125	0
Naphthalene	4.312	0.20	5	0	86.2	45-120	0
Nitrobenzene	4.447	0.20	5	0	88.9	44-120	0
Pentachlorophenol	3.811	0.20	5	0	76.2	19-121	0
Phenanthrene	4.374	0.20	5	0	87.5	45-121	0
Phenol	4.654	0.20	5	0	93.1	20-124	0
Pyrene	4.563	0.20	5	0	91.3	40-130	0
Surr: 2,4,6-Tribromophenol	*4.217*	0.20	*5*	0	*84.3*	*34-129*	0
Surr: 2-Fluorobiphenyl	*4.267*	0.20	*5*	0	*85.3*	*40-125*	0
Surr: 2-Fluorophenol	*4.151*	0.20	*5*	0	*83*	*20-120*	0
Surr: 4-Terphenyl-d14	*4.041*	0.20	*5*	0	*80.8*	*40-135*	0
Surr: Nitrobenzene-d5	*4.256*	0.20	*5*	0	*85.1*	*41-120*	0
Surr: Phenol-d6	*4.402*	0.20	*5*	0	*88*	*20-120*	0

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40568** Instrument ID **SV-4** Method: **SW8270**

LCSD Sample ID: **SLCSDW1-100119-40568** Units: **µg/L** Analysis Date: **1/19/2010 05:49 PM**

Client ID: Run ID: **SV-4_100119B** SeqNo: **1859279** Prep Date: **1/19/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1´-Biphenyl	4.133	0.20	5	0	82.7	45-125	4.308	4.15	20	
1-Methylnaphthalene	4.291	0.20	5	0	85.8	45-120	4.307	0.375	20	
2,4,5-Trichlorophenol	4.122	0.20	5	0	82.4	46-120	4.095	0.655	20	
2,4,6-Trichlorophenol	4.105	0.20	5	0	82.1	42-120	4.36	6.02	20	
2,4-Dichlorophenol	4.279	0.20	5	0	85.6	49-120	4.303	0.557	20	
2,4-Dimethylphenol	3.571	0.20	5	0	71.4	35-120	3.906	8.95	20	
2,4-Dinitrophenol	2.897	1.0	5	0	57.9	15-120	3.313	13.4	20	
2,4-Dinitrotoluene	4.249	0.20	5	0	85	50-122	4.523	6.24	20	
2,6-Dinitrotoluene	4.403	0.20	5	0	88.1	50-120	4.576	3.86	20	
2-Chloronaphthalene	4.318	0.20	5	0	86.4	50-120	4.641	7.21	20	
2-Chlorophenol	4.304	0.20	5	0	86.1	40-120	4.299	0.121	20	
2-Methylnaphthalene	4.165	0.20	5	0	83.3	50-120	4.232	1.61	20	
2-Methylphenol	4.615	0.20	5	0	92.3	45-120	4.226	8.8	20	
2-Nitroaniline	4.651	0.20	5	0	93	28-139	4.874	4.69	20	
2-Nitrophenol	4.175	0.20	5	0	83.5	40-120	4.23	1.31	20	
3&4-Methylphenol	4.507	0.20	5	0	90.1	35-120	4.391	2.61	20	
3,3´-Dichlorobenzidine	2.703	0.20	5	0	54.1	15-120	3.239	18	20	
3-Nitroaniline	2.939	0.20	5	0	58.8	30-120	3.343	12.9	20	
4,6-Dinitro-2-methylphenol	4.516	0.20	5	0	90.3	25-121	4.779	5.66	20	
4-Bromophenyl phenyl ether	5.112	0.20	5	0	102	45-120	5.127	0.284	20	
4-Chloro-3-methylphenol	4.277	0.20	5	0	85.5	47-120	4.399	2.8	20	
4-Chloroaniline	2.086	0.20	5	0	41.7	20-120	2.519	18.8	20	
4-Chlorophenyl phenyl ether	4.268	0.20	5	0	85.4	50-120	4.476	4.77	20	
4-Nitroaniline	3.943	0.20	5	0	78.9	30-133	4.104	4	20	
4-Nitrophenol	4.382	1.0	5	0	87.6	30-130	4.768	8.42	20	
Acenaphthene	4.199	0.20	5	0	84	45-120	4.339	3.28	20	
Acenaphthylene	4.392	0.20	5	0	87.8	47-120	4.489	2.2	20	
Acetophenone	4.196	0.20	5	0	83.9	40-120	4.192	0.0815	20	
Anthracene	4.389	0.20	5	0	87.8	45-120	4.42	0.702	20	
Atrazine	4.51	0.20	5	0	90.2	40-130	4.635	2.72	20	
Benz(a)anthracene	4.335	0.20	5	0	86.7	40-120	4.415	1.84	20	
Benzaldehyde	3.943	0.20	5	0	78.9	35-130	3.917	0.649	20	
Benzo(a)pyrene	4.424	0.20	5	0	88.5	45-120	4.5	1.7	20	
Benzo(b)fluoranthene	4.494	0.20	5	0	89.9	50-120	4.398	2.16	20	
Benzo(g,h,i)perylene	4.173	0.20	5	0	83.5	42-127	4.424	5.85	20	
Benzo(k)fluoranthene	5.087	0.20	5	0	102	45-127	4.668	8.6	20	
Bis(2-chloroethoxy)methane	4.372	0.20	5	0	87.4	45-120	4.451	1.78	20	
Bis(2-chloroethyl)ether	4.724	0.20	5	0	94.5	37-121	4.571	3.3	20	
Bis(2-chloroisopropyl)ether	4.924	0.20	5	0	98.5	40-120	4.744	3.72	20	
Bis(2-ethylhexyl)phthalate	4.794	0.20	5	0	95.9	40-139	4.879	1.75	20	
Butyl benzyl phthalate	4.965	0.20	5	0	99.3	47-123	4.896	1.41	20	
Caprolactam	4.349	0.20	5	0	87	35-134	4.343	0.131	20	

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40568** Instrument ID **SV-4** Method: **SW8270**

Carbazole	4.475	0.20	5	0	89.5	42-128	4.488	0.297	20
Chrysene	4.5	0.20	5	0	90	43-120	4.533	0.728	20
Di-n-butyl phthalate	4.64	0.20	5	0	92.8	45-123	4.631	0.186	20
Di-n-octyl phthalate	4.95	0.20	5	0	99	45-129	5.009	1.2	20
Dibenz(a,h)anthracene	4.236	0.20	5	0	84.7	45-125	4.335	2.32	20
Dibenzofuran	4.254	0.20	5	0	85.1	50-120	4.418	3.79	20
Diethyl phthalate	4.359	0.20	5	0	87.2	41-120	4.482	2.78	20
Dimethyl phthalate	4.306	0.20	5	0	86.1	40-122	4.375	1.6	20
Fluoranthene	4.462	0.20	5	0	89.2	45-125	4.48	0.391	20
Fluorene	4.287	0.20	5	0	85.7	49-120	4.428	3.24	20
Hexachlorobenzene	4.942	0.20	5	0	98.8	48-120	4.941	0.024	20
Hexachlorobutadiene	3.781	0.20	5	0	75.6	40-120	3.988	5.34	20
Hexachlorocyclopentadiene	3.941	0.20	5	0	78.8	34-136	4.294	8.58	20
Hexachloroethane	4.337	0.20	5	0	86.7	40-120	4.213	2.9	20
Indeno(1,2,3-cd)pyrene	4.173	0.20	5	0	83.5	41-128	4.133	0.963	20
Isophorone	4.4	0.20	5	0	88	40-121	4.427	0.617	20
N-Nitrosodi-n-propylamine	4.565	0.20	5	0	91.3	40-120	4.554	0.234	20
N-Nitrosodiphenylamine	4.61	0.20	5	0	92.2	40-125	4.584	0.577	20
Naphthalene	4.361	0.20	5	0	87.2	45-120	4.312	1.14	20
Nitrobenzene	4.463	0.20	5	0	89.3	44-120	4.447	0.361	20
Pentachlorophenol	3.62	0.20	5	0	72.4	19-121	3.811	5.13	20
Phenanthrene	4.375	0.20	5	0	87.5	45-121	4.374	0.00985	20
Phenol	4.804	0.20	5	0	96.1	20-124	4.654	3.16	20
Pyrene	4.673	0.20	5	0	93.5	40-130	4.563	2.39	20
Surr: 2,4,6-Tribromophenol	*4.032*	0.20	*5*	0	*80.6*	*34-129*	4.217	*4.48*	*20*
Surr: 2-Fluorobiphenyl	*4.261*	0.20	*5*	0	*85.2*	*40-125*	4.267	*0.132*	*20*
Surr: 2-Fluorophenol	*4.169*	0.20	*5*	0	*83.4*	*20-120*	4.151	*0.428*	*20*
Surr: 4-Terphenyl-d14	*4.196*	0.20	*5*	0	*83.9*	*40-135*	4.041	*3.75*	*20*
Surr: Nitrobenzene-d5	*4.323*	0.20	*5*	0	*86.5*	*41-120*	4.256	*1.56*	*20*
Surr: Phenol-d6	*4.658*	0.20	*5*	0	*93.2*	*20-120*	4.402	*5.65*	*20*

The following samples were analyzed in this batch:

1001316-01F	1001316-02F	1001316-03F
1001316-04F	1001316-05F	1001316-06F
1001316-07F	1001316-08F	

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86006** Instrument ID **VOA1** Method: **SW8260**

MBLK Sample ID: **VBLKW-011610-R86006** Units: **µg/L** Analysis Date: **1/16/2010 02:34 PM**

Client ID: Run ID: **VOA1_100116A** SeqNo: **1857260** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
2-Butanone	ND	10								
2-Hexanone	ND	10								
4-Isopropyltoluene	ND	5.0								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
Isopropylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methyl tert-butyl ether	ND	5.0								
Methylene chloride	ND	10								
n-Butylbenzene	ND	5.0								
n-Propylbenzene	ND	5.0								
Naphthalene	ND	5.0								
o-Xylene	ND	5.0								
sec-Butylbenzene	ND	5.0								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,2-Dichloroethene	ND	5.0								

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86006**	Instrument ID **VOA1**		Method: **SW8260**				
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Vinyl chloride	ND	2.0					
Xylenes, Total	ND	15					
Surr: 1,2-Dichloroethane-d4	*50.3*	5.0	*50*	0	*101*	*70-125*	0
Surr: 4-Bromofluorobenzene	*47.7*	5.0	*50*	0	*95.4*	*72-125*	0
Surr: Dibromofluoromethane	*48.81*	5.0	*50*	0	*97.6*	*71-125*	0
Surr: Toluene-d8	*49.89*	5.0	*50*	0	*99.8*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86006** Instrument ID **VOA1** Method: **SW8260**

LCS Sample ID: **VLCSW-011610-R86006** Units: **µg/L** Analysis Date: **1/16/2010 01:18 PM**

Client ID: Run ID: **VOA1_100116A** SeqNo: **1857259** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	49.04	5.0	50	0	98.1	80-120	0			
1,1,2,2-Tetrachloroethane	51.18	5.0	50	0	102	72-120	0			
1,1,2-Trichloroethane	50.33	5.0	50	0	101	80-120	0			
1,1-Dichloroethane	47.21	5.0	50	0	94.4	76-120	0			
1,1-Dichloroethene	54.6	5.0	50	0	109	73-124	0			
1,2,4-Trimethylbenzene	51.2	5.0	50	0	102	68-123	0			
1,2-Dibromoethane	51.81	5.0	50	0	104	80-120	0			
1,2-Dichloroethane	48.19	5.0	50	0	96.4	78-120	0			
1,2-Dichloropropane	47.88	5.0	50	0	95.8	80-120	0			
1,3,5-Trimethylbenzene	47.52	5.0	50	0	95	80-120	0			
2-Butanone	103.1	10	100	0	103	58-132	0			
2-Hexanone	109.4	10	100	0	109	61-130	0			
4-Isopropyltoluene	49.82	5.0	50	0	99.6	79-120	0			
4-Methyl-2-pentanone	103.3	10	100	0	103	65-127	0			
Acetone	98.94	10	100	0	98.9	59-137	0			
Benzene	49.97	5.0	50	0	99.9	73-121	0			
Bromodichloromethane	48.59	5.0	50	0	97.2	80-120	0			
Bromoform	52.54	5.0	50	0	105	79-120	0			
Bromomethane	44.06	5.0	50	0	88.1	66-137	0			
Carbon disulfide	106.6	10	100	0	107	68-141	0			
Carbon tetrachloride	49.42	5.0	50	0	98.8	75-124	0			
Chlorobenzene	48.77	5.0	50	0	97.5	80-120	0			
Chloroethane	47.06	5.0	50	0	94.1	76-121	0			
Chloroform	46.9	5.0	50	0	93.8	80-120	0			
Chloromethane	44	5.0	50	0	88	67-123	0			
cis-1,2-Dichloroethene	50.14	5.0	50	0	100	78-120	0			
cis-1,3-Dichloropropene	44.26	5.0	50	0	88.5	80-120	0			
Dibromochloromethane	52.04	5.0	50	0	104	80-120	0			
Ethylbenzene	50.83	5.0	50	0	102	80-120	0			
Isopropylbenzene	53.31	5.0	50	0	107	80-120	0			
m,p-Xylene	98.06	10	100	0	98.1	78-121	0			
Methyl tert-butyl ether	52.46	5.0	50	0	105	73-121	0			
Methylene chloride	46.15	10	50	0	92.3	65-133	0			
n-Butylbenzene	52.28	5.0	50	0	105	77-120	0			
n-Propylbenzene	50.9	5.0	50	0	102	78-120	0			
Naphthalene	55.92	5.0	50	0	112	65-127	0			
o-Xylene	49.17	5.0	50	0	98.3	80-120	0			
sec-Butylbenzene	52.2	5.0	50	0	104	78-120	0			
Styrene	50.62	5.0	50	0	101	80-120	0			
Tetrachloroethene	54.75	5.0	50	0	109	79-120	0			
Toluene	53	5.0	50	0	106	80-120	0			
trans-1,2-Dichloroethene	46.38	5.0	50	0	92.8	78-120	0			

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

Batch ID: **R86006**	Instrument ID **VOA1**		Method: **SW8260**				
trans-1,3-Dichloropropene	47.74	5.0	50	0	95.5	80-120	0
Trichloroethene	51.13	5.0	50	0	102	80-120	0
Vinyl chloride	42.71	2.0	50	0	85.4	70-127	0
Xylenes, Total	147.2	15	150	0	98.2	80-120	0
Surr: 1,2-Dichloroethane-d4	*47.73*	5.0	*50*	0	*95.5*	*70-125*	0
Surr: 4-Bromofluorobenzene	*51.51*	5.0	*50*	0	*103*	*72-125*	0
Surr: Dibromofluoromethane	*48.62*	5.0	*50*	0	*97.2*	*71-125*	0
Surr: Toluene-d8	*52.2*	5.0	*50*	0	*104*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86006** Instrument ID **VOA1** Method: **SW8260**

MS Sample ID: **1001229-01AMS** Units: **µg/L** Analysis Date: **1/16/2010 03:50 PM**

Client ID: Run ID: **VOA1_100116A** SeqNo: **1857264** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	46.19	5.0	50	0	92.4	80-120	0			
1,1,2,2-Tetrachloroethane	51.07	5.0	50	0	102	72-120	0			
1,1,2-Trichloroethane	49.13	5.0	50	0	98.3	80-120	0			
1,1-Dichloroethane	48.91	5.0	50	0	97.8	76-120	0			
1,1-Dichloroethene	48.36	5.0	50	0	96.7	73-124	0			
1,2,4-Trimethylbenzene	50.23	5.0	50	0	100	68-123	0			
1,2-Dibromoethane	49.23	5.0	50	0	98.5	80-120	0			
1,2-Dichloroethane	48.88	5.0	50	0	97.8	78-120	0			
1,2-Dichloropropane	49.83	5.0	50	0	99.7	80-120	0			
1,3,5-Trimethylbenzene	52.05	5.0	50	0	104	80-120	0			
2-Butanone	106.2	10	100	0	106	58-132	0			
2-Hexanone	102.1	10	100	0	102	61-130	0			
4-Isopropyltoluene	47.65	5.0	50	0	95.3	79-120	0			
4-Methyl-2-pentanone	103.6	10	100	0	104	65-127	0			
Acetone	91.29	10	100	0	91.3	59-137	0			
Benzene	49.61	5.0	50	0	99.2	73-121	0			
Bromodichloromethane	51.89	5.0	50	0	104	80-120	0			
Bromoform	50.48	5.0	50	0	101	79-120	0			
Bromomethane	47.47	5.0	50	0	94.9	66-137	0			
Carbon disulfide	92.4	10	100	0	92.4	68-141	0			
Carbon tetrachloride	45.52	5.0	50	0	91	75-124	0			
Chlorobenzene	48.27	5.0	50	0	96.5	80-120	0			
Chloroethane	43.71	5.0	50	0	87.4	76-121	0			
Chloroform	49.21	5.0	50	0	98.4	80-120	0			
Chloromethane	45.43	5.0	50	0	90.9	67-123	0			
cis-1,2-Dichloroethene	49.39	5.0	50	0	98.8	78-120	0			
cis-1,3-Dichloropropene	48	5.0	50	0	96	80-120	0			
Dibromochloromethane	50.67	5.0	50	0	101	80-120	0			
Ethylbenzene	49.09	5.0	50	0	98.2	80-120	0			
Isopropylbenzene	49.03	5.0	50	0	98.1	80-120	0			
m,p-Xylene	97.7	10	100	0	97.7	78-121	0			
Methyl tert-butyl ether	48.58	5.0	50	0	97.2	73-121	0			
Methylene chloride	47.54	10	50	0	95.1	65-133	0			
n-Butylbenzene	50.22	5.0	50	0	100	77-120	0			
n-Propylbenzene	49.27	5.0	50	0	98.5	78-120	0			
Naphthalene	52.59	5.0	50	0	105	65-127	0			
o-Xylene	48.17	5.0	50	0	96.3	80-120	0			
sec-Butylbenzene	49.41	5.0	50	0	98.8	78-120	0			
Styrene	48.24	5.0	50	0	96.5	80-120	0			
Tetrachloroethene	46.28	5.0	50	0	92.6	79-120	0			
Toluene	47.94	5.0	50	0	95.9	80-120	0			
trans-1,2-Dichloroethene	47.92	5.0	50	0	95.8	78-120	0			

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86006**	Instrument ID **VOA1**		Method: **SW8260**				
trans-1,3-Dichloropropene	49.1	5.0	50	0	98.2	80-120	0
Trichloroethene	50.29	5.0	50	0	101	80-120	0
Vinyl chloride	46.35	2.0	50	0	92.7	70-127	0
Xylenes, Total	145.9	15	150	0	97.3	80-120	0
Surr: 1,2-Dichloroethane-d4	*51.16*	5.0	*50*	0	*102*	*70-125*	0
Surr: 4-Bromofluorobenzene	*49.28*	5.0	*50*	0	*98.6*	*72-125*	0
Surr: Dibromofluoromethane	*48.4*	5.0	*50*	0	*96.8*	*71-125*	0
Surr: Toluene-d8	*48.05*	5.0	*50*	0	*96.1*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86006** Instrument ID **VOA1** Method: **SW8260**

MSD Sample ID: **1001229-01AMSD** Units: **µg/L** Analysis Date: **1/16/2010 04:15 PM**

Client ID: Run ID: **VOA1_100116A** SeqNo: **1857265** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	44.83	5.0	50	0	89.7	80-120	46.19	3	20	
1,1,2,2-Tetrachloroethane	49.86	5.0	50	0	99.7	72-120	51.07	2.4	20	
1,1,2-Trichloroethane	47.29	5.0	50	0	94.6	80-120	49.13	3.81	20	
1,1-Dichloroethane	45.42	5.0	50	0	90.8	76-120	48.91	7.41	20	
1,1-Dichloroethene	43.58	5.0	50	0	87.2	73-124	48.36	10.4	20	
1,2,4-Trimethylbenzene	48.56	5.0	50	0	97.1	68-123	50.23	3.38	20	
1,2-Dibromoethane	50.35	5.0	50	0	101	80-120	49.23	2.25	20	
1,2-Dichloroethane	48.33	5.0	50	0	96.7	78-120	48.88	1.13	20	
1,2-Dichloropropane	48.95	5.0	50	0	97.9	80-120	49.83	1.79	20	
1,3,5-Trimethylbenzene	47.26	5.0	50	0	94.5	80-120	52.05	9.65	20	
2-Butanone	94.89	10	100	0	94.9	58-132	106.2	11.3	20	
2-Hexanone	94.04	10	100	0	94	61-130	102.1	8.22	20	
4-Isopropyltoluene	46.45	5.0	50	0	92.9	79-120	47.65	2.57	20	
4-Methyl-2-pentanone	92.13	10	100	0	92.1	65-127	103.6	11.7	20	
Acetone	81.04	10	100	0	81	59-137	91.29	11.9	20	
Benzene	47.82	5.0	50	0	95.6	73-121	49.61	3.67	20	
Bromodichloromethane	50.12	5.0	50	0	100	80-120	51.89	3.47	20	
Bromoform	48.77	5.0	50	0	97.5	79-120	50.48	3.44	20	
Bromomethane	45.28	5.0	50	0	90.6	66-137	47.47	4.71	20	
Carbon disulfide	88.48	10	100	0	88.5	68-141	92.4	4.34	20	
Carbon tetrachloride	45.55	5.0	50	0	91.1	75-124	45.52	0.0593	20	
Chlorobenzene	49.15	5.0	50	0	98.3	80-120	48.27	1.82	20	
Chloroethane	41.92	5.0	50	0	83.8	76-121	43.71	4.16	20	
Chloroform	47.95	5.0	50	0	95.9	80-120	49.21	2.6	20	
Chloromethane	41.53	5.0	50	0	83.1	67-123	45.43	8.95	20	
cis-1,2-Dichloroethene	47.75	5.0	50	0	95.5	78-120	49.39	3.38	20	
cis-1,3-Dichloropropene	45.76	5.0	50	0	91.5	80-120	48	4.77	20	
Dibromochloromethane	50.53	5.0	50	0	101	80-120	50.67	0.278	20	
Ethylbenzene	47.72	5.0	50	0	95.4	80-120	49.09	2.83	20	
Isopropylbenzene	44.25	5.0	50	0	88.5	80-120	49.03	10.3	20	
m,p-Xylene	92.31	10	100	0	92.3	78-121	97.7	5.67	20	
Methyl tert-butyl ether	50.14	5.0	50	0	100	73-121	48.58	3.16	20	
Methylene chloride	47.32	10	50	0	94.6	65-133	47.54	0.467	20	
n-Butylbenzene	45.75	5.0	50	0	91.5	77-120	50.22	9.31	20	
n-Propylbenzene	50.04	5.0	50	0	100	78-120	49.27	1.55	20	
Naphthalene	49.73	5.0	50	0	99.5	65-127	52.59	5.59	20	
o-Xylene	47.92	5.0	50	0	95.8	80-120	48.17	0.533	20	
sec-Butylbenzene	47.94	5.0	50	0	95.9	78-120	49.41	3.02	20	
Styrene	46.53	5.0	50	0	93.1	80-120	48.24	3.6	20	
Tetrachloroethene	44.2	5.0	50	0	88.4	79-120	46.28	4.6	20	
Toluene	46.33	5.0	50	0	92.7	80-120	47.94	3.41	20	
trans-1,2-Dichloroethene	45.28	5.0	50	0	90.6	78-120	47.92	5.68	20	

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86006** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	47.95	5.0	50	0	95.9	80-120	49.1	2.37	20
Trichloroethene	47.41	5.0	50	0	94.8	80-120	50.29	5.89	20
Vinyl chloride	40.16	2.0	50	0	80.3	70-127	46.35	14.3	20
Xylenes, Total	140.2	15	150	0	93.5	80-120	145.9	3.95	20
Surr: 1,2-Dichloroethane-d4	*47.08*	5.0	*50*	0	*94.2*	*70-125*	51.16	*8.31*	*20*
Surr: 4-Bromofluorobenzene	*48.74*	5.0	*50*	0	*97.5*	*72-125*	49.28	*1.1*	*20*
Surr: Dibromofluoromethane	*47.56*	5.0	*50*	0	*95.1*	*71-125*	48.4	*1.76*	*20*
Surr: Toluene-d8	*47.58*	5.0	*50*	0	*95.2*	*75-125*	48.05	*0.999*	*20*

The following samples were analyzed in this batch:

1001316-01A	1001316-02A	1001316-03A
1001316-04A	1001316-11A	

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86029** Instrument ID **VOA2** Method: **SW8260**

MBLK Sample ID: **VBLKW-011810-R86029** Units: **µg/L** Analysis Date: **1/18/2010 12:40 PM**

Client ID: Run ID: **VOA2_100118A** SeqNo: **1857749** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
2-Butanone	ND	10								
2-Hexanone	ND	10								
4-Isopropyltoluene	ND	5.0								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
Isopropylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methyl tert-butyl ether	ND	5.0								
Methylene chloride	ND	10								
n-Butylbenzene	ND	5.0								
n-Propylbenzene	ND	5.0								
Naphthalene	ND	5.0								
o-Xylene	ND	5.0								
sec-Butylbenzene	ND	5.0								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,2-Dichloroethene	ND	5.0								

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

Batch ID: **R86029**	Instrument ID **VOA2**		Method: **SW8260**				
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Vinyl chloride	ND	2.0					
Xylenes, Total	ND	15					
Surr: 1,2-Dichloroethane-d4	*60.04*	5.0	*50*	0	*120*	*70-125*	0
Surr: 4-Bromofluorobenzene	*47.51*	5.0	*50*	0	*95*	*72-125*	0
Surr: Dibromofluoromethane	*48.04*	5.0	*50*	0	*96.1*	*71-125*	0
Surr: Toluene-d8	*49.74*	5.0	*50*	0	*99.5*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86029** Instrument ID **VOA2** Method: **SW8260**

LCS Sample ID: **VLCSW-011810-R86029** Units: **µg/L** Analysis Date: **1/18/2010 11:02 AM**

Client ID: Run ID: **VOA2_100118A** SeqNo: **1857746** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	48.96	5.0	50	0	97.9	80-120	0			
1,1,2,2-Tetrachloroethane	52.93	5.0	50	0	106	72-120	0			
1,1,2-Trichloroethane	49.15	5.0	50	0	98.3	80-120	0			
1,1-Dichloroethane	48.69	5.0	50	0	97.4	76-120	0			
1,1-Dichloroethene	47.48	5.0	50	0	95	73-124	0			
1,2,4-Trimethylbenzene	46.07	5.0	50	0	92.1	68-123	0			
1,2-Dibromoethane	49.19	5.0	50	0	98.4	80-120	0			
1,2-Dichloroethane	46.26	5.0	50	0	92.5	78-120	0			
1,2-Dichloropropane	51.23	5.0	50	0	102	80-120	0			
1,3,5-Trimethylbenzene	47.23	5.0	50	0	94.5	80-120	0			
2-Butanone	108.8	10	100	0	109	58-132	0			
2-Hexanone	111.5	10	100	0	111	61-130	0			
4-Isopropyltoluene	46.78	5.0	50	0	93.6	79-120	0			
4-Methyl-2-pentanone	112.8	10	100	0	113	65-127	0			
Acetone	101.1	10	100	0	101	59-137	0			
Benzene	49.65	5.0	50	0	99.3	73-121	0			
Bromodichloromethane	48.3	5.0	50	0	96.6	80-120	0			
Bromoform	50.39	5.0	50	0	101	79-120	0			
Bromomethane	41.22	5.0	50	0	82.4	66-137	0			
Carbon disulfide	102.9	10	100	0	103	68-141	0			
Carbon tetrachloride	48.76	5.0	50	0	97.5	75-124	0			
Chlorobenzene	45.37	5.0	50	0	90.7	80-120	0			
Chloroethane	47.08	5.0	50	0	94.2	76-121	0			
Chloroform	46.92	5.0	50	0	93.8	80-120	0			
Chloromethane	53.03	5.0	50	0	106	67-123	0			
cis-1,2-Dichloroethene	52.88	5.0	50	0	106	78-120	0			
cis-1,3-Dichloropropene	51.48	5.0	50	0	103	80-120	0			
Dibromochloromethane	46.3	5.0	50	0	92.6	80-120	0			
Ethylbenzene	46.76	5.0	50	0	93.5	80-120	0			
Isopropylbenzene	45.89	5.0	50	0	91.8	80-120	0			
m,p-Xylene	92.59	10	100	0	92.6	78-121	0			
Methyl tert-butyl ether	52.78	5.0	50	0	106	73-121	0			
Methylene chloride	46.5	10	50	0	93	65-133	0			
n-Butylbenzene	45.96	5.0	50	0	91.9	77-120	0			
n-Propylbenzene	47.4	5.0	50	0	94.8	78-120	0			
Naphthalene	60.62	5.0	50	0	121	65-127	0			
o-Xylene	45.87	5.0	50	0	91.7	80-120	0			
sec-Butylbenzene	46.6	5.0	50	0	93.2	78-120	0			
Styrene	45.73	5.0	50	0	91.5	80-120	0			
Tetrachloroethene	45.43	5.0	50	0	90.9	79-120	0			
Toluene	46.62	5.0	50	0	93.2	80-120	0			
trans-1,2-Dichloroethene	48.58	5.0	50	0	97.2	78-120	0			

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

Batch ID: **R86029**	Instrument ID **VOA2**		Method: **SW8260**				
trans-1,3-Dichloropropene	50.23	5.0	50	0	100	80-120	0
Trichloroethene	45.23	5.0	50	0	90.5	80-120	0
Vinyl chloride	47.68	2.0	50	0	95.4	70-127	0
Xylenes, Total	138.5	15	150	0	92.3	80-120	0
Surr: 1,2-Dichloroethane-d4	*54.72*	5.0	*50*	0	*109*	*70-125*	0
Surr: 4-Bromofluorobenzene	*47.82*	5.0	*50*	0	*95.6*	*72-125*	0
Surr: Dibromofluoromethane	*51.27*	5.0	*50*	0	*103*	*71-125*	0
Surr: Toluene-d8	*49.15*	5.0	*50*	0	*98.3*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86029** Instrument ID **VOA2** Method: **SW8260**

MS Sample ID: **1001325-06AMS** Units: **µg/L** Analysis Date: **1/18/2010 03:31 PM**

Client ID: Run ID: **VOA2_100118A** SeqNo: **1857754** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	45.81	5.0	50	0	91.6	80-120	0			
1,1,2,2-Tetrachloroethane	57.63	5.0	50	0	115	72-120	0			
1,1,2-Trichloroethane	53.33	5.0	50	0	107	80-120	0			
1,1-Dichloroethane	47.7	5.0	50	0	95.4	76-120	0			
1,1-Dichloroethene	43.33	5.0	50	0	86.7	73-124	0			
1,2,4-Trimethylbenzene	45.88	5.0	50	0	91.8	68-123	0			
1,2-Dibromoethane	52.76	5.0	50	0	106	80-120	0			
1,2-Dichloroethane	50.37	5.0	50	0	101	78-120	0			
1,2-Dichloropropane	53.64	5.0	50	0	107	80-120	0			
1,3,5-Trimethylbenzene	46.37	5.0	50	0	92.7	80-120	0			
2-Butanone	115.6	10	100	0	116	58-132	0			
2-Hexanone	119.9	10	100	0	120	61-130	0			
4-Isopropyltoluene	44.3	5.0	50	0	88.6	79-120	0			
4-Methyl-2-pentanone	123.9	10	100	0	124	65-127	0			
Acetone	102.6	10	100	0	103	59-137	0			
Benzene	50.98	5.0	50	0	102	73-121	0			
Bromodichloromethane	50.5	5.0	50	0	101	80-120	0			
Bromoform	51.2	5.0	50	0	102	79-120	0			
Bromomethane	37.6	5.0	50	0	75.2	66-137	0			
Carbon disulfide	94.9	10	100	0	94.9	68-141	0			
Carbon tetrachloride	43.22	5.0	50	0	86.4	75-124	0			
Chlorobenzene	47.19	5.0	50	0	94.4	80-120	0			
Chloroethane	45.71	5.0	50	0	91.4	76-121	0			
Chloroform	45.26	5.0	50	0	90.5	80-120	0			
Chloromethane	53.47	5.0	50	0	107	67-123	0			
cis-1,2-Dichloroethene	50.33	5.0	50	0	101	78-120	0			
cis-1,3-Dichloropropene	53.18	5.0	50	0	106	80-120	0			
Dibromochloromethane	48.36	5.0	50	0	96.7	80-120	0			
Ethylbenzene	46.49	5.0	50	0	93	80-120	0			
Isopropylbenzene	45.06	5.0	50	0	90.1	80-120	0			
m,p-Xylene	93.25	10	100	0	93.3	78-121	0			
Methyl tert-butyl ether	50.2	5.0	50	0	100	73-121	0			
Methylene chloride	49.05	10	50	0	98.1	65-133	0			
n-Butylbenzene	42.37	5.0	50	0	84.7	77-120	0			
n-Propylbenzene	46.14	5.0	50	0	92.3	78-120	0			
Naphthalene	55.09	5.0	50	0	110	65-127	0			
o-Xylene	46.75	5.0	50	0	93.5	80-120	0			
sec-Butylbenzene	43.78	5.0	50	0	87.6	78-120	0			
Styrene	46.88	5.0	50	0	93.8	80-120	0			
Tetrachloroethene	42.88	5.0	50	0	85.8	79-120	0			
Toluene	48.02	5.0	50	0	96	80-120	0			
trans-1,2-Dichloroethene	46.05	5.0	50	0	92.1	78-120	0			

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86029** Instrument ID **VOA2** Method: **SW8260**

trans-1,3-Dichloropropene	51.76	5.0	50	0	104	80-120	0
Trichloroethene	45.75	5.0	50	0	91.5	80-120	0
Vinyl chloride	44.36	2.0	50	0	88.7	70-127	0
Xylenes, Total	140	15	150	0	93.3	80-120	0
Surr: 1,2-Dichloroethane-d4	*57.56*	5.0	*50*	0	*115*	*70-125*	0
Surr: 4-Bromofluorobenzene	*52.31*	5.0	*50*	0	*105*	*72-125*	0
Surr: Dibromofluoromethane	*57.27*	5.0	*50*	0	*115*	*71-125*	0
Surr: Toluene-d8	*54.34*	5.0	*50*	0	*109*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86029** Instrument ID **VOA2** Method: **SW8260**

MSD Sample ID: **1001325-06AMSD** Units: **µg/L** Analysis Date: **1/18/2010 03:55 PM**

Client ID: Run ID: **VOA2_100118A** SeqNo: **1857757** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	44.88	5.0	50	0	89.8	80-120	45.81	2.04	20	
1,1,2,2-Tetrachloroethane	56.57	5.0	50	0	113	72-120	57.63	1.85	20	
1,1,2-Trichloroethane	52.69	5.0	50	0	105	80-120	53.33	1.21	20	
1,1-Dichloroethane	48.05	5.0	50	0	96.1	76-120	47.7	0.74	20	
1,1-Dichloroethene	42.66	5.0	50	0	85.3	73-124	43.33	1.57	20	
1,2,4-Trimethylbenzene	45.65	5.0	50	0	91.3	68-123	45.88	0.502	20	
1,2-Dibromoethane	52.04	5.0	50	0	104	80-120	52.76	1.36	20	
1,2-Dichloroethane	49.39	5.0	50	0	98.8	78-120	50.37	1.96	20	
1,2-Dichloropropane	53.45	5.0	50	0	107	80-120	53.64	0.357	20	
1,3,5-Trimethylbenzene	46.25	5.0	50	0	92.5	80-120	46.37	0.273	20	
2-Butanone	112.9	10	100	0	113	58-132	115.6	2.35	20	
2-Hexanone	118.9	10	100	0	119	61-130	119.9	0.822	20	
4-Isopropyltoluene	43.47	5.0	50	0	86.9	79-120	44.3	1.89	20	
4-Methyl-2-pentanone	122.2	10	100	0	122	65-127	123.9	1.4	20	
Acetone	103.9	10	100	0	104	59-137	102.6	1.25	20	
Benzene	49.91	5.0	50	0	99.8	73-121	50.98	2.11	20	
Bromodichloromethane	50.62	5.0	50	0	101	80-120	50.5	0.236	20	
Bromoform	54.1	5.0	50	0	108	79-120	51.2	5.49	20	
Bromomethane	41.04	5.0	50	0	82.1	66-137	37.6	8.75	20	
Carbon disulfide	94.76	10	100	0	94.8	68-141	94.9	0.141	20	
Carbon tetrachloride	44.88	5.0	50	0	89.8	75-124	43.22	3.76	20	
Chlorobenzene	46.54	5.0	50	0	93.1	80-120	47.19	1.39	20	
Chloroethane	44.75	5.0	50	0	89.5	76-121	45.71	2.12	20	
Chloroform	47.62	5.0	50	0	95.2	80-120	45.26	5.08	20	
Chloromethane	52.99	5.0	50	0	106	67-123	53.47	0.901	20	
cis-1,2-Dichloroethene	50.43	5.0	50	0	101	78-120	50.33	0.191	20	
cis-1,3-Dichloropropene	52.71	5.0	50	0	105	80-120	53.18	0.886	20	
Dibromochloromethane	49.25	5.0	50	0	98.5	80-120	48.36	1.82	20	
Ethylbenzene	46.03	5.0	50	0	92.1	80-120	46.49	1	20	
Isopropylbenzene	44.4	5.0	50	0	88.8	80-120	45.06	1.46	20	
m,p-Xylene	92.36	10	100	0	92.4	78-121	93.25	0.96	20	
Methyl tert-butyl ether	53.45	5.0	50	0	107	73-121	50.2	6.27	20	
Methylene chloride	52.8	10	50	0	106	65-133	49.05	7.36	20	
n-Butylbenzene	42.02	5.0	50	0	84	77-120	42.37	0.843	20	
n-Propylbenzene	45.4	5.0	50	0	90.8	78-120	46.14	1.62	20	
Naphthalene	61.61	5.0	50	0	123	65-127	55.09	11.2	20	
o-Xylene	46.08	5.0	50	0	92.2	80-120	46.75	1.45	20	
sec-Butylbenzene	43.09	5.0	50	0	86.2	78-120	43.78	1.58	20	
Styrene	46.18	5.0	50	0	92.4	80-120	46.88	1.52	20	
Tetrachloroethene	41.97	5.0	50	0	83.9	79-120	42.88	2.13	20	
Toluene	47.04	5.0	50	0	94.1	80-120	48.02	2.07	20	
trans-1,2-Dichloroethene	49.51	5.0	50	0	99	78-120	46.05	7.23	20	

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86029**	Instrument ID **VOA2**		Method: **SW8260**						
trans-1,3-Dichloropropene	52.87	5.0	50	0	106	80-120	51.76	2.13	20
Trichloroethene	44.23	5.0	50	0	88.5	80-120	45.75	3.37	20
Vinyl chloride	42.92	2.0	50	0	85.8	70-127	44.36	3.28	20
Xylenes, Total	138.4	15	150	0	92.3	80-120	140	1.12	20
Surr: 1,2-Dichloroethane-d4	*55.51*	5.0	*50*	0	*111*	*70-125*	57.56	*3.63*	*20*
Surr: 4-Bromofluorobenzene	*49.67*	5.0	*50*	0	*99.3*	*72-125*	52.31	*5.18*	*20*
Surr: Dibromofluoromethane	*51.01*	5.0	*50*	0	*102*	*71-125*	57.27	*11.6*	*20*
Surr: Toluene-d8	*50.52*	5.0	*50*	0	*101*	*75-125*	54.34	*7.27*	*20*

The following samples were analyzed in this batch: 1001316-06A 1001316-07A 1001316-08A

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86055** Instrument ID **VOA1** Method: **SW8260**

MBLK Sample ID: **VBLKW-011910-R86055** Units: **µg/L** Analysis Date: **1/19/2010 12:43 PM**

Client ID: Run ID: **VOA1_100119A** SeqNo: **1858242** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
2-Butanone	ND	10								
2-Hexanone	ND	10								
4-Isopropyltoluene	ND	5.0								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
Isopropylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methyl tert-butyl ether	ND	5.0								
Methylene chloride	0.843	10								J
n-Butylbenzene	ND	5.0								
n-Propylbenzene	ND	5.0								
Naphthalene	ND	5.0								
o-Xylene	ND	5.0								
sec-Butylbenzene	ND	5.0								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,2-Dichloroethene	ND	5.0								

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86055**	Instrument ID **VOA1**		Method: **SW8260**				
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Vinyl chloride	ND	2.0					
Xylenes, Total	ND	15					
Surr: 1,2-Dichloroethane-d4	*49.36*	5.0	*50*	0	*98.7*	*70-125*	0
Surr: 4-Bromofluorobenzene	*49.51*	5.0	*50*	0	*99*	*72-125*	0
Surr: Dibromofluoromethane	*46.58*	5.0	*50*	0	*93.2*	*71-125*	0
Surr: Toluene-d8	*53.52*	5.0	*50*	0	*107*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86055** Instrument ID **VOA1** Method: **SW8260**

LCS Sample ID: **VLCSW-011910-R86055** Units: **µg/L** Analysis Date: **1/19/2010 11:27 AM**

Client ID: Run ID: **VOA1_100119A** SeqNo: **1858237** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	48.94	5.0	50	0	97.9	80-120	0			
1,1,2,2-Tetrachloroethane	48.6	5.0	50	0	97.2	72-120	0			
1,1,2-Trichloroethane	49.57	5.0	50	0	99.1	80-120	0			
1,1-Dichloroethane	44.96	5.0	50	0	89.9	76-120	0			
1,1-Dichloroethene	47.59	5.0	50	0	95.2	73-124	0			
1,2,4-Trimethylbenzene	52.35	5.0	50	0	105	68-123	0			
1,2-Dibromoethane	48.87	5.0	50	0	97.7	80-120	0			
1,2-Dichloroethane	45.88	5.0	50	0	91.8	78-120	0			
1,2-Dichloropropane	45.86	5.0	50	0	91.7	80-120	0			
1,3,5-Trimethylbenzene	50.22	5.0	50	0	100	80-120	0			
2-Butanone	93.27	10	100	0	93.3	58-132	0			
2-Hexanone	99.44	10	100	0	99.4	61-130	0			
4-Isopropyltoluene	47.45	5.0	50	0	94.9	79-120	0			
4-Methyl-2-pentanone	97.42	10	100	0	97.4	65-127	0			
Acetone	78.25	10	100	0	78.2	59-137	0			
Benzene	50.93	5.0	50	0	102	73-121	0			
Bromodichloromethane	48.95	5.0	50	0	97.9	80-120	0			
Bromoform	51.7	5.0	50	0	103	79-120	0			
Bromomethane	38.89	5.0	50	0	77.8	66-137	0			
Carbon disulfide	91.05	10	100	0	91.1	68-141	0			
Carbon tetrachloride	48.48	5.0	50	0	97	75-124	0			
Chlorobenzene	47.85	5.0	50	0	95.7	80-120	0			
Chloroethane	38.49	5.0	50	0	77	76-121	0			
Chloroform	45.72	5.0	50	0	91.4	80-120	0			
Chloromethane	39.57	5.0	50	0	79.1	67-123	0			
cis-1,2-Dichloroethene	49.42	5.0	50	0	98.8	78-120	0			
cis-1,3-Dichloropropene	46.37	5.0	50	0	92.7	80-120	0			
Dibromochloromethane	51.51	5.0	50	0	103	80-120	0			
Ethylbenzene	48.48	5.0	50	0	97	80-120	0			
Isopropylbenzene	51.38	5.0	50	0	103	80-120	0			
m,p-Xylene	100.4	10	100	0	100	78-121	0			
Methyl tert-butyl ether	51.29	5.0	50	0	103	73-121	0			
Methylene chloride	46.31	10	50	0	92.6	65-133	0			
n-Butylbenzene	52.2	5.0	50	0	104	77-120	0			
n-Propylbenzene	51.59	5.0	50	0	103	78-120	0			
Naphthalene	52.65	5.0	50	0	105	65-127	0			
o-Xylene	52.02	5.0	50	0	104	80-120	0			
sec-Butylbenzene	51.13	5.0	50	0	102	78-120	0			
Styrene	52.13	5.0	50	0	104	80-120	0			
Tetrachloroethene	51.55	5.0	50	0	103	79-120	0			
Toluene	51.16	5.0	50	0	102	80-120	0			
trans-1,2-Dichloroethene	47.51	5.0	50	0	95	78-120	0			

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

Batch ID: **R86055**	Instrument ID **VOA1**		Method: **SW8260**				
trans-1,3-Dichloropropene	47.02	5.0	50	0	94	80-120	0
Trichloroethene	49.54	5.0	50	0	99.1	80-120	0
Vinyl chloride	39.84	2.0	50	0	79.7	70-127	0
Xylenes, Total	152.4	15	150	0	102	80-120	0
Surr: 1,2-Dichloroethane-d4	*43.81*	5.0	*50*	0	*87.6*	*70-125*	0
Surr: 4-Bromofluorobenzene	*51.05*	5.0	*50*	0	*102*	*72-125*	0
Surr: Dibromofluoromethane	*45.85*	5.0	*50*	0	*91.7*	*71-125*	0
Surr: Toluene-d8	*52.32*	5.0	*50*	0	*105*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86055** Instrument ID **VOA1** Method: **SW8260**

MS Sample ID: **1001280-13AMS** Units: **µg/L** Analysis Date: **1/19/2010 02:49 PM**

Client ID: Run ID: **VOA1_100119A** SeqNo: **1858251** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	213.8	25	250	0	85.5	80-120	0			
1,1,2,2-Tetrachloroethane	255.5	25	250	0	102	72-120	0			
1,1,2-Trichloroethane	249.8	25	250	0	99.9	80-120	0			
1,1-Dichloroethane	214.1	25	250	0	85.6	76-120	0			
1,1-Dichloroethene	205.3	25	250	0	82.1	73-124	0			
1,2,4-Trimethylbenzene	244.8	25	250	0	97.9	68-123	0			
1,2-Dibromoethane	262.2	25	250	0	105	80-120	0			
1,2-Dichloroethane	241.7	25	250	0	96.7	78-120	0			
1,2-Dichloropropane	230.5	25	250	0	92.2	80-120	0			
1,3,5-Trimethylbenzene	223.6	25	250	0	89.4	80-120	0			
2-Butanone	432.3	50	500	0	86.5	58-132	0			
2-Hexanone	536.6	50	500	0	107	61-130	0			
4-Isopropyltoluene	212.3	25	250	0	84.9	79-120	0			
4-Methyl-2-pentanone	509.7	50	500	0	102	65-127	0			
Acetone	394.5	50	500	0	78.9	59-137	0			
Benzene	248	25	250	0	99.2	73-121	0			
Bromodichloromethane	249.3	25	250	0	99.7	80-120	0			
Bromoform	275.1	25	250	0	110	79-120	0			
Bromomethane	164.8	25	250	0	65.9	66-137	0			S
Carbon disulfide	404.6	50	500	0	80.9	68-141	0			
Carbon tetrachloride	215.8	25	250	0	86.3	75-124	0			
Chlorobenzene	249.3	25	250	0	99.7	80-120	0			
Chloroethane	163.7	25	250	0	65.5	76-121	0			S
Chloroform	231.4	25	250	8.937	89	80-120	0			
Chloromethane	172.4	25	250	0	69	67-123	0			
cis-1,2-Dichloroethene	305.1	25	250	71.56	93.4	78-120	0			
cis-1,3-Dichloropropene	221.9	25	250	0	88.8	80-120	0			
Dibromochloromethane	270.7	25	250	0	108	80-120	0			
Ethylbenzene	238.6	25	250	7.967	92.3	80-120	0			
Isopropylbenzene	245.5	25	250	0	98.2	80-120	0			
m,p-Xylene	523.7	50	500	36.36	97.5	78-121	0			
Methyl tert-butyl ether	263.9	25	250	0	106	73-121	0			
Methylene chloride	222.3	50	250	6.026	86.5	65-133	0			
n-Butylbenzene	219.7	25	250	0	87.9	77-120	0			
n-Propylbenzene	234.3	25	250	0	93.7	78-120	0			
Naphthalene	252.5	25	250	0	101	65-127	0			
o-Xylene	266.1	25	250	9.636	103	80-120	0			
sec-Butylbenzene	216.4	25	250	0	86.6	78-120	0			
Styrene	265.3	25	250	0	106	80-120	0			
Tetrachloroethene	248.6	25	250	0	99.4	79-120	0			
Toluene	251.2	25	250	0	100	80-120	0			
trans-1,2-Dichloroethene	221.7	25	250	0	88.7	78-120	0			

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86055** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	230.9	25	250	0	92.4	80-120	0	
Trichloroethene	911	25	250	658.7	101	80-120	0	
Vinyl chloride	155.8	10	250	0	62.3	70-127	0	S
Xylenes, Total	789.8	75	750	45.99	99.2	80-120	0	
Surr: 1,2-Dichloroethane-d4	*227.1*	25	*250*	0	*90.8*	*70-125*	0	
Surr: 4-Bromofluorobenzene	*274*	25	*250*	0	*110*	*72-125*	0	
Surr: Dibromofluoromethane	*230.9*	25	*250*	0	*92.4*	*71-125*	0	
Surr: Toluene-d8	*268.4*	25	*250*	0	*107*	*75-125*	0	

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86055** Instrument ID **VOA1** Method: **SW8260**

MSD Sample ID: **1001280-13AMSD** Units: **µg/L** Analysis Date: **1/19/2010 03:14 PM**

Client ID: Run ID: **VOA1_100119A** SeqNo: **1858253** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	212.5	25	250	0	85	80-120	213.8	0.601	20	
1,1,2,2-Tetrachloroethane	242.7	25	250	0	97.1	72-120	255.5	5.17	20	
1,1,2-Trichloroethane	244.5	25	250	0	97.8	80-120	249.8	2.16	20	
1,1-Dichloroethane	207.6	25	250	0	83	76-120	214.1	3.09	20	
1,1-Dichloroethene	197.1	25	250	0	78.8	73-124	205.3	4.08	20	
1,2,4-Trimethylbenzene	245	25	250	0	98	68-123	244.8	0.0801	20	
1,2-Dibromoethane	253.8	25	250	0	102	80-120	262.2	3.27	20	
1,2-Dichloroethane	223.2	25	250	0	89.3	78-120	241.7	7.98	20	
1,2-Dichloropropane	226.2	25	250	0	90.5	80-120	230.5	1.88	20	
1,3,5-Trimethylbenzene	227.5	25	250	0	91	80-120	223.6	1.73	20	
2-Butanone	449.1	50	500	0	89.8	58-132	432.3	3.82	20	
2-Hexanone	482.5	50	500	0	96.5	61-130	536.6	10.6	20	
4-Isopropyltoluene	211.6	25	250	0	84.7	79-120	212.3	0.334	20	
4-Methyl-2-pentanone	498.2	50	500	0	99.6	65-127	509.7	2.28	20	
Acetone	385	50	500	0	77	59-137	394.5	2.44	20	
Benzene	239.4	25	250	0	95.8	73-121	248	3.51	20	
Bromodichloromethane	248.5	25	250	0	99.4	80-120	249.3	0.349	20	
Bromoform	257	25	250	0	103	79-120	275.1	6.8	20	
Bromomethane	184.7	25	250	0	73.9	66-137	164.8	11.4	20	
Carbon disulfide	409.8	50	500	0	82	68-141	404.6	1.3	20	
Carbon tetrachloride	207.2	25	250	0	82.9	75-124	215.8	4.06	20	
Chlorobenzene	240.8	25	250	0	96.3	80-120	249.3	3.46	20	
Chloroethane	165.5	25	250	0	66.2	76-121	163.7	1.07	20	S
Chloroform	236.3	25	250	8.937	91	80-120	231.4	2.12	20	
Chloromethane	176.9	25	250	0	70.8	67-123	172.4	2.58	20	
cis-1,2-Dichloroethene	303.1	25	250	71.56	92.6	78-120	305.1	0.641	20	
cis-1,3-Dichloropropene	226.1	25	250	0	90.4	80-120	221.9	1.86	20	
Dibromochloromethane	258.5	25	250	0	103	80-120	270.7	4.61	20	
Ethylbenzene	234.6	25	250	7.967	90.7	80-120	238.6	1.69	20	
Isopropylbenzene	241.4	25	250	0	96.6	80-120	245.5	1.65	20	
m,p-Xylene	473.7	50	500	36.36	87.5	78-121	523.7	10	20	
Methyl tert-butyl ether	261.2	25	250	0	104	73-121	263.9	1.01	20	
Methylene chloride	209.5	50	250	6.026	81.4	65-133	222.3	5.93	20	
n-Butylbenzene	227	25	250	0	90.8	77-120	219.7	3.26	20	
n-Propylbenzene	236.9	25	250	0	94.8	78-120	234.3	1.12	20	
Naphthalene	241.9	25	250	0	96.7	65-127	252.5	4.32	20	
o-Xylene	253.1	25	250	9.636	97.4	80-120	266.1	5.01	20	
sec-Butylbenzene	214.3	25	250	0	85.7	78-120	216.4	0.99	20	
Styrene	256.4	25	250	0	103	80-120	265.3	3.44	20	
Tetrachloroethene	238	25	250	0	95.2	79-120	248.6	4.38	20	
Toluene	232.5	25	250	0	93	80-120	251.2	7.75	20	
trans-1,2-Dichloroethene	214.5	25	250	0	85.8	78-120	221.7	3.28	20	

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86055** Instrument ID **VOA1** Method: **SW8260**

trans-1,3-Dichloropropene	240.1	25	250	0	96	80-120	230.9	3.87	20	
Trichloroethene	940.8	25	250	658.7	113	80-120	911	3.22	20	
Vinyl chloride	164.5	10	250	0	65.8	70-127	155.8	5.44	20	S
Xylenes, Total	726.8	75	750	45.99	90.8	80-120	789.8	8.3	20	
Surr: 1,2-Dichloroethane-d4	*226.9*	25	*250*	0	*90.8*	*70-125*	227.1	*0.0836*	*20*	
Surr: 4-Bromofluorobenzene	*252.5*	25	*250*	0	*101*	*72-125*	274	*8.2*	*20*	
Surr: Dibromofluoromethane	*227.7*	25	*250*	0	*91.1*	*71-125*	230.9	*1.41*	*20*	
Surr: Toluene-d8	*262.7*	25	*250*	0	*105*	*75-125*	268.4	*2.13*	*20*	

The following samples were analyzed in this batch: 1001316-05A 1001316-09A 1001316-10A

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R85965** Instrument ID **WetChem** Method: **SM4500H+ B**

LCS Sample ID: **WLCSW1-011510-R85965** Units: **pH units** Analysis Date: **1/15/2010 03:20 PM**
Client ID: Run ID: **WETCHEM_100115J** SeqNo: **1856369** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.04	0.10	6	0	101	90-110	0			

DUP Sample ID: **1001303-01EDUP** Units: **pH units** Analysis Date: **1/15/2010 03:20 PM**
Client ID: Run ID: **WETCHEM_100115J** SeqNo: **1856372** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.2	0.10	0	0	0	0-0	7.23	0.416	20	H

The following samples were analyzed in this batch:

1001316-03E	1001316-04E	1001316-05E
1001316-06E	1001316-07E	1001316-08E

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R85966** Instrument ID **WetChem** Method: **SM4500H+ B**

LCS Sample ID: **WLCSW1-011610-R85966** Units: **pH units** Analysis Date: **1/16/2010 11:00 AM**
Client ID: Run ID: **WETCHEM_100116A** SeqNo: **1856419** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.01	0.10	6	0	100	90-110	0			

DUP Sample ID: **1001316-01EDUP** Units: **pH units** Analysis Date: **1/16/2010 11:00 AM**
Client ID: **MW-4** Run ID: **WETCHEM_100116A** SeqNo: **1856422** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.21	0.10	0	0	0	0-0	7.18	0.417	20	H

The following samples were analyzed in this batch: 1001316-01E 1001316-02E

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86016** Instrument ID **WetChem** Method: **M2510 B**

MBLK Sample ID: **WBLKW1-11910-R86016** Units: **µmhos/cm** Analysis Date: **1/19/2010 08:30 AM**
Client ID: Run ID: **WETCHEM_100119A** SeqNo: **1857445** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	ND	1.0								

LCS Sample ID: **WLCSW1-11910-R86016** Units: **µmhos/cm** Analysis Date: **1/19/2010 08:30 AM**
Client ID: Run ID: **WETCHEM_100119A** SeqNo: **1857446** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1400	1.0	1413	0	99.1	80-120	0			

DUP Sample ID: **1001234-01bdup** Units: **µmhos/cm** Analysis Date: **1/19/2010 08:30 AM**
Client ID: Run ID: **WETCHEM_100119A** SeqNo: **1857463** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	23.8	1.0	0	0	0		23.8	0	20	

The following samples were analyzed in this batch:

1001316-01E	1001316-02E	1001316-03E
1001316-04E	1001316-05E	1001316-06E
1001316-07E	1001316-08E	

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86041** Instrument ID **WetChem** Method: **SM2320B**

MBLK Sample ID: **WBLKW1-11910-R86041** Units: **mg/L** Analysis Date: **1/19/2010 11:00 AM**

Client ID: Run ID: **WETCHEM_100119F** SeqNo: **1857983** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-11910-R86041** Units: **mg/L** Analysis Date: **1/19/2010 11:00 AM**

Client ID: Run ID: **WETCHEM_100119F** SeqNo: **1857984** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	992	5.0	1000	0	99.2	80-120	0			
Alkalinity, Total (As CaCO3)	992	5.0	1000	0	99.2	80-120	0			

DUP Sample ID: **1001316-08EDUP** Units: **mg/L** Analysis Date: **1/19/2010 11:00 AM**

Client ID: **Duplicate #1** Run ID: **WETCHEM_100119F** SeqNo: **1858027** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	271	5.0	0	0	0	0-0	271	0	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	271	5.0	0	0	0	0-0	271	0	20	

The following samples were analyzed in this batch:

1001316-01E	1001316-02E	1001316-03E
1001316-04E	1001316-05E	1001316-06E
1001316-07E	1001316-08E	

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86088** Instrument ID **Balance1** Method: **M2540C**

MBLK Sample ID: **BLANK-R86088** Units: **mg/L** Analysis Date: **1/19/2010 04:00 PM**
Client ID: Run ID: **BALANCE1_100119B** SeqNo: **1859030** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	ND	10								

LCS Sample ID: **LCS-R86088** Units: **mg/L** Analysis Date: **1/19/2010 04:00 PM**
Client ID: Run ID: **BALANCE1_100119B** SeqNo: **1859031** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	1000	10	1000	0	100	85-115	0			

DUP Sample ID: **1001316-08EDUP** Units: **mg/L** Analysis Date: **1/19/2010 04:00 PM**
Client ID: **Duplicate #1** Run ID: **BALANCE1_100119B** SeqNo: **1859029** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	556	10	0	0	0	0-0	552	0.722	20	

The following samples were analyzed in this batch:

1001316-01E	1001316-02E	1001316-03E
1001316-04E	1001316-05E	1001316-06E
1001316-07E	1001316-08E	

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86107** Instrument ID **ICS3000** Method: **E300**

MBLK Sample ID: **WBLKW1-011910-R86107** Units: **mg/L** Analysis Date: **1/19/2010 10:44 AM**
Client ID: Run ID: **ICS3000_100119C** SeqNo: **1859335** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Surr: Selenate (surr)	*4.986*	0.10	*5*	0	*99.7*	*85-115*	0			

LCS Sample ID: **WLCSW1-011910-R86107** Units: **mg/L** Analysis Date: **1/19/2010 11:07 AM**
Client ID: Run ID: **ICS3000_100119C** SeqNo: **1859336** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.75	0.50	20	0	104	90-110	0			
Fluoride	4.265	0.10	4	0	107	90-110	0			
Surr: Selenate (surr)	*5.043*	0.10	*5*	0	*101*	*85-115*	0			

MS Sample ID: **1001316-07EMS** Units: **mg/L** Analysis Date: **1/19/2010 10:36 PM**
Client ID: **South Water Well** Run ID: **ICS3000_100119C** SeqNo: **1859361** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	467.1	0.50	10	468.2	-10.9	80-120	0			SEO
Fluoride	2.819	0.10	2	0.686	107	80-120	0			
Surr: Selenate (surr)	*5.108*	0.10	*5*	0	*102*	*85-115*	0			

MSD Sample ID: **1001316-07EMSD** Units: **mg/L** Analysis Date: **1/19/2010 11:00 PM**
Client ID: **South Water Well** Run ID: **ICS3000_100119C** SeqNo: **1859362** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	468.4	0.50	10	468.2	1.9	80-120	467.1	0.274	20	SEO
Fluoride	2.825	0.10	2	0.686	107	80-120	2.819	0.213	20	
Surr: Selenate (surr)	*5.124*	0.10	*5*	0	*102*	*85-115*	5.108	*0.313*	*20*	

The following samples were analyzed in this batch:

1001316-01E	1001316-02E	1001316-03E
1001316-04E	1001316-06E	1001316-07E
1001316-08E		

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86111** Instrument ID **ICS3K2** Method: **E300**

MBLK Sample ID: **WBLKW2+-011910-R86111** Units: **mg/L** Analysis Date: **1/19/2010 11:21 AM**
Client ID: Run ID: **ICS3K2_100119A** SeqNo: **1859413** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Selenate (surr)	*4.957*	0.10	*5*	0	*99.1*	*85-115*	0			

LCS Sample ID: **WLCSW2+-011910-R86111** Units: **mg/L** Analysis Date: **1/19/2010 11:44 AM**
Client ID: Run ID: **ICS3K2_100119A** SeqNo: **1859414** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	7.201	0.10	8	0	90	90-110	0			
Surr: Selenate (surr)	*4.371*	0.10	*5*	0	*87.4*	*85-115*	0			

MSD Sample ID: **1001316-08BMS** Units: **mg/L** Analysis Date: **1/19/2010 04:41 PM**
Client ID: **Duplicate #1** Run ID: **ICS3K2_100119A** SeqNo: **1859426** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	22.6	0.50	20	2.108	102	80-120	0			
Surr: Selenate (surr)	*22.97*	0.50	*25*	0	*91.9*	*85-115*	0			

MSD Sample ID: **1001316-08BMSD** Units: **mg/L** Analysis Date: **1/19/2010 05:04 PM**
Client ID: **Duplicate #1** Run ID: **ICS3K2_100119A** SeqNo: **1859427** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	22.71	0.50	20	2.108	103	80-120	22.6	0.481	20	
Surr: Selenate (surr)	*23.43*	0.50	*25*	0	*93.7*	*85-115*	22.97	*1.98*	*20*	

The following samples were analyzed in this batch:

1001316-01B	1001316-02B	1001316-03B
1001316-04B	1001316-05B	1001316-06B
1001316-07B	1001316-08B	

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86161** Instrument ID **ICS3K2** Method: **E300**

MBLK Sample ID: **WBLKS2-012010-R86161** Units: **mg/L** Analysis Date: **1/20/2010 10:16 AM**
Client ID: Run ID: **ICS3K2_100120A** SeqNo: **1860399** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	0.50								
Surr: Selenate (surr)	*5.105*	0.10	*5*	0	*102*	*85-115*	0			

LCS Sample ID: **WLCSW2-012010-R86161** Units: **mg/L** Analysis Date: **1/20/2010 10:39 AM**
Client ID: Run ID: **ICS3K2_100120A** SeqNo: **1860400** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.57	0.50	20	0	103	90-110	0			
Fluoride	4.154	0.10	4	0	104	90-110	0			
Sulfate	19.86	0.50	20	0	99.3	90-110	0			
Surr: Selenate (surr)	*5.028*	0.10	*5*	0	*101*	*85-115*	0			

LCSD Sample ID: **WLCSDW2-012010-R86161** Units: **mg/L** Analysis Date: **1/20/2010 11:02 AM**
Client ID: Run ID: **ICS3K2_100120A** SeqNo: **1860401** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.6	0.50	20	0	103	90-110	20.57	0.141	20	
Fluoride	4.163	0.10	4	0	104	90-110	4.154	0.216	20	
Sulfate	19.88	0.50	20	0	99.4	90-110	19.86	0.0554	20	
Surr: Selenate (surr)	*5.034*	0.10	*5*	0	*101*	*85-115*	5.028	*0.119*	*20*	

MS Sample ID: **1001316-05EMS** Units: **mg/L** Analysis Date: **1/20/2010 02:51 PM**
Client ID: **North Water Well** Run ID: **ICS3K2_100120A** SeqNo: **1860411** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	150.3	0.50	10	144.7	55.5	80-120	0			SEO
Fluoride	2.865	0.10	2	0.793	104	80-120	0			
Sulfate	85.12	0.50	10	77.31	78.1	80-120	0			SEO
Surr: Selenate (surr)	*5.018*	0.10	*5*	0	*100*	*85-115*	0			

MS Sample ID: **1001416-01FMS** Units: **mg/L** Analysis Date: **1/20/2010 05:08 PM**
Client ID: Run ID: **ICS3K2_100120A** SeqNo: **1860417** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	97.19	0.50	10	0	972	80-120	0			SE
Fluoride	2.397	0.10	2	0	120	80-120	0			
Sulfate	25.65	0.50	10	0	256	80-120	0			S
Surr: Selenate (surr)	*5.128*	0.10	*5*	0	*103*	*85-115*	0			

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

Client: Navajo Refining Company
Work Order: 1001316
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86161** Instrument ID **ICS3K2** Method: **E300**

MSD Sample ID: **1001316-05EMSD** Units: **mg/L** Analysis Date: **1/20/2010 03:14 PM**

Client ID: **North Water Well** Run ID: **ICS3K2_100120A** SeqNo: **1860412** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	151.5	0.50	10	144.7	68	80-120	150.3	0.83	20	SEO
Fluoride	2.868	0.10	2	0.793	104	80-120	2.865	0.105	20	
Sulfate	85.84	0.50	10	77.31	85.3	80-120	85.12	0.843	20	EO
Surr: Selenate (surr)	*5.06*	0.10	*5*	0	*101*	*85-115*	5.018	*0.833*	*20*	

MSD Sample ID: **1001416-01FMSD** Units: **mg/L** Analysis Date: **1/20/2010 05:31 PM**

Client ID: Run ID: **ICS3K2_100120A** SeqNo: **1860418** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	97.36	0.50	10	0	974	80-120	97.19	0.168	20	SE
Fluoride	2.409	0.10	2	0	120	80-120	2.397	0.499	20	S
Sulfate	25.79	0.50	10	0	258	80-120	25.65	0.548	20	S
Surr: Selenate (surr)	*5.136*	0.10	*5*	0	*103*	*85-115*	5.128	*0.156*	*20*	

The following samples were analyzed in this batch:

1001316-01E	1001316-02E	1001316-03E
1001316-04E	1001316-05E	1001316-06E
1001316-07E	1001316-08E	

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

ALS Laboratory Group

Date: 29-Jan-10

Client: Navajo Refining Company
Project: Navajo Lea Refinery Semi-Annual
WorkOrder: 1001316

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	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	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
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
µmhos/cm	
mg/L	Milligrams per Liter
pH units	

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Houston, Texas 77099
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Chain of Custody Form

Page 1 of 1

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

ALS Project Manager: | ALS Work Order #: 1001316

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Navajo ~~Artesia~~ Refinery Semi-Annual Lea	A	VOC (8260) Select
Work Order		Project Number		B	Total Metals (6020/7000) Hg
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	Dissolved Metals (6020/7000) Select
Send Report To	Darrell Moore	Invoice Attn	Darrell Moore	D	SVOC (8270) Select
Address	P.O. Box 159	Address	P.O. Box 159	E	Anions (300) Cl, F, SO4
				F	Alkalinity
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	pH
Phone	(505) 748-3311	Phone	(505) 748-3311	H	Specific Conductivity
Fax	(505) 746-5421	Fax	(505) 746-5421	I	TDS
e-Mail Address	dgboyer@SESI-NM.com (copy)	e-Mail Address		J	Nitrate/Nitrite (300)

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-4	1/13/10	1515	H_2O	1,2,3,8	9	X	X	X	X	X	X	X	X	X	X	
2	MW-10	1/13/10	1635				X	X	X	X	X	X	X	X	X	X	
3	MW-9	1/14/10	1115				X	X	X	X	X	X	X	X	X	X	
4	MW-3		1225				X	X	X	X	X	X	X	X	X	X	
5	North well water		1425				X	X	X	X	X	X	X	X	X	X	
6	East water well		1500				X	X	X	X	X	X	X	X	X	X	
7	South water well		1525				X	X	X	X	X	X	X	X	X	X	
8	Duplicate #1	1/14/10			1,2,3,8	9	X	X	X	X	X	X	X	X	X	X	
9	Trip Blank	—	—		1, 8	2	X										
10	TRIP Blank	—	—	H_2O	1, 8	2	X										

Sampler(s) Please Print & Sign: D. Boyer DG Boyer | Shipment Method: Fed Ex | Required Turnaround Time: (Check Box) Other | Results Due Date:

Relinquished by: DG Boyer	Date: 1/14/10	Time: 1640	Received by:	Notes: 10 Day TAT			
Relinquished by:	Date:	Time:	Received by (Laboratory): BR 1/15/10 08:40		Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):				Level II Std QC / TRRP Checklist
							Level III Std QC/Raw Data / TRRP Level IV
							Level IV SW846/CLP
							Other

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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ALS Laboratory Group

Sample Receipt Checklist

Client Name: **NAVAJO REFINING** Date/Time Received: **15-Jan-10 08:40**

Work Order: **1001316** Received by: **RDH**

Checklist completed by Raymond N. Gamboa (eSignature) 15-Jan-10 (Date) Reviewed by: Lora Terrell (eSignature) 18-Jan-10 (Date)

Matrices: Water
Carrier name: FedEx

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):	2.4c, 2.8c, 2.3c	002	
Cooler(s)/Kit(s):	9633, 3251, 3248		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: 15-Jan-10 Person Contacted: Dave Boyer

Contacted By: JayLynn F Thibault Regarding: Missing MW-4 and 10 samples

Comments: Client did not send cooler. Sending for Sat. delivery.

CorrectiveAction:

W.O. # 1001316

te 1/14/10 FedEx Tracking Number 869810267827

nder's me D. Boyer Phone 575 397-0510

Company SESI

Address 703 E Clinton Dept/Floor/Suite/Room

y Hobbs State NM ZIP 88240

ur Internal Billing Reference

te 1/14/10 FedEx Tracking Number 869810267275

nder's me D. Boyer Phone 575 397-0510

Company SESI

Address 703 E. Clinton Dept/Floor/Suite/Room

y Hobbs State NM ZIP 88240

ur Internal Billing Reference

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

p CUSTODY SEAL 3253 Seal Broken By:

Date: 01-14-10 Time: 1640

Name: Dave Boyce

Company: SESI

Date 1/15/10

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

Date:

Name

Comp

CUSTODY SEAL 3251 Seal Broken By:

1/14/10 Time: 1640

DAVE Boyer

SESI

Date 1/15/10

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

28-Jan-2010

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

Tel: (575) 748-6733
Fax: (575) 746-5421

Re: Navajo Lea Refinery Semi-Annual Work Order: **1001407**

Dear Darrell,

ALS Laboratory Group received 11 samples on 20-Jan-2010 10:15 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 94.

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

Sincerely,

JayLynn F Thibault

Electronically approved by: Glenda H. Ramos

JayLynn F Thibault
Project Manager

ACCREDITED IN ACCORDANCE WITH nelac
Certificate No: T104704231-09A-TX

ALS Laboratory Group

Date: 28-Jan-10

Client: Navajo Refining Company
Project: Navajo Lea Refinery Semi-Annual
Work Order: **1001407**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1001407-01	MW-8	Water		1/18/2010 10:20	1/20/2010 10:15	☐
1001407-02	MW-5	Water		1/18/2010 11:45	1/20/2010 10:15	☐
1001407-03	MW-12	Water		1/18/2010 12:55	1/20/2010 10:15	☐
1001407-04	MW-14	Water		1/18/2010 13:50	1/20/2010 10:15	☐
1001407-05	MW-13	Water		1/18/2010 15:30	1/20/2010 10:15	☐
1001407-06	MW-11	Water		1/18/2010 16:25	1/20/2010 10:15	☐
1001407-07	MW-1	Water		1/19/2010 13:30	1/20/2010 10:15	☐
1001407-08	MW-2	Water		1/19/2010 15:35	1/20/2010 10:15	☐
1001407-09	Trip Blank 1	Water		1/19/2010	1/20/2010 10:15	☐
1001407-10	Trip Blank 2	Water		1/19/2010	1/20/2010 10:15	☐
1001407-11	Trip Blank 3	Water		1/19/2010	1/20/2010 10:15	☐

ALS Laboratory Group

Date: 28-Jan-10

Client: Navajo Refining Company
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407

Case Narrative

PH recommended holding time had expired prior to request for analysis.

Batch 40626 Metals (sample 100407-06) MS/MSD recovery out of control limits due to matrix.

Batch R86112 Volatiles (sample 100 1361-01) MS/MSD unrelated sample.

Batch R86263 Anions (sample 100387-01) MS/MSD unrelated sample.

Batch R86263 Anions (sample 100492-03) MS/MSD unrelated sample.

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-8
Collection Date: 1/18/2010 10:20 AM

Work Order: 1001407
Lab ID: 1001407-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **1/26/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	1/26/2010 05:09 PM
DISSOLVED METALS			**SW6020**		Prep Date: **1/21/2010**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	1/21/2010 11:04 PM
Arsenic	**0.00726**		**0.00500**	**mg/L**	1	1/21/2010 11:04 PM
Barium	**0.157**		**0.00500**	**mg/L**	1	1/21/2010 11:04 PM
Boron	**0.215**		**0.0200**	**mg/L**	1	1/22/2010 08:44 PM
Cadmium	ND		0.00200	mg/L	1	1/21/2010 11:04 PM
Calcium	**109**		**0.500**	**mg/L**	1	1/21/2010 11:04 PM
Chromium	ND		0.00500	mg/L	1	1/21/2010 11:04 PM
Cobalt	ND		0.00500	mg/L	1	1/21/2010 11:04 PM
Copper	ND		0.00500	mg/L	1	1/21/2010 11:04 PM
Iron	ND		0.200	mg/L	1	1/21/2010 11:04 PM
Lead	ND		0.00500	mg/L	1	1/21/2010 11:04 PM
Magnesium	**12.9**		**0.200**	**mg/L**	1	1/21/2010 11:04 PM
Manganese	ND		0.00500	mg/L	1	1/21/2010 11:04 PM
Molybdenum	ND		0.00500	mg/L	1	1/21/2010 11:04 PM
Nickel	ND		0.00500	mg/L	1	1/21/2010 11:04 PM
Potassium	**3.23**		**0.200**	**mg/L**	1	1/21/2010 11:04 PM
Selenium	ND		0.00500	mg/L	1	1/22/2010 08:44 PM
Silver	ND		0.00500	mg/L	1	1/21/2010 11:04 PM
Sodium	**86.7**		**0.200**	**mg/L**	1	1/21/2010 11:04 PM
Uranium	ND		0.00500	mg/L	1	1/28/2010 12:13 AM
Zinc	**0.00545**		**0.00500**	**mg/L**	1	1/21/2010 11:04 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/21/2010**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	1/26/2010 08:38 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
2-Chlorophenol	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
2-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
2-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
2-Nitrophenol	ND		0.00020	mg/L	1	1/26/2010 08:38 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-8
Lab ID: 1001407-01
Collection Date: 1/18/2010 10:20 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3&4-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
3,3´-Dichlorobenzidine	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
3-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
4-Chloroaniline	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
4-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
4-Nitrophenol	ND		0.0010	mg/L	1	1/26/2010 08:38 PM
Acenaphthene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Acenaphthylene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Acetophenone	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Anthracene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Atrazine	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Benzaldehyde	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Bis(2-ethylhexyl)phthalate	**0.00081**		**0.00020**	**mg/L**	1	1/26/2010 08:38 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Caprolactam	**0.0054**		**0.00020**	**mg/L**	1	1/26/2010 08:38 PM
Carbazole	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Chrysene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Dibenzofuran	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Diethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Fluoranthene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Fluorene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 1001407
Sample ID: MW-8 **Lab ID:** 1001407-01
Collection Date: 1/18/2010 10:20 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachloroethane	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Isophorone	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Naphthalene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Nitrobenzene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Pentachlorophenol	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Phenanthrene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Phenol	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Pyrene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
Surr: 2,4,6-Tribromophenol	*56.7*		*34-129*	*%REC*	1	1/26/2010 08:38 PM
Surr: 2-Fluorobiphenyl	*45.6*		*40-125*	*%REC*	1	1/26/2010 08:38 PM
Surr: 2-Fluorophenol	*43.2*		*20-120*	*%REC*	1	1/26/2010 08:38 PM
Surr: 4-Terphenyl-d14	*66.6*		*40-135*	*%REC*	1	1/26/2010 08:38 PM
Surr: Nitrobenzene-d5	*45.1*		*41-120*	*%REC*	1	1/26/2010 08:38 PM
Surr: Phenol-d6	*44.5*		*20-120*	*%REC*	1	1/26/2010 08:38 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/21/2010**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 08:38 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
2-Butanone	ND		0.010	mg/L	1	1/20/2010 06:45 PM
2-Hexanone	ND		0.010	mg/L	1	1/20/2010 06:45 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	1/20/2010 06:45 PM
Acetone	ND		0.010	mg/L	1	1/20/2010 06:45 PM
Benzene	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
Bromodichloromethane	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
Bromoform	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
Bromomethane	ND		0.0050	mg/L	1	1/20/2010 06:45 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-8
Collection Date: 1/18/2010 10:20 AM

Work Order: 1001407
Lab ID: 1001407-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	ND		0.010	mg/L	1	1/20/2010 06:45 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
Chlorobenzene	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
Chloroethane	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
Chloroform	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
Chloromethane	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
Dibromochloromethane	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
Ethylbenzene	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
Isopropylbenzene	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
m,p-Xylene	ND		0.010	mg/L	1	1/20/2010 06:45 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
Methylene chloride	ND		0.010	mg/L	1	1/20/2010 06:45 PM
n-Butylbenzene	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
n-Propylbenzene	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
Naphthalene	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
o-Xylene	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
Styrene	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
Tetrachloroethene	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
Toluene	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
Trichloroethene	ND		0.0050	mg/L	1	1/20/2010 06:45 PM
Vinyl chloride	ND		0.0020	mg/L	1	1/20/2010 06:45 PM
Xylenes, Total	ND		0.015	mg/L	1	1/20/2010 06:45 PM
Surr: 1,2-Dichloroethane-d4	*91.5*		*70-125*	*%REC*	1	1/20/2010 06:45 PM
Surr: 4-Bromofluorobenzene	*95.3*		*72-125*	*%REC*	1	1/20/2010 06:45 PM
Surr: Dibromofluoromethane	*88.7*		*71-125*	*%REC*	1	1/20/2010 06:45 PM
Surr: Toluene-d8	*99.1*		*75-125*	*%REC*	1	1/20/2010 06:45 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**151**		**2.50**	**mg/L**	5	1/22/2010 12:28 PM
Fluoride	**0.493**		**0.100**	**mg/L**	1	1/21/2010 09:25 PM
Sulfate	**67.6**		**2.50**	**mg/L**	5	1/22/2010 12:28 PM
Nitrate/Nitrite (as N)	**3.80**		**0.500**	**mg/L**	5	1/21/2010 08:52 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	5	1/22/2010 12:28 PM
Surr: Selenate (surr)	*104*		*85-115*	*%REC*	1	1/21/2010 09:25 PM
Surr: Selenate (surr)	*108*		*85-115*	*%REC*	5	1/21/2010 08:52 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-8
Lab ID: 1001407-01
Collection Date: 1/18/2010 10:20 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
ALKALINITY			**SM2320B**			Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**311**		**5.00**	**mg/L**	1	1/21/2010 11:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	1/21/2010 11:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	1/21/2010 11:00 AM
Alkalinity, Total (As CaCO3)	**311**		**5.00**	**mg/L**	1	1/21/2010 11:00 AM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**1,150**		**1.00**	**µmhos/cm**	1	1/21/2010 08:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.02**	H	**0.100**	**pH units**	1	1/20/2010 03:30 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**742**		**10.0**	**mg/L**	1	1/21/2010 11:00 AM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-5
Lab ID: 1001407-02
Collection Date: 1/18/2010 11:45 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **1/26/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	1/26/2010 05:11 PM
DISSOLVED METALS			**SW6020**		Prep Date: **1/21/2010**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	1/21/2010 11:10 PM
Arsenic	ND		0.00500	mg/L	1	1/21/2010 11:10 PM
Barium	**0.0966**		**0.00500**	**mg/L**	1	1/21/2010 11:10 PM
Boron	**0.135**		**0.0200**	**mg/L**	1	1/22/2010 08:49 PM
Cadmium	ND		0.00200	mg/L	1	1/21/2010 11:10 PM
Calcium	**67.4**		**0.500**	**mg/L**	1	1/21/2010 11:10 PM
Chromium	ND		0.00500	mg/L	1	1/21/2010 11:10 PM
Cobalt	ND		0.00500	mg/L	1	1/21/2010 11:10 PM
Copper	ND		0.00500	mg/L	1	1/21/2010 11:10 PM
Iron	ND		0.200	mg/L	1	1/21/2010 11:10 PM
Lead	ND		0.00500	mg/L	1	1/21/2010 11:10 PM
Magnesium	**10.6**		**0.200**	**mg/L**	1	1/21/2010 11:10 PM
Manganese	ND		0.00500	mg/L	1	1/21/2010 11:10 PM
Molybdenum	ND		0.00500	mg/L	1	1/21/2010 11:10 PM
Nickel	ND		0.00500	mg/L	1	1/21/2010 11:10 PM
Potassium	**2.07**		**0.200**	**mg/L**	1	1/21/2010 11:10 PM
Selenium	ND		0.00500	mg/L	1	1/22/2010 08:49 PM
Silver	ND		0.00500	mg/L	1	1/21/2010 11:10 PM
Sodium	**61.9**		**0.200**	**mg/L**	1	1/21/2010 11:10 PM
Uranium	ND		0.00500	mg/L	1	1/28/2010 12:19 AM
Zinc	ND		0.00500	mg/L	1	1/21/2010 11:10 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/21/2010**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	1/26/2010 09:00 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
2-Chlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
2-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
2-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
2-Nitrophenol	ND		0.00020	mg/L	1	1/26/2010 09:00 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-5
Lab ID: 1001407-02
Collection Date: 1/18/2010 11:45 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3&4-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
3,3´-Dichlorobenzidine	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
3-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
4-Chloroaniline	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
4-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
4-Nitrophenol	ND		0.0010	mg/L	1	1/26/2010 09:00 PM
Acenaphthene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Acenaphthylene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Acetophenone	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Anthracene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Atrazine	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Benzaldehyde	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Bis(2-ethylhexyl)phthalate	**0.00031**		**0.00020**	**mg/L**	1	1/26/2010 09:00 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Caprolactam	**0.0094**		**0.00020**	**mg/L**	1	1/26/2010 09:00 PM
Carbazole	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Chrysene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Dibenzofuran	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Diethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Fluoranthene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Fluorene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-5
Lab ID: 1001407-02
Collection Date: 1/18/2010 11:45 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachloroethane	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Isophorone	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Naphthalene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Nitrobenzene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Pentachlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Phenanthrene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Phenol	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Pyrene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
Surr: 2,4,6-Tribromophenol	*58.5*		*34-129*	*%REC*	1	1/26/2010 09:00 PM
Surr: 2-Fluorobiphenyl	*48.8*		*40-125*	*%REC*	1	1/26/2010 09:00 PM
Surr: 2-Fluorophenol	*45.0*		*20-120*	*%REC*	1	1/26/2010 09:00 PM
Surr: 4-Terphenyl-d14	*68.7*		*40-135*	*%REC*	1	1/26/2010 09:00 PM
Surr: Nitrobenzene-d5	*47.7*		*41-120*	*%REC*	1	1/26/2010 09:00 PM
Surr: Phenol-d6	*48.9*		*20-120*	*%REC*	1	1/26/2010 09:00 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/21/2010**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 09:00 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
2-Butanone	ND		0.010	mg/L	1	1/20/2010 07:10 PM
2-Hexanone	ND		0.010	mg/L	1	1/20/2010 07:10 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	1/20/2010 07:10 PM
Acetone	ND		0.010	mg/L	1	1/20/2010 07:10 PM
Benzene	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
Bromodichloromethane	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
Bromoform	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
Bromomethane	ND		0.0050	mg/L	1	1/20/2010 07:10 PM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 1001407
Sample ID: MW-5 **Lab ID:** 1001407-02
Collection Date: 1/18/2010 11:45 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	ND		0.010	mg/L	1	1/20/2010 07:10 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
Chlorobenzene	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
Chloroethane	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
Chloroform	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
Chloromethane	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
Dibromochloromethane	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
Ethylbenzene	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
Isopropylbenzene	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
m,p-Xylene	ND		0.010	mg/L	1	1/20/2010 07:10 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
Methylene chloride	ND		0.010	mg/L	1	1/20/2010 07:10 PM
n-Butylbenzene	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
n-Propylbenzene	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
Naphthalene	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
o-Xylene	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
Styrene	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
Tetrachloroethene	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
Toluene	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
Trichloroethene	ND		0.0050	mg/L	1	1/20/2010 07:10 PM
Vinyl chloride	ND		0.0020	mg/L	1	1/20/2010 07:10 PM
Xylenes, Total	ND		0.015	mg/L	1	1/20/2010 07:10 PM
Surr: 1,2-Dichloroethane-d4	*93.4*		*70-125*	*%REC*	1	1/20/2010 07:10 PM
Surr: 4-Bromofluorobenzene	*102*		*72-125*	*%REC*	1	1/20/2010 07:10 PM
Surr: Dibromofluoromethane	*86.2*		*71-125*	*%REC*	1	1/20/2010 07:10 PM
Surr: Toluene-d8	*104*		*75-125*	*%REC*	1	1/20/2010 07:10 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**26.4**		**0.500**	**mg/L**	1	1/21/2010 09:48 PM
Fluoride	**0.781**		**0.100**	**mg/L**	1	1/21/2010 09:48 PM
Sulfate	**80.6**		**2.50**	**mg/L**	5	1/22/2010 12:51 PM
Nitrate/Nitrite (as N)	**4.91**		**0.500**	**mg/L**	5	1/21/2010 09:16 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	5	1/22/2010 12:51 PM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	1	1/21/2010 09:48 PM
Surr: Selenate (surr)	*108*		*85-115*	*%REC*	5	1/21/2010 09:16 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-5
Lab ID: 1001407-02
Collection Date: 1/18/2010 11:45 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
ALKALINITY			**SM2320B**			Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**266**		**5.00**	**mg/L**	1	1/21/2010 11:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	1/21/2010 11:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	1/21/2010 11:00 AM
Alkalinity, Total (As CaCO3)	**266**		**5.00**	**mg/L**	1	1/21/2010 11:00 AM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**756**		**1.00**	**µmhos/cm**	1	1/21/2010 08:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.29**	H	**0.100**	**pH units**	1	1/20/2010 03:30 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**508**		**10.0**	**mg/L**	1	1/21/2010 11:00 AM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-12
Lab ID: 1001407-03
Collection Date: 1/18/2010 12:55 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **1/26/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	1/26/2010 05:13 PM
DISSOLVED METALS			**SW6020**		Prep Date: **1/21/2010**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	1/21/2010 11:16 PM
Arsenic	ND		0.00500	mg/L	1	1/21/2010 11:16 PM
Barium	**0.0755**		**0.00500**	**mg/L**	1	1/21/2010 11:16 PM
Boron	**0.235**		**0.0200**	**mg/L**	1	1/22/2010 08:54 PM
Cadmium	ND		0.00200	mg/L	1	1/21/2010 11:16 PM
Calcium	**63.8**		**0.500**	**mg/L**	1	1/21/2010 11:16 PM
Chromium	ND		0.00500	mg/L	1	1/21/2010 11:16 PM
Cobalt	ND		0.00500	mg/L	1	1/21/2010 11:16 PM
Copper	ND		0.00500	mg/L	1	1/21/2010 11:16 PM
Iron	ND		0.200	mg/L	1	1/21/2010 11:16 PM
Lead	ND		0.00500	mg/L	1	1/21/2010 11:16 PM
Magnesium	**6.33**		**0.200**	**mg/L**	1	1/21/2010 11:16 PM
Manganese	**0.0219**		**0.00500**	**mg/L**	1	1/21/2010 11:16 PM
Molybdenum	ND		0.00500	mg/L	1	1/21/2010 11:16 PM
Nickel	**0.0182**		**0.00500**	**mg/L**	1	1/21/2010 11:16 PM
Potassium	**1.91**		**0.200**	**mg/L**	1	1/21/2010 11:16 PM
Selenium	ND		0.00500	mg/L	1	1/22/2010 08:54 PM
Silver	ND		0.00500	mg/L	1	1/21/2010 11:16 PM
Sodium	**41.2**		**0.200**	**mg/L**	1	1/21/2010 11:16 PM
Uranium	ND		0.00500	mg/L	1	1/28/2010 12:25 AM
Zinc	ND		0.00500	mg/L	1	1/21/2010 11:16 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/21/2010**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	1/26/2010 09:21 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
2-Chlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
2-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
2-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
2-Nitrophenol	ND		0.00020	mg/L	1	1/26/2010 09:21 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-12
Collection Date: 1/18/2010 12:55 PM

Work Order: 1001407
Lab ID: 1001407-03
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3&4-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
3-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
4-Chloroaniline	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
4-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
4-Nitrophenol	ND		0.0010	mg/L	1	1/26/2010 09:21 PM
Acenaphthene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Acenaphthylene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Acetophenone	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Anthracene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Atrazine	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Benzaldehyde	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Bis(2-ethylhexyl)phthalate	**0.0032**		**0.00020**	**mg/L**	1	1/26/2010 09:21 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Caprolactam	**0.0049**		**0.00020**	**mg/L**	1	1/26/2010 09:21 PM
Carbazole	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Chrysene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Di-n-octyl phthalate	**0.00022**		**0.00020**	**mg/L**	1	1/26/2010 09:21 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Dibenzofuran	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Diethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Fluoranthene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Fluorene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-12
Lab ID: 1001407-03
Collection Date: 1/18/2010 12:55 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachloroethane	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Isophorone	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Naphthalene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Nitrobenzene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Pentachlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Phenanthrene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Phenol	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Pyrene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
Surr: 2,4,6-Tribromophenol	*52.7*		*34-129*	*%REC*	1	1/26/2010 09:21 PM
Surr: 2-Fluorobiphenyl	*56.3*		*40-125*	*%REC*	1	1/26/2010 09:21 PM
Surr: 2-Fluorophenol	*47.1*		*20-120*	*%REC*	1	1/26/2010 09:21 PM
Surr: 4-Terphenyl-d14	*67.5*		*40-135*	*%REC*	1	1/26/2010 09:21 PM
Surr: Nitrobenzene-d5	*54.3*		*41-120*	*%REC*	1	1/26/2010 09:21 PM
Surr: Phenol-d6	*52.4*		*20-120*	*%REC*	1	1/26/2010 09:21 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/21/2010**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 09:21 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
2-Butanone	ND		0.010	mg/L	1	1/20/2010 07:35 PM
2-Hexanone	ND		0.010	mg/L	1	1/20/2010 07:35 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	1/20/2010 07:35 PM
Acetone	ND		0.010	mg/L	1	1/20/2010 07:35 PM
Benzene	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
Bromodichloromethane	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
Bromoform	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
Bromomethane	ND		0.0050	mg/L	1	1/20/2010 07:35 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-12
Lab ID: 1001407-03
Collection Date: 1/18/2010 12:55 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	ND		0.010	mg/L	1	1/20/2010 07:35 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
Chlorobenzene	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
Chloroethane	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
Chloroform	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
Chloromethane	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
Dibromochloromethane	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
Ethylbenzene	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
Isopropylbenzene	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
m,p-Xylene	ND		0.010	mg/L	1	1/20/2010 07:35 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
Methylene chloride	ND		0.010	mg/L	1	1/20/2010 07:35 PM
n-Butylbenzene	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
n-Propylbenzene	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
Naphthalene	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
o-Xylene	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
Styrene	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
Tetrachloroethene	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
Toluene	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
Trichloroethene	ND		0.0050	mg/L	1	1/20/2010 07:35 PM
Vinyl chloride	ND		0.0020	mg/L	1	1/20/2010 07:35 PM
Xylenes, Total	ND		0.015	mg/L	1	1/20/2010 07:35 PM
Surr: 1,2-Dichloroethane-d4	*93.8*		*70-125*	*%REC*	1	1/20/2010 07:35 PM
Surr: 4-Bromofluorobenzene	*102*		*72-125*	*%REC*	1	1/20/2010 07:35 PM
Surr: Dibromofluoromethane	*88.5*		*71-125*	*%REC*	1	1/20/2010 07:35 PM
Surr: Toluene-d8	*106*		*75-125*	*%REC*	1	1/20/2010 07:35 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**26.1**		**0.500**	**mg/L**	1	1/21/2010 10:11 PM
Fluoride	**1.05**		**0.100**	**mg/L**	1	1/21/2010 10:11 PM
Sulfate	**49.8**		**0.500**	**mg/L**	1	1/21/2010 10:11 PM
Nitrate/Nitrite (as N)	**2.31**		**0.500**	**mg/L**	5	1/21/2010 09:39 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	1	1/21/2010 10:11 PM
Surr: Selenate (surr)	*108*		*85-115*	*%REC*	5	1/21/2010 09:39 PM
ALKALINITY			**SM2320B**			Analyst: **TDW**

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-12
Lab ID: 1001407-03
Collection Date: 1/18/2010 12:55 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**316**		**5.00**	**mg/L**	1	1/21/2010 11:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	1/21/2010 11:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	1/21/2010 11:00 AM
Alkalinity, Total (As CaCO3)	**316**		**5.00**	**mg/L**	1	1/21/2010 11:00 AM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**586**		**1.00**	**µmhos/cm**	1	1/21/2010 08:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.27**	H	**0.100**	**pH units**	1	1/20/2010 03:30 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**398**		**10.0**	**mg/L**	1	1/21/2010 11:00 AM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-14
Lab ID: 1001407-04
Collection Date: 1/18/2010 01:50 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **1/26/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	1/26/2010 05:15 PM
DISSOLVED METALS			**SW6020**		Prep Date: **1/21/2010**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	1/21/2010 11:22 PM
Arsenic	ND		0.00500	mg/L	1	1/21/2010 11:22 PM
Barium	**0.0767**		**0.00500**	**mg/L**	1	1/21/2010 11:22 PM
Boron	**0.157**		**0.0200**	**mg/L**	1	1/22/2010 08:59 PM
Cadmium	ND		0.00200	mg/L	1	1/21/2010 11:22 PM
Calcium	**106**		**0.500**	**mg/L**	1	1/21/2010 11:22 PM
Chromium	**0.00544**		**0.00500**	**mg/L**	1	1/21/2010 11:22 PM
Cobalt	ND		0.00500	mg/L	1	1/21/2010 11:22 PM
Copper	ND		0.00500	mg/L	1	1/21/2010 11:22 PM
Iron	ND		0.200	mg/L	1	1/21/2010 11:22 PM
Lead	ND		0.00500	mg/L	1	1/21/2010 11:22 PM
Magnesium	**12.1**		**0.200**	**mg/L**	1	1/21/2010 11:22 PM
Manganese	**0.0709**		**0.00500**	**mg/L**	1	1/21/2010 11:22 PM
Molybdenum	**0.0120**		**0.00500**	**mg/L**	1	1/21/2010 11:22 PM
Nickel	**0.0458**		**0.00500**	**mg/L**	1	1/21/2010 11:22 PM
Potassium	**2.91**		**0.200**	**mg/L**	1	1/21/2010 11:22 PM
Selenium	ND		0.00500	mg/L	1	1/22/2010 08:59 PM
Silver	ND		0.00500	mg/L	1	1/21/2010 11:22 PM
Sodium	**26.9**		**0.200**	**mg/L**	1	1/21/2010 11:22 PM
Uranium	**0.00513**		**0.00500**	**mg/L**	1	1/28/2010 12:31 AM
Zinc	ND		0.00500	mg/L	1	1/21/2010 11:22 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/21/2010**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	1/26/2010 09:42 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
2-Chlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
2-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
2-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
2-Nitrophenol	ND		0.00020	mg/L	1	1/26/2010 09:42 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-14
Lab ID: 1001407-04
Collection Date: 1/18/2010 01:50 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3&4-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
3-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
4-Chloroaniline	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
4-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
4-Nitrophenol	ND		0.0010	mg/L	1	1/26/2010 09:42 PM
Acenaphthene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Acenaphthylene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Acetophenone	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Anthracene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Atrazine	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Benzaldehyde	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Bis(2-ethylhexyl)phthalate	**0.0053**		**0.00020**	**mg/L**	1	1/26/2010 09:42 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Caprolactam	**0.047**		**0.0020**	**mg/L**	10	1/27/2010 12:11 PM
Carbazole	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Chrysene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Dibenzofuran	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Diethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Fluoranthene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Fluorene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-14
Lab ID: 1001407-04
Collection Date: 1/18/2010 01:50 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachloroethane	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Isophorone	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Naphthalene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Nitrobenzene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Pentachlorophenol	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Phenanthrene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Phenol	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Pyrene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
Surr: 2,4,6-Tribromophenol	*74.1*		*34-129*	*%REC*	10	1/27/2010 12:11 PM
Surr: 2,4,6-Tribromophenol	*59.7*		*34-129*	*%REC*	1	1/26/2010 09:42 PM
Surr: 2-Fluorobiphenyl	*53.2*		*40-125*	*%REC*	1	1/26/2010 09:42 PM
Surr: 2-Fluorobiphenyl	*57.9*		*40-125*	*%REC*	10	1/27/2010 12:11 PM
Surr: 2-Fluorophenol	*45.3*		*20-120*	*%REC*	1	1/26/2010 09:42 PM
Surr: 2-Fluorophenol	*50.1*		*20-120*	*%REC*	10	1/27/2010 12:11 PM
Surr: 4-Terphenyl-d14	*66.7*		*40-135*	*%REC*	1	1/26/2010 09:42 PM
Surr: 4-Terphenyl-d14	*79.7*		*40-135*	*%REC*	10	1/27/2010 12:11 PM
Surr: Nitrobenzene-d5	*52.5*		*41-120*	*%REC*	10	1/27/2010 12:11 PM
Surr: Nitrobenzene-d5	*48.3*		*41-120*	*%REC*	1	1/26/2010 09:42 PM
Surr: Phenol-d6	*54.6*		*20-120*	*%REC*	1	1/26/2010 09:42 PM
Surr: Phenol-d6	*61.1*		*20-120*	*%REC*	10	1/27/2010 12:11 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/21/2010**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 09:42 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
2-Butanone	ND		0.010	mg/L	1	1/20/2010 08:01 PM
2-Hexanone	ND		0.010	mg/L	1	1/20/2010 08:01 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	1/20/2010 08:01 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-14
Lab ID: 1001407-04
Collection Date: 1/18/2010 01:50 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
4-Methyl-2-pentanone	ND		0.010	mg/L	1	1/20/2010 08:01 PM
Acetone	ND		0.010	mg/L	1	1/20/2010 08:01 PM
Benzene	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
Bromodichloromethane	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
Bromoform	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
Bromomethane	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
Carbon disulfide	ND		0.010	mg/L	1	1/20/2010 08:01 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
Chlorobenzene	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
Chloroethane	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
Chloroform	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
Chloromethane	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
Dibromochloromethane	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
Ethylbenzene	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
Isopropylbenzene	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
m,p-Xylene	ND		0.010	mg/L	1	1/20/2010 08:01 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
Methylene chloride	ND		0.010	mg/L	1	1/20/2010 08:01 PM
n-Butylbenzene	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
n-Propylbenzene	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
Naphthalene	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
o-Xylene	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
Styrene	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
Tetrachloroethene	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
Toluene	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
Trichloroethene	ND		0.0050	mg/L	1	1/20/2010 08:01 PM
Vinyl chloride	ND		0.0020	mg/L	1	1/20/2010 08:01 PM
Xylenes, Total	ND		0.015	mg/L	1	1/20/2010 08:01 PM
Surr: 1,2-Dichloroethane-d4	*89.8*		*70-125*	*%REC*	1	1/20/2010 08:01 PM
Surr: 4-Bromofluorobenzene	*95.3*		*72-125*	*%REC*	1	1/20/2010 08:01 PM
Surr: Dibromofluoromethane	*86.5*		*71-125*	*%REC*	1	1/20/2010 08:01 PM
Surr: Toluene-d8	*100*		*75-125*	*%REC*	1	1/20/2010 08:01 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**103**		**2.50**	**mg/L**	5	1/22/2010 01:14 PM
Fluoride	**0.810**		**0.100**	**mg/L**	1	1/21/2010 10:34 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-14
Lab ID: 1001407-04
Collection Date: 1/18/2010 01:50 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Sulfate	**59.0**		**2.50**	**mg/L**	5	1/22/2010 01:14 PM
Nitrate/Nitrite (as N)	**6.03**		**0.500**	**mg/L**	5	1/21/2010 10:03 PM
Surr: Selenate (surr)	*108*		*85-115*	*%REC*	5	1/21/2010 10:03 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	5	1/22/2010 01:14 PM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	1	1/21/2010 10:34 PM
ALKALINITY			**SM2320B**			Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**192**		**5.00**	**mg/L**	1	1/21/2010 11:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	1/21/2010 11:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	1/21/2010 11:00 AM
Alkalinity, Total (As CaCO3)	**192**		**5.00**	**mg/L**	1	1/21/2010 11:00 AM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**833**		**1.00**	**µmhos/cm**	1	1/21/2010 08:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.41**	H	**0.100**	**pH units**	1	1/20/2010 03:30 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**598**		**10.0**	**mg/L**	1	1/21/2010 11:00 AM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-13
Lab ID: 1001407-05
Collection Date: 1/18/2010 03:30 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **1/26/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	1/26/2010 05:17 PM
DISSOLVED METALS			**SW6020**		Prep Date: **1/21/2010**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	1/21/2010 11:28 PM
Arsenic	ND		0.00500	mg/L	1	1/21/2010 11:28 PM
Barium	**0.111**		**0.00500**	**mg/L**	1	1/21/2010 11:28 PM
Boron	**0.231**		**0.0200**	**mg/L**	1	1/22/2010 09:04 PM
Cadmium	ND		0.00200	mg/L	1	1/21/2010 11:28 PM
Calcium	**310**		**25.0**	**mg/L**	50	1/22/2010 08:29 PM
Chromium	**0.00728**		**0.00500**	**mg/L**	1	1/21/2010 11:28 PM
Cobalt	**0.00624**		**0.00500**	**mg/L**	1	1/21/2010 11:28 PM
Copper	ND		0.00500	mg/L	1	1/21/2010 11:28 PM
Iron	ND		0.200	mg/L	1	1/21/2010 11:28 PM
Lead	ND		0.00500	mg/L	1	1/21/2010 11:28 PM
Magnesium	**37.8**		**0.200**	**mg/L**	1	1/21/2010 11:28 PM
Manganese	**0.0591**		**0.00500**	**mg/L**	1	1/21/2010 11:28 PM
Molybdenum	ND		0.00500	mg/L	1	1/21/2010 11:28 PM
Nickel	**0.0110**		**0.00500**	**mg/L**	1	1/21/2010 11:28 PM
Potassium	**4.51**		**0.200**	**mg/L**	1	1/21/2010 11:28 PM
Selenium	ND		0.00500	mg/L	1	1/22/2010 09:04 PM
Silver	ND		0.00500	mg/L	1	1/21/2010 11:28 PM
Sodium	**96.7**		**0.200**	**mg/L**	1	1/21/2010 11:28 PM
Uranium	**0.0119**		**0.00500**	**mg/L**	1	1/28/2010 12:37 AM
Zinc	**0.00769**		**0.00500**	**mg/L**	1	1/21/2010 11:28 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/21/2010**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	1/26/2010 10:03 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
2-Chlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
2-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
2-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
2-Nitrophenol	ND		0.00020	mg/L	1	1/26/2010 10:03 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-13
Collection Date: 1/18/2010 03:30 PM

Work Order: 1001407
Lab ID: 1001407-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3&4-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
3,3´-Dichlorobenzidine	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
3-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
4-Chloroaniline	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
4-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
4-Nitrophenol	ND		0.0010	mg/L	1	1/26/2010 10:03 PM
Acenaphthene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Acenaphthylene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Acetophenone	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Anthracene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Atrazine	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Benzaldehyde	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Bis(2-ethylhexyl)phthalate	**0.00069**		**0.00020**	**mg/L**	1	1/26/2010 10:03 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Caprolactam	**0.019**		**0.00080**	**mg/L**	4	1/27/2010 01:36 PM
Carbazole	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Chrysene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Dibenzofuran	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Diethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Fluoranthene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Fluorene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 1001407
Sample ID: MW-13 **Lab ID:** 1001407-05
Collection Date: 1/18/2010 03:30 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachloroethane	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Isophorone	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Naphthalene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Nitrobenzene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Pentachlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Phenanthrene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Phenol	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Pyrene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
Surr: 2,4,6-Tribromophenol	*68.9*		*34-129*	*%REC*	4	1/27/2010 01:36 PM
Surr: 2,4,6-Tribromophenol	*62.5*		*34-129*	*%REC*	1	1/26/2010 10:03 PM
Surr: 2-Fluorobiphenyl	*55.4*		*40-125*	*%REC*	1	1/26/2010 10:03 PM
Surr: 2-Fluorobiphenyl	*62.7*		*40-125*	*%REC*	4	1/27/2010 01:36 PM
Surr: 2-Fluorophenol	*50.8*		*20-120*	*%REC*	1	1/26/2010 10:03 PM
Surr: 2-Fluorophenol	*53.8*		*20-120*	*%REC*	4	1/27/2010 01:36 PM
Surr: 4-Terphenyl-d14	*65.2*		*40-135*	*%REC*	1	1/26/2010 10:03 PM
Surr: 4-Terphenyl-d14	*71.6*		*40-135*	*%REC*	4	1/27/2010 01:36 PM
Surr: Nitrobenzene-d5	*56.8*		*41-120*	*%REC*	4	1/27/2010 01:36 PM
Surr: Nitrobenzene-d5	*54.0*		*41-120*	*%REC*	1	1/26/2010 10:03 PM
Surr: Phenol-d6	*56.9*		*20-120*	*%REC*	1	1/26/2010 10:03 PM
Surr: Phenol-d6	*60.6*		*20-120*	*%REC*	4	1/27/2010 01:36 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/21/2010**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 10:03 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
2-Butanone	ND		0.010	mg/L	1	1/22/2010 06:10 PM
2-Hexanone	ND		0.010	mg/L	1	1/22/2010 06:10 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	1/22/2010 06:10 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-13
Collection Date: 1/18/2010 03:30 PM

Work Order: 1001407
Lab ID: 1001407-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
4-Methyl-2-pentanone	ND		0.010	mg/L	1	1/22/2010 06:10 PM
Acetone	ND		0.010	mg/L	1	1/22/2010 06:10 PM
Benzene	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
Bromodichloromethane	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
Bromoform	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
Bromomethane	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
Carbon disulfide	ND		0.010	mg/L	1	1/22/2010 06:10 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
Chlorobenzene	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
Chloroethane	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
Chloroform	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
Chloromethane	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
Dibromochloromethane	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
Ethylbenzene	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
Isopropylbenzene	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
m,p-Xylene	ND		0.010	mg/L	1	1/22/2010 06:10 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
Methylene chloride	ND		0.010	mg/L	1	1/22/2010 06:10 PM
n-Butylbenzene	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
n-Propylbenzene	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
Naphthalene	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
o-Xylene	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
Styrene	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
Tetrachloroethene	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
Toluene	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
Trichloroethene	ND		0.0050	mg/L	1	1/22/2010 06:10 PM
Vinyl chloride	ND		0.0020	mg/L	1	1/22/2010 06:10 PM
Xylenes, Total	ND		0.015	mg/L	1	1/22/2010 06:10 PM
Surr: 1,2-Dichloroethane-d4	*105*		*70-125*	*%REC*	1	1/22/2010 06:10 PM
Surr: 4-Bromofluorobenzene	*95.1*		*72-125*	*%REC*	1	1/22/2010 06:10 PM
Surr: Dibromofluoromethane	*99.7*		*71-125*	*%REC*	1	1/22/2010 06:10 PM
Surr: Toluene-d8	*98.0*		*75-125*	*%REC*	1	1/22/2010 06:10 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**604**		**10.0**	**mg/L**	20	1/22/2010 01:37 PM
Fluoride	**0.170**		**0.100**	**mg/L**	1	1/21/2010 10:57 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-13
Collection Date: 1/18/2010 03:30 PM

Work Order: 1001407
Lab ID: 1001407-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Sulfate	**79.8**		**10.0**	**mg/L**	20	1/22/2010 01:37 PM
Nitrate/Nitrite (as N)	**1.08**		**0.500**	**mg/L**	5	1/21/2010 10:27 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	5	1/21/2010 10:27 PM
Surr: Selenate (surr)	*100*		*85-115*	*%REC*	20	1/22/2010 01:37 PM
Surr: Selenate (surr)	*100*		*85-115*	*%REC*	1	1/21/2010 10:57 PM
ALKALINITY			**SM2320B**			Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**403**		**5.00**	**mg/L**	1	1/21/2010 11:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	1/21/2010 11:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	1/21/2010 11:00 AM
Alkalinity, Total (As CaCO3)	**403**		**5.00**	**mg/L**	1	1/21/2010 11:00 AM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**2,610**		**1.00**	**µmhos/cm**	1	1/21/2010 08:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**6.72**	H	**0.100**	**pH units**	1	1/20/2010 03:30 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**2,210**		**10.0**	**mg/L**	1	1/21/2010 11:00 AM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-11
Collection Date: 1/18/2010 04:25 PM

Work Order: 1001407
Lab ID: 1001407-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **1/26/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	1/26/2010 05:23 PM
DISSOLVED METALS			**SW6020**		Prep Date: **1/21/2010**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	1/21/2010 10:16 PM
Arsenic	ND		0.00500	mg/L	1	1/21/2010 10:16 PM
Barium	**0.147**		**0.00500**	**mg/L**	1	1/21/2010 10:16 PM
Boron	**0.238**		**0.0200**	**mg/L**	1	1/21/2010 10:16 PM
Cadmium	ND		0.00200	mg/L	1	1/21/2010 10:16 PM
Calcium	**159**		**0.500**	**mg/L**	1	1/21/2010 10:16 PM
Chromium	ND		0.00500	mg/L	1	1/21/2010 10:16 PM
Cobalt	ND		0.00500	mg/L	1	1/21/2010 10:16 PM
Copper	ND		0.00500	mg/L	1	1/21/2010 10:16 PM
Iron	ND		0.200	mg/L	1	1/21/2010 10:16 PM
Lead	ND		0.00500	mg/L	1	1/21/2010 10:16 PM
Magnesium	**20.7**		**0.200**	**mg/L**	1	1/21/2010 10:16 PM
Manganese	**0.0559**		**0.00500**	**mg/L**	1	1/21/2010 10:16 PM
Molybdenum	ND		0.00500	mg/L	1	1/21/2010 10:16 PM
Nickel	**0.0126**		**0.00500**	**mg/L**	1	1/21/2010 10:16 PM
Potassium	**3.42**		**0.200**	**mg/L**	1	1/21/2010 10:16 PM
Selenium	ND		0.00500	mg/L	1	1/22/2010 07:59 PM
Silver	ND		0.00500	mg/L	1	1/21/2010 10:16 PM
Sodium	**73.6**		**0.200**	**mg/L**	1	1/21/2010 10:16 PM
Uranium	**0.00635**		**0.00500**	**mg/L**	1	1/28/2010 12:44 AM
Zinc	ND		0.00500	mg/L	1	1/21/2010 10:16 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/21/2010**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	1/26/2010 10:24 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
2-Chlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
2-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
2-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
2-Nitrophenol	ND		0.00020	mg/L	1	1/26/2010 10:24 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-11
Lab ID: 1001407-06
Collection Date: 1/18/2010 04:25 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3&4-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
3-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
4-Chloroaniline	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
4-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
4-Nitrophenol	ND		0.0010	mg/L	1	1/26/2010 10:24 PM
Acenaphthene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Acenaphthylene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Acetophenone	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Anthracene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Atrazine	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Benzaldehyde	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Bis(2-ethylhexyl)phthalate	**0.0015**		**0.00020**	**mg/L**	1	1/26/2010 10:24 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Caprolactam	**0.011**		**0.00080**	**mg/L**	4	1/27/2010 12:54 PM
Carbazole	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Chrysene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Dibenzofuran	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Diethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Fluoranthene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Fluorene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 1001407
Sample ID: MW-11 **Lab ID:** 1001407-06
Collection Date: 1/18/2010 04:25 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachloroethane	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Isophorone	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Naphthalene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Nitrobenzene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Pentachlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Phenanthrene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Phenol	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Pyrene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
Surr: 2,4,6-Tribromophenol	*55.7*		*34-129*	*%REC*	4	1/27/2010 12:54 PM
Surr: 2,4,6-Tribromophenol	*56.3*		*34-129*	*%REC*	1	1/26/2010 10:24 PM
Surr: 2-Fluorobiphenyl	*52.3*		*40-125*	*%REC*	1	1/26/2010 10:24 PM
Surr: 2-Fluorobiphenyl	*55.6*		*40-125*	*%REC*	4	1/27/2010 12:54 PM
Surr: 2-Fluorophenol	*44.9*		*20-120*	*%REC*	1	1/26/2010 10:24 PM
Surr: 2-Fluorophenol	*43.1*		*20-120*	*%REC*	4	1/27/2010 12:54 PM
Surr: 4-Terphenyl-d14	*64.9*		*40-135*	*%REC*	1	1/26/2010 10:24 PM
Surr: 4-Terphenyl-d14	*70.8*		*40-135*	*%REC*	4	1/27/2010 12:54 PM
Surr: Nitrobenzene-d5	*50.9*		*41-120*	*%REC*	4	1/27/2010 12:54 PM
Surr: Nitrobenzene-d5	*51.8*		*41-120*	*%REC*	1	1/26/2010 10:24 PM
Surr: Phenol-d6	*48.8*		*20-120*	*%REC*	1	1/26/2010 10:24 PM
Surr: Phenol-d6	*52.5*		*20-120*	*%REC*	4	1/27/2010 12:54 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/21/2010**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 10:24 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
2-Butanone	ND		0.010	mg/L	1	1/22/2010 06:34 PM
2-Hexanone	ND		0.010	mg/L	1	1/22/2010 06:34 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	1/22/2010 06:34 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-11
Lab ID: 1001407-06
Collection Date: 1/18/2010 04:25 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
4-Methyl-2-pentanone	ND		0.010	mg/L	1	1/22/2010 06:34 PM
Acetone	ND		0.010	mg/L	1	1/22/2010 06:34 PM
Benzene	**0.20**	E	**0.0050**	**mg/L**	1	1/22/2010 06:34 PM
Bromodichloromethane	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
Bromoform	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
Bromomethane	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
Carbon disulfide	ND		0.010	mg/L	1	1/22/2010 06:34 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
Chlorobenzene	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
Chloroethane	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
Chloroform	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
Chloromethane	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
Dibromochloromethane	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
Ethylbenzene	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
Isopropylbenzene	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
m,p-Xylene	ND		0.010	mg/L	1	1/22/2010 06:34 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
Methylene chloride	ND		0.010	mg/L	1	1/22/2010 06:34 PM
n-Butylbenzene	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
n-Propylbenzene	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
Naphthalene	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
o-Xylene	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
Styrene	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
Tetrachloroethene	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
Toluene	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
Trichloroethene	ND		0.0050	mg/L	1	1/22/2010 06:34 PM
Vinyl chloride	ND		0.0020	mg/L	1	1/22/2010 06:34 PM
Xylenes, Total	ND		0.015	mg/L	1	1/22/2010 06:34 PM
Surr: 1,2-Dichloroethane-d4	*101*		*70-125*	*%REC*	1	1/22/2010 06:34 PM
Surr: 4-Bromofluorobenzene	*94.0*		*72-125*	*%REC*	1	1/22/2010 06:34 PM
Surr: Dibromofluoromethane	*98.7*		*71-125*	*%REC*	1	1/22/2010 06:34 PM
Surr: Toluene-d8	*97.2*		*75-125*	*%REC*	1	1/22/2010 06:34 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**164**		**2.50**	**mg/L**	5	1/22/2010 02:45 PM
Fluoride	**0.527**		**0.100**	**mg/L**	1	1/21/2010 11:20 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-11
Collection Date: 1/18/2010 04:25 PM

Work Order: 1001407
Lab ID: 1001407-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Sulfate	**71.4**		**2.50**	**mg/L**	5	1/22/2010 02:45 PM
Nitrate/Nitrite (as N)	**1.37**		**0.500**	**mg/L**	5	1/21/2010 10:51 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	5	1/21/2010 10:51 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	5	1/22/2010 02:45 PM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	1	1/21/2010 11:20 PM
ALKALINITY			**SM2320B**			Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**404**		**5.00**	**mg/L**	1	1/21/2010 11:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	1/21/2010 11:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	1/21/2010 11:00 AM
Alkalinity, Total (As CaCO3)	**404**		**5.00**	**mg/L**	1	1/21/2010 11:00 AM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**1,350**		**1.00**	**µmhos/cm**	1	1/21/2010 08:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**6.95**	H	**0.100**	**pH units**	1	1/20/2010 03:30 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**842**		**10.0**	**mg/L**	1	1/21/2010 11:00 AM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-1
Lab ID: 1001407-07
Collection Date: 1/19/2010 01:30 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **1/26/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	1/26/2010 05:25 PM
DISSOLVED METALS			**SW6020**		Prep Date: **1/21/2010**	Analyst: **ALR**
Aluminum	**0.0202**		**0.0100**	**mg/L**	1	1/21/2010 11:34 PM
Arsenic	**0.00634**		**0.00500**	**mg/L**	1	1/21/2010 11:34 PM
Barium	**0.164**		**0.00500**	**mg/L**	1	1/21/2010 11:34 PM
Boron	**0.236**		**0.0200**	**mg/L**	1	1/22/2010 09:09 PM
Cadmium	ND		0.00200	mg/L	1	1/21/2010 11:34 PM
Calcium	**203**		**25.0**	**mg/L**	50	1/22/2010 09:19 PM
Chromium	ND		0.00500	mg/L	1	1/21/2010 11:34 PM
Cobalt	ND		0.00500	mg/L	1	1/21/2010 11:34 PM
Copper	ND		0.00500	mg/L	1	1/21/2010 11:34 PM
Iron	ND		0.200	mg/L	1	1/21/2010 11:34 PM
Lead	ND		0.00500	mg/L	1	1/21/2010 11:34 PM
Magnesium	**26.8**		**0.200**	**mg/L**	1	1/21/2010 11:34 PM
Manganese	**2.72**		**0.250**	**mg/L**	50	1/22/2010 09:19 PM
Molybdenum	ND		0.00500	mg/L	1	1/21/2010 11:34 PM
Nickel	ND		0.00500	mg/L	1	1/21/2010 11:34 PM
Potassium	**1.30**		**0.200**	**mg/L**	1	1/21/2010 11:34 PM
Selenium	ND		0.00500	mg/L	1	1/25/2010 04:16 PM
Silver	ND		0.00500	mg/L	1	1/21/2010 11:34 PM
Sodium	**57.4**		**0.200**	**mg/L**	1	1/21/2010 11:34 PM
Uranium	**0.00615**		**0.00500**	**mg/L**	1	1/28/2010 12:50 AM
Zinc	**0.00989**		**0.00500**	**mg/L**	1	1/21/2010 11:34 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/21/2010**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	1/26/2010 10:45 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
2-Chlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
2-Methylnaphthalene	**0.00026**		**0.00020**	**mg/L**	1	1/26/2010 10:45 PM
2-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
2-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
2-Nitrophenol	ND		0.00020	mg/L	1	1/26/2010 10:45 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-1
Collection Date: 1/19/2010 01:30 PM

Work Order: 1001407
Lab ID: 1001407-07
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3&4-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
3-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
4-Chloroaniline	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
4-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
4-Nitrophenol	ND		0.0010	mg/L	1	1/26/2010 10:45 PM
Acenaphthene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Acenaphthylene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Acetophenone	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Anthracene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Atrazine	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Benzaldehyde	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Bis(2-ethylhexyl)phthalate	**0.012**		**0.0040**	**mg/L**	20	1/27/2010 01:15 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Caprolactam	**0.086**		**0.0040**	**mg/L**	20	1/27/2010 01:15 PM
Carbazole	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Chrysene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Dibenzofuran	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Diethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Fluoranthene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Fluorene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 1001407
Sample ID: MW-1 **Lab ID:** 1001407-07
Collection Date: 1/19/2010 01:30 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachloroethane	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Isophorone	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Naphthalene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Nitrobenzene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Pentachlorophenol	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Phenanthrene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Phenol	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Pyrene	ND		0.00020	mg/L	1	1/26/2010 10:45 PM
Surr: 2,4,6-Tribromophenol	*60.4*		*34-129*	*%REC*	1	1/26/2010 10:45 PM
Surr: 2,4,6-Tribromophenol	*64.3*		*34-129*	*%REC*	20	1/27/2010 01:15 PM
Surr: 2-Fluorobiphenyl	*49.6*		*40-125*	*%REC*	1	1/26/2010 10:45 PM
Surr: 2-Fluorobiphenyl	*59.1*		*40-125*	*%REC*	20	1/27/2010 01:15 PM
Surr: 2-Fluorophenol	*44.2*		*20-120*	*%REC*	1	1/26/2010 10:45 PM
Surr: 2-Fluorophenol	*49.6*		*20-120*	*%REC*	20	1/27/2010 01:15 PM
Surr: 4-Terphenyl-d14	*62.2*		*40-135*	*%REC*	1	1/26/2010 10:45 PM
Surr: 4-Terphenyl-d14	*72.5*		*40-135*	*%REC*	20	1/27/2010 01:15 PM
Surr: Nitrobenzene-d5	*47.3*		*41-120*	*%REC*	1	1/26/2010 10:45 PM
Surr: Nitrobenzene-d5	*55.7*		*41-120*	*%REC*	20	1/27/2010 01:15 PM
Surr: Phenol-d6	*53.7*		*20-120*	*%REC*	20	1/27/2010 01:15 PM
Surr: Phenol-d6	*51.4*		*20-120*	*%REC*	1	1/26/2010 10:45 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/21/2010**	Analyst: **LG**
1-Methylnaphthalene	**0.00080**		**0.00020**	**mg/L**	1	1/26/2010 10:45 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
2-Butanone	ND		0.010	mg/L	1	1/22/2010 06:59 PM
2-Hexanone	ND		0.010	mg/L	1	1/22/2010 06:59 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	1/22/2010 06:59 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-1
Collection Date: 1/19/2010 01:30 PM

Work Order: 1001407
Lab ID: 1001407-07
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
4-Methyl-2-pentanone	ND		0.010	mg/L	1	1/22/2010 06:59 PM
Acetone	ND		0.010	mg/L	1	1/22/2010 06:59 PM
Benzene	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
Bromodichloromethane	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
Bromoform	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
Bromomethane	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
Carbon disulfide	ND		0.010	mg/L	1	1/22/2010 06:59 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
Chlorobenzene	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
Chloroethane	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
Chloroform	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
Chloromethane	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
Dibromochloromethane	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
Ethylbenzene	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
Isopropylbenzene	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
m,p-Xylene	ND		0.010	mg/L	1	1/22/2010 06:59 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
Methylene chloride	ND		0.010	mg/L	1	1/22/2010 06:59 PM
n-Butylbenzene	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
n-Propylbenzene	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
Naphthalene	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
o-Xylene	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
Styrene	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
Tetrachloroethene	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
Toluene	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
Trichloroethene	ND		0.0050	mg/L	1	1/22/2010 06:59 PM
Vinyl chloride	ND		0.0020	mg/L	1	1/22/2010 06:59 PM
Xylenes, Total	ND		0.015	mg/L	1	1/22/2010 06:59 PM
Surr: 1,2-Dichloroethane-d4	*111*		*70-125*	*%REC*	1	1/22/2010 06:59 PM
Surr: 4-Bromofluorobenzene	*99.4*		*72-125*	*%REC*	1	1/22/2010 06:59 PM
Surr: Dibromofluoromethane	*105*		*71-125*	*%REC*	1	1/22/2010 06:59 PM
Surr: Toluene-d8	*103*		*75-125*	*%REC*	1	1/22/2010 06:59 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**266**		**5.00**	**mg/L**	10	1/25/2010 11:58 AM
Fluoride	**0.249**		**0.100**	**mg/L**	1	1/21/2010 11:43 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-1
Lab ID: 1001407-07
Collection Date: 1/19/2010 01:30 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Sulfate	**145**		**2.50**	**mg/L**	5	1/22/2010 03:08 PM
Nitrate/Nitrite (as N)	**5.84**		**0.500**	**mg/L**	5	1/22/2010 12:26 AM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	10	1/25/2010 11:58 AM
Surr: Selenate (surr)	*102*		*85-115*	*%REC*	5	1/22/2010 12:26 AM
Surr: Selenate (surr)	*99.9*		*85-115*	*%REC*	5	1/22/2010 03:08 PM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	1	1/21/2010 11:43 PM
ALKALINITY			**SM2320B**			Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**287**		**5.00**	**mg/L**	1	1/21/2010 11:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	1/21/2010 11:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	1/21/2010 11:00 AM
Alkalinity, Total (As CaCO3)	**287**		**5.00**	**mg/L**	1	1/21/2010 11:00 AM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**1,600**		**1.00**	**µmhos/cm**	1	1/21/2010 08:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**6.96**	H	**0.100**	**pH units**	1	1/20/2010 03:30 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**1,240**		**10.0**	**mg/L**	1	1/21/2010 11:00 AM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-2
Lab ID: 1001407-08
Collection Date: 1/19/2010 03:35 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **1/26/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	1/26/2010 05:27 PM
DISSOLVED METALS			**SW6020**		Prep Date: **1/21/2010**	Analyst: **ALR**
Aluminum	ND		0.0100	mg/L	1	1/21/2010 11:40 PM
Arsenic	ND		0.00500	mg/L	1	1/21/2010 11:40 PM
Barium	**0.217**		**0.00500**	**mg/L**	1	1/21/2010 11:40 PM
Boron	**0.191**		**0.0200**	**mg/L**	1	1/22/2010 09:14 PM
Cadmium	ND		0.00200	mg/L	1	1/21/2010 11:40 PM
Calcium	**137**		**0.500**	**mg/L**	1	1/21/2010 11:40 PM
Chromium	ND		0.00500	mg/L	1	1/21/2010 11:40 PM
Cobalt	ND		0.00500	mg/L	1	1/21/2010 11:40 PM
Copper	ND		0.00500	mg/L	1	1/21/2010 11:40 PM
Iron	ND		0.200	mg/L	1	1/21/2010 11:40 PM
Lead	ND		0.00500	mg/L	1	1/21/2010 11:40 PM
Magnesium	**18.6**		**0.200**	**mg/L**	1	1/21/2010 11:40 PM
Manganese	**0.00538**		**0.00500**	**mg/L**	1	1/21/2010 11:40 PM
Molybdenum	ND		0.00500	mg/L	1	1/21/2010 11:40 PM
Nickel	ND		0.00500	mg/L	1	1/21/2010 11:40 PM
Potassium	**2.18**		**0.200**	**mg/L**	1	1/21/2010 11:40 PM
Selenium	ND		0.00500	mg/L	1	1/22/2010 09:14 PM
Silver	ND		0.00500	mg/L	1	1/21/2010 11:40 PM
Sodium	**53.3**		**0.200**	**mg/L**	1	1/21/2010 11:40 PM
Uranium	ND		0.00500	mg/L	1	1/28/2010 12:56 AM
Zinc	**0.0166**		**0.00500**	**mg/L**	1	1/21/2010 11:40 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/21/2010**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	1/26/2010 11:07 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
2-Chlorophenol	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
2-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
2-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
2-Nitrophenol	ND		0.00020	mg/L	1	1/26/2010 11:07 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-2
Lab ID: 1001407-08
Collection Date: 1/19/2010 03:35 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3&4-Methylphenol	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
3-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
4-Chloroaniline	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
4-Nitroaniline	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
4-Nitrophenol	ND		0.0010	mg/L	1	1/26/2010 11:07 PM
Acenaphthene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Acenaphthylene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Acetophenone	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Anthracene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Atrazine	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Benzaldehyde	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Bis(2-ethylhexyl)phthalate	**0.00098**		**0.00020**	**mg/L**	1	1/26/2010 11:07 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Caprolactam	**0.00038**		**0.00020**	**mg/L**	1	1/26/2010 11:07 PM
Carbazole	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Chrysene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Dibenzofuran	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Diethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Fluoranthene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Fluorene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 1001407
Sample ID: MW-2 **Lab ID:** 1001407-08
Collection Date: 1/19/2010 03:35 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachloroethane	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Isophorone	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Naphthalene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Nitrobenzene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Pentachlorophenol	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Phenanthrene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Phenol	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Pyrene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
Surr: 2,4,6-Tribromophenol	*57.3*		*34-129*	*%REC*	1	1/26/2010 11:07 PM
Surr: 2-Fluorobiphenyl	*60.7*		*40-125*	*%REC*	1	1/26/2010 11:07 PM
Surr: 2-Fluorophenol	*52.1*		*20-120*	*%REC*	1	1/26/2010 11:07 PM
Surr: 4-Terphenyl-d14	*65.8*		*40-135*	*%REC*	1	1/26/2010 11:07 PM
Surr: Nitrobenzene-d5	*59.6*		*41-120*	*%REC*	1	1/26/2010 11:07 PM
Surr: Phenol-d6	*56.4*		*20-120*	*%REC*	1	1/26/2010 11:07 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **1/21/2010**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	1/26/2010 11:07 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
2-Butanone	ND		0.010	mg/L	1	1/22/2010 07:23 PM
2-Hexanone	ND		0.010	mg/L	1	1/22/2010 07:23 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	1/22/2010 07:23 PM
Acetone	ND		0.010	mg/L	1	1/22/2010 07:23 PM
Benzene	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
Bromodichloromethane	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
Bromoform	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
Bromomethane	ND		0.0050	mg/L	1	1/22/2010 07:23 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-2
Lab ID: 1001407-08
Collection Date: 1/19/2010 03:35 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	ND		0.010	mg/L	1	1/22/2010 07:23 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
Chlorobenzene	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
Chloroethane	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
Chloroform	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
Chloromethane	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
Dibromochlorornethane	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
Ethylbenzene	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
Isopropylbenzene	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
m,p-Xylene	ND		0.010	mg/L	1	1/22/2010 07:23 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
Methylene chloride	ND		0.010	mg/L	1	1/22/2010 07:23 PM
n-Butylbenzene	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
n-Propylbenzene	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
Naphthalene	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
o-Xylene	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
Styrene	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
Tetrachloroethene	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
Toluene	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
Trichloroethene	ND		0.0050	mg/L	1	1/22/2010 07:23 PM
Vinyl chloride	ND		0.0020	mg/L	1	1/22/2010 07:23 PM
Xylenes, Total	ND		0.015	mg/L	1	1/22/2010 07:23 PM
Surr: 1,2-Dichloroethane-d4	*106*		*70-125*	*%REC*	1	1/22/2010 07:23 PM
Surr: 4-Bromofluorobenzene	*95.7*		*72-125*	*%REC*	1	1/22/2010 07:23 PM
Surr: Dibromofluoromethane	*102*		*71-125*	*%REC*	1	1/22/2010 07:23 PM
Surr: Toluene-d8	*98.7*		*75-125*	*%REC*	1	1/22/2010 07:23 PM
ANIONS			**E300**			Analyst: **IGF**
Chloride	**246**		**2.50**	**mg/L**	5	1/22/2010 03:31 PM
Fluoride	**0.672**		**0.100**	**mg/L**	1	1/22/2010 12:06 AM
Sulfate	**55.1**		**2.50**	**mg/L**	5	1/22/2010 03:31 PM
Nitrate/Nitrite (as N)	**3.39**		**0.500**	**mg/L**	5	1/22/2010 12:49 AM
Surr: Selenate (surr)	*101*		*85-115*	*%REC*	5	1/22/2010 03:31 PM
Surr: Selenate (surr)	*100*		*85-115*	*%REC*	1	1/22/2010 12:06 AM
Surr: Selenate (surr)	*103*		*85-115*	*%REC*	5	1/22/2010 12:49 AM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: MW-2
Lab ID: 1001407-08
Collection Date: 1/19/2010 03:35 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
ALKALINITY			**SM2320B**			Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**242**		**5.00**	**mg/L**	1	1/21/2010 11:00 AM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	1/21/2010 11:00 AM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	1/21/2010 11:00 AM
Alkalinity, Total (As CaCO3)	**242**		**5.00**	**mg/L**	1	1/21/2010 11:00 AM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **TDW**
Specific Conductivity	**1,280**		**1.00**	**µmhos/cm**	1	1/21/2010 08:00 AM
PH			**SM4500H+ B**			Analyst: **TDW**
pH	**7.25**	H	**0.100**	**pH units**	1	1/20/2010 03:30 PM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**966**		**10.0**	**mg/L**	1	1/21/2010 11:00 AM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: Trip Blank 1
Lab ID: 1001407-09
Collection Date: 1/19/2010
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
2-Butanone	ND		0.010	mg/L	1	1/22/2010 04:08 PM
2-Hexanone	ND		0.010	mg/L	1	1/22/2010 04:08 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	1/22/2010 04:08 PM
Acetone	ND		0.010	mg/L	1	1/22/2010 04:08 PM
Benzene	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
Bromodichloromethane	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
Bromoform	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
Bromomethane	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
Carbon disulfide	ND		0.010	mg/L	1	1/22/2010 04:08 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
Chlorobenzene	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
Chloroethane	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
Chloroform	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
Chloromethane	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
Dibromochloromethane	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
Ethylbenzene	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
Isopropylbenzene	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
m,p-Xylene	ND		0.010	mg/L	1	1/22/2010 04:08 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
Methylene chloride	ND		0.010	mg/L	1	1/22/2010 04:08 PM
n-Butylbenzene	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
n-Propylbenzene	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
Naphthalene	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
o-Xylene	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
Styrene	ND		0.0050	mg/L	1	1/22/2010 04:08 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1001407
Sample ID: Trip Blank 1
Lab ID: 1001407-09
Collection Date: 1/19/2010
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
Toluene	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
Trichloroethene	ND		0.0050	mg/L	1	1/22/2010 04:08 PM
Vinyl chloride	ND		0.0020	mg/L	1	1/22/2010 04:08 PM
Xylenes, Total	ND		0.015	mg/L	1	1/22/2010 04:08 PM
Surr: 1,2-Dichloroethane-d4	*105*		*70-125*	*%REC*	1	1/22/2010 04:08 PM
Surr: 4-Bromofluorobenzene	*96.6*		*72-125*	*%REC*	1	1/22/2010 04:08 PM
Surr: Dibromofluoromethane	*92.3*		*71-125*	*%REC*	1	1/22/2010 04:08 PM
Surr: Toluene-d8	*99.2*		*75-125*	*%REC*	1	1/22/2010 04:08 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Trip Blank 2
Collection Date: 1/19/2010

Work Order: 1001407
Lab ID: 1001407-10
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
2-Butanone	ND		0.010	mg/L	1	1/22/2010 04:32 PM
2-Hexanone	ND		0.010	mg/L	1	1/22/2010 04:32 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	1/22/2010 04:32 PM
Acetone	ND		0.010	mg/L	1	1/22/2010 04:32 PM
Benzene	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
Bromodichloromethane	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
Bromoform	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
Bromomethane	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
Carbon disulfide	ND		0.010	mg/L	1	1/22/2010 04:32 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
Chlorobenzene	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
Chloroethane	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
Chloroform	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
Chloromethane	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
Dibromochloromethane	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
Ethylbenzene	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
Isopropylbenzene	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
m,p-Xylene	ND		0.010	mg/L	1	1/22/2010 04:32 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
Methylene chloride	ND		0.010	mg/L	1	1/22/2010 04:32 PM
n-Butylbenzene	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
n-Propylbenzene	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
Naphthalene	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
o-Xylene	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
Styrene	ND		0.0050	mg/L	1	1/22/2010 04:32 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Trip Blank 2
Collection Date: 1/19/2010

Work Order: 1001407
Lab ID: 1001407-10
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
Toluene	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
Trichloroethene	ND		0.0050	mg/L	1	1/22/2010 04:32 PM
Vinyl chloride	ND		0.0020	mg/L	1	1/22/2010 04:32 PM
Xylenes, Total	ND		0.015	mg/L	1	1/22/2010 04:32 PM
Surr: 1,2-Dichloroethane-d4	*102*		*70-125*	*%REC*	1	1/22/2010 04:32 PM
Surr: 4-Bromofluorobenzene	*95.8*		*72-125*	*%REC*	1	1/22/2010 04:32 PM
Surr: Dibromofluoromethane	*101*		*71-125*	*%REC*	1	1/22/2010 04:32 PM
Surr: Toluene-d8	*99.0*		*75-125*	*%REC*	1	1/22/2010 04:32 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Trip Blank 3
Collection Date: 1/19/2010

Work Order: 1001407
Lab ID: 1001407-11
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
2-Butanone	ND		0.010	mg/L	1	1/22/2010 04:56 PM
2-Hexanone	ND		0.010	mg/L	1	1/22/2010 04:56 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	1/22/2010 04:56 PM
Acetone	ND		0.010	mg/L	1	1/22/2010 04:56 PM
Benzene	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
Bromodichloromethane	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
Bromoform	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
Bromomethane	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
Carbon disulfide	ND		0.010	mg/L	1	1/22/2010 04:56 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
Chlorobenzene	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
Chloroethane	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
Chloroform	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
Chloromethane	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
Dibromochloromethane	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
Ethylbenzene	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
Isopropylbenzene	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
m,p-Xylene	ND		0.010	mg/L	1	1/22/2010 04:56 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
Methylene chloride	ND		0.010	mg/L	1	1/22/2010 04:56 PM
n-Butylbenzene	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
n-Propylbenzene	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
Naphthalene	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
o-Xylene	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
Styrene	ND		0.0050	mg/L	1	1/22/2010 04:56 PM

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

ALS Laboratory Group

Date: *28-Jan-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Trip Blank 3
Collection Date: 1/19/2010

Work Order: 1001407
Lab ID: 1001407-11
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
Toluene	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
Trichloroethene	ND		0.0050	mg/L	1	1/22/2010 04:56 PM
Vinyl chloride	ND		0.0020	mg/L	1	1/22/2010 04:56 PM
Xylenes, Total	ND		0.015	mg/L	1	1/22/2010 04:56 PM
Surr: 1,2-Dichloroethane-d4	*105*		*70-125*	*%REC*	1	1/22/2010 04:56 PM
Surr: 4-Bromofluorobenzene	*97.4*		*72-125*	*%REC*	1	1/22/2010 04:56 PM
Surr: Dibromofluoromethane	*99.6*		*71-125*	*%REC*	1	1/22/2010 04:56 PM
Surr: Toluene-d8	*99.5*		*75-125*	*%REC*	1	1/22/2010 04:56 PM

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

ALS Laboratory Group

Date: 28-Jan-10

Client: Navajo Refining Company

Work Order: 1001407

Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40626** Instrument ID **ICPMS03** Method: **SW6020** **(Dissolve)**

MBLK Sample ID: **MBLKW3-012110-40626** Units: **mg/L** Analysis Date: **1/21/2010 10:04 PM**

Client ID: Run ID: **ICPMS03_100121A** SeqNo: **1861153** Prep Date: **1/21/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	ND	0.010								
Arsenic	ND	0.0050								
Barium	ND	0.0050								
Boron	ND	0.020								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Chromium	ND	0.0050								
Cobalt	ND	0.0050								
Copper	ND	0.0050								
Iron	ND	0.20								
Lead	ND	0.0050								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Molybdenum	ND	0.0050								
Nickel	ND	0.0050								
Potassium	ND	0.20								
Selenium	ND	0.0050								
Silver	ND	0.0050								
Sodium	ND	0.20								
Zinc	0.003718	0.0050								J

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40626** Instrument ID **ICPMS03** Method: **SW6020** **(Dissolve)**

LCS Sample ID: **MLCSW3-012110-40626** Units: **mg/L** Analysis Date: **1/22/2010 07:54 PM**

Client ID: Run ID: **ICPMS03_100122A** SeqNo: **1861643** Prep Date: **1/21/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.09764	0.010	0.1	0	97.6	80-120	0			
Arsenic	0.05015	0.0050	0.05	0	100	80-120	0			
Barium	0.04923	0.0050	0.05	0	98.5	80-120	0			
Boron	0.4728	0.020	0.5	0	94.6	80-120	0			
Cadmium	0.04963	0.0020	0.05	0	99.3	80-120	0			
Calcium	4.901	0.50	5	0	98	80-120	0			
Chromium	0.04971	0.0050	0.05	0	99.4	80-120	0			
Cobalt	0.04943	0.0050	0.05	0	98.9	80-120	0			
Copper	0.04932	0.0050	0.05	0	98.6	80-120	0			
Iron	4.907	0.20	5	0	98.1	80-120	0			
Lead	0.04792	0.0050	0.05	0	95.8	80-120	0			
Magnesium	4.787	0.20	5	0	95.7	80-120	0			
Manganese	0.04969	0.0050	0.05	0	99.4	80-120	0			
Molybdenum	0.04919	0.0050	0.05	0	98.4	80-120	0			
Nickel	0.04952	0.0050	0.05	0	99	80-120	0			
Potassium	4.784	0.20	5	0	95.7	80-120	0			
Selenium	0.05017	0.0050	0.05	0	100	80-120	0			
Silver	0.04928	0.0050	0.05	0	98.6	80-120	0			
Sodium	4.771	0.20	5	0	95.4	80-120	0			
Zinc	0.05256	0.0050	0.05	0	105	80-120	0			

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40626** Instrument ID **ICPMS03** Method: **SW6020** **(Dissolve)**

MS Sample ID: **1001407-06CMS** Units: **mg/L** Analysis Date: **1/21/2010 10:34 PM**

Client ID: **MW-11** Run ID: **ICPMS03_100121A** SeqNo: **1861158** Prep Date: **1/21/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.09889	0.010	0.1	0	98.9	75-125	0			
Arsenic	0.05047	0.0050	0.05	0.002222	96.5	75-125	0			
Barium	0.1944	0.0050	0.05	0.1466	95.6	75-125	0			
Boron	0.6214	0.020	0.5	0.2377	76.7	75-125	0			
Cadmium	0.04698	0.0020	0.05	0	94	75-125	0			
Calcium	168.7	0.50	5	158.6	202	75-125	0			SO
Chromium	0.0496	0.0050	0.05	0.001547	96.1	75-125	0			
Cobalt	0.04856	0.0050	0.05	0.0009432	95.2	75-125	0			
Copper	0.04639	0.0050	0.05	0	92.8	75-125	0			
Iron	4.853	0.20	5	0.05832	95.9	75-125	0			
Lead	0.04786	0.0050	0.05	0	95.7	75-125	0			
Magnesium	25.71	0.20	5	20.66	101	75-125	0			O
Manganese	0.1047	0.0050	0.05	0.0559	97.6	75-125	0			
Molybdenum	0.04846	0.0050	0.05	0.001004	94.9	75-125	0			
Nickel	0.05861	0.0050	0.05	0.01262	92	75-125	0			
Potassium	8.208	0.20	5	3.418	95.8	75-125	0			
Silver	0.04627	0.0050	0.05	0	92.5	75-125	0			
Sodium	78.59	0.20	5	73.61	99.6	75-125	0			O
Zinc	0.06472	0.0050	0.05	0.004144	121	75-125	0			

MS Sample ID: **1001407-06CMS** Units: **mg/L** Analysis Date: **1/22/2010 08:14 PM**

Client ID: **MW-11** Run ID: **ICPMS03_100122A** SeqNo: **1861647** Prep Date: **1/21/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.0625	0.0050	0.05	-0.00002549	125	75-125	0			S

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40626** Instrument ID **ICPMS03** Method: **SW6020** **(Dissolve)**

MSD Sample ID: **1001407-06CMSD** Units: **mg/L** Analysis Date: **1/21/2010 10:40 PM**

Client ID: **MW-11** Run ID: **ICPMS03_100121A** SeqNo: **1861159** Prep Date: **1/21/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.0969	0.010	0.1	0	96.9	75-125	0.09889	2.03	25	
Arsenic	0.04835	0.0050	0.05	0.002222	92.3	75-125	0.05047	4.29	25	
Barium	0.189	0.0050	0.05	0.1466	84.8	75-125	0.1944	2.82	25	
Boron	0.6306	0.020	0.5	0.2377	78.6	75-125	0.6214	1.47	25	
Cadmium	0.04538	0.0020	0.05	0	90.8	75-125	0.04698	3.46	25	
Calcium	161.9	0.50	5	158.6	66	75-125	168.7	4.11	25	SO
Chromium	0.04679	0.0050	0.05	0.001547	90.5	75-125	0.0496	5.83	25	
Cobalt	0.04607	0.0050	0.05	0.0009432	90.3	75-125	0.04856	5.26	25	
Copper	0.04408	0.0050	0.05	0	88.2	75-125	0.04639	5.11	25	
Iron	4.591	0.20	5	0.05832	90.7	75-125	4.853	5.55	25	
Lead	0.04657	0.0050	0.05	0	93.1	75-125	0.04786	2.73	25	
Magnesium	24.82	0.20	5	20.66	83.2	75-125	25.71	3.52	25	O
Manganese	0.09933	0.0050	0.05	0.0559	86.9	75-125	0.1047	5.26	25	
Molybdenum	0.04701	0.0050	0.05	0.001004	92	75-125	0.04846	3.04	25	
Nickel	0.05667	0.0050	0.05	0.01262	88.1	75-125	0.05861	3.37	25	
Potassium	7.871	0.20	5	3.418	89.1	75-125	8.208	4.19	25	
Silver	0.04426	0.0050	0.05	0	88.5	75-125	0.04627	4.44	25	
Sodium	75.78	0.20	5	73.61	43.4	75-125	78.59	3.64	25	SO
Zinc	0.06084	0.0050	0.05	0.004144	113	75-125	0.06472	6.18	25	

MSD Sample ID: **1001407-06CMSD** Units: **mg/L** Analysis Date: **1/22/2010 08:19 PM**

Client ID: **MW-11** Run ID: **ICPMS03_100122A** SeqNo: **1861648** Prep Date: **1/21/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.05306	0.0050	0.05	-0.00002549	106	75-125	0.0625	16.3	25	

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40626** Instrument ID **ICPMS03** Method: **SW6020** **(Dissolve)**

DUP Sample ID: **1001407-06CDUP** Units: **mg/L** Analysis Date: **1/21/2010 10:22 PM**

Client ID: **MW-11** Run ID: **ICPMS03_100121A** SeqNo: **1861156** Prep Date: **1/21/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	ND	0.010	0	0	0	0-0	0.001861	0	25	
Arsenic	0.002303	0.0050	0	0	0	0-0	0.002222	0	25	J
Barium	0.1438	0.0050	0	0	0	0-0	0.1466	1.93	25	
Boron	0.214	0.020	0	0	0	0-0	0.2377	10.5	25	
Cadmium	ND	0.0020	0	0	0	0-0	-0.0003429	0	25	
Calcium	156.4	0.50	0	0	0	0-0	158.6	1.4	25	
Chromium	0.001426	0.0050	0	0	0	0-0	0.001547	0	25	J
Cobalt	0.0009326	0.0050	0	0	0	0-0	0.0009432	0	25	J
Copper	ND	0.0050	0	0	0	0-0	0.0002223	0	25	
Iron	0.05443	0.20	0	0	0	0-0	0.05832	0	25	J
Lead	ND	0.0050	0	0	0	0-0	0.00009195	0	25	
Magnesium	20.23	0.20	0	0	0	0-0	20.66	2.1	25	
Manganese	0.05431	0.0050	0	0	0	0-0	0.0559	2.89	25	
Molybdenum	ND	0.0050	0	0	0	0-0	0.001004	0	25	
Nickel	0.01231	0.0050	0	0	0	0-0	0.01262	2.49	25	
Potassium	3.256	0.20	0	0	0	0-0	3.418	4.85	25	
Silver	ND	0.0050	0	0	0	0-0	-0.0001946	0	25	
Sodium	70.95	0.20	0	0	0	0-0	73.61	3.68	25	
Zinc	0.003157	0.0050	0	0	0	0-0	0.004144	0	25	J

DUP Sample ID: **1001407-06CDUP** Units: **mg/L** Analysis Date: **1/22/2010 08:04 PM**

Client ID: **MW-11** Run ID: **ICPMS03_100122A** SeqNo: **1861645** Prep Date: **1/21/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	ND	0.0050	0	0	0	0-0	-0.00002549	0	25	

The following samples were analyzed in this batch:

1001407-01C	1001407-02C	1001407-03C
1001407-04C	1001407-05C	1001407-06C
1001407-07C	1001407-08C	

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40697** Instrument ID **HG02** Method: **SW7470**

MBLK Sample ID: **GBLKW2-012610-40697** Units: **mg/L** Analysis Date: **1/26/2010 04:24 PM**
Client ID: Run ID: **HG02_100126A** SeqNo: **1863782** Prep Date: **1/26/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: **GLCSW2-012610-40697** Units: **mg/L** Analysis Date: **1/26/2010 04:28 PM**
Client ID: Run ID: **HG02_100126A** SeqNo: **1863783** Prep Date: **1/26/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00537	0.00020	0.005	0	107	85-115	0			

LCSD Sample ID: **GLCSDW2-012610-40697** Units: **mg/L** Analysis Date: **1/26/2010 04:33 PM**
Client ID: Run ID: **HG02_100126A** SeqNo: **1863784** Prep Date: **1/26/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00538	0.00020	0.005	0	108	85-115	0.00537	0.186	20	

MS Sample ID: **1001456-03DMS** Units: **mg/L** Analysis Date: **1/26/2010 04:41 PM**
Client ID: Run ID: **HG02_100126A** SeqNo: **1863787** Prep Date: **1/26/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00557	0.00020	0.005	-0.000007	112	85-115	0			

MSD Sample ID: **1001456-03DMSD** Units: **mg/L** Analysis Date: **1/26/2010 04:44 PM**
Client ID: Run ID: **HG02_100126A** SeqNo: **1863788** Prep Date: **1/26/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00561	0.00020	0.005	-0.000007	112	85-115	0.00557	0.716	20	

DUP Sample ID: **1001456-03DDUP** Units: **mg/L** Analysis Date: **1/26/2010 04:39 PM**
Client ID: Run ID: **HG02_100126A** SeqNo: **1863786** Prep Date: **1/26/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020	0	0	0	0-0	-0.000007	0	20	

The following samples were analyzed in this batch:

1001407-01D	1001407-02D	1001407-03D
1001407-04D	1001407-05D	1001407-06D
1001407-07D	1001407-08D	

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40735** Instrument ID **ICP7500** Method: **SW6020** **(Dissolve)**

MBLK Sample ID: **MBLKW6-012710-40735** Units: **mg/L** Analysis Date: **1/27/2010 10:18 PM**
Client ID: Run ID: **ICP7500_100127A** SeqNo: **1865293** Prep Date: **1/27/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Uranium	ND	0.0050								

LCS Sample ID: **MLCSW6-012710-40735** Units: **mg/L** Analysis Date: **1/27/2010 10:25 PM**
Client ID: Run ID: **ICP7500_100127A** SeqNo: **1865294** Prep Date: **1/27/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Uranium	0.1072	0.0050	0.1	0	107	80-120	0			

MS Sample ID: **1001316-01DMS** Units: **mg/L** Analysis Date: **1/27/2010 10:49 PM**
Client ID: Run ID: **ICP7500_100127A** SeqNo: **1865298** Prep Date: **1/27/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Uranium	0.1083	0.0050	0.1	0.001017	107	75-125	0			

MSD Sample ID: **1001316-01DMSD** Units: **mg/L** Analysis Date: **1/27/2010 10:55 PM**
Client ID: Run ID: **ICP7500_100127A** SeqNo: **1865299** Prep Date: **1/27/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Uranium	0.1076	0.0050	0.1	0.001017	107	75-125	0.1083	0.648	25	

DUP Sample ID: **1001316-01DDUP** Units: **mg/L** Analysis Date: **1/27/2010 10:37 PM**
Client ID: Run ID: **ICP7500_100127A** SeqNo: **1865296** Prep Date: **1/27/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Uranium	ND	0.0050	0	0	0		0.001017	0	25	

The following samples were analyzed in this batch:

1001407-01C	1001407-02C	1001407-03C
1001407-04C	1001407-05C	1001407-06C
1001407-07C	1001407-08C	

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40623** Instrument ID **SV-4** Method: **SW8270**

MBLK Sample ID: **SBLKW5-100121-40623** Units: **µg/L** Analysis Date: **1/26/2010 03:42 PM**

Client ID: Run ID: **SV-4_100126B** SeqNo: **1864862** Prep Date: **1/21/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1´-Biphenyl	ND	0.20								
1-Methylnaphthalene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
2,4-Dichlorophenol	ND	0.20								
2,4-Dimethylphenol	ND	0.20								
2,4-Dinitrophenol	ND	1.0								
2,4-Dinitrotoluene	ND	0.20								
2,6-Dinitrotoluene	ND	0.20								
2-Chloronaphthalene	ND	0.20								
2-Chlorophenol	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.20								
2-Nitroaniline	ND	0.20								
2-Nitrophenol	ND	0.20								
3&4-Methylphenol	ND	0.20								
3,3´-Dichlorobenzidine	ND	0.20								
3-Nitroaniline	ND	0.20								
4,6-Dinitro-2-methylphenol	ND	0.20								
4-Bromophenyl phenyl ether	ND	0.20								
4-Chloro-3-methylphenol	ND	0.20								
4-Chloroaniline	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
4-Nitroaniline	ND	0.20								
4-Nitrophenol	ND	1.0								
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Acetophenone	ND	0.20								
Anthracene	ND	0.20								
Atrazine	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzaldehyde	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Caprolactam	ND	0.20								

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

Batch ID: **40623**	Instrument ID **SV-4**		Method: **SW8270**				
Carbazole	ND	0.20					
Chrysene	ND	0.20					
Di-n-butyl phthalate	ND	0.20					
Di-n-octyl phthalate	ND	0.20					
Dibenz(a,h)anthracene	ND	0.20					
Dibenzofuran	ND	0.20					
Diethyl phthalate	ND	0.20					
Dimethyl phthalate	ND	0.20					
Fluoranthene	ND	0.20					
Fluorene	ND	0.20					
Hexachlorobenzene	ND	0.20					
Hexachlorobutadiene	ND	0.20					
Hexachlorocyclopentadiene	ND	0.20					
Hexachloroethane	ND	0.20					
Indeno(1,2,3-cd)pyrene	ND	0.20					
Isophorone	ND	0.20					
N-Nitrosodi-n-propylamine	ND	0.20					
N-Nitrosodiphenylamine	ND	0.20					
Naphthalene	ND	0.20					
Nitrobenzene	ND	0.20					
Pentachlorophenol	ND	0.20					
Phenanthrene	ND	0.20					
Phenol	ND	0.20					
Pyrene	ND	0.20					
Surr: 2,4,6-Tribromophenol	*3.666*	0.20	*5*	0	*73.3*	*34-129*	0
Surr: 2-Fluorobiphenyl	*3.87*	0.20	*5*	0	*77.4*	*40-125*	0
Surr: 2-Fluorophenol	*3.496*	0.20	*5*	0	*69.9*	*20-120*	0
Surr: 4-Terphenyl-d14	*3.923*	0.20	*5*	0	*78.5*	*40-135*	0
Surr: Nitrobenzene-d5	*3.751*	0.20	*5*	0	*75*	*41-120*	0
Surr: Phenol-d6	*3.931*	0.20	*5*	0	*78.6*	*20-120*	0

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40623** Instrument ID **SV-4** Method: **SW8270**

LCS Sample ID: **SLCSW5-100121-40623** Units: **µg/L** Analysis Date: **1/26/2010 04:03 PM**

Client ID: Run ID: **SV-4_100126B** SeqNo: **1864863** Prep Date: **1/21/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1´-Biphenyl	3.806	0.20	5	0	76.1	45-125	0			
1-Methylnaphthalene	3.908	0.20	5	0	78.2	45-120	0			
2,4,5-Trichlorophenol	3.902	0.20	5	0	78	46-120	0			
2,4,6-Trichlorophenol	4.122	0.20	5	0	82.4	42-120	0			
2,4-Dichlorophenol	3.99	0.20	5	0	79.8	49-120	0			
2,4-Dimethylphenol	3.357	0.20	5	0	67.1	35-120	0			
2,4-Dinitrophenol	3.378	1.0	5	0	67.6	15-120	0			
2,4-Dinitrotoluene	4.039	0.20	5	0	80.8	50-122	0			
2,6-Dinitrotoluene	4.044	0.20	5	0	80.9	50-120	0			
2-Chloronaphthalene	4.18	0.20	5	0	83.6	50-120	0			
2-Chlorophenol	4.014	0.20	5	0	80.3	40-120	0			
2-Methylnaphthalene	3.923	0.20	5	0	78.5	50-120	0			
2-Methylphenol	4.035	0.20	5	0	80.7	45-120	0			
2-Nitroaniline	4.734	0.20	5	0	94.7	28-139	0			
2-Nitrophenol	3.982	0.20	5	0	79.6	40-120	0			
3&4-Methylphenol	3.98	0.20	5	0	79.6	35-120	0			
3,3´-Dichlorobenzidine	3.473	0.20	5	0	69.5	15-120	0			
3-Nitroaniline	3.426	0.20	5	0	68.5	30-120	0			
4,6-Dinitro-2-methylphenol	3.753	0.20	5	0	75.1	25-121	0			
4-Bromophenyl phenyl ether	4.049	0.20	5	0	81	45-120	0			
4-Chloro-3-methylphenol	3.988	0.20	5	0	79.8	47-120	0			
4-Chloroaniline	3.016	0.20	5	0	60.3	20-120	0			
4-Chlorophenyl phenyl ether	3.972	0.20	5	0	79.4	50-120	0			
4-Nitroaniline	3.637	0.20	5	0	72.7	30-133	0			
4-Nitrophenol	3.562	1.0	5	0	71.2	30-130	0			
Acenaphthene	4.015	0.20	5	0	80.3	45-120	0			
Acenaphthylene	4.064	0.20	5	0	81.3	47-120	0			
Acetophenone	3.864	0.20	5	0	77.3	40-120	0			
Anthracene	4.024	0.20	5	0	80.5	45-120	0			
Atrazine	4.222	0.20	5	0	84.4	40-130	0			
Benz(a)anthracene	3.912	0.20	5	0	78.2	40-120	0			
Benzaldehyde	3.376	0.20	5	0	67.5	35-130	0			
Benzo(a)pyrene	4.284	0.20	5	0	85.7	45-120	0			
Benzo(b)fluoranthene	4.315	0.20	5	0	86.3	50-120	0			
Benzo(g,h,i)perylene	4.047	0.20	5	0	80.9	42-127	0			
Benzo(k)fluoranthene	4.284	0.20	5	0	85.7	45-127	0			
Bis(2-chloroethoxy)methane	4.024	0.20	5	0	80.5	45-120	0			
Bis(2-chloroethyl)ether	4.046	0.20	5	0	80.9	37-121	0			
Bis(2-chloroisopropyl)ether	4.198	0.20	5	0	84	40-120	0			
Bis(2-ethylhexyl)phthalate	4.241	0.20	5	0	84.8	40-139	0			
Butyl benzyl phthalate	4.189	0.20	5	0	83.8	47-123	0			
Caprolactam	3.739	0.20	5	0	74.8	35-134	0			

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40623**	Instrument ID **SV-4**			Method: **SW8270**			
Carbazole	4.132	0.20	5	0	82.6	42-128	0
Chrysene	4.063	0.20	5	0	81.3	43-120	0
Di-n-butyl phthalate	4.094	0.20	5	0	81.9	45-123	0
Di-n-octyl phthalate	4.468	0.20	5	0	89.4	45-129	0
Dibenz(a,h)anthracene	4.155	0.20	5	0	83.1	45-125	0
Dibenzofuran	3.968	0.20	5	0	79.4	50-120	0
Diethyl phthalate	3.973	0.20	5	0	79.5	41-120	0
Dimethyl phthalate	3.996	0.20	5	0	79.9	40-122	0
Fluoranthene	4.001	0.20	5	0	80	45-125	0
Fluorene	4.043	0.20	5	0	80.9	49-120	0
Hexachlorobenzene	4.107	0.20	5	0	82.1	48-120	0
Hexachlorobutadiene	3.716	0.20	5	0	74.3	40-120	0
Hexachlorocyclopentadiene	3.767	0.20	5	0	75.3	34-136	0
Hexachloroethane	3.886	0.20	5	0	77.7	40-120	0
Indeno(1,2,3-cd)pyrene	3.828	0.20	5	0	76.6	41-128	0
Isophorone	4.04	0.20	5	0	80.8	40-121	0
N-Nitrosodi-n-propylamine	3.971	0.20	5	0	79.4	40-120	0
N-Nitrosodiphenylamine	4.059	0.20	5	0	81.2	40-125	0
Naphthalene	4.064	0.20	5	0	81.3	45-120	0
Nitrobenzene	3.973	0.20	5	0	79.5	44-120	0
Pentachlorophenol	4.106	0.20	5	0	82.1	19-121	0
Phenanthrene	3.967	0.20	5	0	79.3	45-121	0
Phenol	4.066	0.20	5	0	81.3	20-124	0
Pyrene	4.247	0.20	5	0	84.9	40-130	0
Surr: 2,4,6-Tribromophenol	*3.638*	0.20	*5*	0	*72.8*	*34-129*	0
Surr: 2-Fluorobiphenyl	*3.84*	0.20	*5*	0	*76.8*	*40-125*	0
Surr: 2-Fluorophenol	*3.816*	0.20	*5*	0	*76.3*	*20-120*	0
Surr: 4-Terphenyl-d14	*3.692*	0.20	*5*	0	*73.8*	*40-135*	0
Surr: Nitrobenzene-d5	*3.714*	0.20	*5*	0	*74.3*	*41-120*	0
Surr: Phenol-d6	*3.998*	0.20	*5*	0	*80*	*20-120*	0

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40623** Instrument ID **SV-4** Method: **SW8270**

LCSD Sample ID: **SLCSDW5-100121-40623** Units: **µg/L** Analysis Date: **1/26/2010 04:24 PM**

Client ID: Run ID: **SV-4_100126B** SeqNo: **1864864** Prep Date: **1/21/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1´-Biphenyl	3.94	0.20	5	0	78.8	45-125	3.806	3.45	20	
1-Methylnaphthalene	4.121	0.20	5	0	82.4	45-120	3.908	5.3	20	
2,4,5-Trichlorophenol	3.985	0.20	5	0	79.7	46-120	3.902	2.1	20	
2,4,6-Trichlorophenol	4.266	0.20	5	0	85.3	42-120	4.122	3.45	20	
2,4-Dichlorophenol	4.21	0.20	5	0	84.2	49-120	3.99	5.37	20	
2,4-Dimethylphenol	3.434	0.20	5	0	68.7	35-120	3.357	2.26	20	
2,4-Dinitrophenol	3.777	1.0	5	0	75.5	15-120	3.378	11.1	20	
2,4-Dinitrotoluene	4.107	0.20	5	0	82.1	50-122	4.039	1.66	20	
2,6-Dinitrotoluene	4.251	0.20	5	0	85	50-120	4.044	5	20	
2-Chloronaphthalene	4.272	0.20	5	0	85.4	50-120	4.18	2.18	20	
2-Chlorophenol	4.178	0.20	5	0	83.6	40-120	4.014	4.01	20	
2-Methylnaphthalene	4.102	0.20	5	0	82	50-120	3.923	4.47	20	
2-Methylphenol	4.149	0.20	5	0	83	45-120	4.035	2.78	20	
2-Nitroaniline	4.881	0.20	5	0	97.6	28-139	4.734	3.06	20	
2-Nitrophenol	4.211	0.20	5	0	84.2	40-120	3.982	5.6	20	
3&4-Methylphenol	4.168	0.20	5	0	83.4	35-120	3.98	4.6	20	
3,3´-Dichlorobenzidine	3.787	0.20	5	0	75.7	15-120	3.473	8.64	20	
3-Nitroaniline	3.478	0.20	5	0	69.6	30-120	3.426	1.53	20	
4,6-Dinitro-2-methylphenol	3.864	0.20	5	0	77.3	25-121	3.753	2.92	20	
4-Bromophenyl phenyl ether	4.22	0.20	5	0	84.4	45-120	4.049	4.13	20	
4-Chloro-3-methylphenol	4.143	0.20	5	0	82.9	47-120	3.988	3.82	20	
4-Chloroaniline	3.15	0.20	5	0	63	20-120	3.016	4.35	20	
4-Chlorophenyl phenyl ether	4.032	0.20	5	0	80.6	50-120	3.972	1.51	20	
4-Nitroaniline	3.825	0.20	5	0	76.5	30-133	3.637	5.03	20	
4-Nitrophenol	3.784	1.0	5	0	75.7	30-130	3.562	6.05	20	
Acenaphthene	4.175	0.20	5	0	83.5	45-120	4.015	3.91	20	
Acenaphthylene	4.215	0.20	5	0	84.3	47-120	4.064	3.64	20	
Acetophenone	4.068	0.20	5	0	81.4	40-120	3.864	5.14	20	
Anthracene	4.174	0.20	5	0	83.5	45-120	4.024	3.67	20	
Atrazine	4.457	0.20	5	0	89.1	40-130	4.222	5.42	20	
Benz(a)anthracene	4.173	0.20	5	0	83.5	40-120	3.912	6.46	20	
Benzaldehyde	3.659	0.20	5	0	73.2	35-130	3.376	8.06	20	
Benzo(a)pyrene	4.404	0.20	5	0	88.1	45-120	4.284	2.76	20	
Benzo(b)fluoranthene	4.486	0.20	5	0	89.7	50-120	4.315	3.89	20	
Benzo(g,h,i)perylene	4.362	0.20	5	0	87.2	42-127	4.047	7.51	20	
Benzo(k)fluoranthene	4.509	0.20	5	0	90.2	45-127	4.284	5.11	20	
Bis(2-chloroethoxy)methane	4.268	0.20	5	0	85.4	45-120	4.024	5.89	20	
Bis(2-chloroethyl)ether	4.297	0.20	5	0	85.9	37-121	4.046	6.02	20	
Bis(2-chloroisopropyl)ether	4.479	0.20	5	0	89.6	40-120	4.198	6.48	20	
Bis(2-ethylhexyl)phthalate	4.329	0.20	5	0	86.6	40-139	4.241	2.06	20	
Butyl benzyl phthalate	4.437	0.20	5	0	88.7	47-123	4.189	5.74	20	
Caprolactam	3.968	0.20	5	0	79.4	35-134	3.739	5.94	20	

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40623** Instrument ID **SV-4** Method: **SW8270**

Carbazole	4.272	0.20	5	0	85.4	42-128	4.132	3.33	20
Chrysene	4.203	0.20	5	0	84.1	43-120	4.063	3.38	20
Di-n-butyl phthalate	4.218	0.20	5	0	84.4	45-123	4.094	2.99	20
Di-n-octyl phthalate	4.544	0.20	5	0	90.9	45-129	4.468	1.7	20
Dibenz(a,h)anthracene	4.244	0.20	5	0	84.9	45-125	4.155	2.12	20
Dibenzofuran	4.09	0.20	5	0	81.8	50-120	3.968	3.04	20
Diethyl phthalate	4.074	0.20	5	0	81.5	41-120	3.973	2.5	20
Dimethyl phthalate	4.116	0.20	5	0	82.3	40-122	3.996	2.94	20
Fluoranthene	4.179	0.20	5	0	83.6	45-125	4.001	4.36	20
Fluorene	4.124	0.20	5	0	82.5	49-120	4.043	1.98	20
Hexachlorobenzene	4.341	0.20	5	0	86.8	48-120	4.107	5.53	20
Hexachlorobutadiene	4.055	0.20	5	0	81.1	40-120	3.716	8.71	20
Hexachlorocyclopentadiene	4.004	0.20	5	0	80.1	34-136	3.767	6.12	20
Hexachloroethane	4.029	0.20	5	0	80.6	40-120	3.886	3.61	20
Indeno(1,2,3-cd)pyrene	4.04	0.20	5	0	80.8	41-128	3.828	5.39	20
Isophorone	4.298	0.20	5	0	86	40-121	4.04	6.2	20
N-Nitrosodi-n-propylamine	4.167	0.20	5	0	83.3	40-120	3.971	4.83	20
N-Nitrosodiphenylamine	4.186	0.20	5	0	83.7	40-125	4.059	3.09	20
Naphthalene	4.273	0.20	5	0	85.5	45-120	4.064	5.02	20
Nitrobenzene	4.237	0.20	5	0	84.7	44-120	3.973	6.44	20
Pentachlorophenol	4.418	0.20	5	0	88.4	19-121	4.106	7.34	20
Phenanthrene	4.116	0.20	5	0	82.3	45-121	3.967	3.69	20
Phenol	4.282	0.20	5	0	85.6	20-124	4.066	5.18	20
Pyrene	4.439	0.20	5	0	88.8	40-130	4.247	4.42	20
Surr: 2,4,6-Tribromophenol	*3.796*	0.20	*5*	0	*75.9*	*34-129*	3.638	*4.27*	*20*
Surr: 2-Fluorobiphenyl	*3.884*	0.20	*5*	0	*77.7*	*40-125*	3.84	*1.15*	*20*
Surr: 2-Fluorophenol	*3.945*	0.20	*5*	0	*78.9*	*20-120*	3.816	*3.34*	*20*
Surr: 4-Terphenyl-d14	*3.794*	0.20	*5*	0	*75.9*	*40-135*	3.692	*2.73*	*20*
Surr: Nitrobenzene-d5	*3.9*	0.20	*5*	0	*78*	*41-120*	3.714	*4.9*	*20*
Surr: Phenol-d6	*4.059*	0.20	*5*	0	*81.2*	*20-120*	3.998	*1.5*	*20*

The following samples were analyzed in this batch:

1001407-01F	1001407-02F	1001407-03F
1001407-04F	1001407-05F	1001407-06F
1001407-07F	1001407-08F	

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86112** Instrument ID **VOA1** Method: **SW8260**

MBLK Sample ID: **VBLKW-012010-R86112** Units: **µg/L** Analysis Date: **1/20/2010 12:51 PM**

Client ID: Run ID: **VOA1_100120A** SeqNo: **1859440** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
2-Butanone	ND	10								
2-Hexanone	ND	10								
4-Isopropyltoluene	ND	5.0								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
Isopropylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methyl tert-butyl ether	ND	5.0								
Methylene chloride	0.7731	10								J
n-Butylbenzene	ND	5.0								
n-Propylbenzene	ND	5.0								
Naphthalene	ND	5.0								
o-Xylene	ND	5.0								
sec-Butylbenzene	ND	5.0								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,2-Dichloroethene	ND	5.0								

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86112**	Instrument ID **VOA1**		Method: **SW8260**				
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Vinyl chloride	ND	2.0					
Xylenes, Total	ND	15					
Surr: 1,2-Dichloroethane-d4	*49.09*	5.0	*50*	0	*98.2*	*70-125*	0
Surr: 4-Bromofluorobenzene	*49.71*	5.0	*50*	0	*99.4*	*72-125*	0
Surr: Dibromofluoromethane	*47.65*	5.0	*50*	0	*95.3*	*71-125*	0
Surr: Toluene-d8	*51.43*	5.0	*50*	0	*103*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86112** Instrument ID **VOA1** Method: **SW8260**

LCS Sample ID: **VLCSW-012010-R86112** Units: **µg/L** Analysis Date: **1/20/2010 11:35 AM**

Client ID: Run ID: **VOA1_100120A** SeqNo: **1859439** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	48.55	5.0	50	0	97.1	80-120	0			
1,1,2,2-Tetrachloroethane	48.44	5.0	50	0	96.9	72-120	0			
1,1,2-Trichloroethane	48.01	5.0	50	0	96	80-120	0			
1,1-Dichloroethane	45.98	5.0	50	0	92	76-120	0			
1,1-Dichloroethene	48.18	5.0	50	0	96.4	73-124	0			
1,2,4-Trimethylbenzene	48.33	5.0	50	0	96.7	68-123	0			
1,2-Dibromoethane	49.81	5.0	50	0	99.6	80-120	0			
1,2-Dichloroethane	48.46	5.0	50	0	96.9	78-120	0			
1,2-Dichloropropane	48.56	5.0	50	0	97.1	80-120	0			
1,3,5-Trimethylbenzene	49.64	5.0	50	0	99.3	80-120	0			
2-Butanone	92.97	10	100	0	93	58-132	0			
2-Hexanone	90.73	10	100	0	90.7	61-130	0			
4-Isopropyltoluene	46.82	5.0	50	0	93.6	79-120	0			
4-Methyl-2-pentanone	94.61	10	100	0	94.6	65-127	0			
Acetone	83.49	10	100	0	83.5	59-137	0			
Benzene	53.55	5.0	50	0	107	73-121	0			
Bromodichloromethane	53.21	5.0	50	0	106	80-120	0			
Bromoform	50.85	5.0	50	0	102	79-120	0			
Bromomethane	39.13	5.0	50	0	78.3	66-137	0			
Carbon disulfide	92.52	10	100	0	92.5	68-141	0			
Carbon tetrachloride	51.3	5.0	50	0	103	75-124	0			
Chlorobenzene	49.46	5.0	50	0	98.9	80-120	0			
Chloroethane	40.4	5.0	50	0	80.8	76-121	0			
Chloroform	47.06	5.0	50	0	94.1	80-120	0			
Chloromethane	41.02	5.0	50	0	82	67-123	0			
cis-1,2-Dichloroethene	46.64	5.0	50	0	93.3	78-120	0			
cis-1,3-Dichloropropene	49.31	5.0	50	0	98.6	80-120	0			
Dibromochloromethane	50.06	5.0	50	0	100	80-120	0			
Ethylbenzene	49.68	5.0	50	0	99.4	80-120	0			
Isopropylbenzene	52.83	5.0	50	0	106	80-120	0			
m,p-Xylene	102.5	10	100	0	102	78-121	0			
Methyl tert-butyl ether	50.72	5.0	50	0	101	73-121	0			
Methylene chloride	47.36	10	50	0	94.7	65-133	0			
n-Butylbenzene	49.5	5.0	50	0	99	77-120	0			
n-Propylbenzene	51.58	5.0	50	0	103	78-120	0			
Naphthalene	50.61	5.0	50	0	101	65-127	0			
o-Xylene	50.06	5.0	50	0	100	80-120	0			
sec-Butylbenzene	51.65	5.0	50	0	103	78-120	0			
Styrene	50.68	5.0	50	0	101	80-120	0			
Tetrachloroethene	52.24	5.0	50	0	104	79-120	0			
Toluene	50.28	5.0	50	0	101	80-120	0			
trans-1,2-Dichloroethene	47.46	5.0	50	0	94.9	78-120	0			

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86112**	Instrument ID **VOA1**		Method: **SW8260**				
trans-1,3-Dichloropropene	49.56	5.0	50	0	99.1	80-120	0
Trichloroethene	51.66	5.0	50	0	103	80-120	0
Vinyl chloride	40.59	2.0	50	0	81.2	70-127	0
Xylenes, Total	152.5	15	150	0	102	80-120	0
Surr: 1,2-Dichloroethane-d4	*45.02*	5.0	*50*	0	*90*	*70-125*	0
Surr: 4-Bromofluorobenzene	*51.09*	5.0	*50*	0	*102*	*72-125*	0
Surr: Dibromofluoromethane	*45.64*	5.0	*50*	0	*91.3*	*71-125*	0
Surr: Toluene-d8	*49.61*	5.0	*50*	0	*99.2*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86112** Instrument ID **VOA1** Method: **SW8260**

MS Sample ID: **1001361-01AMS** Units: **µg/L** Analysis Date: **1/20/2010 03:23 PM**

Client ID: Run ID: **VOA1_100120A** SeqNo: **1859444** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	42.59	5.0	50	0	85.2	80-120	0			
1,1,2,2-Tetrachloroethane	45.18	5.0	50	0	90.4	72-120	0			
1,1,2-Trichloroethane	45.9	5.0	50	0	91.8	80-120	0			
1,1-Dichloroethane	42.75	5.0	50	0	85.5	76-120	0			
1,1-Dichloroethene	40.49	5.0	50	0	81	73-124	0			
1,2,4-Trimethylbenzene	45.41	5.0	50	0	90.8	68-123	0			
1,2-Dibromoethane	47.51	5.0	50	0	95	80-120	0			
1,2-Dichloroethane	45.2	5.0	50	0	90.4	78-120	0			
1,2-Dichloropropane	46.1	5.0	50	0	92.2	80-120	0			
1,3,5-Trimethylbenzene	44.73	5.0	50	0	89.5	80-120	0			
2-Butanone	159.9	10	100	0	160	58-132	0			S
2-Hexanone	86.29	10	100	0	86.3	61-130	0			
4-Isopropyltoluene	41.03	5.0	50	0	82.1	79-120	0			
4-Methyl-2-pentanone	92.9	10	100	0	92.9	65-127	0			
Acetone	76.17	10	100	0	76.2	59-137	0			
Benzene	48.4	5.0	50	0	96.8	73-121	0			
Bromodichloromethane	49.84	5.0	50	0	99.7	80-120	0			
Bromoform	49.3	5.0	50	0	98.6	79-120	0			
Bromomethane	39.94	5.0	50	0	79.9	66-137	0			
Carbon disulfide	81.06	10	100	0	81.1	68-141	0			
Carbon tetrachloride	39.79	5.0	50	0	79.6	75-124	0			
Chlorobenzene	44.87	5.0	50	0	89.7	80-120	0			
Chloroethane	36.31	5.0	50	0	72.6	76-121	0			S
Chloroform	43.86	5.0	50	0	87.7	80-120	0			
Chloromethane	37.98	5.0	50	0	76	67-123	0			
cis-1,2-Dichloroethene	79.38	5.0	50	37.27	84.2	78-120	0			
cis-1,3-Dichloropropene	47.42	5.0	50	0	94.8	80-120	0			
Dibromochloromethane	49.04	5.0	50	0	98.1	80-120	0			
Ethylbenzene	45.86	5.0	50	0	91.7	80-120	0			
Isopropylbenzene	45.43	5.0	50	0	90.9	80-120	0			
m,p-Xylene	89.47	10	100	0	89.5	78-121	0			
Methyl tert-butyl ether	44.03	5.0	50	0.8852	86.3	73-121	0			
Methylene chloride	43.97	10	50	0	87.9	65-133	0			
n-Butylbenzene	40.37	5.0	50	0	80.7	77-120	0			
n-Propylbenzene	44.54	5.0	50	0	89.1	78-120	0			
Naphthalene	44.31	5.0	50	0	88.6	65-127	0			
o-Xylene	45.08	5.0	50	0	90.2	80-120	0			
sec-Butylbenzene	38.89	5.0	50	0	77.8	78-120	0			S
Styrene	39	5.0	50	0	78	80-120	0			S
Tetrachloroethene	44.49	5.0	50	0	89	79-120	0			
Toluene	47.18	5.0	50	0	94.4	80-120	0			
trans-1,2-Dichloroethene	43.58	5.0	50	0.4643	86.2	78-120	0			

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86112**	Instrument ID **VOA1**		Method: **SW8260**					
trans-1,3-Dichloropropene	46.28	5.0	50	0	92.6	80-120	0	
Trichloroethene	51.77	5.0	50	3.817	95.9	80-120	0	
Vinyl chloride	36.32	2.0	50	2.288	68.1	70-127	0	S
Xylenes, Total	134.5	15	150	0	89.7	80-120	0	
Surr: 1,2-Dichloroethane-d4	*47.06*	5.0	*50*	0	*94.1*	*70-125*	0	
Surr: 4-Bromofluorobenzene	*49.5*	5.0	*50*	0	*99*	*72-125*	0	
Surr: Dibromofluoromethane	*47.08*	5.0	*50*	0	*94.2*	*71-125*	0	
Surr: Toluene-d8	*50.54*	5.0	*50*	0	*101*	*75-125*	0	

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86112** Instrument ID **VOA1** Method: **SW8260**

MSD Sample ID: **1001361-01AMSD** Units: **µg/L** Analysis Date: **1/20/2010 03:48 PM**

Client ID: Run ID: **VOA1_100120A** SeqNo: **1859446** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	46.09	5.0	50	0	92.2	80-120	42.59	7.87	20	
1,1,2,2-Tetrachloroethane	50.95	5.0	50	0	102	72-120	45.18	12	20	
1,1,2-Trichloroethane	51.98	5.0	50	0	104	80-120	45.9	12.4	20	
1,1-Dichloroethane	43.63	5.0	50	0	87.3	76-120	42.75	2.04	20	
1,1-Dichloroethene	42.77	5.0	50	0	85.5	73-124	40.49	5.46	20	
1,2,4-Trimethylbenzene	47.22	5.0	50	0	94.4	68-123	45.41	3.9	20	
1,2-Dibromoethane	50.85	5.0	50	0	102	80-120	47.51	6.79	20	
1,2-Dichloroethane	47.83	5.0	50	0	95.7	78-120	45.2	5.65	20	
1,2-Dichloropropane	50.11	5.0	50	0	100	80-120	46.1	8.35	20	
1,3,5-Trimethylbenzene	47.5	5.0	50	0	95	80-120	44.73	6	20	
2-Butanone	100.1	10	100	0	100	58-132	159.9	46	20	R
2-Hexanone	106.2	10	100	0	106	61-130	86.29	20.6	20	R
4-Isopropyltoluene	44.64	5.0	50	0	89.3	79-120	41.03	8.41	20	
4-Methyl-2-pentanone	101.5	10	100	0	101	65-127	92.9	8.81	20	
Acetone	80.7	10	100	0	80.7	59-137	76.17	5.78	20	
Benzene	50.98	5.0	50	0	102	73-121	48.4	5.18	20	
Bromodichloromethane	51.08	5.0	50	0	102	80-120	49.84	2.46	20	
Bromoform	53.73	5.0	50	0	107	79-120	49.3	8.6	20	
Bromomethane	38.49	5.0	50	0	77	66-137	39.94	3.71	20	
Carbon disulfide	90.12	10	100	0	90.1	68-141	81.06	10.6	20	
Carbon tetrachloride	47.12	5.0	50	0	94.2	75-124	39.79	16.9	20	
Chlorobenzene	50.39	5.0	50	0	101	80-120	44.87	11.6	20	
Chloroethane	40.98	5.0	50	0	82	76-121	36.31	12.1	20	
Chloroform	46.97	5.0	50	0	93.9	80-120	43.86	6.85	20	
Chloromethane	39.56	5.0	50	0	79.1	67-123	37.98	4.1	20	
cis-1,2-Dichloroethene	81.41	5.0	50	37.27	88.3	78-120	79.38	2.52	20	
cis-1,3-Dichloropropene	46.2	5.0	50	0	92.4	80-120	47.42	2.62	20	
Dibromochloromethane	53.76	5.0	50	0	108	80-120	49.04	9.18	20	
Ethylbenzene	51.59	5.0	50	0	103	80-120	45.86	11.8	20	
Isopropylbenzene	51.7	5.0	50	0	103	80-120	45.43	12.9	20	
m,p-Xylene	101.8	10	100	0	102	78-121	89.47	12.9	20	
Methyl tert-butyl ether	48.07	5.0	50	0.8852	94.4	73-121	44.03	8.78	20	
Methylene chloride	45.39	10	50	0	90.8	65-133	43.97	3.17	20	
n-Butylbenzene	49.02	5.0	50	0	98	77-120	40.37	19.4	20	
n-Propylbenzene	47.85	5.0	50	0	95.7	78-120	44.54	7.18	20	
Naphthalene	53.1	5.0	50	0	106	65-127	44.31	18	20	
o-Xylene	52.01	5.0	50	0	104	80-120	45.08	14.3	20	
sec-Butylbenzene	47.34	5.0	50	0	94.7	78-120	38.89	19.6	20	
Styrene	42.48	5.0	50	0	85	80-120	39	8.54	20	
Tetrachloroethene	49.92	5.0	50	0	99.8	79-120	44.49	11.5	20	
Toluene	54.89	5.0	50	0	110	80-120	47.18	15.1	20	
trans-1,2-Dichloroethene	45.48	5.0	50	0.4643	90	78-120	43.58	4.26	20	

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86112**	Instrument ID **VOA1**		Method: **SW8260**						
trans-1,3-Dichloropropene	48.56	5.0	50	0	97.1	80-120	46.28	4.82	20
Trichloroethene	53.55	5.0	50	3.817	99.5	80-120	51.77	3.38	20
Vinyl chloride	40.7	2.0	50	2.288	76.8	70-127	36.32	11.4	20
Xylenes, Total	153.8	15	150	0	103	80-120	134.5	13.4	20
Surr: 1,2-Dichloroethane-d4	*45.93*	5.0	*50*	0	*91.9*	*70-125*	47.06	*2.44*	*20*
Surr: 4-Bromofluorobenzene	*53.32*	5.0	*50*	0	*107*	*72-125*	49.5	*7.44*	*20*
Surr: Dibromofluoromethane	*45.95*	5.0	*50*	0	*91.9*	*71-125*	47.08	*2.42*	*20*
Surr: Toluene-d8	*52.07*	5.0	*50*	0	*104*	*75-125*	50.54	*3*	*20*

The following samples were analyzed in this batch: 1001407-01A 1001407-02A 1001407-03A 1001407-04A

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86190** Instrument ID **VOA2** Method: **SW8260**

MBLK Sample ID: **VBLKW-012210-R86190** Units: **µg/L** Analysis Date: **1/22/2010 12:26 PM**

Client ID: Run ID: **VOA2_100122A** SeqNo: **1861243** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
2-Butanone	ND	10								
2-Hexanone	ND	10								
4-Isopropyltoluene	ND	5.0								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
Isopropylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methyl tert-butyl ether	ND	5.0								
Methylene chloride	ND	10								
n-Butylbenzene	ND	5.0								
n-Propylbenzene	ND	5.0								
Naphthalene	ND	5.0								
o-Xylene	ND	5.0								
sec-Butylbenzene	ND	5.0								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,2-Dichloroethene	ND	5.0								

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86190** Instrument ID **VOA2** Method: **SW8260**

trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Vinyl chloride	ND	2.0					
Xylenes, Total	ND	15					
Surr: 1,2-Dichloroethane-d4	*51.22*	5.0	*50*	0	*102*	*70-125*	0
Surr: 4-Bromofluorobenzene	*49.08*	5.0	*50*	0	*98.2*	*72-125*	0
Surr: Dibromofluoromethane	*44.93*	5.0	*50*	0	*89.9*	*71-125*	0
Surr: Toluene-d8	*50.11*	5.0	*50*	0	*100*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86190** Instrument ID **VOA2** Method: **SW8260**

LCS Sample ID: **VLCSW-012210-R86190** Units: **µg/L** Analysis Date: **1/22/2010 11:13 AM**

Client ID: Run ID: **VOA2_100122A** SeqNo: **1861242** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	47.88	5.0	50	0	95.8	80-120	0			
1,1,2,2-Tetrachloroethane	54.65	5.0	50	0	109	72-120	0			
1,1,2-Trichloroethane	50.66	5.0	50	0	101	80-120	0			
1,1-Dichloroethane	50.84	5.0	50	0	102	76-120	0			
1,1-Dichloroethene	48.73	5.0	50	0	97.5	73-124	0			
1,2,4-Trimethylbenzene	47.04	5.0	50	0	94.1	68-123	0			
1,2-Dibromoethane	50.24	5.0	50	0	100	80-120	0			
1,2-Dichloroethane	46.38	5.0	50	0	92.8	78-120	0			
1,2-Dichloropropane	51.01	5.0	50	0	102	80-120	0			
1,3,5-Trimethylbenzene	48.59	5.0	50	0	97.2	80-120	0			
2-Butanone	104.1	10	100	0	104	58-132	0			
2-Hexanone	113	10	100	0	113	61-130	0			
4-Isopropyltoluene	48.03	5.0	50	0	96.1	79-120	0			
4-Methyl-2-pentanone	116.1	10	100	0	116	65-127	0			
Acetone	109.7	10	100	0	110	59-137	0			
Benzene	50.11	5.0	50	0	100	73-121	0			
Bromodichloromethane	47.07	5.0	50	0	94.1	80-120	0			
Bromoform	49.65	5.0	50	0	99.3	79-120	0			
Bromomethane	43.55	5.0	50	0	87.1	66-137	0			
Carbon disulfide	101.4	10	100	0	101	68-141	0			
Carbon tetrachloride	43.03	5.0	50	0	86.1	75-124	0			
Chlorobenzene	45.99	5.0	50	0	92	80-120	0			
Chloroethane	44.39	5.0	50	0	88.8	76-121	0			
Chloroform	42.66	5.0	50	0	85.3	80-120	0			
Chloromethane	50.86	5.0	50	0	102	67-123	0			
cis-1,2-Dichloroethene	48.33	5.0	50	0	96.7	78-120	0			
cis-1,3-Dichloropropene	50.19	5.0	50	0	100	80-120	0			
Dibromochloromethane	45.81	5.0	50	0	91.6	80-120	0			
Ethylbenzene	47.41	5.0	50	0	94.8	80-120	0			
Isopropylbenzene	47.15	5.0	50	0	94.3	80-120	0			
m,p-Xylene	93.48	10	100	0	93.5	78-121	0			
Methyl tert-butyl ether	49.64	5.0	50	0	99.3	73-121	0			
Methylene chloride	44.8	10	50	0	89.6	65-133	0			
n-Butylbenzene	48.65	5.0	50	0	97.3	77-120	0			
n-Propylbenzene	49.33	5.0	50	0	98.7	78-120	0			
Naphthalene	62.79	5.0	50	0	126	65-127	0			
o-Xylene	45.95	5.0	50	0	91.9	80-120	0			
sec-Butylbenzene	48.96	5.0	50	0	97.9	78-120	0			
Styrene	46.14	5.0	50	0	92.3	80-120	0			
Tetrachloroethene	46.52	5.0	50	0	93	79-120	0			
Toluene	47.47	5.0	50	0	94.9	80-120	0			
trans-1,2-Dichloroethene	49.13	5.0	50	0	98.3	78-120	0			

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86190**	Instrument ID **VOA2**		Method: **SW8260**				
trans-1,3-Dichloropropene	47.72	5.0	50	0	95.4	80-120	0
Trichloroethene	46.84	5.0	50	0	93.7	80-120	0
Vinyl chloride	45.67	2.0	50	0	91.3	70-127	0
Xylenes, Total	139.4	15	150	0	93	80-120	0
Surr: 1,2-Dichloroethane-d4	*51.43*	5.0	*50*	0	*103*	*70-125*	0
Surr: 4-Bromofluorobenzene	*49.19*	5.0	*50*	0	*98.4*	*72-125*	0
Surr: Dibromofluoromethane	*52.54*	5.0	*50*	0	*105*	*71-125*	0
Surr: Toluene-d8	*50.17*	5.0	*50*	0	*100*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86190** Instrument ID **VOA2** Method: **SW8260**

MS Sample ID: **1001418-34AMS** Units: **µg/L** Analysis Date: **1/22/2010 02:30 PM**

Client ID: Run ID: **VOA2_100122A** SeqNo: **1861247** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	44.52	5.0	50	0	89	80-120	0			
1,1,2,2-Tetrachloroethane	51.82	5.0	50	0	104	72-120	0			
1,1,2-Trichloroethane	49.23	5.0	50	0	98.5	80-120	0			
1,1-Dichloroethane	48.16	5.0	50	0	96.3	76-120	0			
1,1-Dichloroethene	44.45	5.0	50	0	88.9	73-124	0			
1,2,4-Trimethylbenzene	44.66	5.0	50	0	89.3	68-123	0			
1,2-Dibromoethane	48.38	5.0	50	0	96.8	80-120	0			
1,2-Dichloroethane	46.2	5.0	50	0	92.4	78-120	0			
1,2-Dichloropropane	51.18	5.0	50	0	102	80-120	0			
1,3,5-Trimethylbenzene	45.06	5.0	50	0	90.1	80-120	0			
2-Butanone	103.1	10	100	0	103	58-132	0			
2-Hexanone	102.9	10	100	0	103	61-130	0			
4-Isopropyltoluene	43.2	5.0	50	0	86.4	79-120	0			
4-Methyl-2-pentanone	109.6	10	100	0	110	65-127	0			
Acetone	92.76	10	100	0	92.8	59-137	0			
Benzene	49.2	5.0	50	0	98.4	73-121	0			
Bromodichloromethane	46.67	5.0	50	0	93.3	80-120	0			
Bromoform	47.19	5.0	50	0	94.4	79-120	0			
Bromomethane	40.91	5.0	50	0	81.8	66-137	0			
Carbon disulfide	89.02	10	100	0	89	68-141	0			
Carbon tetrachloride	36.86	5.0	50	0	73.7	75-124	0			S
Chlorobenzene	45.06	5.0	50	0	90.1	80-120	0			
Chloroethane	45.58	5.0	50	0	91.2	76-121	0			
Chloroform	50.37	5.0	50	0	101	80-120	0			
Chloromethane	51.26	5.0	50	0	103	67-123	0			
cis-1,2-Dichloroethene	47.66	5.0	50	0	95.3	78-120	0			
cis-1,3-Dichloropropene	49.22	5.0	50	0	98.4	80-120	0			
Dibromochloromethane	44.87	5.0	50	0	89.7	80-120	0			
Ethylbenzene	44.74	5.0	50	0	89.5	80-120	0			
Isopropylbenzene	43.48	5.0	50	0	87	80-120	0			
m,p-Xylene	89.19	10	100	0	89.2	78-121	0			
Methyl tert-butyl ether	47.99	5.0	50	0	96	73-121	0			
Methylene chloride	48.31	10	50	0	96.6	65-133	0			
n-Butylbenzene	42.38	5.0	50	0	84.8	77-120	0			
n-Propylbenzene	45.34	5.0	50	0	90.7	78-120	0			
Naphthalene	52.28	5.0	50	0	105	65-127	0			
o-Xylene	44.29	5.0	50	0	88.6	80-120	0			
sec-Butylbenzene	43.33	5.0	50	0	86.7	78-120	0			
Styrene	44.33	5.0	50	0	88.7	80-120	0			
Tetrachloroethene	41.56	5.0	50	0	83.1	79-120	0			
Toluene	47.3	5.0	50	0.543	93.5	80-120	0			
trans-1,2-Dichloroethene	47.42	5.0	50	0	94.8	78-120	0			

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86190**	Instrument ID **VOA2**		Method: **SW8260**				
trans-1,3-Dichloropropene	46.59	5.0	50	0	93.2	80-120	0
Trichloroethene	45.16	5.0	50	0	90.3	80-120	0
Vinyl chloride	43.96	2.0	50	0	87.9	70-127	0
Xylenes, Total	133.5	15	150	0	89	80-120	0
Surr: 1,2-Dichloroethane-d4	*51.56*	5.0	*50*	0	*103*	*70-125*	0
Surr: 4-Bromofluorobenzene	*48.57*	5.0	*50*	0	*97.1*	*72-125*	0
Surr: Dibromofluoromethane	*53.14*	5.0	*50*	0	*106*	*71-125*	0
Surr: Toluene-d8	*50.22*	5.0	*50*	0	*100*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86190** Instrument ID **VOA2** Method: **SW8260**

MSD Sample ID: **1001418-34AMSD** Units: **µg/L** Analysis Date: **1/22/2010 02:54 PM**

Client ID: Run ID: **VOA2_100122A** SeqNo: **1861249** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	43.32	5.0	50	0	86.6	80-120	44.52	2.74	20	
1,1,2,2-Tetrachloroethane	53	5.0	50	0	106	72-120	51.82	2.25	20	
1,1,2-Trichloroethane	49.08	5.0	50	0	98.2	80-120	49.23	0.299	20	
1,1-Dichloroethane	47.03	5.0	50	0	94.1	76-120	48.16	2.38	20	
1,1-Dichloroethene	40.58	5.0	50	0	81.2	73-124	44.45	9.11	20	
1,2,4-Trimethylbenzene	43.05	5.0	50	0	86.1	68-123	44.66	3.68	20	
1,2-Dibromoethane	48.97	5.0	50	0	97.9	80-120	48.38	1.22	20	
1,2-Dichloroethane	45.4	5.0	50	0	90.8	78-120	46.2	1.74	20	
1,2-Dichloropropane	50.23	5.0	50	0	100	80-120	51.18	1.87	20	
1,3,5-Trimethylbenzene	43.33	5.0	50	0	86.7	80-120	45.06	3.92	20	
2-Butanone	105.8	10	100	0	106	58-132	103.1	2.6	20	
2-Hexanone	108	10	100	0	108	61-130	102.9	4.83	20	
4-Isopropyltoluene	39.97	5.0	50	0	79.9	79-120	43.2	7.77	20	
4-Methyl-2-pentanone	113.6	10	100	0	114	65-127	109.6	3.6	20	
Acetone	90.92	10	100	0	90.9	59-137	92.76	2.01	20	
Benzene	48.11	5.0	50	0	96.2	73-121	49.2	2.24	20	
Bromodichloromethane	46.48	5.0	50	0	93	80-120	46.67	0.41	20	
Bromoform	49.51	5.0	50	0	99	79-120	47.19	4.8	20	
Bromomethane	41.89	5.0	50	0	83.8	66-137	40.91	2.37	20	
Carbon disulfide	84.58	10	100	0	84.6	68-141	89.02	5.11	20	
Carbon tetrachloride	37.92	5.0	50	0	75.8	75-124	36.86	2.83	20	
Chlorobenzene	44.28	5.0	50	0	88.6	80-120	45.06	1.75	20	
Chloroethane	41.78	5.0	50	0	83.6	76-121	45.58	8.69	20	
Chloroform	46.15	5.0	50	0	92.3	80-120	50.37	8.75	20	
Chloromethane	47.93	5.0	50	0	95.9	67-123	51.26	6.72	20	
cis-1,2-Dichloroethene	46.74	5.0	50	0	93.5	78-120	47.66	1.94	20	
cis-1,3-Dichloropropene	49.66	5.0	50	0	99.3	80-120	49.22	0.889	20	
Dibromochloromethane	45.56	5.0	50	0	91.1	80-120	44.87	1.52	20	
Ethylbenzene	44.04	5.0	50	0	88.1	80-120	44.74	1.58	20	
Isopropylbenzene	41.98	5.0	50	0	84	80-120	43.48	3.51	20	
m,p-Xylene	88.27	10	100	0	88.3	78-121	89.19	1.03	20	
Methyl tert-butyl ether	49.08	5.0	50	0	98.2	73-121	47.99	2.24	20	
Methylene chloride	47	10	50	0	94	65-133	48.31	2.75	20	
n-Butylbenzene	38.68	5.0	50	0	77.4	77-120	42.38	9.14	20	
n-Propylbenzene	43.2	5.0	50	0	86.4	78-120	45.34	4.82	20	
Naphthalene	56.23	5.0	50	0	112	65-127	52.28	7.28	20	
o-Xylene	43.51	5.0	50	0	87	80-120	44.29	1.78	20	
sec-Butylbenzene	39.71	5.0	50	0	79.4	78-120	43.33	8.72	20	
Styrene	42.73	5.0	50	0	85.5	80-120	44.33	3.68	20	
Tetrachloroethene	40.01	5.0	50	0	80	79-120	41.56	3.81	20	
Toluene	45.75	5.0	50	0.543	90.4	80-120	47.3	3.33	20	
trans-1,2-Dichloroethene	46.8	5.0	50	0	93.6	78-120	47.42	1.33	20	

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86190**	Instrument ID **VOA2**			Method: **SW8260**					
trans-1,3-Dichloropropene	47.88	5.0	50	0	95.8	80-120	46.59	2.73	20
Trichloroethene	43.53	5.0	50	0	87.1	80-120	45.16	3.67	20
Vinyl chloride	39.09	2.0	50	0	78.2	70-127	43.96	11.7	20
Xylenes, Total	131.8	15	150	0	87.9	80-120	133.5	1.28	20
Surr: 1,2-Dichloroethane-d4	*50.67*	5.0	*50*	0	*101*	*70-125*	51.56	*1.74*	*20*
Surr: 4-Bromofluorobenzene	*47.83*	5.0	*50*	0	*95.7*	*72-125*	48.57	*1.52*	*20*
Surr: Dibromofluoromethane	*51.76*	5.0	*50*	0	*104*	*71-125*	53.14	*2.62*	*20*
Surr: Toluene-d8	*49*	5.0	*50*	0	*98*	*75-125*	50.22	*2.46*	*20*

The following samples were analyzed in this batch:

1001407-05A	1001407-06A	1001407-07A
1001407-08A	1001407-09A	1001407-10A
1001407-11A		

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86109** Instrument ID **WetChem** Method: **SM4500H+ B**

LCS Sample ID: **WLCS-011910-R86109** Units: **pH units** Analysis Date: **1/20/2010 03:30 PM**

Client ID: Run ID: **WETCHEM_100120H** SeqNo: **1859375** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.05	0.10	6	0	101	90-110	0			

DUP Sample ID: **1001407-08EDUP** Units: **pH units** Analysis Date: **1/20/2010 03:30 PM**

Client ID: **MW-2** Run ID: **WETCHEM_100120H** SeqNo: **1859393** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.28	0.10	0	0	0	0-0	7.25	0.413	20	H

The following samples were analyzed in this batch:

1001407-01E	1001407-02E	1001407-03E
1001407-04E	1001407-05E	1001407-06E
1001407-07E	1001407-08E	

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86138** Instrument ID **WetChem** Method: **M2510 B**

MBLK Sample ID: **WBLKW1-12110-R86138** Units: **µmhos/cm** Analysis Date: **1/21/2010 08:00 AM**
Client ID: Run ID: **WETCHEM_100121A** SeqNo: **1860078** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	ND	1.0								

LCS Sample ID: **WLCSW1-12110-R86138** Units: **µmhos/cm** Analysis Date: **1/21/2010 08:00 AM**
Client ID: Run ID: **WETCHEM_100121A** SeqNo: **1860079** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1420	1.0	1413	0	100	80-120	0			

DUP Sample ID: **1001407-08edup** Units: **µmhos/cm** Analysis Date: **1/21/2010 08:00 AM**
Client ID: **MW-2** Run ID: **WETCHEM_100121A** SeqNo: **1860093** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1290	1.0	0	0	0		1280	0.778	20	

The following samples were analyzed in this batch:

1001407-01E	1001407-02E	1001407-03E
1001407-04E	1001407-05E	1001407-06E
1001407-07E	1001407-08E	

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86139** Instrument ID **WetChem** Method: **SM2320B**

MBLK Sample ID: **WBLKW1-012110-R86139** Units: **mg/L** Analysis Date: **1/21/2010 11:00 AM**
Client ID: Run ID: **WETCHEM_100121B** SeqNo: **1860097** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-012110-R86139** Units: **mg/L** Analysis Date: **1/21/2010 11:00 AM**
Client ID: Run ID: **WETCHEM_100121B** SeqNo: **1860098** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	1029	5.0	1000	0	103	80-120	0			
Alkalinity, Total (As CaCO3)	1029	5.0	1000	0	103	80-120	0			

DUP Sample ID: **1001407-08edup** Units: **mg/L** Analysis Date: **1/21/2010 11:00 AM**
Client ID: **MW-2** Run ID: **WETCHEM_100121B** SeqNo: **1860107** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	242	5.0	0	0	0	0-0	242	0	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	242	5.0	0	0	0	0-0	242	0	20	

The following samples were analyzed in this batch:

1001407-01E	1001407-02E	1001407-03E
1001407-04E	1001407-05E	1001407-06E
1001407-07E	1001407-08E	

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86176** Instrument ID **ICS3000** Method: **E300**

MBLK Sample ID: **WBLKW3+-012110-R86176** Units: **mg/L** Analysis Date: **1/21/2010 07:41 PM**

Client ID: Run ID: **ICS3000_100121C** SeqNo: **1860906** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Selenate (surr)	*5.026*	0.10	*5*	0	*101*	*85-115*	0			

LCS Sample ID: **WLCSW3+-012110-R86176** Units: **mg/L** Analysis Date: **1/21/2010 08:04 PM**

Client ID: Run ID: **ICS3000_100121C** SeqNo: **1860907** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	7.91	0.10	8	0	98.9	90-110	0			
Surr: Selenate (surr)	*5.015*	0.10	*5*	0	*100*	*85-115*	0			

LCSD Sample ID: **WLCSDW3+-012110-R86176** Units: **mg/L** Analysis Date: **1/21/2010 08:28 PM**

Client ID: Run ID: **ICS3000_100121C** SeqNo: **1860908** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	7.891	0.10	8	0	98.6	90-110	0			
Surr: Selenate (surr)	*5.007*	0.10	*5*	0	*100*	*85-115*	0			

MS Sample ID: **1001407-08BMS** Units: **mg/L** Analysis Date: **1/22/2010 01:13 AM**

Client ID: **MW-2** Run ID: **ICS3000_100121C** SeqNo: **1860919** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	23.03	0.50	20	3.39	98.2	80-120	0			
Surr: Selenate (surr)	*25.62*	0.50	*25*	0	*102*	*85-115*	0			

MSD Sample ID: **1001407-08BMSD** Units: **mg/L** Analysis Date: **1/22/2010 01:37 AM**

Client ID: **MW-2** Run ID: **ICS3000_100121C** SeqNo: **1860920** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	23.05	0.50	20	3.39	98.3	80-120	23.03	0.0955	20	
Surr: Selenate (surr)	*25.68*	0.50	*25*	0	*103*	*85-115*	25.62	*0.222*	*20*	

The following samples were analyzed in this batch:

1001407-01B	1001407-02B	1001407-03B
1001407-04B	1001407-05B	1001407-06B
1001407-07B	1001407-08B	

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86179** Instrument ID **ICS3K2** Method: **E300**

MBLK Sample ID: **WBLKW2-012110-R86179** Units: **mg/L** Analysis Date: **1/21/2010 11:04 AM**
Client ID: Run ID: **ICS3K2_100121A** SeqNo: **1861046** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	0.50								
Surr: Selenate (surr)	*5.304*	0.10	*5*	0	*106*	*85-115*	0			

LCS Sample ID: **WLCSW2-012110-R86179** Units: **mg/L** Analysis Date: **1/21/2010 11:27 AM**
Client ID: Run ID: **ICS3K2_100121A** SeqNo: **1861047** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.94	0.50	20	0	105	90-110	0			
Fluoride	4.21	0.10	4	0	105	90-110	0			
Sulfate	20.23	0.50	20	0	101	90-110	0			
Surr: Selenate (surr)	*5.126*	0.10	*5*	0	*103*	*85-115*	0			

LCSD Sample ID: **WLCSDW2-012110-R86179** Units: **mg/L** Analysis Date: **1/21/2010 11:50 AM**
Client ID: Run ID: **ICS3K2_100121A** SeqNo: **1861048** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.89	0.50	20	0	104	90-110	20.94	0.282	20	
Fluoride	4.199	0.10	4	0	105	90-110	4.21	0.262	20	
Sulfate	20.19	0.50	20	0	101	90-110	20.23	0.228	20	
Surr: Selenate (surr)	*5.111*	0.10	*5*	0	*102*	*85-115*	5.126	*0.293*	*20*	

MS Sample ID: **1001417-01BMS** Units: **mg/L** Analysis Date: **1/21/2010 06:45 PM**
Client ID: Run ID: **ICS3K2_100121A** SeqNo: **1861063** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.46	0.50	10	10.66	98	80-120	0			
Fluoride	5.023	0.10	2	2.983	102	80-120	0			
Sulfate	17.89	0.50	10	7.932	99.6	80-120	0			
Surr: Selenate (surr)	*5.126*	0.10	*5*	0	*103*	*85-115*	0			

MS Sample ID: **1001417-02BMS** Units: **mg/L** Analysis Date: **1/21/2010 07:31 PM**
Client ID: Run ID: **ICS3K2_100121A** SeqNo: **1861065** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	16.39	0.50	10	6.57	98.2	80-120	0			
Fluoride	5.396	0.10	2	3.42	98.8	80-120	0			
Sulfate	16.43	0.50	10	6.496	99.3	80-120	0			
Surr: Selenate (surr)	*5.048*	0.10	*5*	0	*101*	*85-115*	0			

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86179** Instrument ID **ICS3K2** Method: **E300**

MSD Sample ID: **1001417-01BMSD** Units: **mg/L** Analysis Date: **1/21/2010 07:08 PM**
Client ID: Run ID: **ICS3K2_100121A** SeqNo: **1861064** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.31	0.50	10	10.66	96.5	80-120	20.46	0.76	20	
Fluoride	4.978	0.10	2	2.983	99.8	80-120	5.023	0.9	20	
Sulfate	17.67	0.50	10	7.932	97.4	80-120	17.89	1.25	20	
Surr: Selenate (surr)	*5.097*	0.10	*5*	0	*102*	*85-115*	5.126	*0.567*	*20*	

MSD Sample ID: **1001417-02BMSD** Units: **mg/L** Analysis Date: **1/21/2010 07:54 PM**
Client ID: Run ID: **ICS3K2_100121A** SeqNo: **1861066** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	16.31	0.50	10	6.57	97.4	80-120	16.39	0.477	20	
Fluoride	5.377	0.10	2	3.42	97.8	80-120	5.396	0.353	20	
Sulfate	16.23	0.50	10	6.496	97.3	80-120	16.43	1.23	20	
Surr: Selenate (surr)	*5.024*	0.10	*5*	0	*100*	*85-115*	5.048	*0.477*	*20*	

The following samples were analyzed in this batch:

1001407-01E	1001407-02E	1001407-03E
1001407-04E	1001407-05E	1001407-06E
1001407-07E	1001407-08E	

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86184** Instrument ID **Balance1** Method: **M2540C**

MBLK Sample ID: **BLANK-R86184** Units: **mg/L** Analysis Date: **1/21/2010 11:00 AM**

Client ID: Run ID: **BALANCE1_100121D** SeqNo: **1861193** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	ND	10								

LCS Sample ID: **LCS-R86184** Units: **mg/L** Analysis Date: **1/21/2010 11:00 AM**

Client ID: Run ID: **BALANCE1_100121D** SeqNo: **1861194** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	946	10	1000	0	94.6	85-115	0			

DUP Sample ID: **1001407-01EDUP** Units: **mg/L** Analysis Date: **1/21/2010 11:00 AM**

Client ID: **MW-8** Run ID: **BALANCE1_100121D** SeqNo: **1861183** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	780	10	0	0	0	0-0	742	4.99	20	

The following samples were analyzed in this batch:

1001407-01E	1001407-02E	1001407-03E
1001407-04E	1001407-05E	1001407-06E
1001407-07E	1001407-08E	

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86263** Instrument ID **ICS3K2** Method: **E300**

MBLK Sample ID: **WBLKS2-012210-R86263** Units: **mg/L** Analysis Date: **1/22/2010 10:10 AM**
Client ID: Run ID: **ICS3K2_100122A** SeqNo: **1862505** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								
Surr: Selenate (surr)	*5.098*	0.10	*5*	0	*102*	*85-115*	0			

LCS Sample ID: **WLCSW2-012210-R86263** Units: **mg/L** Analysis Date: **1/22/2010 10:33 AM**
Client ID: Run ID: **ICS3K2_100122A** SeqNo: **1862506** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.29	0.50	20	0	96.5	90-110	0			
Sulfate	18.87	0.50	20	0	94.4	90-110	0			
Surr: Selenate (surr)	*4.795*	0.10	*5*	0	*95.9*	*85-115*	0			

LCSD Sample ID: **WLCSDW2-012210-R86263** Units: **mg/L** Analysis Date: **1/22/2010 10:56 AM**
Client ID: Run ID: **ICS3K2_100122A** SeqNo: **1862507** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.76	0.50	20	0	98.8	90-110	19.29	2.41	20	
Sulfate	19.37	0.50	20	0	96.8	90-110	18.87	2.59	20	
Surr: Selenate (surr)	*4.93*	0.10	*5*	0	*98.6*	*85-115*	4.795	*2.78*	*20*	

MS Sample ID: **1001387-01BMS** Units: **mg/L** Analysis Date: **1/22/2010 11:42 AM**
Client ID: Run ID: **ICS3K2_100122A** SeqNo: **1862509** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	62.76	0.50	10	53.59	91.7	80-120	0			EO
Sulfate	373.1	0.50	10	371.1	19.7	80-120	0			SEO
Surr: Selenate (surr)	*5.462*	0.10	*5*	0	*109*	*85-115*	0			

MS Sample ID: **1001492-03BMS** Units: **mg/L** Analysis Date: **1/23/2010 12:45 PM**
Client ID: Run ID: **ICS3K2_100122A** SeqNo: **1862554** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	73.67	0.50	10	63.56	101	80-120	0			EO
Sulfate	583.4	0.50	10	574.6	87.7	80-120	0			EO
Surr: Selenate (surr)	*4.965*	0.10	*5*	0	*99.3*	*85-115*	0			

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86263** Instrument ID **ICS3K2** Method: **E300**

MSD Sample ID: **1001387-01BMSD** Units: **mg/L** Analysis Date: **1/22/2010 12:05 PM**

Client ID: Run ID: **ICS3K2_100122A** SeqNo: **1862510** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	62.07	0.50	10	53.59	84.8	80-120	62.76	1.1	20	EO
Sulfate	369.3	0.50	10	371.1	-18	80-120	373.1	1.01	20	SEO
Surr: Selenate (surr)	*5.405*	0.10	*5*	0	*108*	*85-115*	5.462	*1.05*	*20*	

MSD Sample ID: **1001492-03BMSD** Units: **mg/L** Analysis Date: **1/23/2010 01:08 PM**

Client ID: Run ID: **ICS3K2_100122A** SeqNo: **1862555** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	72.92	0.50	10	63.56	93.6	80-120	73.67	1.02	20	EO
Sulfate	578.2	0.50	10	574.6	36.1	80-120	583.4	0.887	20	SEO
Surr: Selenate (surr)	*4.936*	0.10	*5*	0	*98.7*	*85-115*	4.965	*0.586*	*20*	

The following samples were analyzed in this batch:

1001407-01E	1001407-02E	1001407-04E
1001407-05E	1001407-06E	1001407-07E
1001407-08E		

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86316** Instrument ID **ICS3000** Method: **E300**

MBLK Sample ID: **WBLKW1-012510-R86316** Units: **mg/L** Analysis Date: **1/25/2010 10:47 AM**
Client ID: Run ID: **ICS3000_100125A** SeqNo: **1863636** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Surr: Selenate (surr)	*5.035*	0.10	*5*	0	*101*	*85-115*	0			

LCS Sample ID: **WLCSW1-012510-R86316** Units: **mg/L** Analysis Date: **1/25/2010 11:11 AM**
Client ID: Run ID: **ICS3000_100125A** SeqNo: **1863637** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.18	0.50	20	0	101	90-110	0			
Surr: Selenate (surr)	*5.019*	0.10	*5*	0	*100*	*85-115*	0			

LCSD Sample ID: **WLCSDW1-012510-R86316** Units: **mg/L** Analysis Date: **1/25/2010 11:34 AM**
Client ID: Run ID: **ICS3000_100125A** SeqNo: **1863639** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.03	0.50	20	0	100	90-110	20.18	0.761	20	
Surr: Selenate (surr)	*4.997*	0.10	*5*	0	*99.9*	*85-115*	5.019	*0.439*	*20*	

MS Sample ID: **1001455-02CMS** Units: **mg/L** Analysis Date: **1/25/2010 01:09 PM**
Client ID: Run ID: **ICS3000_100125A** SeqNo: **1863643** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	110	0.50	10	102	79.6	80-120	0			SEO
Surr: Selenate (surr)	*5.122*	0.10	*5*	0	*102*	*85-115*	0			

MS Sample ID: **1001455-01CMS** Units: **mg/L** Analysis Date: **1/25/2010 02:44 PM**
Client ID: Run ID: **ICS3000_100125A** SeqNo: **1863647** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	106.4	0.50	10	97.87	85.2	80-120	0			EO
Surr: Selenate (surr)	*5.149*	0.10	*5*	0	*103*	*85-115*	0			

MSD Sample ID: **1001455-02CMSD** Units: **mg/L** Analysis Date: **1/25/2010 01:33 PM**
Client ID: Run ID: **ICS3000_100125A** SeqNo: **1863644** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	110	0.50	10	102	79.8	80-120	110	0.0182	20	SEO
Surr: Selenate (surr)	*5.117*	0.10	*5*	0	*102*	*85-115*	5.122	*0.0977*	*20*	

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

Client: Navajo Refining Company
Work Order: 1001407
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86316** Instrument ID **ICS3000** Method: **E300**

MSD Sample ID: **1001455-01CMSD** Units: **mg/L** Analysis Date: **1/25/2010 03:32 PM**

Client ID: Run ID: **ICS3000_100125A** SeqNo: **1863649** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	106.4	0.50	10	97.87	85.7	80-120	106.4	0.0404	20	EO
Surr: Selenate (surr)	*5.163*	0.10	*5*	0	*103*	*85-115*	5.149	*0.272*	*20*	

The following samples were analyzed in this batch: 1001407-07E

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

ALS Laboratory Group

Date: 28-Jan-10

Client: Navajo Refining Company
Project: Navajo Lea Refinery Semi-Annual
WorkOrder: 1001407

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	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	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
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
µmhos/cm	
mg/L	Milligrams per Liter
pH units	

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Chain of Custody Form

Page 1 of ____

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Holland, MI 49424-9263
Tel: +1 616 399 6070
Fax: +1 616 399 6185

ALS Project Manager: | ALS Work Order #: 1001945

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Navajo Refinery Semi-Annual	A	VOC (8260) Select
Work Order		Project Number	Lea AP	B	Total Metals (6020/7000) Hg
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	Dissolved Metals (6020/7000) Select
Send Report To	Darrell Moore	Invoice Attn	Darrell Moore	D	Anions (300) Cl, F, SO4
Address	P.O. Box 159	Address	P.O. Box 159	E	Alkalinity
				F	pH
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	Specific Conductivity
Phone	(505) 748-3311	Phone	(505) 748-3311	H	TDS
Fax	(505) 746-5421	Fax	(505) 746-5421	I	Nitrate/Nitrite (300)
e-Mail Address	jgboyer@SESI-NM.com	e-Mail Address		J	SVOC (Low level)

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-8	1/18/10	1020	H_2O	1,2,3,8	9	X	X	X	X	X	X	X	X	X	X	
2	MW-5		1145				X	X	X	X	X	X	X	X	X	X	
3	MW-12		1255				X	X	X	X	X	X	X	X	X	X	
4	MW-14		1350				X	X	X	X	X	X	X	X	X	X	
5	MW-13		1530				X	X	X	X	X	X	X	X	X	X	
6	MW-11	1/18/10	1625				X	X	X	X	X	X	X	X	X	X	
7	MW-1	1/19/10	1330				X	X	X	X	X	X	X	X	X	X	
8	MW-2	1/19/10	1535	H_2O	1,2,3,8	9	X	X	X	X	X	X	X	X	X	X	
9	TRIP Blanks (2)	—	—	H_2O	1, 8	6	X										
10																	

Sampler(s) Please Print & Sign: J. Boyer JG Boyer | Shipment Method: FedEx | Required Turnaround Time: (Check Box) Std 10 Working Days | Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes: 10 Day TAT.
JG Boyer	1/19/10	1645		
Relinquished by:	Date:	Time:	Received by (Laboratory): BH 1/20/10 10:15	Cooler ID / Cooler Temp
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	QC Package: (Check One Box Below)

QC Package: ☑ Level II Std QC ☐ Level III Std QC/Raw Data ☐ Level IV SW846/CLP ☐ Other ☐ TRRP Checklist ☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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ALS Laboratory Group

Sample Receipt Checklist

Client Name: **NAVAJO REFINING** Date/Time Received: **20-Jan-10 10:15**

Work Order: **1001407** Received by: **RDH**

Checklist completed by Richard Sanchez (eSignature) 20-Jan-10 (Date) Reviewed by: Jay Lynn F Thibault (eSignature) 20-Jan-10 (Date)

Matrices: water
Carrier name: FedEx

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):	2.8c, 2.1c, 2.7c	002	
Cooler(s)/Kit(s):	9619,3245,2376		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

100407

te 1/19/10 FedEx Tracking Number 869810267288

nder's me D. Boyer Phone 575-397-0510

Company SESI

Address 703 E. Clinton #123

Dept/Floor/Suite/Room

y Hobbs State NM ZIP 88240

ur Internal Billing Reference Lea Refinery 4614

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

CUSTODY SEAL 4614

Date: 1/19/10 Time: 1645

Name: D. Boyer

Company: SESI

Seal Broken By:

Date: 1/20/10

te 1/19/10 FedEx Tracking Number 869810267816

nder's me D. Boyer Phone 575-397-0510

Company SESI

Address 703 E Clinton

Dept/Floor/Suite/Room

y Hobbs State NM ZIP 88240

ur Internal Billing Reference Lea Refinery 3245

ALS e-Lab Analytical
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. 281.530.5656
Fax. 218.530.5887

CUSTODY SEAL

Date: 1/19/10 Time: 1645

Name: DAVE Boyer

Company: SESI

Seal Broken By:

Date: 1/20/10

100140

FedEx Tracking Number 869810267253

Phone 505 397-0510

Company SESI

Address 703 E. Clinton

Dept/Floor/Suite/Room

State NM ZIP 88240

Our Internal Billing Reference Lea Co Project 2376

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

CUSTODY

Date: 1/19/10 Time

Name:

Company:

SEAL

Seal Broken By

Date 1/20/10

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

18-Feb-2010

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

Tel: (575) 748-6733
Fax: (575) 746-5421

Re: Navajo Lea Refinery Semi-Annual Work Order: **1002120**

Dear Darrell,

ALS Laboratory Group received 5 samples on 04-Feb-2010 08:40 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 62.

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

Sincerely,

JayLynn F Thibault

Electronically approved by: Glenda H. Ramos

JayLynn F Thibault
Project Manager

ACCREDITED IN ACCORDANCE WITH nelac
Certificate No: T104704231-09A-TX

ALS Laboratory Group

Date: 18-Feb-10

Client: Navajo Refining Company
Project: Navajo Lea Refinery Semi-Annual
Work Order: **1002120**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1002120-01	RW-1	Water		2/2/2010 15:35	2/4/2010 08:40	☐
1002120-02	MW-7	Water		2/2/2010 16:50	2/4/2010 08:40	☐
1002120-03	MW-6	Water		2/2/2010 18:05	2/4/2010 08:40	☐
1002120-04	Trip Blank 011610-59	Water		2/2/2010	2/4/2010 08:40	☐
1002120-05	Trip Blank 011610-65	Water		2/2/2010	2/4/2010 08:40	☐

ALS Laboratory Group

Date: 18-Feb-10

Client: Navajo Refining Company
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1002120

Case Narrative

Batch 40906 Metals (sample 1002048-04) unrelated sample.

Batch 40922a Semivolatiles (sample 1002079-14) MS/MSD unrelated sample.

Batch R86763 Volatiles (sample 1002048-07) MS/MSD unrelated sample.

Batch 40922a Low-Level Semivolatiles (Sample 1002120-03) Sample could not be analyzed at a DF1 due to matrix interference

ALS Laboratory Group

Date: *18-Feb-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1002120
Sample ID: RW-1
Lab ID: 1002120-01
Collection Date: 2/2/2010 03:35 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **2/5/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	2/5/2010 03:39 PM
DISSOLVED METALS			**SW6020**		Prep Date: **2/5/2010**	Analyst: **SKS**
Aluminum	ND		0.0200	mg/L	1	2/6/2010 06:39 AM
Arsenic	**0.00857**		**0.00500**	**mg/L**	1	2/6/2010 06:39 AM
Barium	**0.190**		**0.00500**	**mg/L**	1	2/6/2010 06:39 AM
Boron	**0.166**		**0.0200**	**mg/L**	1	2/6/2010 06:39 AM
Cadmium	ND		0.00200	mg/L	1	2/6/2010 06:39 AM
Calcium	**61.0**		**0.500**	**mg/L**	1	2/6/2010 06:39 AM
Chromium	ND		0.00500	mg/L	1	2/6/2010 06:39 AM
Cobalt	ND		0.00500	mg/L	1	2/6/2010 06:39 AM
Copper	ND		0.00500	mg/L	1	2/6/2010 06:39 AM
Iron	ND		0.200	mg/L	1	2/6/2010 06:39 AM
Lead	ND		0.00500	mg/L	1	2/6/2010 06:39 AM
Magnesium	**6.66**		**0.200**	**mg/L**	1	2/6/2010 06:39 AM
Manganese	**0.0467**		**0.00500**	**mg/L**	1	2/6/2010 06:39 AM
Molybdenum	ND		0.00500	mg/L	1	2/6/2010 06:39 AM
Nickel	ND		0.00500	mg/L	1	2/6/2010 06:39 AM
Potassium	**2.44**		**0.200**	**mg/L**	1	2/6/2010 06:39 AM
Selenium	ND		0.00500	mg/L	1	2/6/2010 06:39 AM
Silver	ND		0.00500	mg/L	1	2/6/2010 06:39 AM
Sodium	**47.1**		**0.200**	**mg/L**	1	2/6/2010 06:39 AM
Uranium	ND		0.00500	mg/L	1	2/11/2010 06:36 PM
Zinc	ND		0.00500	mg/L	1	2/6/2010 06:39 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **2/6/2010**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	2/11/2010 06:16 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
2-Chlorophenol	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
2-Methylphenol	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
2-Nitroaniline	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
2-Nitrophenol	ND		0.00020	mg/L	1	2/11/2010 06:16 PM

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

ALS Laboratory Group

Date: *18-Feb-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: RW-1
Collection Date: 2/2/2010 03:35 PM

Work Order: 1002120
Lab ID: 1002120-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3&4-Methylphenol	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
3,3'-Dichlorobenzidine	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
3-Nitroaniline	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
4-Chloroaniline	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
4-Nitroaniline	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
4-Nitrophenol	ND		0.0010	mg/L	1	2/11/2010 06:16 PM
Acenaphthene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Acenaphthylene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Acetophenone	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Anthracene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Atrazine	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Benzaldehyde	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Bis(2-ethylhexyl)phthalate	**0.00082**		**0.00020**	**mg/L**	1	2/11/2010 06:16 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Caprolactam	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Carbazole	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Chrysene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Dibenzofuran	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Diethyl phthalate	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Fluoranthene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Fluorene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 1002120
Sample ID: RW-1 **Lab ID:** 1002120-01
Collection Date: 2/2/2010 03:35 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachloroethane	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Isophorone	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Naphthalene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Nitrobenzene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Pentachlorophenol	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Phenanthrene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Phenol	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Pyrene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
Surr: 2,4,6-Tribromophenol	*66.9*		*34-129*	*%REC*	1	2/11/2010 06:16 PM
Surr: 2-Fluorobiphenyl	*64.0*		*40-125*	*%REC*	1	2/11/2010 06:16 PM
Surr: 2-Fluorophenol	*66.7*		*20-120*	*%REC*	1	2/11/2010 06:16 PM
Surr: 4-Terphenyl-d14	*64.4*		*40-135*	*%REC*	1	2/11/2010 06:16 PM
Surr: Nitrobenzene-d5	*58.3*		*41-120*	*%REC*	1	2/11/2010 06:16 PM
Surr: Phenol-d6	*60.6*		*20-120*	*%REC*	1	2/11/2010 06:16 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **2/6/2010**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	2/11/2010 06:16 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
2-Butanone	ND		0.010	mg/L	1	2/5/2010 05:16 PM
2-Hexanone	ND		0.010	mg/L	1	2/5/2010 05:16 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	2/5/2010 05:16 PM
Acetone	ND		0.010	mg/L	1	2/5/2010 05:16 PM
Benzene	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
Bromodichloromethane	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
Bromoform	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
Bromomethane	ND		0.0050	mg/L	1	2/5/2010 05:16 PM

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

ALS Laboratory Group

Date: *18-Feb-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: RW-1
Collection Date: 2/2/2010 03:35 PM

Work Order: 1002120
Lab ID: 1002120-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	ND		0.010	mg/L	1	2/5/2010 05:16 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
Chlorobenzene	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
Chloroethane	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
Chloroform	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
Chloromethane	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
Dibromochloromethane	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
Ethylbenzene	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
Isopropylbenzene	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
m,p-Xylene	ND		0.010	mg/L	1	2/5/2010 05:16 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
Methylene chloride	ND		0.010	mg/L	1	2/5/2010 05:16 PM
n-Butylbenzene	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
n-Propylbenzene	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
Naphthalene	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
o-Xylene	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
Styrene	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
Tetrachloroethene	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
Toluene	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
Trichloroethene	ND		0.0050	mg/L	1	2/5/2010 05:16 PM
Vinyl chloride	ND		0.0020	mg/L	1	2/5/2010 05:16 PM
Xylenes, Total	ND		0.015	mg/L	1	2/5/2010 05:16 PM
Surr: 1,2-Dichloroethane-d4	*104*		*70-125*	*%REC*	1	2/5/2010 05:16 PM
Surr: 4-Bromofluorobenzene	*97.9*		*72-125*	*%REC*	1	2/5/2010 05:16 PM
Surr: Dibromofluoromethane	*103*		*71-125*	*%REC*	1	2/5/2010 05:16 PM
Surr: Toluene-d8	*98.8*		*75-125*	*%REC*	1	2/5/2010 05:16 PM
ANIONS			**E300**			Analyst: **JBA**
Chloride	**34.2**		**0.500**	**mg/L**	1	2/8/2010 05:48 PM
Fluoride	**0.913**		**0.100**	**mg/L**	1	2/8/2010 05:48 PM
Sulfate	**66.0**		**0.500**	**mg/L**	1	2/8/2010 05:48 PM
Nitrate/Nitrite (as N)	**1.52**		**0.100**	**mg/L**	1	2/12/2010 12:04 AM
Surr: Selenate (surr)	*97.3*		*85-115*	*%REC*	1	2/8/2010 05:48 PM
Surr: Selenate (surr)	*85.1*		*85-115*	*%REC*	1	2/12/2010 12:04 AM
ALKALINITY			**SM2320B**			Analyst: **TDW**

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

ALS Laboratory Group

Date: *18-Feb-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1002120
Sample ID: RW-1
Lab ID: 1002120-01
Collection Date: 2/2/2010 03:35 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**102**		**5.00**	**mg/L**	1	2/8/2010 12:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	2/8/2010 12:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	2/8/2010 12:00 PM
Alkalinity, Total (As CaCO3)	**102**		**5.00**	**mg/L**	1	2/8/2010 12:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **JBA**
Specific Conductivity	**632**		**1.00**	**µmhos/cm**	1	2/5/2010 02:30 PM
PH			**SM4500H+ B**			Analyst: **JLC**
pH	**7.20**	H	**0.100**	**pH units**	1	2/4/2010 10:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**388**		**10.0**	**mg/L**	1	2/4/2010 04:00 PM

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

ALS Laboratory Group

Date: *18-Feb-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-7
Collection Date: 2/2/2010 04:50 PM

Work Order: 1002120
Lab ID: 1002120-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **2/5/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	2/5/2010 03:31 PM
DISSOLVED METALS			**SW6020**		Prep Date: **2/5/2010**	Analyst: **SKS**
Aluminum	ND		0.0200	mg/L	1	2/6/2010 06:45 AM
Arsenic	**0.00869**		**0.00500**	**mg/L**	1	2/6/2010 06:45 AM
Barium	**0.199**		**0.00500**	**mg/L**	1	2/6/2010 06:45 AM
Boron	**0.169**		**0.0200**	**mg/L**	1	2/6/2010 06:45 AM
Cadmium	ND		0.00200	mg/L	1	2/6/2010 06:45 AM
Calcium	**59.7**		**0.500**	**mg/L**	1	2/6/2010 06:45 AM
Chromium	ND		0.00500	mg/L	1	2/6/2010 06:45 AM
Cobalt	ND		0.00500	mg/L	1	2/6/2010 06:45 AM
Copper	ND		0.00500	mg/L	1	2/6/2010 06:45 AM
Iron	ND		0.200	mg/L	1	2/6/2010 06:45 AM
Lead	ND		0.00500	mg/L	1	2/6/2010 06:45 AM
Magnesium	**6.40**		**0.200**	**mg/L**	1	2/6/2010 06:45 AM
Manganese	**0.125**		**0.00500**	**mg/L**	1	2/6/2010 06:45 AM
Molybdenum	ND		0.00500	mg/L	1	2/6/2010 06:45 AM
Nickel	ND		0.00500	mg/L	1	2/6/2010 06:45 AM
Potassium	**2.56**		**0.200**	**mg/L**	1	2/6/2010 06:45 AM
Selenium	ND		0.00500	mg/L	1	2/6/2010 06:45 AM
Silver	ND		0.00500	mg/L	1	2/6/2010 06:45 AM
Sodium	**47.4**		**0.200**	**mg/L**	1	2/6/2010 06:45 AM
Uranium	ND		0.00500	mg/L	1	2/11/2010 07:18 PM
Zinc	ND		0.00500	mg/L	1	2/6/2010 06:45 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **2/6/2010**	Analyst: **LG**
1,1'-Biphenyl	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
2,4,5-Trichlorophenol	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
2,4,6-Trichlorophenol	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
2,4-Dichlorophenol	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
2,4-Dimethylphenol	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
2,4-Dinitrophenol	ND		0.0010	mg/L	1	2/11/2010 06:38 PM
2,4-Dinitrotoluene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
2,6-Dinitrotoluene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
2-Chloronaphthalene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
2-Chlorophenol	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
2-Methylnaphthalene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
2-Methylphenol	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
2-Nitroaniline	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
2-Nitrophenol	ND		0.00020	mg/L	1	2/11/2010 06:38 PM

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

ALS Laboratory Group

Date: *18-Feb-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1002120
Sample ID: MW-7
Lab ID: 1002120-02
Collection Date: 2/2/2010 04:50 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3&4-Methylphenol	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
3,3´-Dichlorobenzidine	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
3-Nitroaniline	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
4,6-Dinitro-2-methylphenol	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
4-Bromophenyl phenyl ether	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
4-Chloro-3-methylphenol	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
4-Chloroaniline	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
4-Chlorophenyl phenyl ether	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
4-Nitroaniline	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
4-Nitrophenol	ND		0.0010	mg/L	1	2/11/2010 06:38 PM
Acenaphthene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Acenaphthylene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Acetophenone	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Anthracene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Atrazine	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Benz(a)anthracene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Benzaldehyde	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Benzo(a)pyrene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Benzo(b)fluoranthene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Benzo(g,h,i)perylene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Benzo(k)fluoranthene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Bis(2-chloroethoxy)methane	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Bis(2-chloroethyl)ether	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Bis(2-chloroisopropyl)ether	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Bis(2-ethylhexyl)phthalate	**0.0020**		**0.00020**	**mg/L**	1	2/11/2010 06:38 PM
Butyl benzyl phthalate	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Caprolactam	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Carbazole	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Chrysene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Di-n-butyl phthalate	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Di-n-octyl phthalate	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Dibenz(a,h)anthracene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Dibenzofuran	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Diethyl phthalate	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Dimethyl phthalate	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Fluoranthene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Fluorene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Hexachlorobenzene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Hexachlorobutadiene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Hexachlorocyclopentadiene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM

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

ALS Laboratory Group

Date: *18-Feb-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-7
Collection Date: 2/2/2010 04:50 PM

Work Order: 1002120
Lab ID: 1002120-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachloroethane	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Indeno(1,2,3-cd)pyrene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Isophorone	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
N-Nitrosodi-n-propylamine	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
N-Nitrosodiphenylamine	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Naphthalene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Nitrobenzene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Pentachlorophenol	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Phenanthrene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Phenol	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Pyrene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
Surr: 2,4,6-Tribromophenol	*65.8*		*34-129*	*%REC*	1	2/11/2010 06:38 PM
Surr: 2-Fluorobiphenyl	*65.5*		*40-125*	*%REC*	1	2/11/2010 06:38 PM
Surr: 2-Fluorophenol	*63.2*		*20-120*	*%REC*	1	2/11/2010 06:38 PM
Surr: 4-Terphenyl-d14	*67.6*		*40-135*	*%REC*	1	2/11/2010 06:38 PM
Surr: Nitrobenzene-d5	*57.3*		*41-120*	*%REC*	1	2/11/2010 06:38 PM
Surr: Phenol-d6	*50.1*		*20-120*	*%REC*	1	2/11/2010 06:38 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **2/6/2010**	Analyst: **LG**
1-Methylnaphthalene	ND		0.00020	mg/L	1	2/11/2010 06:38 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
2-Butanone	ND		0.010	mg/L	1	2/5/2010 05:40 PM
2-Hexanone	ND		0.010	mg/L	1	2/5/2010 05:40 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	2/5/2010 05:40 PM
Acetone	ND		0.010	mg/L	1	2/5/2010 05:40 PM
Benzene	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
Bromodichloromethane	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
Bromoform	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
Bromomethane	ND		0.0050	mg/L	1	2/5/2010 05:40 PM

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

ALS Laboratory Group

Date: *18-Feb-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-7
Collection Date: 2/2/2010 04:50 PM

Work Order: 1002120
Lab ID: 1002120-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	ND		0.010	mg/L	1	2/5/2010 05:40 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
Chlorobenzene	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
Chloroethane	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
Chloroform	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
Chloromethane	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
Dibromochloromethane	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
Ethylbenzene	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
Isopropylbenzene	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
m,p-Xylene	ND		0.010	mg/L	1	2/5/2010 05:40 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
Methylene chloride	ND		0.010	mg/L	1	2/5/2010 05:40 PM
n-Butylbenzene	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
n-Propylbenzene	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
Naphthalene	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
o-Xylene	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
Styrene	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
Tetrachloroethene	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
Toluene	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
Trichloroethene	ND		0.0050	mg/L	1	2/5/2010 05:40 PM
Vinyl chloride	ND		0.0020	mg/L	1	2/5/2010 05:40 PM
Xylenes, Total	ND		0.015	mg/L	1	2/5/2010 05:40 PM
Surr: 1,2-Dichloroethane-d4	*105*		*70-125*	*%REC*	1	2/5/2010 05:40 PM
Surr: 4-Bromofluorobenzene	*97.7*		*72-125*	*%REC*	1	2/5/2010 05:40 PM
Surr: Dibromofluoromethane	*104*		*71-125*	*%REC*	1	2/5/2010 05:40 PM
Surr: Toluene-d8	*98.7*		*75-125*	*%REC*	1	2/5/2010 05:40 PM
ANIONS			**E300**			Analyst: **JBA**
Chloride	**28.0**		**0.500**	**mg/L**	1	2/8/2010 06:10 PM
Fluoride	**0.854**		**0.100**	**mg/L**	1	2/8/2010 06:10 PM
Sulfate	**62.2**		**0.500**	**mg/L**	1	2/8/2010 06:10 PM
Nitrate/Nitrite (as N)	**1.72**		**0.100**	**mg/L**	1	2/11/2010 10:59 PM
Surr: Selenate (surr)	*97.3*		*85-115*	*%REC*	1	2/8/2010 06:10 PM
Surr: Selenate (surr)	*88.3*		*85-115*	*%REC*	1	2/11/2010 10:59 PM
ALKALINITY			**SM2320B**			Analyst: **TDW**

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

ALS Laboratory Group

Date: *18-Feb-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1002120
Sample ID: MW-7
Lab ID: 1002120-02
Collection Date: 2/2/2010 04:50 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	**289**		**5.00**	**mg/L**	1	2/8/2010 12:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	2/8/2010 12:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	2/8/2010 12:00 PM
Alkalinity, Total (As CaCO3)	**289**		**5.00**	**mg/L**	1	2/8/2010 12:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **JBA**
Specific Conductivity	**598**		**1.00**	**µmhos/cm**	1	2/5/2010 02:30 PM
PH			**SM4500H+ B**			Analyst: **JLC**
pH	**7.23**	H	**0.100**	**pH units**	1	2/4/2010 10:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**350**		**10.0**	**mg/L**	1	2/4/2010 04:00 PM

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

ALS Laboratory Group

Date: *18-Feb-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1002120
Sample ID: MW-6
Lab ID: 1002120-03
Collection Date: 2/2/2010 06:05 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY			**SW7470**		Prep Date: **2/5/2010**	Analyst: **JCJ**
Mercury	ND		0.000200	mg/L	1	2/5/2010 03:41 PM
DISSOLVED METALS			**SW6020**		Prep Date: **2/5/2010**	Analyst: **SKS**
Aluminum	ND		0.0200	mg/L	1	2/6/2010 06:51 AM
Arsenic	**0.0250**		**0.00500**	**mg/L**	1	2/6/2010 06:51 AM
Barium	**0.499**		**0.00500**	**mg/L**	1	2/6/2010 06:51 AM
Boron	**0.234**		**0.0200**	**mg/L**	1	2/6/2010 06:51 AM
Cadmium	ND		0.00200	mg/L	1	2/6/2010 06:51 AM
Calcium	**216**		**5.00**	**mg/L**	10	2/8/2010 03:01 PM
Chromium	ND		0.00500	mg/L	1	2/6/2010 06:51 AM
Cobalt	ND		0.00500	mg/L	1	2/6/2010 06:51 AM
Copper	ND		0.00500	mg/L	1	2/6/2010 06:51 AM
Iron	**2.08**		**0.200**	**mg/L**	1	2/6/2010 06:51 AM
Lead	ND		0.00500	mg/L	1	2/6/2010 06:51 AM
Magnesium	**27.0**		**0.200**	**mg/L**	1	2/6/2010 06:51 AM
Manganese	**4.51**		**0.0500**	**mg/L**	10	2/8/2010 03:01 PM
Molybdenum	ND		0.00500	mg/L	1	2/6/2010 06:51 AM
Nickel	**0.00634**		**0.00500**	**mg/L**	1	2/6/2010 06:51 AM
Potassium	**3.46**		**0.200**	**mg/L**	1	2/6/2010 06:51 AM
Selenium	ND		0.00500	mg/L	1	2/6/2010 06:51 AM
Silver	ND		0.00500	mg/L	1	2/6/2010 06:51 AM
Sodium	**116**		**0.200**	**mg/L**	1	2/6/2010 06:51 AM
Uranium	**0.0113**		**0.00500**	**mg/L**	1	2/11/2010 07:23 PM
Zinc	ND		0.00500	mg/L	1	2/6/2010 06:51 AM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **2/6/2010**	Analyst: **LG**
1,1'-Biphenyl	**0.0021**		**0.0020**	**mg/L**	10	2/11/2010 06:59 PM
2,4,5-Trichlorophenol	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
2,4,6-Trichlorophenol	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
2,4-Dichlorophenol	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
2,4-Dimethylphenol	**0.019**		**0.0020**	**mg/L**	10	2/11/2010 06:59 PM
2,4-Dinitrophenol	ND		0.010	mg/L	10	2/11/2010 06:59 PM
2,4-Dinitrotoluene	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
2,6-Dinitrotoluene	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
2-Chloronaphthalene	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
2-Chlorophenol	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
2-Methylnaphthalene	**0.0042**		**0.0020**	**mg/L**	10	2/11/2010 06:59 PM
2-Methylphenol	**0.0036**		**0.0020**	**mg/L**	10	2/11/2010 06:59 PM
2-Nitroaniline	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
2-Nitrophenol	ND		0.0020	mg/L	10	2/11/2010 06:59 PM

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

ALS Laboratory Group

Date: *18-Feb-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: MW-6
Collection Date: 2/2/2010 06:05 PM

Work Order: 1002120
Lab ID: 1002120-03
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
3&4-Methylphenol	**0.0067**		**0.0020**	**mg/L**	10	2/11/2010 06:59 PM
3,3'-Dichlorobenzidine	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
3-Nitroaniline	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
4,6-Dinitro-2-methylphenol	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
4-Bromophenyl phenyl ether	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
4-Chloro-3-methylphenol	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
4-Chloroaniline	**0.0061**		**0.0020**	**mg/L**	10	2/11/2010 06:59 PM
4-Chlorophenyl phenyl ether	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
4-Nitroaniline	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
4-Nitrophenol	ND		0.010	mg/L	10	2/11/2010 06:59 PM
Acenaphthene	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Acenaphthylene	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Acetophenone	**0.089**		**0.0020**	**mg/L**	10	2/11/2010 06:59 PM
Anthracene	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Atrazine	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Benz(a)anthracene	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Benzaldehyde	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Benzo(a)pyrene	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Benzo(b)fluoranthene	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Benzo(g,h,i)perylene	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Benzo(k)fluoranthene	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Bis(2-chloroethoxy)methane	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Bis(2-chloroethyl)ether	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Bis(2-chloroisopropyl)ether	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Bis(2-ethylhexyl)phthalate	**0.0025**		**0.0020**	**mg/L**	10	2/11/2010 06:59 PM
Butyl benzyl phthalate	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Caprolactam	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Carbazole	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Chrysene	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Di-n-butyl phthalate	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Di-n-octyl phthalate	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Dibenz(a,h)anthracene	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Dibenzofuran	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Diethyl phthalate	**0.036**		**0.0020**	**mg/L**	10	2/11/2010 06:59 PM
Dimethyl phthalate	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Fluoranthene	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Fluorene	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Hexachlorobenzene	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Hexachlorobutadiene	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Hexachlorocyclopentadiene	ND		0.0020	mg/L	10	2/11/2010 06:59 PM

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

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual **Work Order:** 1002120
Sample ID: MW-6 **Lab ID:** 1002120-03
Collection Date: 2/2/2010 06:05 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachloroethane	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Indeno(1,2,3-cd)pyrene	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Isophorone	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
N-Nitrosodi-n-propylamine	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
N-Nitrosodiphenylamine	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Naphthalene	**0.0080**		**0.0020**	**mg/L**	10	2/11/2010 06:59 PM
Nitrobenzene	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Pentachlorophenol	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Phenanthrene	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Phenol	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Pyrene	ND		0.0020	mg/L	10	2/11/2010 06:59 PM
Surr: 2,4,6-Tribromophenol	*54.8*		*34-129*	*%REC*	10	2/11/2010 06:59 PM
Surr: 2-Fluorobiphenyl	*70.1*		*40-125*	*%REC*	10	2/11/2010 06:59 PM
Surr: 2-Fluorophenol	*93.3*		*20-120*	*%REC*	10	2/11/2010 06:59 PM
Surr: 4-Terphenyl-d14	*81.7*		*40-135*	*%REC*	10	2/11/2010 06:59 PM
Surr: Nitrobenzene-d5	*102*		*41-120*	*%REC*	10	2/11/2010 06:59 PM
Surr: Phenol-d6	*72.9*		*20-120*	*%REC*	10	2/11/2010 06:59 PM
LOW-LEVEL SEMIVOLATILES			**SW8270**		Prep Date: **2/6/2010**	Analyst: **LG**
1-Methylnaphthalene	**0.011**		**0.0020**	**mg/L**	10	2/11/2010 06:59 PM
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
1,2,4-Trimethylbenzene	**0.016**		**0.0050**	**mg/L**	1	2/5/2010 06:05 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
2-Butanone	**0.066**		**0.010**	**mg/L**	1	2/5/2010 06:05 PM
2-Hexanone	ND		0.010	mg/L	1	2/5/2010 06:05 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	2/5/2010 06:05 PM
Acetone	**0.19**		**0.010**	**mg/L**	1	2/5/2010 06:05 PM
Benzene	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
Bromodichloromethane	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
Bromoform	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
Bromomethane	ND		0.0050	mg/L	1	2/5/2010 06:05 PM

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

ALS Laboratory Group

Date: *18-Feb-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1002120
Sample ID: MW-6
Lab ID: 1002120-03
Collection Date: 2/2/2010 06:05 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon disulfide	ND		0.010	mg/L	1	2/5/2010 06:05 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
Chlorobenzene	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
Chloroethane	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
Chloroform	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
Chloromethane	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
Dibromochloromethane	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
Ethylbenzene	**0.013**		**0.0050**	**mg/L**	1	2/5/2010 06:05 PM
Isopropylbenzene	**0.0088**		**0.0050**	**mg/L**	1	2/5/2010 06:05 PM
m,p-Xylene	ND		0.010	mg/L	1	2/5/2010 06:05 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
Methylene chloride	ND		0.010	mg/L	1	2/5/2010 06:05 PM
n-Butylbenzene	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
n-Propylbenzene	**0.0066**		**0.0050**	**mg/L**	1	2/5/2010 06:05 PM
Naphthalene	**0.0099**		**0.0050**	**mg/L**	1	2/5/2010 06:05 PM
o-Xylene	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
Styrene	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
Tetrachloroethene	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
Toluene	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
Trichloroethene	ND		0.0050	mg/L	1	2/5/2010 06:05 PM
Vinyl chloride	ND		0.0020	mg/L	1	2/5/2010 06:05 PM
Xylenes, Total	ND		0.015	mg/L	1	2/5/2010 06:05 PM
Surr: 1,2-Dichloroethane-d4	*102*		*70-125*	*%REC*	1	2/5/2010 06:05 PM
Surr: 4-Bromofluorobenzene	*96.4*		*72-125*	*%REC*	1	2/5/2010 06:05 PM
Surr: Dibromofluoromethane	*100*		*71-125*	*%REC*	1	2/5/2010 06:05 PM
Surr: Toluene-d8	*96.1*		*75-125*	*%REC*	1	2/5/2010 06:05 PM
ANIONS			**E300**			Analyst: **JBA**
Chloride	**334**		**5.00**	**mg/L**	10	2/8/2010 06:52 PM
Fluoride	ND		0.100	mg/L	1	2/8/2010 06:31 PM
Sulfate	**90.2**		**0.500**	**mg/L**	1	2/8/2010 06:31 PM
Nitrate/Nitrite (as N)	**0.822**		**0.100**	**mg/L**	1	2/12/2010 12:25 AM
Surr: Selenate (surr)	*97.6*		*85-115*	*%REC*	10	2/8/2010 06:52 PM
Surr: Selenate (surr)	*98.2*		*85-115*	*%REC*	1	2/8/2010 06:31 PM
Surr: Selenate (surr)	*88.5*		*85-115*	*%REC*	1	2/12/2010 12:25 AM

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

ALS Laboratory Group

Date: *18-Feb-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Work Order: 1002120
Sample ID: MW-6
Lab ID: 1002120-03
Collection Date: 2/2/2010 06:05 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
ALKALINITY			**SM2320B**			Analyst: **TDW**
Alkalinity, Bicarbonate (As CaCO3)	**395**		**5.00**	**mg/L**	1	2/8/2010 12:00 PM
Alkalinity, Carbonate (As CaCO3)	ND		5.00	mg/L	1	2/8/2010 12:00 PM
Alkalinity, Hydroxide (As CaCO3)	ND		5.00	mg/L	1	2/8/2010 12:00 PM
Alkalinity, Total (As CaCO3)	**395**		**5.00**	**mg/L**	1	2/8/2010 12:00 PM
SPECIFIC CONDUCTIVITY			**M2510 B**			Analyst: **JBA**
Specific Conductivity	**1,950**		**1.00**	**µmhos/cm**	1	2/5/2010 02:30 PM
PH			**SM4500H+ B**			Analyst: **JLC**
pH	**6.85**	H	**0.100**	**pH units**	1	2/4/2010 10:00 AM
TOTAL DISSOLVED SOLIDS			**M2540C**			Analyst: **TDW**
Total Dissolved Solids (Residue, Filterable)	**1,400**		**10.0**	**mg/L**	1	2/4/2010 04:00 PM

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

ALS Laboratory Group

Date: *18-Feb-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Trip Blank 011610-59
Collection Date: 2/2/2010

Work Order: 1002120
Lab ID: 1002120-04
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
2-Butanone	ND		0.010	mg/L	1	2/8/2010 03:16 PM
2-Hexanone	ND		0.010	mg/L	1	2/8/2010 03:16 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	2/8/2010 03:16 PM
Acetone	ND		0.010	mg/L	1	2/8/2010 03:16 PM
Benzene	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
Bromodichloromethane	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
Bromoform	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
Bromomethane	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
Carbon disulfide	ND		0.010	mg/L	1	2/8/2010 03:16 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
Chlorobenzene	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
Chloroethane	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
Chloroform	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
Chloromethane	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
Dibromochloromethane	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
Ethylbenzene	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
Isopropylbenzene	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
m,p-Xylene	ND		0.010	mg/L	1	2/8/2010 03:16 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
Methylene chloride	ND		0.010	mg/L	1	2/8/2010 03:16 PM
n-Butylbenzene	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
n-Propylbenzene	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
Naphthalene	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
o-Xylene	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
Styrene	ND		0.0050	mg/L	1	2/8/2010 03:16 PM

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

ALS Laboratory Group

Date: *18-Feb-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Trip Blank 011610-59
Collection Date: 2/2/2010

Work Order: 1002120
Lab ID: 1002120-04
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
Toluene	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
Trichloroethene	ND		0.0050	mg/L	1	2/8/2010 03:16 PM
Vinyl chloride	ND		0.0020	mg/L	1	2/8/2010 03:16 PM
Xylenes, Total	ND		0.015	mg/L	1	2/8/2010 03:16 PM
Surr: 1,2-Dichloroethane-d4	*104*		*70-125*	*%REC*	1	2/8/2010 03:16 PM
Surr: 4-Bromofluorobenzene	*98.1*		*72-125*	*%REC*	1	2/8/2010 03:16 PM
Surr: Dibromofluoromethane	*74.3*		*71-125*	*%REC*	1	2/8/2010 03:16 PM
Surr: Toluene-d8	*98.5*		*75-125*	*%REC*	1	2/8/2010 03:16 PM

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

ALS Laboratory Group

Date: *18-Feb-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Trip Blank 011610-65
Collection Date: 2/2/2010

Work Order: 1002120
Lab ID: 1002120-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILES			**SW8260**			Analyst: **PC**
1,1,1-Trichloroethane	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
1,1,2,2-Tetrachloroethane	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
1,1,2-Trichloroethane	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
1,1-Dichloroethane	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
1,1-Dichloroethene	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
1,2,4-Trimethylbenzene	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
1,2-Dibromoethane	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
1,2-Dichloroethane	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
1,2-Dichloropropane	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
1,3,5-Trimethylbenzene	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
2-Butanone	ND		0.010	mg/L	1	2/5/2010 06:54 PM
2-Hexanone	ND		0.010	mg/L	1	2/5/2010 06:54 PM
4-Isopropyltoluene	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
4-Methyl-2-pentanone	ND		0.010	mg/L	1	2/5/2010 06:54 PM
Acetone	ND		0.010	mg/L	1	2/5/2010 06:54 PM
Benzene	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
Bromodichloromethane	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
Bromoform	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
Bromomethane	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
Carbon disulfide	ND		0.010	mg/L	1	2/5/2010 06:54 PM
Carbon tetrachloride	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
Chlorobenzene	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
Chloroethane	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
Chloroform	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
Chloromethane	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
cis-1,2-Dichloroethene	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
cis-1,3-Dichloropropene	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
Dibromochloromethane	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
Ethylbenzene	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
Isopropylbenzene	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
m,p-Xylene	ND		0.010	mg/L	1	2/5/2010 06:54 PM
Methyl tert-butyl ether	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
Methylene chloride	ND		0.010	mg/L	1	2/5/2010 06:54 PM
n-Butylbenzene	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
n-Propylbenzene	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
Naphthalene	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
o-Xylene	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
sec-Butylbenzene	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
Styrene	ND		0.0050	mg/L	1	2/5/2010 06:54 PM

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

ALS Laboratory Group

Date: *18-Feb-10*

Client: Holly Energy Partners
Project: Navajo Lea Refinery Semi-Annual
Sample ID: Trip Blank 011610-65
Collection Date: 2/2/2010

Work Order: 1002120
Lab ID: 1002120-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Tetrachloroethene	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
Toluene	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
trans-1,2-Dichloroethene	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
trans-1,3-Dichloropropene	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
Trichloroethene	ND		0.0050	mg/L	1	2/5/2010 06:54 PM
Vinyl chloride	ND		0.0020	mg/L	1	2/5/2010 06:54 PM
Xylenes, Total	ND		0.015	mg/L	1	2/5/2010 06:54 PM
Surr: 1,2-Dichloroethane-d4	*104*		*70-125*	*%REC*	1	2/5/2010 06:54 PM
Surr: 4-Bromofluorobenzene	*97.5*		*72-125*	*%REC*	1	2/5/2010 06:54 PM
Surr: Dibromofluoromethane	*102*		*71-125*	*%REC*	1	2/5/2010 06:54 PM
Surr: Toluene-d8	*98.4*		*75-125*	*%REC*	1	2/5/2010 06:54 PM

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

ALS Laboratory Group

Date: 18-Feb-10

Client: Navajo Refining Company

Work Order: 1002120

Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40895** Instrument ID **HG02** Method: **SW7470**

MBLK Sample ID: **GBLKW1-020510-40895** Units: **mg/L** Analysis Date: **2/5/2010 03:26 PM**

Client ID: Run ID: **HG02_100205A** SeqNo: **1872554** Prep Date: **2/5/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: **GLCSW1-020510-40895** Units: **mg/L** Analysis Date: **2/5/2010 03:29 PM**

Client ID: Run ID: **HG02_100205A** SeqNo: **1872555** Prep Date: **2/5/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00508	0.00020	0.005	0	102	85-115	0			

MS Sample ID: **1002120-02DMS** Units: **mg/L** Analysis Date: **2/5/2010 03:35 PM**

Client ID: **MW-7** Run ID: **HG02_100205A** SeqNo: **1872558** Prep Date: **2/5/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00552	0.00020	0.005	0.000038	110	85-115	0			

MSD Sample ID: **1002120-02DMSD** Units: **mg/L** Analysis Date: **2/5/2010 03:37 PM**

Client ID: **MW-7** Run ID: **HG02_100205A** SeqNo: **1872559** Prep Date: **2/5/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00555	0.00020	0.005	0.000038	110	85-115	0.00552	0.542	20	

DUP Sample ID: **1002120-02DDUP** Units: **mg/L** Analysis Date: **2/5/2010 03:33 PM**

Client ID: **MW-7** Run ID: **HG02_100205A** SeqNo: **1872557** Prep Date: **2/5/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020	0	0	0	0-0	0.000038	0	20	

The following samples were analyzed in this batch: 1002120-01D 1002120-02D 1002120-03D

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40906** Instrument ID **ICP7500** Method: **SW6020** **(Dissolve)**

MBLK Sample ID: **MBLKW3-020510-40906** Units: **mg/L** Analysis Date: **2/6/2010 04:02 AM**

Client ID: Run ID: **ICP7500_100205A** SeqNo: **1873104** Prep Date: **2/5/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0050								
Barium	ND	0.0050								
Boron	ND	0.020								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Chromium	ND	0.0050								
Cobalt	ND	0.0050								
Copper	ND	0.0050								
Iron	ND	0.20								
Lead	ND	0.0050								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Molybdenum	ND	0.0050								
Nickel	ND	0.0050								
Potassium	ND	0.20								
Selenium	ND	0.0050								
Silver	ND	0.0050								
Sodium	ND	0.20								
Zinc	ND	0.0050								

MBLK Sample ID: **MBLKW3-020510-40906** Units: **mg/L** Analysis Date: **2/8/2010 02:43 PM**

Client ID: Run ID: **ICP7500_100208A** SeqNo: **1873563** Prep Date: **2/5/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.006293	0.010								J

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40906** Instrument ID **ICP7500** Method: **SW6020** **(Dissolve)**

LCS Sample ID: **MLCSW3-020510-40906** Units: **mg/L** Analysis Date: **2/6/2010 04:08 AM**
Client ID: Run ID: **ICP7500_100205A** SeqNo: **1873105** Prep Date: **2/5/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05242	0.0050	0.05	0	105	80-120	0			
Barium	0.05213	0.0050	0.05	0	104	80-120	0			
Boron	0.5307	0.020	0.5	0	106	80-120	0			
Cadmium	0.05072	0.0020	0.05	0	101	80-120	0			
Calcium	5.086	0.50	5	0	102	80-120	0			
Chromium	0.05059	0.0050	0.05	0	101	80-120	0			
Cobalt	0.05116	0.0050	0.05	0	102	80-120	0			
Copper	0.05199	0.0050	0.05	0	104	80-120	0			
Iron	4.923	0.20	5	0	98.5	80-120	0			
Lead	0.05018	0.0050	0.05	0	100	80-120	0			
Magnesium	4.862	0.20	5	0	97.2	80-120	0			
Manganese	0.05071	0.0050	0.05	0	101	80-120	0			
Molybdenum	0.04879	0.0050	0.05	0	97.6	80-120	0			
Nickel	0.0511	0.0050	0.05	0	102	80-120	0			
Potassium	4.897	0.20	5	0	97.9	80-120	0			
Selenium	0.05141	0.0050	0.05	0	103	80-120	0			
Silver	0.05029	0.0050	0.05	0	101	80-120	0			
Sodium	4.832	0.20	5	0	96.6	80-120	0			
Zinc	0.05595	0.0050	0.05	0	112	80-120	0			

LCS Sample ID: **MLCSW3-020510-40906** Units: **mg/L** Analysis Date: **2/8/2010 02:49 PM**
Client ID: Run ID: **ICP7500_100208A** SeqNo: **1873564** Prep Date: **2/5/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.09875	0.010	0.1	0	98.8	80-120	0			

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40906** Instrument ID **ICP7500** Method: **SW6020** **(Dissolve)**

MS Sample ID: **1002048-04CMS** Units: **mg/L** Analysis Date: **2/6/2010 05:45 AM**

Client ID: Run ID: **ICP7500_100205A** SeqNo: **1873119** Prep Date: **2/5/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1073	0.020	0.1	0.009567	97.7	75-125	0			
Arsenic	0.05383	0.0050	0.05	0.002332	103	75-125	0			
Barium	0.7557	0.0050	0.05	0.7074	96.6	75-125	0			O
Boron	0.6359	0.020	0.5	0.0953	108	75-125	0			
Cadmium	0.04922	0.0020	0.05	0	98.4	75-125	0			
Calcium	95.67	0.50	5	89.08	132	75-125	0			SO
Chromium	0.4568	0.0050	0.05	0.3963	121	75-125	0			O
Cobalt	0.05169	0.0050	0.05	0.00171	100	75-125	0			
Copper	0.04861	0.0050	0.05	0	97.2	75-125	0			
Iron	4.906	0.20	5	0	98.1	75-125	0			
Lead	0.05025	0.0050	0.05	0	100	75-125	0			
Magnesium	20.41	0.20	5	15.44	99.4	75-125	0			
Manganese	0.06459	0.0050	0.05	0.01406	101	75-125	0			
Molybdenum	0.05063	0.0050	0.05	0.0008883	99.5	75-125	0			
Nickel	0.05106	0.0050	0.05	0.002535	97	75-125	0			
Potassium	6.285	0.20	5	1.272	100	75-125	0			
Selenium	0.05266	0.0050	0.05	0	105	75-125	0			
Silver	0.04915	0.0050	0.05	0	98.3	75-125	0			
Sodium	59.11	0.20	5	54.24	97.4	75-125	0			O
Zinc	0.05329	0.0050	0.05	0.003233	100	75-125	0			

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40906** Instrument ID **ICP7500** Method: **SW6020** **(Dissolve)**

MSD Sample ID: **1002048-04CMSD** Units: **mg/L** Analysis Date: **2/6/2010 05:51 AM**

Client ID: Run ID: **ICP7500_100205A** SeqNo: **1873120** Prep Date: **2/5/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1081	0.020	0.1	0.009567	98.5	75-125	0.1073	0.743	25	
Arsenic	0.05441	0.0050	0.05	0.002332	104	75-125	0.05383	1.07	25	
Barium	0.7512	0.0050	0.05	0.7074	87.6	75-125	0.7557	0.597	25	O
Boron	0.6476	0.020	0.5	0.0953	110	75-125	0.6359	1.82	25	
Cadmium	0.04957	0.0020	0.05	0	99.1	75-125	0.04922	0.709	25	
Calcium	96.16	0.50	5	89.08	142	75-125	95.67	0.511	25	SO
Chromium	0.455	0.0050	0.05	0.3963	117	75-125	0.4568	0.395	25	O
Cobalt	0.0527	0.0050	0.05	0.00171	102	75-125	0.05169	1.94	25	
Copper	0.05001	0.0050	0.05	0	100	75-125	0.04861	2.84	25	
Iron	4.995	0.20	5	0	99.9	75-125	4.906	1.8	25	
Lead	0.05099	0.0050	0.05	0	102	75-125	0.05025	1.46	25	
Magnesium	20.43	0.20	5	15.44	99.8	75-125	20.41	0.0979	25	
Manganese	0.06566	0.0050	0.05	0.01406	103	75-125	0.06459	1.64	25	
Molybdenum	0.05277	0.0050	0.05	0.0008883	104	75-125	0.05063	4.14	25	
Nickel	0.05237	0.0050	0.05	0.002535	99.7	75-125	0.05106	2.53	25	
Potassium	6.336	0.20	5	1.272	101	75-125	6.285	0.808	25	
Selenium	0.0532	0.0050	0.05	0	106	75-125	0.05266	1.02	25	
Silver	0.0496	0.0050	0.05	0	99.2	75-125	0.04915	0.911	25	
Sodium	59.36	0.20	5	54.24	102	75-125	59.11	0.422	25	O
Zinc	0.05452	0.0050	0.05	0.003233	103	75-125	0.05329	2.28	25	

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40906** Instrument ID **ICP7500** Method: **SW6020** **(Dissolve)**

DUP Sample ID: **1002048-04CDUP** Units: **mg/L** Analysis Date: **2/6/2010 05:39 AM**

Client ID: Run ID: **ICP7500_100205A** SeqNo: **1873118** Prep Date: **2/5/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.001892	0.0050	0	0	0	0-0	0.002332	0	25	J
Barium	0.6907	0.0050	0	0	0	0-0	0.7074	2.39	25	
Boron	0.09757	0.020	0	0	0	0-0	0.0953	2.35	25	
Cadmium	ND	0.0020	0	0	0	0-0	-0.0002957	0	25	
Calcium	90.32	0.50	0	0	0	0-0	89.08	1.38	25	
Chromium	0.3978	0.0050	0	0	0	0-0	0.3963	0.378	25	
Cobalt	0.001662	0.0050	0	0	0	0-0	0.00171	0	25	J
Copper	ND	0.0050	0	0	0	0-0	-0.00008671	0	25	
Iron	ND	0.20	0	0	0	0-0	-0.01077	0	25	
Lead	ND	0.0050	0	0	0	0-0	0.0000656	0	25	
Magnesium	15.08	0.20	0	0	0	0-0	15.44	2.36	25	
Manganese	0.01482	0.0050	0	0	0	0-0	0.01406	5.26	25	
Molybdenum	0.001904	0.0050	0	0	0	0-0	0.0008883	0	25	J
Nickel	0.002514	0.0050	0	0	0	0-0	0.002535	0	25	J
Potassium	1.281	0.20	0	0	0	0-0	1.272	0.705	25	
Selenium	ND	0.0050	0	0	0	0-0	0.001794	0	25	
Silver	ND	0.0050	0	0	0	0-0	-0.0001448	0	25	
Sodium	53.21	0.20	0	0	0	0-0	54.24	1.92	25	
Zinc	0.002579	0.0050	0	0	0	0-0	0.003233	0	25	J

DUP Sample ID: **1002048-04CDUP** Units: **mg/L** Analysis Date: **2/8/2010 02:55 PM**

Client ID: Run ID: **ICP7500_100208A** SeqNo: **1873565** Prep Date: **2/5/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.004113	0.010	0	0	0	0-0	0.009567	0	25	J

The following samples were analyzed in this batch: 1002120-01C 1002120-02C 1002120-03C

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **41006** Instrument ID **ICPMS03** Method: **SW6020** **(Dissolve)**

MBLK Sample ID: **MBLKW3-021110-41006** Units: **mg/L** Analysis Date: **2/11/2010 06:26 PM**
Client ID: Run ID: **ICPMS03_100211A** SeqNo: **1877002** Prep Date: **2/11/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Uranium	ND	0.0050								

LCS Sample ID: **MLCSW3-021110-41006** Units: **mg/L** Analysis Date: **2/11/2010 06:31 PM**
Client ID: Run ID: **ICPMS03_100211A** SeqNo: **1877003** Prep Date: **2/11/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Uranium	0.08904	0.0050	0.1	0	89	80-120	0			

MS Sample ID: **1002120-01CMS** Units: **mg/L** Analysis Date: **2/11/2010 06:52 PM**
Client ID: **RW-1** Run ID: **ICPMS03_100211A** SeqNo: **1877007** Prep Date: **2/11/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Uranium	0.09769	0.0050	0.1	0.003078	94.6	75-125	0			

MSD Sample ID: **1002120-01CMSD** Units: **mg/L** Analysis Date: **2/11/2010 06:57 PM**
Client ID: **RW-1** Run ID: **ICPMS03_100211A** SeqNo: **1877008** Prep Date: **2/11/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Uranium	0.09887	0.0050	0.1	0.003078	95.8	75-125	0.09769	1.2	25	

DUP Sample ID: **1002120-01CDUP** Units: **mg/L** Analysis Date: **2/11/2010 06:41 PM**
Client ID: **RW-1** Run ID: **ICPMS03_100211A** SeqNo: **1877005** Prep Date: **2/11/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Uranium	ND	0.0050	0	0	0		0.003078	0	25	

The following samples were analyzed in this batch: 1002120-01C 1002120-02C 1002120-03C

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40922a** Instrument ID **SV-2** Method: **SW8270**

MBLK Sample ID: **SBLKW1-100206-40922a** Units: **µg/L** Analysis Date: **2/11/2010 01:36 PM**

Client ID: Run ID: **SV-2_100208A** SeqNo: **1877347** Prep Date: **2/6/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	ND	0.20								
1-Methylnaphthalene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
2,4-Dichlorophenol	ND	0.20								
2,4-Dimethylphenol	ND	0.20								
2,4-Dinitrophenol	ND	1.0								
2,4-Dinitrotoluene	ND	0.20								
2,6-Dinitrotoluene	ND	0.20								
2-Chloronaphthalene	ND	0.20								
2-Chlorophenol	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.20								
2-Nitroaniline	ND	0.20								
2-Nitrophenol	ND	0.20								
3&4-Methylphenol	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.20								
3-Nitroaniline	ND	0.20								
4,6-Dinitro-2-methylphenol	ND	0.20								
4-Bromophenyl phenyl ether	ND	0.20								
4-Chloro-3-methylphenol	ND	0.20								
4-Chloroaniline	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
4-Nitroaniline	ND	0.20								
4-Nitrophenol	ND	1.0								
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Acetophenone	ND	0.20								
Anthracene	ND	0.20								
Atrazine	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzaldehyde	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Caprolactam	ND	0.20								

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40922a** Instrument ID **SV-2** Method: **SW8270**

Carbazole	ND	0.20					
Chrysene	ND	0.20					
Di-n-butyl phthalate	ND	0.20					
Di-n-octyl phthalate	ND	0.20					
Dibenz(a,h)anthracene	ND	0.20					
Dibenzofuran	ND	0.20					
Diethyl phthalate	ND	0.20					
Dimethyl phthalate	ND	0.20					
Fluoranthene	ND	0.20					
Fluorene	ND	0.20					
Hexachlorobenzene	ND	0.20					
Hexachlorobutadiene	ND	0.20					
Hexachlorocyclopentadiene	ND	0.20					
Hexachloroethane	ND	0.20					
Indeno(1,2,3-cd)pyrene	ND	0.20					
Isophorone	ND	0.20					
N-Nitrosodi-n-propylamine	ND	0.20					
N-Nitrosodiphenylamine	ND	0.20					
Naphthalene	ND	0.20					
Nitrobenzene	ND	0.20					
Pentachlorophenol	ND	0.20					
Phenanthrene	ND	0.20					
Phenol	ND	0.20					
Pyrene	ND	0.20					
Surr: 2,4,6-Tribromophenol	*2.808*	0.20	*5*	0	*56.2*	*34-129*	0
Surr: 2-Fluorobiphenyl	*3.851*	0.20	*5*	0	*77*	*40-125*	0
Surr: 2-Fluorophenol	*3.418*	0.20	*5*	0	*68.4*	*20-120*	0
Surr: 4-Terphenyl-d14	*4.137*	0.20	*5*	0	*82.7*	*40-135*	0
Surr: Nitrobenzene-d5	*3.54*	0.20	*5*	0	*70.8*	*41-120*	0
Surr: Phenol-d6	*2.707*	0.20	*5*	0	*54.1*	*20-120*	0

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40922a** Instrument ID **SV-2** Method: **SW8270**

LCS Sample ID: **SLCSW1-10206-40922a** Units: **µg/L** Analysis Date: **2/11/2010 01:57 PM**

Client ID: Run ID: **SV-2_100208A** SeqNo: **1877361** Prep Date: **2/6/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	3.737	0.20	5	0	74.7	45-125	0			
1-Methylnaphthalene	4.45	0.20	5	0	89	45-120	0			
2,4,5-Trichlorophenol	3.967	0.20	5	0	79.3	46-120	0			
2,4,6-Trichlorophenol	2.933	0.20	5	0	58.7	42-120	0			
2,4-Dichlorophenol	4.016	0.20	5	0	80.3	49-120	0			
2,4-Dimethylphenol	2.99	0.20	5	0	59.8	35-120	0			
2,4-Dinitrophenol	4.47	1.0	5	0	89.4	15-120	0			
2,4-Dinitrotoluene	4.164	0.20	5	0	83.3	50-122	0			
2,6-Dinitrotoluene	4.035	0.20	5	0	80.7	50-120	0			
2-Chloronaphthalene	5.558	0.20	5	0	111	50-120	0			
2-Chlorophenol	3.951	0.20	5	0	79	40-120	0			
2-Methylnaphthalene	4.168	0.20	5	0	83.4	50-120	0			
2-Methylphenol	2.892	0.20	5	0	57.8	45-120	0			
2-Nitroaniline	4.267	0.20	5	0	85.3	28-139	0			
2-Nitrophenol	4.195	0.20	5	0	83.9	40-120	0			
3&4-Methylphenol	3.305	0.20	5	0	66.1	35-120	0			
3,3'-Dichlorobenzidine	1.114	0.20	5	0	22.3	15-120	0			
3-Nitroaniline	1.503	0.20	5	0	30.1	30-120	0			
4,6-Dinitro-2-methylphenol	4.532	0.20	5	0	90.6	25-121	0			
4-Bromophenyl phenyl ether	4.536	0.20	5	0	90.7	45-120	0			
4-Chloro-3-methylphenol	3.423	0.20	5	0	68.5	47-120	0			
4-Chloroaniline	1.325	0.20	5	0	26.5	20-120	0			
4-Chlorophenyl phenyl ether	4.129	0.20	5	0	82.6	50-120	0			
4-Nitroaniline	1.646	0.20	5	0	32.9	30-133	0			
4-Nitrophenol	2.159	1.0	5	0	43.2	30-130	0			
Acenaphthene	3.786	0.20	5	0	75.7	45-120	0			
Acenaphthylene	3.926	0.20	5	0	78.5	47-120	0			
Acetophenone	3.666	0.20	5	0	73.3	40-120	0			
Anthracene	4.184	0.20	5	0	83.7	45-120	0			
Atrazine	2.058	0.20	5	0	41.2	40-130	0			
Benz(a)anthracene	4.525	0.20	5	0	90.5	40-120	0			
Benzaldehyde	2.539	0.20	5	0	50.8	35-130	0			
Benzo(a)pyrene	4.617	0.20	5	0	92.3	45-120	0			
Benzo(b)fluoranthene	5.744	0.20	5	0	115	50-120	0			
Benzo(g,h,i)perylene	4.539	0.20	5	0	90.8	42-127	0			
Benzo(k)fluoranthene	4.43	0.20	5	0	88.6	45-127	0			
Bis(2-chloroethoxy)methane	3.851	0.20	5	0	77	45-120	0			
Bis(2-chloroethyl)ether	3.69	0.20	5	0	73.8	37-121	0			
Bis(2-chloroisopropyl)ether	3.751	0.20	5	0	75	40-120	0			
Bis(2-ethylhexyl)phthalate	3.947	0.20	5	0	78.9	40-139	0			
Butyl benzyl phthalate	3.81	0.20	5	0	76.2	47-123	0			
Caprolactam	3.145	0.20	5	0	62.9	35-134	0			

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40922a** Instrument ID **SV-2** Method: **SW8270**

Carbazole	3.683	0.20	5	0	73.7	42-128	0
Chrysene	4.334	0.20	5	0	86.7	43-120	0
Di-n-butyl phthalate	4.012	0.20	5	0	80.2	45-123	0
Di-n-octyl phthalate	4.798	0.20	5	0	96	45-129	0
Dibenz(a,h)anthracene	5.066	0.20	5	0	101	45-125	0
Dibenzofuran	4.032	0.20	5	0	80.6	50-120	0
Diethyl phthalate	3.966	0.20	5	0	79.3	41-120	0
Dimethyl phthalate	3.99	0.20	5	0	79.8	40-122	0
Fluoranthene	4.396	0.20	5	0	87.9	45-125	0
Fluorene	3.994	0.20	5	0	79.9	49-120	0
Hexachlorobenzene	4.371	0.20	5	0	87.4	48-120	0
Hexachlorobutadiene	4.271	0.20	5	0	85.4	40-120	0
Hexachlorocyclopentadiene	3.981	0.20	5	0	79.6	34-136	0
Hexachloroethane	3.879	0.20	5	0	77.6	40-120	0
Indeno(1,2,3-cd)pyrene	4.884	0.20	5	0	97.7	41-128	0
Isophorone	3.818	0.20	5	0	76.4	40-121	0
N-Nitrosodi-n-propylamine	3.939	0.20	5	0	78.8	40-120	0
N-Nitrosodiphenylamine	2.047	0.20	5	0	40.9	40-125	0
Naphthalene	3.971	0.20	5	0	79.4	45-120	0
Nitrobenzene	3.651	0.20	5	0	73	44-120	0
Pentachlorophenol	2.992	0.20	5	0	59.8	19-121	0
Phenanthrene	4.076	0.20	5	0	81.5	45-121	0
Phenol	2.831	0.20	5	0	56.6	20-124	0
Pyrene	4.088	0.20	5	0	81.8	40-130	0
Surr: 2,4,6-Tribromophenol	*3.586*	0.20	*5*	0	*71.7*	*34-129*	0
Surr: 2-Fluorobiphenyl	*3.931*	0.20	*5*	0	*78.6*	*40-125*	0
Surr: 2-Fluorophenol	*3.618*	0.20	*5*	0	*72.4*	*20-120*	0
Surr: 4-Terphenyl-d14	*3.903*	0.20	*5*	0	*78.1*	*40-135*	0
Surr: Nitrobenzene-d5	*3.579*	0.20	*5*	0	*71.6*	*41-120*	0
Surr: Phenol-d6	*3.145*	0.20	*5*	0	*62.9*	*20-120*	0

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40922a** Instrument ID **SV-2** Method: **SW8270**

MS Sample ID: **1002079-14AMS** Units: **µg/L** Analysis Date: **2/11/2010 05:34 PM**

Client ID: Run ID: **SV-2_100208A** SeqNo: **1877363** Prep Date: **2/6/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	3.021	0.20	5	0	60.4	45-125	0			
1-Methylnaphthalene	3.271	0.20	5	0	65.4	45-120	0			
2,4,5-Trichlorophenol	3.046	0.20	5	0	60.9	46-120	0			
2,4,6-Trichlorophenol	3.619	0.20	5	0	72.4	42-120	0			
2,4-Dichlorophenol	3.305	0.20	5	0	66.1	49-120	0			
2,4-Dimethylphenol	2.947	0.20	5	0	58.9	35-120	0			
2,4-Dinitrophenol	3.398	1.0	5	0	68	15-120	0			
2,4-Dinitrotoluene	4.331	0.20	5	0	86.6	50-122	0			
2,6-Dinitrotoluene	3.161	0.20	5	0	63.2	50-120	0			
2-Chloronaphthalene	3.369	0.20	5	0	67.4	50-120	0			
2-Chlorophenol	2.834	0.20	5	0	56.7	40-120	0			
2-Methylnaphthalene	3.121	0.20	5	0	62.4	50-120	0			
2-Methylphenol	2.884	0.20	5	0	57.7	45-120	0			
2-Nitroaniline	3.149	0.20	5	0	63	28-139	0			
2-Nitrophenol	3.19	0.20	5	0	63.8	40-120	0			
3&4-Methylphenol	2.847	0.20	5	0	56.9	35-120	0			
3,3'-Dichlorobenzidine	0.4787	0.20	5	0	9.57	15-120	0			S
3-Nitroaniline	0.9853	0.20	5	0	19.7	30-120	0			S
4,6-Dinitro-2-methylphenol	3.862	0.20	5	0	77.2	25-121	0			
4-Bromophenyl phenyl ether	3.946	0.20	5	0	78.9	45-120	0			
4-Chloro-3-methylphenol	3.658	0.20	5	0	73.2	47-120	0			
4-Chloroaniline	0.6061	0.20	5	0	12.1	20-120	0			S
4-Chlorophenyl phenyl ether	3.26	0.20	5	0	65.2	50-120	0			
4-Nitroaniline	0.9327	0.20	5	0	18.7	30-133	0			S
4-Nitrophenol	3.113	1.0	5	0	62.3	30-130	0			
Acenaphthene	2.882	0.20	5	0	57.6	45-120	0			
Acenaphthylene	3.212	0.20	5	0	64.2	47-120	0			
Acetophenone	2.784	0.20	5	0	55.7	40-120	0			
Anthracene	3.577	0.20	5	0	71.5	45-120	0			
Atrazine	2.117	0.20	5	0	42.3	40-130	0			
Benz(a)anthracene	3.515	0.20	5	0	70.3	40-120	0			
Benzaldehyde	2.045	0.20	5	0	40.9	35-130	0			
Benzo(a)pyrene	3.576	0.20	5	0	71.5	45-120	0			
Benzo(b)fluoranthene	3.689	0.20	5	0	73.8	50-120	0			
Benzo(g,h,i)perylene	3.31	0.20	5	0	66.2	42-127	0			
Benzo(k)fluoranthene	3.575	0.20	5	0	71.5	45-127	0			
Bis(2-chloroethoxy)methane	3.157	0.20	5	0	63.1	45-120	0			
Bis(2-chloroethyl)ether	2.458	0.20	5	0	49.2	37-121	0			
Bis(2-chloroisopropyl)ether	2.628	0.20	5	0	52.6	40-120	0			
Bis(2-ethylhexyl)phthalate	7.097	0.20	5	0.4865	132	40-139	0			
Butyl benzyl phthalate	3.296	0.20	5	0	65.9	47-123	0			
Caprolactam	2.92	0.20	5	0	58.4	35-134	0			

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40922a** Instrument ID **SV-2** Method: **SW8270**

Carbazole	3.307	0.20	5	0	66.1	42-128	0
Chrysene	3.241	0.20	5	0	64.8	43-120	0
Di-n-butyl phthalate	3.432	0.20	5	0	68.6	45-123	0
Di-n-octyl phthalate	3.72	0.20	5	0	74.4	45-129	0
Dibenz(a,h)anthracene	3.465	0.20	5	0	69.3	45-125	0
Dibenzofuran	3.357	0.20	5	0	67.1	50-120	0
Diethyl phthalate	3.443	0.20	5	0.1513	65.8	41-120	0
Dimethyl phthalate	3.339	0.20	5	0	66.8	40-122	0
Fluoranthene	3.574	0.20	5	0	71.5	45-125	0
Fluorene	3.429	0.20	5	0	68.6	49-120	0
Hexachlorobenzene	3.589	0.20	5	0	71.8	48-120	0
Hexachlorobutadiene	3.223	0.20	5	0	64.5	40-120	0
Hexachlorocyclopentadiene	2.965	0.20	5	0	59.3	34-136	0
Hexachloroethane	2.805	0.20	5	0	56.1	40-120	0
Indeno(1,2,3-cd)pyrene	3.298	0.20	5	0	66	41-128	0
Isophorone	3.072	0.20	5	0	61.4	40-121	0
N-Nitrosodi-n-propylamine	2.876	0.20	5	0	57.5	40-120	0
N-Nitrosodiphenylamine	3.264	0.20	5	0	65.3	40-125	0
Naphthalene	3.133	0.20	5	0	62.7	45-120	0
Nitrobenzene	2.727	0.20	5	0	54.5	44-120	0
Pentachlorophenol	4.329	0.20	5	0	86.6	19-121	0
Phenanthrene	3.492	0.20	5	0	69.8	45-121	0
Phenol	2.484	0.20	5	0	49.7	20-124	0
Pyrene	3.6	0.20	5	0	72	40-130	0
Surr: 2,4,6-Tribromophenol	*3.236*	0.20	*5*	0	*64.7*	*34-129*	0
Surr: 2-Fluorobiphenyl	*3.066*	0.20	*5*	0	*61.3*	*40-125*	0
Surr: 2-Fluorophenol	*2.514*	0.20	*5*	0	*50.3*	*20-120*	0
Surr: 4-Terphenyl-d14	*3.265*	0.20	*5*	0	*65.3*	*40-135*	0
Surr: Nitrobenzene-d5	*2.257*	0.20	*5*	0	*45.1*	*41-120*	0
Surr: Phenol-d6	*2.45*	0.20	*5*	0	*49*	*20-120*	0

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40922a** Instrument ID **SV-2** Method: **SW8270**

MSD Sample ID: **1002079-14AMSD** Units: **µg/L** Analysis Date: **2/11/2010 05:55 PM**

Client ID: Run ID: **SV-2_100208A** SeqNo: **1877364** Prep Date: **2/6/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1´-Biphenyl	3.05	0.20	5	0	61	45-125	3.021	0.96	20	
1-Methylnaphthalene	3.466	0.20	5	0	69.3	45-120	3.271	5.79	20	
2,4,5-Trichlorophenol	3.023	0.20	5	0	60.5	46-120	3.046	0.757	20	
2,4,6-Trichlorophenol	3.732	0.20	5	0	74.6	42-120	3.619	3.07	20	
2,4-Dichlorophenol	3.521	0.20	5	0	70.4	49-120	3.305	6.34	20	
2,4-Dimethylphenol	3.093	0.20	5	0	61.9	35-120	2.947	4.82	20	
2,4-Dinitrophenol	3.871	1.0	5	0	77.4	15-120	3.398	13	20	
2,4-Dinitrotoluene	3.614	0.20	5	0	72.3	50-122	4.331	18	20	
2,6-Dinitrotoluene	3.177	0.20	5	0	63.5	50-120	3.161	0.494	20	
2-Chloronaphthalene	4.031	0.20	5	0	80.6	50-120	3.369	17.9	20	
2-Chlorophenol	2.964	0.20	5	0	59.3	40-120	2.834	4.51	20	
2-Methylnaphthalene	3.411	0.20	5	0	68.2	50-120	3.121	8.88	20	
2-Methylphenol	3.148	0.20	5	0	63	45-120	2.884	8.73	20	
2-Nitroaniline	2.658	0.20	5	0	53.2	28-139	3.149	16.9	20	
2-Nitrophenol	3.299	0.20	5	0	66	40-120	3.19	3.34	20	
3&4-Methylphenol	3.137	0.20	5	0	62.7	35-120	2.847	9.69	20	
3,3´-Dichlorobenzidine	0.4609	0.20	5	0	9.22	15-120	0.4787	3.79	20	S
3-Nitroaniline	2.153	0.20	5	0	43.1	30-120	0.9853	74.4	20	R
4,6-Dinitro-2-methylphenol	4.669	0.20	5	0	93.4	25-121	3.862	18.9	20	
4-Bromophenyl phenyl ether	3.669	0.20	5	0	73.4	45-120	3.946	7.26	20	
4-Chloro-3-methylphenol	4.132	0.20	5	0	82.6	47-120	3.658	12.2	20	
4-Chloroaniline	0.4411	0.20	5	0	8.82	20-120	0.6061	31.5	20	SR
4-Chlorophenyl phenyl ether	3.423	0.20	5	0	68.5	50-120	3.26	4.89	20	
4-Nitroaniline	1.617	0.20	5	0	32.3	30-133	0.9327	53.7	20	R
4-Nitrophenol	3.182	1.0	5	0	63.6	30-130	3.113	2.16	20	
Acenaphthene	2.952	0.20	5	0	59	45-120	2.882	2.4	20	
Acenaphthylene	3.34	0.20	5	0	66.8	47-120	3.212	3.91	20	
Acetophenone	2.902	0.20	5	0	58	40-120	2.784	4.16	20	
Anthracene	3.509	0.20	5	0	70.2	45-120	3.577	1.91	20	
Atrazine	2.282	0.20	5	0	45.6	40-130	2.117	7.51	20	
Benz(a)anthracene	3.528	0.20	5	0	70.6	40-120	3.515	0.383	20	
Benzaldehyde	2.124	0.20	5	0	42.5	35-130	2.045	3.76	20	
Benzo(a)pyrene	3.604	0.20	5	0	72.1	45-120	3.576	0.806	20	
Benzo(b)fluoranthene	4.252	0.20	5	0	85	50-120	3.689	14.2	20	
Benzo(g,h,i)perylene	3.152	0.20	5	0	63	42-127	3.31	4.87	20	
Benzo(k)fluoranthene	4.033	0.20	5	0	80.7	45-127	3.575	12	20	
Bis(2-chloroethoxy)methane	3.238	0.20	5	0	64.8	45-120	3.157	2.5	20	
Bis(2-chloroethyl)ether	2.745	0.20	5	0	54.9	37-121	2.458	11	20	
Bis(2-chloroisopropyl)ether	2.854	0.20	5	0	57.1	40-120	2.628	8.23	20	
Bis(2-ethylhexyl)phthalate	4.988	0.20	5	0.4865	90	40-139	7.097	34.9	20	R
Butyl benzyl phthalate	3.177	0.20	5	0	63.5	47-123	3.296	3.68	20	
Caprolactam	3.834	0.20	5	0	76.7	35-134	2.92	27.1	20	R

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **40922a** Instrument ID **SV-2** Method: **SW8270**

Carbazole	3.291	0.20	5	0	65.8	42-128	3.307	0.492	20
Chrysene	3.323	0.20	5	0	66.5	43-120	3.241	2.51	20
Di-n-butyl phthalate	4.068	0.20	5	0	81.4	45-123	3.432	17	20
Di-n-octyl phthalate	4.182	0.20	5	0	83.6	45-129	3.72	11.7	20
Dibenz(a,h)anthracene	3.456	0.20	5	0	69.1	45-125	3.465	0.258	20
Dibenzofuran	3.396	0.20	5	0	67.9	50-120	3.357	1.17	20
Diethyl phthalate	3.324	0.20	5	0.1513	63.4	41-120	3.443	3.53	20
Dimethyl phthalate	3.363	0.20	5	0	67.3	40-122	3.339	0.731	20
Fluoranthene	3.699	0.20	5	0	74	45-125	3.574	3.43	20
Fluorene	3.389	0.20	5	0	67.8	49-120	3.429	1.19	20
Hexachlorobenzene	3.953	0.20	5	0	79.1	48-120	3.589	9.66	20
Hexachlorobutadiene	3.15	0.20	5	0	63	40-120	3.223	2.3	20
Hexachlorocyclopentadiene	2.865	0.20	5	0	57.3	34-136	2.965	3.43	20
Hexachloroethane	2.963	0.20	5	0	59.3	40-120	2.805	5.47	20
Indeno(1,2,3-cd)pyrene	3.362	0.20	5	0	67.2	41-128	3.298	1.93	20
Isophorone	3.355	0.20	5	0	67.1	40-121	3.072	8.83	20
N-Nitrosodi-n-propylamine	3.005	0.20	5	0	60.1	40-120	2.876	4.38	20
N-Nitrosodiphenylamine	3.959	0.20	5	0	79.2	40-125	3.264	19.2	20
Naphthalene	3.257	0.20	5	0	65.1	45-120	3.133	3.85	20
Nitrobenzene	2.896	0.20	5	0	57.9	44-120	2.727	6.01	20
Pentachlorophenol	4.099	0.20	5	0	82	19-121	4.329	5.45	20
Phenanthrene	3.661	0.20	5	0	73.2	45-121	3.492	4.71	20
Phenol	2.766	0.20	5	0	55.3	20-124	2.484	10.8	20
Pyrene	3.347	0.20	5	0	66.9	40-130	3.6	7.28	20
Surr: 2,4,6-Tribromophenol	*2.871*	0.20	*5*	0	*57.4*	*34-129*	3.236	*12*	*20*
Surr: 2-Fluorobiphenyl	*3.066*	0.20	*5*	0	*61.3*	*40-125*	3.066	*0.0163*	*20*
Surr: 2-Fluorophenol	*2.734*	0.20	*5*	0	*54.7*	*20-120*	2.514	*8.41*	*20*
Surr: 4-Terphenyl-d14	*3.391*	0.20	*5*	0	*67.8*	*40-135*	3.265	*3.78*	*20*
Surr: Nitrobenzene-d5	*2.617*	0.20	*5*	0	*52.3*	*41-120*	2.257	*14.8*	*20*
Surr: Phenol-d6	*2.589*	0.20	*5*	0	*51.8*	*20-120*	2.45	*5.52*	*20*

The following samples were analyzed in this batch: 1002120-01F 1002120-02F 1002120-03F

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86763** Instrument ID **VOA2** Method: **SW8260**

MBLK Sample ID: **VBLKW-020510-R86763** Units: **µg/L** Analysis Date: **2/5/2010 12:48 PM**

Client ID: Run ID: **VOA2_100205A** SeqNo: **1873325** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
2-Butanone	ND	10								
2-Hexanone	ND	10								
4-Isopropyltoluene	ND	5.0								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
Isopropylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methyl tert-butyl ether	ND	5.0								
Methylene chloride	ND	10								
n-Butylbenzene	ND	5.0								
n-Propylbenzene	ND	5.0								
Naphthalene	ND	5.0								
o-Xylene	ND	5.0								
sec-Butylbenzene	ND	5.0								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,2-Dichloroethene	ND	5.0								

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86763** Instrument ID **VOA2** Method: **SW8260**

trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Vinyl chloride	ND	2.0					
Xylenes, Total	ND	15					
Surr: 1,2-Dichloroethane-d4	*54.66*	5.0	*50*	0	*109*	*70-125*	0
Surr: 4-Bromofluorobenzene	*48.26*	5.0	*50*	0	*96.5*	*72-125*	0
Surr: Dibromofluoromethane	*37.77*	5.0	*50*	0	*75.5*	*71-125*	0
Surr: Toluene-d8	*49.08*	5.0	*50*	0	*98.2*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86763** Instrument ID **VOA2** Method: **SW8260**

LCS Sample ID: **VLCSW-020510-R86763** Units: **µg/L** Analysis Date: **2/5/2010 11:35 AM**

Client ID: Run ID: **VOA2_100205A** SeqNo: **1873320** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	52.75	5.0	50	0	106	80-120	0			
1,1,2,2-Tetrachloroethane	47.38	5.0	50	0	94.8	72-120	0			
1,1,2-Trichloroethane	47.11	5.0	50	0	94.2	80-120	0			
1,1-Dichloroethane	42.01	5.0	50	0	84	76-120	0			
1,1-Dichloroethene	48.77	5.0	50	0	97.5	73-124	0			
1,2,4-Trimethylbenzene	47.06	5.0	50	0	94.1	68-123	0			
1,2-Dibromoethane	50.05	5.0	50	0	100	80-120	0			
1,2-Dichloroethane	48.46	5.0	50	0	96.9	78-120	0			
1,2-Dichloropropane	47.8	5.0	50	0	95.6	80-120	0			
1,3,5-Trimethylbenzene	47.31	5.0	50	0	94.6	80-120	0			
2-Butanone	71.44	10	100	0	71.4	58-132	0			
2-Hexanone	92.14	10	100	0	92.1	61-130	0			
4-Isopropyltoluene	48.56	5.0	50	0	97.1	79-120	0			
4-Methyl-2-pentanone	94.05	10	100	0	94	65-127	0			
Acetone	99.43	10	100	0	99.4	59-137	0			
Benzene	48.04	5.0	50	0	96.1	73-121	0			
Bromodichloromethane	48.45	5.0	50	0	96.9	80-120	0			
Bromoform	49.06	5.0	50	0	98.1	79-120	0			
Bromomethane	52.03	5.0	50	0	104	66-137	0			
Carbon disulfide	101.5	10	100	0	101	68-141	0			
Carbon tetrachloride	56.25	5.0	50	0	113	75-124	0			
Chlorobenzene	47.49	5.0	50	0	95	80-120	0			
Chloroethane	45.41	5.0	50	0	90.8	76-121	0			
Chloroform	41.04	5.0	50	0	82.1	80-120	0			
Chloromethane	45.94	5.0	50	0	91.9	67-123	0			
cis-1,2-Dichloroethene	39.72	5.0	50	0	79.4	78-120	0			
cis-1,3-Dichloropropene	49.72	5.0	50	0	99.4	80-120	0			
Dibromochloromethane	47.37	5.0	50	0	94.7	80-120	0			
Ethylbenzene	48.82	5.0	50	0	97.6	80-120	0			
Isopropylbenzene	48.58	5.0	50	0	97.2	80-120	0			
m,p-Xylene	96.47	10	100	0	96.5	78-121	0			
Methyl tert-butyl ether	43.62	5.0	50	0	87.2	73-121	0			
Methylene chloride	45.12	10	50	0	90.2	65-133	0			
n-Butylbenzene	48.84	5.0	50	0	97.7	77-120	0			
n-Propylbenzene	47.84	5.0	50	0	95.7	78-120	0			
Naphthalene	48.24	5.0	50	0	96.5	65-127	0			
o-Xylene	47.98	5.0	50	0	96	80-120	0			
sec-Butylbenzene	48.6	5.0	50	0	97.2	78-120	0			
Styrene	47.6	5.0	50	0	95.2	80-120	0			
Tetrachloroethene	49.86	5.0	50	0	99.7	79-120	0			
Toluene	47.78	5.0	50	0	95.6	80-120	0			
trans-1,2-Dichloroethene	46.17	5.0	50	0	92.3	78-120	0			

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86763**	Instrument ID **VOA2**		Method: **SW8260**				
trans-1,3-Dichloropropene	45.16	5.0	50	0	90.3	80-120	0
Trichloroethene	49.18	5.0	50	0	98.4	80-120	0
Vinyl chloride	45.77	2.0	50	0	91.5	70-127	0
Xylenes, Total	144.4	15	150	0	96.3	80-120	0
Surr: 1,2-Dichloroethane-d4	*51.06*	5.0	*50*	0	*102*	*70-125*	0
Surr: 4-Bromofluorobenzene	*49.48*	5.0	*50*	0	*99*	*72-125*	0
Surr: Dibromofluoromethane	*52.57*	5.0	*50*	0	*105*	*71-125*	0
Surr: Toluene-d8	*50.23*	5.0	*50*	0	*100*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86763** Instrument ID **VOA2** Method: **SW8260**

MS Sample ID: **1002048-07AMS** Units: **µg/L** Analysis Date: **2/5/2010 02:25 PM**

Client ID: Run ID: **VOA2_100205A** SeqNo: **1873333** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	46.01	5.0	50	0	92	80-120	0			
1,1,2,2-Tetrachloroethane	45.9	5.0	50	0	91.8	72-120	0			
1,1,2-Trichloroethane	46.11	5.0	50	0	92.2	80-120	0			
1,1-Dichloroethane	40.65	5.0	50	0	81.3	76-120	0			
1,1-Dichloroethene	42.35	5.0	50	0	84.7	73-124	0			
1,2,4-Trimethylbenzene	42.57	5.0	50	0	85.1	68-123	0			
1,2-Dibromoethane	48.69	5.0	50	0	97.4	80-120	0			
1,2-Dichloroethane	47.23	5.0	50	0	94.5	78-120	0			
1,2-Dichloropropane	46.57	5.0	50	0	93.1	80-120	0			
1,3,5-Trimethylbenzene	42.4	5.0	50	0	84.8	80-120	0			
2-Butanone	71.93	10	100	0	71.9	58-132	0			
2-Hexanone	86.66	10	100	0	86.7	61-130	0			
4-Isopropyltoluene	40.68	5.0	50	0	81.4	79-120	0			
4-Methyl-2-pentanone	90.27	10	100	0	90.3	65-127	0			
Acetone	86.46	10	100	0	86.5	59-137	0			
Benzene	45.69	5.0	50	0	91.4	73-121	0			
Bromodichloromethane	47.3	5.0	50	0	94.6	80-120	0			
Bromoform	48.38	5.0	50	0	96.8	79-120	0			
Bromomethane	47.18	5.0	50	0	94.4	66-137	0			
Carbon disulfide	89.86	10	100	0	89.9	68-141	0			
Carbon tetrachloride	46.03	5.0	50	0	92.1	75-124	0			
Chlorobenzene	45.31	5.0	50	0	90.6	80-120	0			
Chloroethane	43.04	5.0	50	0	86.1	76-121	0			
Chloroform	53.23	5.0	50	0	106	80-120	0			
Chloromethane	45.1	5.0	50	0	90.2	67-123	0			
cis-1,2-Dichloroethene	38.64	5.0	50	0	77.3	78-120	0			S
cis-1,3-Dichloropropene	47.84	5.0	50	0	95.7	80-120	0			
Dibromochloromethane	46.81	5.0	50	0	93.6	80-120	0			
Ethylbenzene	44.12	5.0	50	0	88.2	80-120	0			
Isopropylbenzene	42.42	5.0	50	0	84.8	80-120	0			
m,p-Xylene	88.77	10	100	0	88.8	78-121	0			
Methyl tert-butyl ether	42.46	5.0	50	0	84.9	73-121	0			
Methylene chloride	44.97	10	50	0	89.9	65-133	0			
n-Butylbenzene	39.16	5.0	50	0	78.3	77-120	0			
n-Propylbenzene	41.29	5.0	50	0	82.6	78-120	0			
Naphthalene	40.52	5.0	50	0	81	65-127	0			
o-Xylene	45.19	5.0	50	0	90.4	80-120	0			
sec-Butylbenzene	39.67	5.0	50	0	79.3	78-120	0			
Styrene	39.47	5.0	50	0	78.9	80-120	0			S
Tetrachloroethene	41.59	5.0	50	0	83.2	79-120	0			
Toluene	44.43	5.0	50	0	88.9	80-120	0			
trans-1,2-Dichloroethene	43.34	5.0	50	0	86.7	78-120	0			

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86763** Instrument ID **VOA2** Method: **SW8260**

trans-1,3-Dichloropropene	43.82	5.0	50	0	87.6	80-120	0
Trichloroethene	45.44	5.0	50	0	90.9	80-120	0
Vinyl chloride	40.55	2.0	50	0	81.1	70-127	0
Xylenes, Total	134	15	150	0	89.3	80-120	0
Surr: 1,2-Dichloroethane-d4	*51.85*	5.0	*50*	0	*104*	*70-125*	0
Surr: 4-Bromofluorobenzene	*49.53*	5.0	*50*	0	*99.1*	*72-125*	0
Surr: Dibromofluoromethane	*53.11*	5.0	*50*	0	*106*	*71-125*	0
Surr: Toluene-d8	*49.59*	5.0	*50*	0	*99.2*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86763** Instrument ID **VOA2** Method: **SW8260**

MSD Sample ID: **1002048-07AMSD** Units: **µg/L** Analysis Date: **2/5/2010 02:50 PM**

Client ID: Run ID: **VOA2_100205A** SeqNo: **1873334** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	48.4	5.0	50	0	96.8	80-120	46.01	5.07	20	
1,1,2,2-Tetrachloroethane	45.77	5.0	50	0	91.5	72-120	45.9	0.281	20	
1,1,2-Trichloroethane	45.28	5.0	50	0	90.6	80-120	46.11	1.8	20	
1,1-Dichloroethane	39.7	5.0	50	0	79.4	76-120	40.65	2.35	20	
1,1-Dichloroethene	43.96	5.0	50	0	87.9	73-124	42.35	3.73	20	
1,2,4-Trimethylbenzene	43.51	5.0	50	0	87	68-123	42.57	2.19	20	
1,2-Dibromoethane	47.5	5.0	50	0	95	80-120	48.69	2.48	20	
1,2-Dichloroethane	47.71	5.0	50	0	95.4	78-120	47.23	1.02	20	
1,2-Dichloropropane	46.71	5.0	50	0	93.4	80-120	46.57	0.293	20	
1,3,5-Trimethylbenzene	43.6	5.0	50	0	87.2	80-120	42.4	2.78	20	
2-Butanone	70.68	10	100	0	70.7	58-132	71.93	1.75	20	
2-Hexanone	86.82	10	100	0	86.8	61-130	86.66	0.183	20	
4-Isopropyltoluene	43.48	5.0	50	0	87	79-120	40.68	6.65	20	
4-Methyl-2-pentanone	89.6	10	100	0	89.6	65-127	90.27	0.735	20	
Acetone	84.79	10	100	0	84.8	59-137	86.46	1.95	20	
Benzene	45.97	5.0	50	0	91.9	73-121	45.69	0.62	20	
Bromodichloromethane	47.47	5.0	50	0	94.9	80-120	47.3	0.368	20	
Bromoform	48.94	5.0	50	0	97.9	79-120	48.38	1.15	20	
Bromomethane	44.98	5.0	50	0	90	66-137	47.18	4.76	20	
Carbon disulfide	91.98	10	100	0	92	68-141	89.86	2.34	20	
Carbon tetrachloride	52.79	5.0	50	0	106	75-124	46.03	13.7	20	
Chlorobenzene	44.66	5.0	50	0	89.3	80-120	45.31	1.44	20	
Chloroethane	42.28	5.0	50	0	84.6	76-121	43.04	1.79	20	
Chloroform	51.95	5.0	50	0	104	80-120	53.23	2.44	20	
Chloromethane	43.67	5.0	50	0	87.3	67-123	45.1	3.21	20	
cis-1,2-Dichloroethene	37.17	5.0	50	0	74.3	78-120	38.64	3.87	20	S
cis-1,3-Dichloropropene	48.28	5.0	50	0	96.6	80-120	47.84	0.916	20	
Dibromochloromethane	46.42	5.0	50	0	92.8	80-120	46.81	0.836	20	
Ethylbenzene	44.74	5.0	50	0	89.5	80-120	44.12	1.39	20	
Isopropylbenzene	43.98	5.0	50	0	88	80-120	42.42	3.62	20	
m,p-Xylene	89.36	10	100	0	89.4	78-121	88.77	0.656	20	
Methyl tert-butyl ether	41.36	5.0	50	0	82.7	73-121	42.46	2.64	20	
Methylene chloride	43.36	10	50	0	86.7	65-133	44.97	3.65	20	
n-Butylbenzene	43.27	5.0	50	0	86.5	77-120	39.16	9.98	20	
n-Propylbenzene	43.15	5.0	50	0	86.3	78-120	41.29	4.41	20	
Naphthalene	44.9	5.0	50	0	89.8	65-127	40.52	10.3	20	
o-Xylene	44.85	5.0	50	0	89.7	80-120	45.19	0.76	20	
sec-Butylbenzene	43.29	5.0	50	0	86.6	78-120	39.67	8.74	20	
Styrene	41.98	5.0	50	0	84	80-120	39.47	6.17	20	
Tetrachloroethene	43.9	5.0	50	0	87.8	79-120	41.59	5.42	20	
Toluene	44.6	5.0	50	0	89.2	80-120	44.43	0.388	20	
trans-1,2-Dichloroethene	43.17	5.0	50	0	86.3	78-120	43.34	0.377	20	

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86763**	Instrument ID **VOA2**		Method: **SW8260**						
trans-1,3-Dichloropropene	43.84	5.0	50	0	87.7	80-120	43.82	0.054	20
Trichloroethene	46.22	5.0	50	0	92.4	80-120	45.44	1.69	20
Vinyl chloride	41.52	2.0	50	0	83	70-127	40.55	2.37	20
Xylenes, Total	134.2	15	150	0	89.5	80-120	134	0.18	20
Surr: 1,2-Dichloroethane-d4	*49.55*	5.0	*50*	0	*99.1*	*70-125*	51.85	*4.54*	*20*
Surr: 4-Bromofluorobenzene	*47.88*	5.0	*50*	0	*95.8*	*72-125*	49.53	*3.38*	*20*
Surr: Dibromofluoromethane	*51.06*	5.0	*50*	0	*102*	*71-125*	53.11	*3.94*	*20*
Surr: Toluene-d8	*48.37*	5.0	*50*	0	*96.7*	*75-125*	49.59	*2.5*	*20*

The following samples were analyzed in this batch: 1002120-01A 1002120-02A 1002120-03A 1002120-05A

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86837** Instrument ID **VOA2** Method: **SW8260**

MBLK Sample ID: **VBLKW-020810-R86837** Units: **µg/L** Analysis Date: **2/8/2010 02:52 PM**

Client ID: Run ID: **VOA2_100208A** SeqNo: **1874626** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
2-Butanone	ND	10								
2-Hexanone	ND	10								
4-Isopropyltoluene	ND	5.0								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
Isopropylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methyl tert-butyl ether	ND	5.0								
Methylene chloride	ND	10								
n-Butylbenzene	ND	5.0								
n-Propylbenzene	ND	5.0								
Naphthalene	ND	5.0								
o-Xylene	ND	5.0								
sec-Butylbenzene	ND	5.0								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,2-Dichloroethene	ND	5.0								

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86837**	Instrument ID **VOA2**		Method: **SW8260**				
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Vinyl chloride	ND	2.0					
Xylenes, Total	ND	15					
Surr: 1,2-Dichloroethane-d4	*51.35*	5.0	*50*	0	*103*	*70-125*	0
Surr: 4-Bromofluorobenzene	*49.16*	5.0	*50*	0	*98.3*	*72-125*	0
Surr: Dibromofluoromethane	*48.98*	5.0	*50*	0	*98*	*71-125*	0
Surr: Toluene-d8	*49.29*	5.0	*50*	0	*98.6*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86837** Instrument ID **VOA2** Method: **SW8260**

LCS Sample ID: **VLCSW-020810-R86837** Units: **µg/L** Analysis Date: **2/8/2010 12:25 PM**

Client ID: Run ID: **VOA2_100208A** SeqNo: **1874625** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	52.7	5.0	50	0	105	80-120	0			
1,1,2,2-Tetrachloroethane	45.55	5.0	50	0	91.1	72-120	0			
1,1,2-Trichloroethane	45.88	5.0	50	0	91.8	80-120	0			
1,1-Dichloroethane	41.68	5.0	50	0	83.4	76-120	0			
1,1-Dichloroethene	48.4	5.0	50	0	96.8	73-124	0			
1,2,4-Trimethylbenzene	46.21	5.0	50	0	92.4	68-123	0			
1,2-Dibromoethane	49.09	5.0	50	0	98.2	80-120	0			
1,2-Dichloroethane	47.46	5.0	50	0	94.9	78-120	0			
1,2-Dichloropropane	47.74	5.0	50	0	95.5	80-120	0			
1,3,5-Trimethylbenzene	47.06	5.0	50	0	94.1	80-120	0			
2-Butanone	74.09	10	100	0	74.1	58-132	0			
2-Hexanone	87.5	10	100	0	87.5	61-130	0			
4-Isopropyltoluene	47.68	5.0	50	0	95.4	79-120	0			
4-Methyl-2-pentanone	89.95	10	100	0	89.9	65-127	0			
Acetone	90.57	10	100	0	90.6	59-137	0			
Benzene	47.27	5.0	50	0	94.5	73-121	0			
Bromodichloromethane	47.29	5.0	50	0	94.6	80-120	0			
Bromoform	48.01	5.0	50	0	96	79-120	0			
Bromomethane	45.35	5.0	50	0	90.7	66-137	0			
Carbon disulfide	101	10	100	0	101	68-141	0			
Carbon tetrachloride	55.75	5.0	50	0	111	75-124	0			
Chlorobenzene	46.53	5.0	50	0	93.1	80-120	0			
Chloroethane	45.32	5.0	50	0	90.6	76-121	0			
Chloroform	53.59	5.0	50	0	107	80-120	0			
Chloromethane	45.02	5.0	50	0	90	67-123	0			
cis-1,2-Dichloroethene	39.24	5.0	50	0	78.5	78-120	0			
cis-1,3-Dichloropropene	49.56	5.0	50	0	99.1	80-120	0			
Dibromochloromethane	46.1	5.0	50	0	92.2	80-120	0			
Ethylbenzene	47.48	5.0	50	0	95	80-120	0			
Isopropylbenzene	47.6	5.0	50	0	95.2	80-120	0			
m,p-Xylene	94.44	10	100	0	94.4	78-121	0			
Methyl tert-butyl ether	43.81	5.0	50	0	87.6	73-121	0			
Methylene chloride	44.95	10	50	0	89.9	65-133	0			
n-Butylbenzene	47.75	5.0	50	0	95.5	77-120	0			
n-Propylbenzene	47.09	5.0	50	0	94.2	78-120	0			
Naphthalene	46.13	5.0	50	0	92.3	65-127	0			
o-Xylene	47.08	5.0	50	0	94.2	80-120	0			
sec-Butylbenzene	47.94	5.0	50	0	95.9	78-120	0			
Styrene	46.87	5.0	50	0	93.7	80-120	0			
Tetrachloroethene	48.31	5.0	50	0	96.6	79-120	0			
Toluene	46.64	5.0	50	0	93.3	80-120	0			
trans-1,2-Dichloroethene	45.69	5.0	50	0	91.4	78-120	0			

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86837**	Instrument ID **VOA2**		Method: **SW8260**				
trans-1,3-Dichloropropene	44.55	5.0	50	0	89.1	80-120	0
Trichloroethene	48	5.0	50	0	96	80-120	0
Vinyl chloride	45.18	2.0	50	0	90.4	70-127	0
Xylenes, Total	141.5	15	150	0	94.3	80-120	0
Surr: 1,2-Dichloroethane-d4	*51.02*	5.0	*50*	0	*102*	*70-125*	0
Surr: 4-Bromofluorobenzene	*49.52*	5.0	*50*	0	*99*	*72-125*	0
Surr: Dibromofluoromethane	*52.38*	5.0	*50*	0	*105*	*71-125*	0
Surr: Toluene-d8	*49.32*	5.0	*50*	0	*98.6*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86837** Instrument ID **VOA2** Method: **SW8260**

MS Sample ID: **1002211-01AMS** Units: **µg/L** Analysis Date: **2/8/2010 04:29 PM**

Client ID: Run ID: **VOA2_100208A** SeqNo: **1874630** Prep Date: DF: **500**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	25540	2,500	25000	0	102	80-120	0			
1,1,2,2-Tetrachloroethane	24720	2,500	25000	0	98.9	72-120	0			
1,1,2-Trichloroethane	24840	2,500	25000	0	99.3	80-120	0			
1,1-Dichloroethane	21570	2,500	25000	0	86.3	76-120	0			
1,1-Dichloroethene	23340	2,500	25000	0	93.3	73-124	0			
1,2,4-Trimethylbenzene	23240	2,500	25000	0	93	68-123	0			
1,2-Dibromoethane	26310	2,500	25000	0	105	80-120	0			
1,2-Dichloroethane	25830	2,500	25000	0	103	78-120	0			
1,2-Dichloropropane	25070	2,500	25000	0	100	80-120	0			
1,3,5-Trimethylbenzene	23020	2,500	25000	0	92.1	80-120	0			
2-Butanone	37690	5,000	50000	0	75.4	58-132	0			
2-Hexanone	45570	5,000	50000	0	91.1	61-130	0			
4-Isopropyltoluene	22900	2,500	25000	0	91.6	79-120	0			
4-Methyl-2-pentanone	47340	5,000	50000	0	94.7	65-127	0			
Acetone	48580	5,000	50000	0	97.2	59-137	0			
Benzene	31520	2,500	25000	7558	95.8	73-121	0			
Bromodichloromethane	25390	2,500	25000	0	102	80-120	0			
Bromoform	25770	2,500	25000	0	103	79-120	0			
Bromomethane	25320	2,500	25000	0	101	66-137	0			
Carbon disulfide	48820	5,000	50000	0	97.6	68-141	0			
Carbon tetrachloride	29490	2,500	25000	4350	101	75-124	0			
Chlorobenzene	52030	2,500	25000	30940	84.3	80-120	0			
Chloroethane	22760	2,500	25000	0	91	76-121	0			
Chloroform	36120	2,500	25000	6122	120	80-120	0			
Chloromethane	23760	2,500	25000	0	95	67-123	0			
cis-1,2-Dichloroethene	20580	2,500	25000	0	82.3	78-120	0			
cis-1,3-Dichloropropene	25910	2,500	25000	0	104	80-120	0			
Dibromochloromethane	24840	2,500	25000	0	99.4	80-120	0			
Ethylbenzene	23770	2,500	25000	0	95.1	80-120	0			
Isopropylbenzene	23180	2,500	25000	0	92.7	80-120	0			
m,p-Xylene	47880	5,000	50000	297	95.2	78-121	0			
Methyl tert-butyl ether	22700	2,500	25000	0	90.8	73-121	0			
Methylene chloride	24200	5,000	25000	0	96.8	65-133	0			
n-Butylbenzene	22520	2,500	25000	0	90.1	77-120	0			
n-Propylbenzene	22710	2,500	25000	0	90.8	78-120	0			
Naphthalene	22010	2,500	25000	0	88.1	65-127	0			
o-Xylene	24250	2,500	25000	0	97	80-120	0			
sec-Butylbenzene	22480	2,500	25000	0	89.9	78-120	0			
Styrene	24270	2,500	25000	0	97.1	80-120	0			
Tetrachloroethene	22640	2,500	25000	0	90.6	79-120	0			
Toluene	23790	2,500	25000	0	95.2	80-120	0			
trans-1,2-Dichloroethene	23020	2,500	25000	0	92.1	78-120	0			

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86837**	Instrument ID **VOA2**		Method: **SW8260**				
trans-1,3-Dichloropropene	23480	2,500	25000	0	93.9	80-120	0
Trichloroethene	24190	2,500	25000	0	96.8	80-120	0
Vinyl chloride	22110	1,000	25000	0	88.5	70-127	0
Xylenes, Total	72120	7,500	75000	297	95.8	80-120	0
Surr: 1,2-Dichloroethane-d4	*26650*	2,500	*25000*	0	*107*	*70-125*	0
Surr: 4-Bromofluorobenzene	*26110*	2,500	*25000*	0	*104*	*72-125*	0
Surr: Dibromofluoromethane	*27470*	2,500	*25000*	0	*110*	*71-125*	0
Surr: Toluene-d8	*25630*	2,500	*25000*	0	*103*	*75-125*	0

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86837** Instrument ID **VOA2** Method: **SW8260**

MSD Sample ID: **1002211-01AMSD** Units: **µg/L** Analysis Date: **2/8/2010 04:54 PM**

Client ID: Run ID: **VOA2_100208A** SeqNo: **1874631** Prep Date: DF: **500**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	23810	2,500	25000	0	95.2	80-120	25540	7.01	20	
1,1,2,2-Tetrachloroethane	24040	2,500	25000	0	96.1	72-120	24720	2.8	20	
1,1,2-Trichloroethane	23510	2,500	25000	0	94	80-120	24840	5.48	20	
1,1-Dichloroethane	21510	2,500	25000	0	86	76-120	21570	0.267	20	
1,1-Dichloroethene	22660	2,500	25000	0	90.6	73-124	23340	2.93	20	
1,2,4-Trimethylbenzene	21120	2,500	25000	0	84.5	68-123	23240	9.53	20	
1,2-Dibromoethane	25020	2,500	25000	0	100	80-120	26310	5.03	20	
1,2-Dichloroethane	24070	2,500	25000	0	96.3	78-120	25830	7.07	20	
1,2-Dichloropropane	23990	2,500	25000	0	96	80-120	25070	4.38	20	
1,3,5-Trimethylbenzene	21010	2,500	25000	0	84.1	80-120	23020	9.12	20	
2-Butanone	41550	5,000	50000	0	83.1	58-132	37690	9.74	20	
2-Hexanone	46110	5,000	50000	0	92.2	61-130	45570	1.17	20	
4-Isopropyltoluene	20490	2,500	25000	0	82	79-120	22900	11.1	20	
4-Methyl-2-pentanone	47520	5,000	50000	0	95	65-127	47340	0.39	20	
Acetone	50180	5,000	50000	0	100	59-137	48580	3.23	20	
Benzene	28630	2,500	25000	7558	84.3	73-121	31520	9.59	20	
Bromodichloromethane	24220	2,500	25000	0	96.9	80-120	25390	4.73	20	
Bromoform	25340	2,500	25000	0	101	79-120	25770	1.71	20	
Bromomethane	25010	2,500	25000	0	100	66-137	25320	1.21	20	
Carbon disulfide	47620	5,000	50000	0	95.2	68-141	48820	2.49	20	
Carbon tetrachloride	27010	2,500	25000	4350	90.6	75-124	29490	8.77	20	
Chlorobenzene	51140	2,500	25000	30940	80.8	80-120	52030	1.73	20	
Chloroethane	22330	2,500	25000	0	89.3	76-121	22760	1.91	20	
Chloroform	33870	2,500	25000	6122	111	80-120	36120	6.43	20	
Chloromethane	22810	2,500	25000	0	91.3	67-123	23760	4.08	20	
cis-1,2-Dichloroethene	20840	2,500	25000	0	83.4	78-120	20580	1.25	20	
cis-1,3-Dichloropropene	25100	2,500	25000	0	100	80-120	25910	3.18	20	
Dibromochloromethane	23620	2,500	25000	0	94.5	80-120	24840	5.03	20	
Ethylbenzene	21660	2,500	25000	0	86.6	80-120	23770	9.26	20	
Isopropylbenzene	20810	2,500	25000	0	83.2	80-120	23180	10.8	20	
m,p-Xylene	43770	5,000	50000	297	86.9	78-121	47880	8.96	20	
Methyl tert-butyl ether	23690	2,500	25000	0	94.8	73-121	22700	4.27	20	
Methylene chloride	24190	5,000	25000	0	96.8	65-133	24200	0.0602	20	
n-Butylbenzene	20070	2,500	25000	0	80.3	77-120	22520	11.5	20	
n-Propylbenzene	20420	2,500	25000	0	81.7	78-120	22710	10.6	20	
Naphthalene	23480	2,500	25000	0	93.9	65-127	22010	6.45	20	
o-Xylene	22290	2,500	25000	0	89.2	80-120	24250	8.39	20	
sec-Butylbenzene	19920	2,500	25000	0	79.7	78-120	22480	12.1	20	
Styrene	22600	2,500	25000	0	90.4	80-120	24270	7.12	20	
Tetrachloroethene	20420	2,500	25000	0	81.7	79-120	22640	10.3	20	
Toluene	22060	2,500	25000	0	88.2	80-120	23790	7.56	20	
trans-1,2-Dichloroethene	22860	2,500	25000	0	91.4	78-120	23020	0.71	20	

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86837** Instrument ID **VOA2** Method: **SW8260**

trans-1,3-Dichloropropene	22780	2,500	25000	0	91.1	80-120	23480	3.04	20
Trichloroethene	22360	2,500	25000	0	89.4	80-120	24190	7.89	20
Vinyl chloride	21230	1,000	25000	0	84.9	70-127	22110	4.08	20
Xylenes, Total	66070	7,500	75000	297	87.7	80-120	72120	8.77	20
Surr: 1,2-Dichloroethane-d4	*27160*	2,500	*25000*	0	*109*	*70-125*	26650	*1.9*	*20*
Surr: 4-Bromofluorobenzene	*25420*	2,500	*25000*	0	*102*	*72-125*	26110	2.67	*20*
Surr: Dibromofluoromethane	*26900*	2,500	*25000*	0	*108*	*71-125*	27470	*2.12*	*20*
Surr: Toluene-d8	*25030*	2,500	*25000*	0	*100*	*75-125*	25630	*2.35*	*20*

The following samples were analyzed in this batch: 1002120-04A

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86656** Instrument ID **WetChem** Method: **SM4500H+ B**

LCS Sample ID: **WLCSW-0204140-R86656** Units: **pH units** Analysis Date: **2/4/2010 10:00 AM**
Client ID: Run ID: **WETCHEM_100204A** SeqNo: **1870759** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6	0.10	6	0	100	90-110		0		

DUP Sample ID: **1002121-01BDUP** Units: **pH units** Analysis Date: **2/4/2010 10:00 AM**
Client ID: Run ID: **WETCHEM_100204A** SeqNo: **1870764** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.01	0.10	0	0	0	0-0	7	0.143	20	H

The following samples were analyzed in this batch: 1002120-01E 1002120-02E 1002120-03E

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86709** Instrument ID **Balance1** Method: **M2540C**

MBLK Sample ID: **BLANK-R86709** Units: **mg/L** Analysis Date: **2/4/2010 04:00 PM**
Client ID: Run ID: **BALANCE1_100204B** SeqNo: **1872055** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	ND	10								

LCS Sample ID: **LCS-R86709** Units: **mg/L** Analysis Date: **2/4/2010 04:00 PM**
Client ID: Run ID: **BALANCE1_100204B** SeqNo: **1872056** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	972	10	1000	0	97.2	85-115	0			

DUP Sample ID: **1001486-39ADUP** Units: **mg/L** Analysis Date: **2/4/2010 04:00 PM**
Client ID: Run ID: **BALANCE1_100204B** SeqNo: **1872049** Prep Date: **2/4/2010** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	271	10	0	0	0	0-0	269	0.741	20	

DUP Sample ID: **1002120-03EDUP** Units: **mg/L** Analysis Date: **2/4/2010 04:00 PM**
Client ID: **MW-6** Run ID: **BALANCE1_100204B** SeqNo: **1872053** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	1465	10	0	0	0	0-0	1400	4.54	20	

The following samples were analyzed in this batch: 1002120-01E 1002120-02E 1002120-03E

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86731** Instrument ID **WetChem** Method: **M2510 B**

MBLK Sample ID: **WBLKW1-020510-R86731** Units: **µmhos/cm** Analysis Date: **2/5/2010 02:30 PM**
Client ID: Run ID: **WETCHEM_100205C** SeqNo: **1872397** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	ND	1.0								

LCS Sample ID: **WLCSW1-020510-R86731** Units: **µmhos/cm** Analysis Date: **2/5/2010 02:30 PM**
Client ID: Run ID: **WETCHEM_100205C** SeqNo: **1872380** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	1440	1.0	1413	0	102	80-120	0			

DUP Sample ID: **1002120-01EDUP** Units: **µmhos/cm** Analysis Date: **2/5/2010 02:30 PM**
Client ID: **RW-1** Run ID: **WETCHEM_100205C** SeqNo: **1872392** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Specific Conductivity	633	1.0	0	0	0		1950	102	20	R

The following samples were analyzed in this batch: 1002120-01E 1002120-02E 1002120-03E

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86800** Instrument ID **WetChem** Method: **SM2320B**

MBLK Sample ID: **WBLKW1-2810-R86800** Units: **mg/L** Analysis Date: **2/8/2010 12:00 PM**

Client ID: Run ID: **WETCHEM_100208F** SeqNo: **1873778** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-2810-R86800** Units: **mg/L** Analysis Date: **2/8/2010 12:00 PM**

Client ID: Run ID: **WETCHEM_100208F** SeqNo: **1873779** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	988	5.0	1000	0	98.8	80-120	0			
Alkalinity, Total (As CaCO3)	988	5.0	1000	0	98.8	80-120	0			

DUP Sample ID: **1002094-09EDUP** Units: **mg/L** Analysis Date: **2/8/2010 12:00 PM**

Client ID: Run ID: **WETCHEM_100208F** SeqNo: **1873792** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	327	5.0	0	0	0	0-0	327	0	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	327	5.0	0	0	0	0-0	327	0	20	

The following samples were analyzed in this batch: 1002120-01E 1002120-02E 1002120-03E

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86823** Instrument ID **ICS3000** Method: **E300**

MBLK Sample ID: **WBLKW1-020810-R86823** Units: **mg/L** Analysis Date: **2/8/2010 01:28 PM**
Client ID: Run ID: **ICS3000_100208A** SeqNo: **1874383** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	0.50								
Surr: Selenate (surr)	*4.825*	0.10	*5*	0	*96.5*	*85-115*	0			

LCS Sample ID: **WLCSW1-020810-R86823** Units: **mg/L** Analysis Date: **2/8/2010 01:49 PM**
Client ID: Run ID: **ICS3000_100208A** SeqNo: **1874384** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.31	0.50	20	0	96.6	90-110	0			
Fluoride	4.087	0.10	4	0	102	90-110	0			
Sulfate	19.07	0.50	20	0	95.3	90-110	0			
Surr: Selenate (surr)	*4.753*	0.10	*5*	0	*95.1*	*85-115*	0			

LCSD Sample ID: **WLCSDW1-020810-R86823** Units: **mg/L** Analysis Date: **2/8/2010 02:10 PM**
Client ID: Run ID: **ICS3000_100208A** SeqNo: **1874385** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.32	0.50	20	0	96.6	90-110	19.31	0.0155	20	
Fluoride	4.087	0.10	4	0	102	90-110	4.087	0	20	
Sulfate	18.68	0.50	20	0	93.4	90-110	19.07	2.08	20	
Surr: Selenate (surr)	*4.759*	0.10	*5*	0	*95.2*	*85-115*	4.753	*0.126*	*20*	

MS Sample ID: **1002144-01BMS** Units: **mg/L** Analysis Date: **2/8/2010 04:23 PM**
Client ID: Run ID: **ICS3000_100208A** SeqNo: **1874388** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	65.98	0.50	10	57.78	82	80-120	0			O
Fluoride	6.724	0.10	2	4.781	97.2	80-120	0			
Surr: Selenate (surr)	*4.783*	0.10	*5*	0	*95.7*	*85-115*	0			

MSD Sample ID: **1002144-01BMSD** Units: **mg/L** Analysis Date: **2/8/2010 04:44 PM**
Client ID: Run ID: **ICS3000_100208A** SeqNo: **1874389** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	66.03	0.50	10	57.78	82.6	80-120	65.98	0.0818	20	O
Fluoride	6.737	0.10	2	4.781	97.8	80-120	6.724	0.193	20	
Surr: Selenate (surr)	*4.797*	0.10	*5*	0	*95.9*	*85-115*	4.783	*0.292*	*20*	

The following samples were analyzed in this batch: 1002120-01E 1002120-02E 1002120-03E

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

Client: Navajo Refining Company
Work Order: 1002120
Project: Navajo Lea Refinery Semi-Annual

QC BATCH REPORT

Batch ID: **R86971** Instrument ID **ICS3K2** Method: **E300**

MBLK Sample ID: **WBLKW1-21110-R86971** Units: **mg/L** Analysis Date: **2/11/2010 09:55 PM**
Client ID: Run ID: **ICS3K2_100211A** SeqNo: **1877336** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Selenate (surr)	*4.311*	0.10	*5*	0	*86.2*	*85-115*	0			

LCS Sample ID: **WLCSW1-021110-R86971** Units: **mg/L** Analysis Date: **2/11/2010 10:16 PM**
Client ID: Run ID: **ICS3K2_100211A** SeqNo: **1877337** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	7.594	0.10	8	0	94.9	90-110	0			
Surr: Selenate (surr)	*4.336*	0.10	*5*	0	*86.7*	*85-115*	0			

MS Sample ID: **1002120-02BMS** Units: **mg/L** Analysis Date: **2/11/2010 11:21 PM**
Client ID: **MW-7** Run ID: **ICS3K2_100211A** SeqNo: **1877340** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	5.439	0.10	4	1.715	93.1	80-120	0			
Surr: Selenate (surr)	*4.458*	0.10	*5*	0	*89.2*	*85-115*	0			

MSD Sample ID: **1002120-02BMSD** Units: **mg/L** Analysis Date: **2/11/2010 11:42 PM**
Client ID: **MW-7** Run ID: **ICS3K2_100211A** SeqNo: **1877341** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrate/Nitrite (as N)	5.431	0.10	4	1.715	92.9	80-120	5.439	0.147	20	
Surr: Selenate (surr)	*4.474*	0.10	*5*	0	*89.5*	*85-115*	4.458	*0.358*	*20*	

The following samples were analyzed in this batch: 1002120-01B 1002120-02B 1002120-03B

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

ALS Laboratory Group

Date: 18-Feb-10

Client: Navajo Refining Company
Project: Navajo Lea Refinery Semi-Annual
WorkOrder: 1002120

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	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	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
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
µmhos/cm	
mg/L	Milligrams per Liter
pH units	

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Chain of Custody Form

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Fax: +1 616 399 6185

Page 1 of 1

ALS Project Manager: | ALS Work Order #: 1002120

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Navajo Refinery Semi-Anuual Lee	A	VOC (8260) Select
Work Order		Project Number		B	Total Metals (6020/7000) Hg
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	Dissolved Metals (6020/7000) Select
Send Report To	Darrell Moore	Invoice Attn	Darrell Moore	D	SVOC (8270) Select
Address	P.O. Box 159	Address	P.O. Box 159	E	Anions (300) Cl, F, SO4
				F	Alkalinity
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	pH
Phone	(505) 748-3311	Phone	(505) 748-3311	H	Specific Conductivity
Fax	(505) 746-5421	Fax	(505) 746-5421	I	TDS
e-Mail Address	dgboyer@SESI-NM.com (copy)	e-Mail Address	darrell.moore@hollyco.com	J	Nitrate/Nitrite (300)

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	RW-1	2/2/10	1535	H_2O	1,2,3,8	9	X	X	X	X	X	X	X	X	X	X	
2	MW-7	2/2/10	1650	1	1	9	X	X	X	X	X	X	X	X	X		
3	MW-6	2/2/10	1805	H_2O	1,2,3,8	9	X	X	X	X	X	X	X	X	X	X	
4	TRIP BLANK 011610-59	—	—	H_2O	1,8		X										
5	TRIP BLANK 011610-65	—	—	H_2O	1,8		X										
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: D. Boyer D. Boyer | Shipment Method: FedEx | Required Turnaround Time: (Check Box) 5 Day | Results Due Date:

Relinquished by: D. Boyer	Date: 2/2/10	Time: 1600	Received by:		Notes: TU Day TAT
Relinquished by:	Date:	Time:	Received by (Laboratory):	2/2/10 0840	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	2-4-10	

Cooler ID	Cooler Temp

QC Package: (Check One Box Below)
- Level II Std QC
- Level III Std QC/Raw Data
- Level IV SW846/CLP
- Other
- TRRP Checklist
- TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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Sample Receipt Checklist

Client Name: **NAVAJO REFINING** Date/Time Received: **04-Feb-10 08:40**

Work Order: **1002120** Received by: **RSZ**

Checklist completed by Richard Sanchez (eSignature) 04-Feb-10 (Date) Reviewed by: Jay Lynn F Thibault (eSignature) 04-Feb-10 (Date)

Matrices: water
Carrier name: FedEx

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):	1.5c, 2.6c	002	
Cooler(s)/Kit(s):	1284,9625		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction: