GW - 028

MONITORING REPORT

2010 Annual GW Report (Feb. 2011)

ARCADIS

Infrastructure · Water · Environment · Buildings

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Environmental Specialist
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Mr. Carl Chavez
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Date:
February 25, 2011

Subject:
Submittal of the 2010 Annual Groundwater Report for the
Navajo Refining Company, Artesia, New Mexico
EPA Facility NMD048918817

Contact:
Pamela R. Krueger

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713.953.4816

Email:
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Our ref:
TX000836.0002.00001

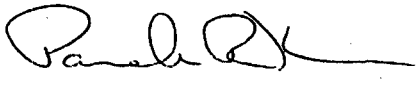
Dear Ms. Monzeglio and Mr. Chavez:

On behalf of Navajo Refining Company, ARCADIS is submitting the *2010 Annual Groundwater Report* for the Artesia, New Mexico Refinery. This submittal includes two bound copies and one electronic copy each for the Hazardous Waste Bureau and the Oil Conservation Division.

If you have any questions regarding this submittal, please feel free to contact Darrell Moore with Navajo Refining at 575.746.5281 or myself at 713.953.4816.

Sincerely,

ARCADIS



Pamela R. Krueger
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Imagine the result

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Environmental Manager – Water and Waste/Navajo Refining Company

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2010 Annual Groundwater Report

RCRA Permit No. NMD048918817
Discharge Permit GW-028

Prepared for:
New Mexico Environment Department
Hazardous Waste Bureau
and
New Mexico Energy, Minerals and Natural Resources Department - Oil Conservation Division

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Tables

Figures

Appendices (all on compact disc)

Executive Summary

The Navajo Refining Company (Navajo) owns and operates the Artesia Refinery, which is located in Artesia, New Mexico. The facility has been in operation since the 1920's and processes crude oil into asphalt, fuel oil, gasoline, diesel, jet fuel and liquefied petroleum gas. In October 2003, the Secretary of the New Mexico Environment Department (NMED) issued a Post-Closure Care Permit (PCC Permit) to Navajo for the Artesia Refinery Facility (U.S. Environmental Protection Agency (EPA) ID number NMD048918817). The PCC Permit was modified and re-issued in December 2010 with an effective date of January 14, 2011.

Among other action items, the PCC Permit requires the Permittee to maintain a groundwater monitoring program, which can evaluate the effectiveness of the corrective action program for groundwater and that meets the requirements of 20.4.1.500 NMAC (incorporating 40 Code of Federal Regulations (CFR) Part 264, Subpart F) during the post-closure care period. The PCC Permit also requires the Permittee to recover phase-separated hydrocarbons (PSH), where present, from the shallow groundwater. The activities required to accomplish both requirements are described in the *Groundwater Monitoring Work Plan* (Workplan), submitted in October 2006 and approved by NMED in December 2006.

The Artesia Refinery is also regulated by the New Mexico Energy, Minerals and Natural Resources Department – Oil Conservation Division (OCD). The OCD issued a renewal to Discharge Permit GW-028 dated August 20, 2008. Among other requirements, the Discharge Permit requires semiannual facility wide groundwater monitoring and submittal of an annual report summarizing the groundwater monitoring and remediation conducted throughout each year.

An updated Facility Wide Groundwater Monitoring Work Plan (FWGMWP) was submitted to NMED and OCD on January 15, 2010. As discussed in a meeting with NMED, Navajo implemented the updated monitoring plan during the first semiannual monitoring event conducted in March and April 2010. On August 23, 2010, NMED issued a Notice of Disapproval of the FWGMWP with specific comments requiring changes to the FWGMWP. A conference call was conducted with NMED, OCD, Navajo and ARCADIS on September 15, 2010 to discuss the comments and required changes to the FWGMWP. The FWGMWP was revised based on the NOD and subsequent discussions, and was submitted along with a response to the NOD letter on October 28, 2010. The provisions of the revised FWGMWP were implemented during the second semiannual monitoring event conducted in September and October 2010.

This 2010 Annual Groundwater Report follows the format specified in Appendix E.4 of the PCC Permit and summarizes the activities performed throughout 2010 to comply with the two revisions of the FWGMWP.

The activities performed during 2010 included installation of two replacement groundwater monitoring wells, collection of field data, collection of groundwater samples for chemical analyses, and remediation system monitoring. Some exceptions to the planned groundwater monitoring occurred as described in the body of this report.

Field measurements, analytical data and remediation system documentation are summarized in this report. Maps depicting the groundwater gradient, thickness of PSH, and diesel range organics (DRO), arsenic, benzene and naphthalene groundwater screening level exceedance areas have been provided. Detailed plots of concentrations of constituents of concern (COCs) in each monitoring well over time have been provided as an appendix. Detailed plots of the static water level in each monitoring well versus time have also been provided as an appendix.

The 2010 groundwater monitoring program was completed according to the provisions of the FWGMWP. Minor exceptions to the planned monitoring occurred, but do not significantly alter the effectiveness of the monitoring program.

The following conclusions are based upon the information obtained in 2010 and comparison to data from prior years:

- Groundwater flow direction and gradient remains consistent with that measured in past years.
- The extent of PSH plumes was consistent with the extent of PSH reported in 2009. PSH thickness increased significantly between the first and second semiannual sampling events in MW-94, caused by a leak in an underground pipe.
- Concentrations of organic constituents have generally remained stable or have declined.
- The operation of the recovery trench system was curtailed due to limitations of the Refinery wastewater treatment system early in 2010, which led to degradation of the pumps in the recovery system.

Navajo is currently designing and implementing a significant upgrade of the recovery trench system, including installation of separate product and produced groundwater piping, standardized pumps and improved gauges. A copy of the conceptual design for the upgraded system was submitted to NMED and OCD in February 2011. The upgrades to the recovery system are anticipated to be completed within calendar year 2011. Until the system upgrades have been completed, the existing recovery system will continue to be monitored and operated manually.

As per the requirements of the updated PCC Permit, an updated FWGMWP will be submitted in June 2011.

1. Introduction

The Navajo Refining Company (Navajo) owns and operates the Artesia Refinery, which is located in Artesia, New Mexico (Figure 1). The facility has been in operation since the 1920's and processes crude oil into asphalt, fuel oil, gasoline, diesel, jet fuel and liquefied petroleum gas. The facility is regulated under the Resource Conservation and Recovery Act (RCRA). In October 2003, the Secretary of the New Mexico Environment Department (NMED) issued a Post-Closure Care Permit (PCC Permit) to Navajo for the Artesia Refinery Facility (U.S. Environmental Protection Agency (EPA) ID number NMD048918817). The PCC Permit was modified and re-issued in December 2010 with an effective date of January 14, 2011.

The PCC Permit authorizes and requires Navajo (the Permittee) to conduct post-closure care at the closed Tetra Ethyl Lead (TEL) surface impoundment and take appropriate actions to achieve RCRA closure of the inactive North Colony Landfarm (NCL) treatment unit and the inactive Evaporation Ponds (EP) at the Artesia Refinery. These areas and the locations of all existing monitoring and recovery wells are shown on Figure 2.

Among other action items, the PCC Permit requires the Permittee to maintain a groundwater monitoring program, which can evaluate the effectiveness of the corrective action program for groundwater and that meets the requirements of 20.4.1.500 NMAC (incorporating 40 Code of Federal Regulations (CFR) Part 264, Subpart F) during the post-closure care period. The PCC Permit also requires the Permittee to recover phase-separated hydrocarbons (PSH), where present, from the shallow groundwater. The activities required to accomplish both requirements are described in the *Groundwater Monitoring Work Plan* (Workplan), submitted in October 2006 and approved by NMED in December 2006.

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This 2010 Annual Groundwater Report follows the format specified in Appendix E.4 of the PCC Permit and summarizes the activities performed throughout 2010 to comply with the two revisions of the FWGMWP.

2. Scope of Services

The groundwater monitoring and associated activities performed during 2010 are described in detail in this section. The first semiannual sampling event began on March 24, 2010 and was completed on April 16, 2010. The second semiannual sampling event began on September 21, 2010 and was completed on November 3, 2010.

2.1 Monitoring Well Installation

In October 2010, two replacement monitoring wells were installed. MW-46R was installed to replace MW-46, which had been damaged near the surface. KWB-10R was installed to replace KWB-10, which had a broken surface casing. The damage to both wells is suspected to have been caused by farm equipment. The damage to both prevented collection of groundwater samples during the first semiannual sampling event, although it was possible to measure the depth to groundwater in both of these wells.

The two replacement wells were installed in October 2010 using a hollow stem auger drill rig. A copy of the well boring and completion logs is provided in Appendix A.

2.2 PSH and Water Level Measurements

At the beginning of each of the two semiannual sampling events, the depth to PSH, depth to water, and total depth in the monitoring and recovery wells was measured. Measurements were made using an oil/water interface probe attached to a measuring tape marked in 0.01 foot increments. The measurements were made in relation to the surveyed datum on each well casing. In the event that the survey datum mark was not visible, measurements were made at the northern side of each well riser which is the default survey datum location. Measurements were recorded on the field data sheets for each event.

One of the requirements included in the August 23, 2010 NOD letter was to complete the PSH and water level measurements within a 48-hour period. As discussed in the September 15, 2010 conference call, it is not feasible to measure all of the wells within a single 48-hour period with accuracy and meet Refinery safety guidelines. As an alternative, it was proposed that all of the wells within the active Refinery be gauged within one 48-hour period, including all wells within the boundaries of the security fence and the wells outside the fence near the Southeast Tank Farm. It was further proposed to complete the gauging of all remaining wells outside the security fence of

the Refinery within a second 48-hour period, including all wells along Eagle Draw and the former Three Mile Ditch, near the Evaporation Ponds and in the fields between the Refinery and the Evaporation Ponds. Every effort will be made to conduct the monitoring events in consecutive 48-hour periods. Any weather events that occur during the gauging period will be documented and discussed in the annual monitoring report, along with an assessment of whether the weather event may have had an effect on the groundwater elevations.

Well gauging for the first semiannual sampling event began on March 24, 2010 and was completed on April 1, 2010. This gauging event was conducted over an 8-day period, prior to the request to complete the gauging in a shorter time period. No rainfall was recorded at the National Weather Service (NWS) gauging station, located approximately 6 miles south of the Refinery, during this time period. A copy of the NWS data for March and April 2010 is provided in Appendix B with the field sampling notes for this event.

Well gauging for the second semiannual sampling event began on September 21, 2010 and was completed on September 22, 2010 in the Refinery area. A total of 93 wells in the Refinery area were gauged during these two days. A strong storm occurred on September 23, 2010, with 0.95 inches of rainfall recorded at the NWS gauging station. Rainfall continued on September 24, 2010 with 0.18 inches of rainfall recorded at the NWS gauging station. A copy of the NWS data for September and October 2010 is provided in Appendix B. As a result of this rainfall event, the field crew was unable to access the wells in the Evaporation Pond area for approximately one week. On October 5 and 6, 2010, a total of 78 wells located in the Evaporation Ponds, along Three Mile Ditch, and between the Refinery and the Evaporation Ponds were gauged. Wells on the opposite side of the Pecos River from the Evaporation Pond (MW-12, MW-13, MW-14 and MW-69) were gauged on the day that they were sampled, due to limited access. Finally, two wells (KWB-8 and MW-57) were not included in the gauging program because there had previously been pumps located in these wells. However, the sampling crew was told that the pumps had been removed and thus these wells were gauged and sampled on November 3, 2010 near the end of the sampling event.

Table 1 summarizes the gauging data collected during both semiannual sampling events for 2010. Figures 3 through 6 depict the potentiometric surface maps for the shallow and valley fill aquifers based on measurements collected during the two semiannual sampling events.

2.3 Groundwater Sample Collection and Handling

Groundwater samples were collected during each of the two semiannual sampling events. The wells designated for sample collection during the first semiannual sampling event were listed in the proposed FWGMWP dated January 2010. The wells designated for sample collection during the second semiannual sampling event were listed in the revised FWGMWP dated October 2010.

Samples were collected from monitoring wells using either low-flow sampling procedures consistent with the approved work plan or a dedicated ProActive submersible pump and dedicated tubing. Samples were collected from recovery wells using a submersible sampling pump or the recovery pump, depending on the location. Samples collected from irrigation wells were collected from a valve in the irrigation piping as near the well as possible. Table 2 indicates the method by which each well was purged and sampled.

Prior to collection of samples, each monitoring and recovery well was purged by pumping groundwater using either a peristaltic pump or a submersible pump and dedicated tubing. During the well purging process, water quality parameters, including pH, conductivity, dissolved oxygen (DO), temperature and oxidation-reduction potential (ORP), were measured at regular intervals using an instrument such as a YSI multiparameter water quality meter. The water quality parameters were recorded on the field log for each well and a copy of the field logs is provided in Appendix B. The final water quality parameters measured at each well are summarized in Table 2.

For monitoring wells that were sampled using low-flow procedures, purging was considered complete when at least four of the purge parameters had stabilized. The specified stabilization criteria are +/- 0.2 standard units for pH, +/- 0.2 degrees Celsius (°C) for temperature, +/- 0.2 milligrams per liter (mg/L) for DO, +/- 0.02 Siemens per meter (S/m) for specific conductance, and +/- 20 milliVolts (mV) for ORP.

For monitoring or recovery wells purged and sampled using a submersible pump and dedicated tubing, a minimum of three well volumes were purged from the well prior to sampling. Prior to sampling, each well was gauged to determine the depth to water and the total depth of the well. This information was then used to determine the height of the water column within the well casing and the volume of water in the well casing. The abovementioned groundwater quality parameters were also measured and recorded. In the event that the groundwater parameters did not stabilize during purging, a maximum of 10 well volumes were purged from these wells prior to collecting the sample.

Samples were collected by directing the flow of water from the tubing directly into the prepared sample containers. Care was taken to not overflow the containers and potentially remove preservatives from pre-preserved containers.

Collected samples were submitted to an analytical laboratory for analyses of various constituent of concern (COCs) according to the FWGMWP and as discussed in Section 4 of this report. The appropriate containers for each set of analyses were shipped to the field by the laboratory. Sample labels were completed for each container and included the well identifier, the sample identifier, the date and time, the sampler's initials, and the analytical method(s) to be performed. Glass sample containers were placed in padded packing sleeves to prevent breakage. Sample containers were packed with ice in a shipping container. Shipping containers were sent overnight via Federal Express to the analytical laboratory.

Chain of custody forms were completed for each shipment to indicate which samples were included in that shipment and what analyses to perform for each sample. Copies of the chain of custody forms are included in Appendix C with the analytical data reports.

2.4 Equipment Decontamination Procedures

The oil/water interface probes used to gauge the PSH and water levels were decontaminated between each well. Decontamination of the probes consisted of washing the probe and the attached tape measure in a mixture of water and non-phosphate detergent (Alconox™). The equipment was then rinsed with clean water. The clean water used for washing and rinsing was obtained from the Refinery reverse osmosis water system.

The flow-through cell used for low-flow purging and sample collection was decontaminated between each well. The probes of the water parameter meters were also decontaminated between each well. Decontamination of this equipment included submersing the flow-through cell in a mixture of water and non-phosphate detergent (Alconox™) and washing the cell with a soft brush and submersing the probe end of the meters in the soapy water mixture and brushing the end of the probe with a soft brush. The equipment was then rinsed with clean water from the Refinery reverse osmosis water system.

The submersible pump used for purging and sample collection from wells where low-flow sampling procedure is not practical was decontaminated between each use. The pump was placed in a mixture of water and non-phosphate detergent (Alconox™) and

allowed to run for at least one minute to flush all groundwater through the pump. The outer portions of the pump were brushed using a soft brush. The pump was then rinsed in clean water from the Refinery reverse osmosis system.

Dedicated tubing was used for sample collection from each well and thus no decontamination of sample collection tubing was required. The dedicated tubing was left in the well between sampling events, with the upper portion coiled to ensure that the lower portion did not remain in the water column. At the beginning of each sampling event, the tubing was inspected and replaced if staining or mold was noted.

2.5 Investigation Derived Waste

All purge water and decontamination liquids were contained in a portable tank in the sampling trailer. The liquids were disposed of daily in the Refinery process wastewater system upstream of the API separator by releasing the liquids into a sump designated by Refinery personnel, typically the sump beneath the north process unit flare.

Solid wastes included disposable gloves, paper towels, plastic bags, and used tubing. All solid waste was bagged and placed in the Refinery trash receptacles for later disposal.

2.6 Exceptions to Groundwater Monitoring Work Plan

Some exceptions to the planned groundwater monitoring occurred, as follows:

- First Semiannual Sampling Event (March to April 2010):
    - KWB-8 was not gauged or sampled because a pump was present in the well.
    - KWB-10 was gauged but could not be sampled because of casing damage that prevented the placement of a pump or tubing in the well. The damaged state of the well was communicated to Navajo and the well was replaced prior to the second semiannual sampling event.
    - KWB-12A could not be sampled because the well was dry.
    - KWB-P2 was not sampled due to low water volume in the casing. This well is actually a piezometer and had only 4 feet of water present when

gauged. The well purges completely dry using either low-flow or submersible pumps.

- MW-46 was gauged but could not be sampled because of casing damage that prevented the placement of a pump or tubing in the well. The damaged state of the well was communicated to Navajo and the well was replaced prior to the second semiannual sampling event.
- MW-57 was not sampled because a pump was present in the well.
- MW-63 was not sampled because the well was plugged due to Refinery expansion activities.
- MW-100 was not sampled because the well was plugged due to Refinery expansion activities.
- MW-108 was sampled early in the sampling event (March 30, 2010). However, it was determined that the well had not been developed following installation. The well was developed and resampled on April 16, 2010.
- RA 314 was not sampled because the well has been removed from service and no pump or power was available.
- RW-11 was not sampled because it was dry.
- Additional samples were collected from select wells in the Evaporation Pond area during the first semiannual sampling event to evaluate the underlying valley fill aquifer as part of the Evaporation Ponds Phase 3 Additional Corrective Action Investigation. These wells included MW-2B, MW-4B, MW-5B, MW-6B, MW-7B, MW-11B, MW-18B, MW-22B, OCD-2B, OCD-7B and OCD-8B.
- Five wells in and downgradient from the Evaporation Pond area were analyzed for total arsenic as well as dissolved arsenic using two separate filter sizes as part of the Evaporation Ponds Phase 3 Additional Corrective Action Investigation. These wells included MW-10, MW-18A, MW-70, MW-78 and MW-83.

- Second Semiannual Sampling Event (September to October 2010):
    - KWB-P2 was not sampled due to low water volume in the casing. This well is actually a piezometer and had only 4 feet of water present when gauged. The well purges completely dry using either low-flow or submersible pumps.

3. Regulatory Criteria

Regulatory standards used to evaluate the data collected for the groundwater monitoring program are based on the presumption that the shallow groundwater might be used as a source of drinking water. The screening level value used for each COC is the lower value of either the New Mexico Water Quality Control Commission (WQCC) standards from 20.6.2.3103 NMAC or the Maximum Contaminant Level (MCL) from the National Primary Drinking Water Standards. For COCs where neither a WQCC standard or MCL exists, the screening level value used is the NMED Tap Water Standard listed in the NMED Soil Screening Level Tables (NMED, December 2009). For total petroleum hydrocarbons (TPH), the *NMED TPH Screening Guidelines – October 2006* guideline for unknown oil has been used.

Table 3 lists the screening levels from each source and provides a summary of the critical groundwater screening level (CGWSL) for each COC. The CGWSL for each COC is also provided in the data summary tables, discussed later in this report.

4. Monitoring Results

Groundwater monitoring events occurred semiannually, as required by the PCC Permit and the Discharge Permit. This section describes the results of the field activities conducted according to the Workplans.

4.1 Groundwater Gauging Results

The first semiannual sampling event began on March 24, 2010 and was completed on April 16, 2010. The second semiannual sampling event began on September 21, 2010 and was completed on November 3, 2010. As discussed in Section 2, the depth to PSH (if present) and depth to water was measured in each well at the beginning of each sampling event. These measurements are summarized in Table 1.

A rainfall event occurred on September 23 and 24, 2010, following completion of the gauging event within the Refinery area. This event caused a delay of 12 days before the wells in the Evaporation Pond area could be accessed for gauging. To evaluate whether there was any significant impact on the potentiometric surface, the sampling crew gauged five wells on October 4, 2010 that had been previously gauged on either September 21 or 22, 2010. The duplicate measurements of depths to groundwater were as follows:

- KWB-1A: 14.42 ft on 9/22/10, 12.68 ft on 10/4/10
- KWB-1B: 15.56 ft on 9/21/10, 14.41 ft on 10/4/10
- KWB-1C: 16.18 ft on 9/21/10, 15.54 ft on 10/4/10
- KWB-10R: 16.50 ft on 9/21/10, 16.15 ft on 10/4/10
- RW-18: 12.82 ft on 9/22/10, 12.68 ft on 10/4/10

These measurements indicate that the potentiometric surface increased slightly following the rainfall event.

The measurements of depth to groundwater and depth to PSH (if present) were used to construct groundwater gradient maps and PSH thickness maps for both semiannual events. Plots of the groundwater elevation in each well through time have been provided at the request of OCD and are contained on CD in Appendix D.

The groundwater potentiometric surface is depicted for the first semiannual event in Figures 3 and 4 for the shallow aquifer and for the valley fill aquifer, respectively. The groundwater potentiometric surface is depicted for the second semiannual event in Figures 5 and 6 for the shallow aquifer and for the valley fill aquifer, respectively. As shown in these figures, the groundwater flow direction beneath the Refinery is consistently to the east, toward the Pecos River. The groundwater flow direction beneath the Evaporation Ponds is generally to the southeast.

The gradient through the Refinery is not uniform and appears to be influenced slightly by the recovery pumps, specifically in the area around RW-15 (southeastern corner) during both semiannual gauging events and in the area around MW-93 during the second semiannual gauging event. The gradient becomes more flat in the area beneath the Evaporation Ponds.

4.2 Phase-Separated Hydrocarbons

Isopleths of PSH thickness are shown in Figure 7 for the first semiannual event and in Figure 8 for the second semiannual event. As shown, there are six distinct areas where PSH is present: three separate areas in the northern portion of the Refinery, the southeastern portion of the Refinery, east of the Refinery near Bolton Road, and on the western end of the Evaporation Ponds near the former discharge point into Pond 1. Each area of interest is discussed in the following subsections.

4.2.1 NCL Area

As shown in Table 1 and in Figures 7 and 8, no measurable PSH was present in any wells in the actual NCL area during 2010. However, PSH is present southeast of the NCL. As shown in Table 1 and Figures 7 and 8, PSH was present in MW-94 and RW-8 in March 2010 with reported thicknesses of 1.37 and 0.45 feet, respectively. In September 2010, PSH was present in MW-94 and RW-8 with reported thicknesses of 12.40 and 0.40 feet, respectively. The significant increase in PSH in MW-94 between March 2010 and September 2010 caused an investigation of underground piping in the area. A leak was found in a pipeline located east of MW-94 and was repaired.

PSH is being recovered from MW-94 and RW-8 routinely by bailing and/or pumping. The recovered PSH is placed in the Refinery waste oil system for recycling.

4.2.2 TEL Area

As shown in Table 1 and Figures 7 and 8, no PSH was measured in the actual TEL wells in March 2010, but PSH was measured with a thickness of 0.01 ft in MW-39 just northeast of well TEL-1. PSH was present in wells TEL-1 and TEL-3 in September 2010 with a reported thickness of 0.01 feet in both wells, while PSH was present at 0.02 ft thick in MW-39.

The groundwater elevation in the TEL area dropped by approximately two feet between March 2010 and September 2010, which may have allowed for PSH to flow out of the soil formation into the wells, resulting in the increased presence of PSH in these wells.

4.2.3 Evaporation Ponds Area

As shown in Table 1 and Figures 7 and 8, PSH is present in MW-85 and MW-86, both of which are located near the original discharge point in Evaporation Pond 1. The PSH thickness measured in March 2010 was 0.01 feet in both MW-85 and MW-86. In October 2010, the PSH thickness was 1.03 feet in MW-85 and 1.53 feet in MW-86.

PSH is removed from both of these two wells routinely by bailing and is placed in the Refinery waste oil system for recycling.

4.2.4 Three Mile Ditch

As shown in Table 1 and in Figures 7 and 8, no measurable PSH was present in any wells along Three Mile Ditch during 2010.

4.2.5 North Refinery Area

As shown in Table 1 and Figures 7 and 8, PSH was present in RW-1, MW-97 and MW-105 in March 2010 with reported thicknesses of 0.01, 1.19 and 0.16 feet, respectively. In September 2010, PSH was present in RW-1, RW-2, MW-97 and MW-105 with reported thicknesses of 0.02, 0.03, 2.87, and 0.13 feet, respectively.

4.2.6 South Refinery Area

As shown in Table 1 and Figures 7 and 8, PSH is present in RW-5, RW-6, RW-15, KWB-4, KWB-5, KWB-6, MW-48, MW-64, MW-65 and MW-102 in March and April 2010 with reported thicknesses of 1.93, 0.06, 0.89, 1.83, 0.40, 2.58, 0.13, 1.63, 0.42,

and 0.59 feet, respectively. PSH was also present in RW-5, RW-6, RW-15, KWB-4, KWB-5, KWB-6, MW-48, MW-64, MW-65 and MW-102 in September 2010 with reported thicknesses of 2.12, 0.15, 0.42, 1.57, 0.45, 0.03, 0.04, 1.52, 0.43 and 1.45 feet, respectively. While the thickness of PSH in specific wells or trenches has fluctuated, there has not been an overall change in the shape of this plume.

PSH is removed from this plume routinely by bailing and/or pumping. The recovered PSH is placed in the Refinery waste oil system for recycling.

4.2.7 Field East of Refinery

As shown in Table 1 and Figures 7 and 8, PSH is present in RW-14 in March and April 2010 with a reported thickness of 1.36 feet, respectively. PSH was also present in RW-13, RW-14 and KWB-8 in September 2010 with reported thicknesses of 0.12, 0.15 and 0.35 feet, respectively.

PSH is removed from this plume routinely by bailing and/or pumping. The recovered PSH is placed in the Refinery waste oil system for recycling.

5. Chemical Analytical Data

5.1 Sample Analyses

The samples collected during the first semiannual sampling event conducted in March and April 2010 were analyzed for various COCs, according to the Workplan submitted in January 2010. The COCs and analytical methods conducted for the first semiannual sampling event included the following:

- TPH Diesel Range Organics (DRO) by Method 8015 Modified;
- TPH Gasoline Range Organics (GRO) by Method 8015 Modified;
- Volatile Organic Compounds (VOCs) by Method 8260;
- RCRA 8 Metals by Method 6020 and 7470;
- Major cations and anions (calcium, chloride, fluoride, potassium, sodium, sulfate) by Methods 6020 and 300;
- Nitrates/nitrites (as nitrogen) by Method 300;
- Alkalinity by Method 2320;
- Total dissolved solids (TDS) by Method 2540.

Not every sample was analyzed by every method listed above. The specific analytical suite chosen for each sample was based on the January 2010 Workplan. Semivolatile organic compounds were analyzed on select samples as part of the Evaporation Ponds Phase 3 Additional Corrective Action Investigation.

The samples collected during the second semiannual sampling event, conducted from September through November 2010, were analyzed for a slightly different set of COCs, based on comments received from NMED and OCD regarding the January 2010 Workplan. The COCs and analytical methods included:

- DRO by Method 8015;
- GRO by Method 8015;

- VOCs by Method 8260;
- Metals (arsenic, barium, chromium, iron, lead, manganese and selenium; mercury, nickel, and vanadium in select wells) by Methods 6020 and 7470;
- Cyanide by Method 4500;
- Major cations and anions (calcium, chloride, fluoride, potassium, sodium, sulfate) by Methods 6020 and 300;
- Nitrates/nitrites (as nitrogen) by Method 300;
- Alkalinity by Method 2320;
- TDS by Method 2540.

Not every sample was analyzed by every method listed above. The specific analytical suite chosen for each sample was based on the October 2010 Workplan.

The laboratory analytical reports are included in electronic format in Appendix C.

5.2 Data Validation

The analytical data was reviewed and validated following the guidelines of the PCC Permit. The data validation and a discussion of any data quality exceptions have been included on CD in Appendix E. Data qualifier flags were added to the data based on the data validation results and are included in the tabulated data presented in Appendix C.

Although some data quality exceptions were noted, the data is generally usable for the purpose intended.

5.3 Discussion of Analytical Data

The PCC Permit requires that this report include the analytical data for the current monitoring event and three prior sampling events. Because some wells are sampled semiannually, some wells are sampled annually and some wells are sampled biennially, the timeframe required to provide data for three prior sampling events varies by well. In order to simplify the data presentation, the monitoring data for 2008 through

2010 is tabulated in Appendix C for all wells sampled and for all compounds analyzed. This provides data for three prior events for the majority of the wells and at least two prior events for those wells sampled annually. The CGWSL is provided at the top of the data table and exceedances of the CGWSL are highlighted in yellow. The data is presented by well numeric order in the tables in Appendix C. The tables have been divided by major analytical group.

Table 4 provides a summary of the analytical data for the wells sampled during 2010, sorted by the area in which the well is located. Table 4 includes the following subset of the compounds analyzed:

- GRO;
- DRO;
- Total metals (arsenic, barium, chromium, iron, lead, manganese, mercury, nickel, selenium and vanadium);
- VOCs (compounds that have had at least one detected value reported above the CGWSL in more than one well);
- Cyanide;
- Major cations and anions (calcium, chloride, fluoride, potassium, sodium and sulfate); and
- Water quality parameters (total alkalinity, TDS and nitrate/nitrite).

Data from 2008 through 2010 are provided in Table 4 in order to provide comparison to at least three prior sampling events for those wells that are sampled semiannually. The CGWSL used to evaluate the results are presented at the top of the table and concentrations of COCs that exceed the screening levels are highlighted.

As required by the Discharge Permit, historic concentrations from 2004 through 2010 of select COCs that have consistently been detected at concentrations above the groundwater screening levels in wells at the site are presented in trend plots provided on a CD in Appendix D. These plots are organized by well within major areas of interest and include trend plots for the following indicator COCs:

- GRO
- DRO
- Benzene
- Ethylbenzene
- Toluene
- Total Xylenes
- Methyl-tert-butyl ether (MTBE)
- Naphthalene
- Arsenic

Figures 9 through 16 depict the extent of the groundwater screening level exceedance zones for the following major COCs for both the first and second semiannual 2010 sampling events:

- DRO
- Arsenic
- Benzene
- Naphthalene

There have been slight changes in the concentrations of COCs over time, but the general shape of the dissolved phase plumes did not change significantly in 2010.

The analytical results for 2010 are discussed in the following subsections by major area of interest.

5.3.1 NCL Area

Groundwater monitoring beneath and near the closed NCL is on-going. As shown in Table 4, concentrations of several COCs exceed the CGWSL in samples collected from wells in and near the NCL area, as discussed in the following subsections.

5.3.1.1 DRO

Samples were collected from 11 wells in and near the NCL during the first semiannual sampling event and analyzed for DRO. These wells included NCL-31, NCL-32, NCL-33, NCL-34, NCL-44, NCL-49, MW-18, MW-54A, MW-54B, MW-108, and RW-17. Samples were collected from MW-108 twice, once early in the event and again after the well had been redeveloped. DRO concentrations in samples collected from NCL-32, NCL-49, MW-18 and RW-17 were below the CGWSL while the DRO concentrations from the other 7 samples were above the CGWSL.

Samples were collected from 9 wells in and near the NCL during the second semiannual sampling event and analyzed for DRO. These wells included NCL-31, NCL-32, NCL-33, NCL-34, NCL-44, NCL-49, MW-18, MW-54A, and MW-108. The DRO concentration in the sample collected from NCL-49 was below the CGWSL while the DRO concentrations in the other 8 samples were above the CGWSL.

Concentrations in individual wells fluctuate slightly between sampling events, but demonstrate an overall stable trend.

5.3.1.2 VOCs

Samples were collected from 11 wells in and near the NCL and analyzed for VOCs during the first semiannual sampling event. These wells included NCL-31, NCL-32, NCL-33, NCL-34, NCL-44, NCL-49, MW-18, MW-54A, MW-54B, MW-108, and RW-17. Samples were collected from MW-108 twice, once early in the event and again after the well had been redeveloped. Benzene and trimethlybenzenes concentrations exceed the CGWSLs in the samples collected from wells NCL-34 and MW-108. The concentrations for benzene and trimethylbenzenes are below the CGWSLs in all of the other wells in and near the NCL area.

Samples were collected from 9 wells in and near the NCL during the second semiannual sampling event and analyzed for VOCs. These wells included NCL-31, NCL-32, NCL-33, NCL-34, NCL-44, NCL-49, MW-18, MW-54A, and MW-108. Benzene and trimethylbenzenes concentrations exceed the CGWSLs in the samples

collected from wells NCL-34 and MW-108. The concentrations for benzene and trimethylbenzenes are below the CGWSLs in all of the other wells in and near the NCL area.

The concentrations of VOCs fluctuate between sampling events but demonstrate an overall stable trend.

5.3.1.3 Total Metals

Samples were collected from 11 wells in and near the NCL and analyzed for RCRA 8 metals during the first semiannual sampling event. These wells included NCL-31, NCL-32, NCL-33, NCL-34, NCL-44, NCL-49, MW-18, MW-54A, MW-54B, MW-108, and RW-17. Samples were collected from MW-108 twice, once early in the event and again after the well had been redeveloped. The reported concentrations of RCRA 8 metals exceeded the CGWSLs as follows:

- NCL-32: arsenic, barium, chromium and lead
- NCL-44: arsenic
- MW-108: lead

Samples were collected from 9 wells in and near the NCL during the second semiannual sampling event and analyzed for the 10 metals listed in the September 2010 Workplan. These wells included NCL-31, NCL-32, NCL-33, NCL-34, NCL-44, NCL-49, MW-18, MW-54A, and MW-108. The reported concentrations of RCRA 8 metals exceeded the CGWSLs as follows:

- NCL-31: manganese
- NCL-33: iron
- NCL-44: arsenic, iron, manganese
- MW-54A: manganese

No exceedances of the CGWSL have been reported during the past three years for mercury, nickel, selenium or vanadium in any of the wells in and near the NCL area.

The barium and chromium concentrations reported in the sample from well NCL-32 collected during the first semiannual monitoring event appeared anomalously high. The concentrations of the other metals in the other wells located in this area appear to have stable to declining trends over the past three years.

5.3.1.4 Water Quality Parameters

Concentrations of chloride, fluoride, sulfate and TDS exceed the respective CGWSL in various wells in and near the NCL. The reported concentrations of these compounds exhibit an overall stable trend.

5.3.2 TEL Area

Groundwater monitoring beneath the closed TEL impoundment is ongoing. Samples were collected from the four TEL wells (TEL-1, TEL-2, TEL-3 and TEL-4) during both semiannual monitoring events. As shown in Table 4, concentrations of several COCs exceed the CGWSL in samples collected from the TEL wells, as discussed in the following subsections.

5.3.2.1 GRO

GRO was reported above detection limits in all four of the TEL wells. The NMED TPH guidance document does not provide a screening value for GRO, but indicates that individual VOCs should be analyzed. The reported concentrations of GRO fluctuate through time, but in general show a declining trend over the past three years.

5.3.2.2 DRO

Reported concentrations for DRO exceed the CGWSL in all four of the TEL wells. Concentrations in individual wells fluctuate between sampling events, but demonstrate an overall stable to slightly declining trend.

5.3.2.3 VOCs

Various VOCs were detected in the four TEL wells at concentrations above the respective CGWSLs, as follows:

- Benzene concentrations reported for samples collected from TEL-2, TEL-3 and TEL-4 exceeded the CGWSL. Benzene was reported as not detectable in the samples collected from TEL-1.

- Trimethylbenzenes were reported at concentrations above the CGWSL in at least one of the samples collected from TEL-2, TEL-3 and TEL-4 exceeded the CGWSL. Trimethylbenzenes were not detected in the samples collected from TEL-1.

- The reported concentration of naphthalene in the sample collected in April 2010 from TEL-2 was above the CGWSL. Naphthalene was not detected in the samples collected from the other three TEL wells and was not detected in the sample collected from TEL-2 in October 2010.

- The reported concentrations of MTBE in the samples collected from TEL-4 were above the CGWSL. MTBE was either not detected or was detected at concentrations below the CGWSL in the samples collected from the three other TEL wells.

5.3.2.4 Total Metals

No exceedances of the CGWSL have been reported during the past three years for iron, lead, mercury, nickel, selenium or vanadium in any of the four TEL wells. No exceedances of the CGWSL were reported for arsenic or barium in 2010. The reported concentrations of chromium and manganese were above the CGWSL in the sample collected during October 2010 from well TEL-4 but were below the CGWSL in the other three wells. The chromium and manganese concentrations reported for the sample from TEL-4 collected in October 2010 were similar to concentrations reported for previous samples from this well.

5.3.2.5 Water Quality Parameters

Concentrations of chloride, fluoride, sulfate and TDS exceed the respective CGWSL in the four TEL wells. The reported concentrations of these compounds exhibit an overall stable trend.

5.3.3 Evaporation Ponds

Groundwater monitoring beneath the inactive former Evaporation Ponds is ongoing. As shown in Table 4, concentrations of several COCs exceed the CGWSL in samples collected from the Evaporation Ponds wells, as discussed in the following subsections.

5.3.3.1 GRO

Samples were collected from 34 wells in and around the Evaporation Ponds and analyzed for GRO during the first semiannual sampling event. These wells included MW-2A, MW-3, MW-4A, MW-5A, MW-6A, MW-7A, MW-10, MW-11A, MW-15, MW-22A, MW-70, MW-72, MW-73, MW-74, MW-75, MW-76, MW-77, MW-78, MW-79, MW-80, MW-81, MW-82, MW-83, MW-84, MW-87, MW-88, OCD-1R, OCD-2A, OCD-3, OCD-4, OCD-5, OCD-6, OCD-7A, and OCD-8A. GRO concentrations were above detection limits in samples collected from 26 of the 34 wells.

Samples were collected from 27 wells in and around the Evaporation Ponds and analyzed for GRO during the second semiannual sampling event. These wells included MW-2A, MW-3, MW-4A, MW-5A, MW-7A, MW-10, MW-22A, MW-70, MW-72, MW-73, MW-74, MW-75, MW-76, MW-77, MW-79, MW-83, MW-84, MW-87, MW-88, OCD-1R, OCD-2A, OCD-3, OCD-4, OCD-5, OCD-6, OCD-7A, and OCD-8A. GRO concentrations were above detection limits in samples collected from 21 of the 27 wells.

The NMED TPH guidance document does not provide a screening value for GRO, but indicates that individual VOCs should be analyzed. The reported concentrations of GRO fluctuate through time, but in general show a stable trend over the past three years.

5.3.3.2 DRO

Samples were collected from 47 wells in and around the Evaporation Ponds and analyzed for DRO during the first semiannual sampling event. These wells in included MW-1R, MW-2A, MW-2B, MW-3, MW-4A, MW-4B, MW-5A, MW-5B, MW-6A, MW-6B, MW-7A, MW-7B, MW-10, MW-11A, MW-11B, MW-15, MW-18A, MW-18B, MW-22A, MW-22B, MW-70, MW-72, MW-73, MW-74, MW-75, MW-76, MW-77, MW-78, MW-79, MW-80, MW-81, MW-82, MW-83, MW-84, MW-87, MW-88, OCD-1R, OCD-2A, OCD-2B, OCD-3, OCD-4, OCD-5, OCD-6, OCD-7A, OCD-7B, OCD-8A and OCD-8B. The reported DRO concentrations were above the CGWSL in 28 of the samples collected from these 47 wells.

Samples were collected from 28 wells in and around the Evaporation Ponds and analyzed for DRO during the second semiannual sampling event. These wells in included MW-2A, MW-3, MW-4A, MW-5A, MW-7A, MW-10, MW-18A, MW-22A, MW-70, MW-72, MW-73, MW-74, MW-75, MW-76, MW-77, MW-79, MW-83, MW-84, MW-87, MW-88, OCD-1R, OCD-2A, OCD-3, OCD-4, OCD-5, OCD-6, OCD-7A and OCD-

8A. The reported DRO concentrations were above the CGWSL in 16 of the samples collected from these 28 wells.

As part of the Evaporation Ponds Phase 3 Additional Corrective Action Investigation, samples were collected from 11 wells completed in the underlying valley fill aquifer during the first semiannual sampling event and analyzed for DRO. These 11 wells included MW-2B, MW-4B, MW-5B, MW-6B, MW-7B, MW-11B, MW-18B, MW-22B, OCD-2B, OCD-7B and OCD-8B. The analytical results from these samples are included in Table 4 and show that DRO was detected above the CGWSL in 3 of the 11 samples collected from wells completed in the valley fill aquifer. These wells are scheduled to be sampled again during the first semiannual sampling event of 2011 to confirm the presence of DRO.

5.3.3.3 VOCs

Samples collected from the 47 wells in and around the Evaporation Ponds during the first semiannual event that were analyzed for DRO were also analyzed for VOCs. Samples collected from the 28 wells in and around the Evaporation Ponds during the second semiannual event that were analyzed for DRO were also analyzed for VOCs.

Benzene is the only VOC reported at concentrations above the CGWSL in samples collected from wells in and near the Evaporation Ponds. Benzene concentrations exceeded the CGWSL in samples collected from MW-77 in April 2010 and from MW-15 and MW-77 in October 2010. Benzene concentrations exceeded the CGWSL in samples collected previously from MW-78, MW-82 and MW-83 but the benzene concentrations reported for the 2010 samples were not detectable. The concentrations of benzene in wells MW-15 and MW-77 demonstrate a marked decrease over time.

No VOCs were detected in any of samples collected during the first semiannual sampling event from the 11 wells completed in the underlying valley fill aquifer.

5.3.3.4 Total Metals

Samples collected from the 47 wells in and around the Evaporation Ponds during the first semiannual event that were analyzed for DRO were also analyzed for total metals. Samples collected from the 28 wells in and around the Evaporation Ponds during the second semiannual event that were analyzed for DRO were also analyzed for total metals.

No exceedances of the CGWSL were present in any of the samples collected from the wells in and near the Evaporation Ponds in 2010 for barium, chromium, lead, mercury, nickel or vanadium. The concentration of selenium reported in the sample collected from MW-74 during October 2010 exceeded the CGWSL; however all other reported concentrations of selenium were below the CGWSL. There were exceedances of the CGWSL for arsenic, iron and manganese as follows:

- For the first semiannual sampling event, arsenic concentrations were above the CGWSL in 30 of the 52 samples collected from wells in and near the Evaporation Ponds which were analyzed for arsenic. For the second semiannual sampling event, arsenic concentrations were above the CGWSL in 26 of the 30 samples collected from wells in and near the Evaporation Ponds which were analyzed for arsenic.

- Iron was not analyzed for any of the samples collected during the first semiannual sampling event. Reported concentrations were above the CGWSL for iron in 24 of the 28 samples collected from wells in and near the Evaporation Ponds in October 2010 which were analyzed for iron.

- Manganese was not analyzed for any of the samples collected during the first semiannual sampling event. Reported concentrations were above the CGWSL for Manganese in all 28 of the samples collected from wells in and near the Evaporation Ponds in October 2010 which were analyzed for Manganese.

5.3.3.5 Water Quality Parameters

Samples collected from the 47 wells in and around the Evaporation Ponds during the first semiannual event that were analyzed for DRO were also analyzed for water quality parameters. Samples were collected from 15 wells in and around the Evaporation Ponds and analyzed for DRO during the second semiannual sampling event. These wells included MW-2A, MW-3, MW-4A, MW-5A, MW-7A, MW-10, MW-18A, MW-72, MW-73, MW-74, MW-75, MW-76, MW-77, MW-79 and MW-83.

Concentrations of chloride, fluoride, sulfate and TDS exceed the respective CGWSL in various wells in and around the Evaporation Ponds. The reported concentrations of these compounds exhibit an overall stable trend.

5.3.4 Three Mile Ditch

Groundwater monitoring along the inactive, backfilled Three Mile Ditch is ongoing. As shown in Table 4, concentrations of several COCs exceed the CGWSL in samples collected from the Three Mile Ditch wells, as discussed in the following subsections.

5.3.4.1 DRO

Samples were collected from 11 wells along Three Mile Ditch and analyzed for DRO during the first semiannual sampling event. These wells included MW-8, MW-16, MW-20, MW-21, MW-25, MW-26, MW-27, MW-68, MW-71 and MW-89. Samples were collected from 3 wells along Three Mile Ditch and analyzed for DRO during the second semiannual sampling event. These wells included MW-8, MW-21 and MW-71.

The only reported DRO concentration above detection limits was in the sample collected from MW-26 in April 2010. The reported concentration in this sample exceeded the CGWSL. Previous samples collected from this well did not contain detectable concentrations of DRO. This well is scheduled to be sampled annually and will be sampled again in March or April 2011 and the result of that sample will be used to confirm whether DRO is present at this location.

5.3.4.2 VOCs

The same samples collected from wells along Three Mile Ditch that were analyzed for DRO were also analyzed for VOCs. In addition, the samples collected from NP-1 during both semiannual sampling events and from NP-6 during the second semiannual sampling event were analyzed for VOCs.

MTBE is the only VOC reported at concentrations above the CGWSL in samples collected from wells along Three Mile Ditch. The reported MTBE concentration exceeded the CGWSL in the sample collected from NP-1 in April 2010, but was below the CGWSL in the sample collected from NP-1 in October 2010. The MTBE concentration in this well has shown a declining trend since 2008. MTBE has not been detected at concentrations exceeding the CGWSL in any of the samples collected from other wells along Three Mile Ditch.

5.3.4.3 Total Metals

The same samples collected from wells along Three Mile Ditch that were analyzed for DRO were also analyzed for total metals. No exceedances of the CGWSL were

present in any of the samples collected from the wells along Three Mile Ditch in 2010 for arsenic, barium, lead, mercury, nickel, selenium or vanadium. The reported concentrations of two metals were above the CGWSL, as follows:

- The concentration of chromium reported in the sample collected from one well during October 2010 exceeded the CGWSL; however all other reported concentrations of chromium in samples collected from wells along Three Mile Ditch were below the CGWSL. The concentration of chromium in samples collected from that well (MW-8) show a declining trend over the past three years.

- The reported concentrations of manganese exceeded the CGWSL in two of the three samples collected from wells along Three Mile Ditch which were analyzed for manganese. The concentration of manganese has shown an increase in both of these two wells (MW-8 and MW-21) over the past three years.

5.3.4.4 Water Quality Parameters

The same samples collected from wells along Three Mile Ditch that were analyzed for DRO were also analyzed for water quality parameters. Concentrations of chloride, fluoride, sulfate and TDS exceed the respective CGWSL in various wells along Three Mile Ditch. The reported concentrations of these compounds exhibit an overall stable trend.

5.3.5 North Refinery Area

Groundwater monitoring in the northern portion of the active Refinery is ongoing. As shown in Table 4, concentrations of several COCs exceed the CGWSL in samples collected from the northern portion of the Refinery, as discussed in the following subsections.

5.3.5.1 GRO

Samples were collected from 23 wells in the north Refinery area and analyzed for GRO during the first semiannual sampling event. These wells included MW-23, MW-29, MW-30, MW-40, MW-41, MW-42, MW-43, MW-55, MW-59, MW-60, MW-61, MW-62, MW-67, MW-90, MW-91, MW-92, MW-93, MW-95, MW-96, MW-98, RW-7, RW-9 and RW-10. GRO concentrations were reported above the detection limits in 20 of the 23 samples.

Samples were collected from 15 wells in the north Refinery area and analyze for GRO during the second semiannual sampling event. These wells included MW-23, MW-29, MW-41, MW-42, MW-43, MW-55, MW-60, MW-61, MW-62, MW-67, MW-90, MW-91, MW-93, MW-96 and MW-98. GRO concentrations were reported above the detection limits in 15 samples.

The NMED TPH guidance document does not provide a screening value for GRO, but indicates that individual VOCs should be analyzed. The reported concentrations of GRO fluctuate through time, but in general show a stable to declining trend over the past three years. The GRO concentrations in samples collected from MW-23 showed a distinct increase between the first and second semiannual sampling events. As noted below, there was not a corresponding increase in VOC concentrations.

5.3.5.2 DRO

Samples were collected from 26 wells in the north Refinery area and analyzed for DRO during the first semiannual sampling event. These wells included MW-23, MW-29, MW-30, MW-40, MW-41, MW-42, MW-43, MW-45, MW-55, MW-56, MW-59, MW-60, MW-61, MW-62, MW-67, MW-90, MW-91, MW-92, MW-93, MW-95, MW-96, MW-98, RW-7, RW-9, RW-10 and RW-16. DRO concentrations were reported above the CGWSL in 23 of the 26 samples.

Samples were collected from 20 wells in the north Refinery area and analyze for DRO during the second semiannual sampling event. These wells included MW-23, MW-29, MW-41, MW-42, MW-43, MW-45, MW-46, MW-55, MW-56, MW-60, MW-61, MW-62, MW-67, MW-90, MW-91, MW-93, MW-96, MW-98, RW-1 and RW-2. DRO concentrations were reported above the CGWSL in 19 of the 20 samples.

The DRO concentrations in the north Refinery area show a generally decreasing trend over the past three years.

5.3.5.3 VOCs

The same samples collected from wells in the north Refinery area that were analyzed for DRO were also analyzed for VOCs during both of the semiannual sampling events. Various VOCs are present above the CGWSLs, as follows:

- Trimethylbenzenes are present above the CGWSLs in samples collected from MW-23, MW-42, MW-42, MW-61, MW-62, MW-91, MW-93, MW-98, RW-1 and RW-2.

- Benzene is present above the CGWSL in samples collected from MW-23, MW-40, MW-41, MW-42, MW-43, MW-59, MW-60, MW-61, MW-62, MW-90, MW-91, MW-92, MW-95, MW-98, RW-1, RW-2 and RW-9.

- Ethlybenzene is present above the CGWSL in samples collected from MW-23, MW-91, MW-98 and RW-2.

- Toluene is present above the CGWSL in samples collected from MW-91.

- Total xylene is present above the CGWSL in samples collected from MW-91, MW-93, MW-98 and RW-2.

- MTBE is present above the CGWSL in samples collected from MW-67, MW-92 and MW-96.

- Naphthalene is present above the CGWSL in samples collected from MW-23, MW-43, MW-61, MW-91, MW-93, MW-98, RW01 and RW-2.

- VOC compounds typically associated with solvents, including cis-1,2-dichloroethene, tetrachloroethene and trichloroethene, were present above the CGWSL in samples collected from MW-67, RW-1 and RW-2.

The reported concentrations of VOCs have fluctuated over time, but in general do not show an increasing trend over the past three years.

5.3.5.4 Metals

The same samples collected from wells in the north Refinery area that were analyzed for DRO were also analyzed for total metals during both of the semiannual sampling events. No reported concentrations exceeded of the CGWSL for mercury, nickel or selenium in any of the samples collected from the north Refinery area. The following total metals are present above the CGWSLs, as follows:

- Arsenic concentrations exceeded the CGWSL in samples collected from MW-23, MW-30, MW-41, MW-42, MW-59, MW-60 and RW-16A. Due to matrix interferences, the detection limit exceeded the arsenic CGWSL in several samples.

- Barium concentrations exceeded the CGWSL in samples collected from MW-23, MW-43, MW-92 and RW-2.

- The chromium concentration exceeded the CGWSL in the sample collected from MW-46.

- Manganese concentrations exceeded the CGWSL in the samples collected from MW-29, MW-41, MW-42, MW-45, MW-46, MW-56 and MW-60.

- The vanadium concentration exceeded the CGWSL in the sample collected from MW-46.

- Iron concentrations did not exceed the CGWSL in any of the samples collected in 2010, but the detection limits in several of the samples exceeded the CGWSL due to matrix interferences.

- Lead concentrations did not exceed the CGWSL in any of the samples collected in 2010, but the detection limits in many of the samples exceeded the CGWSL due to matrix interferences.

5.3.5.5 Water Quality Parameters

Concentrations of chloride, fluoride, sulfate and TDS exceed the respective CGWSL in various wells in the north Refinery area. The reported concentrations of these compounds exhibit an overall stable or declining trend.

5.3.6 South Refinery Area

Groundwater monitoring in the southern portion of the active Refinery is ongoing. As shown in Table 4, concentrations of several COCs exceed the CGWSL in samples collected from the southern portion of the Refinery, as discussed in the following subsections.

5.3.6.1 GRO

Samples were collected from 10 wells in the south Refinery area and analyzed for GRO during the first semiannual sampling event. These wells included MW-28, MW-49, MW-52, MW-66, MW-99, MW-101, MW-103, MW-104, MW-106 and MW-107. GRO concentrations were reported above the detection limits in 9 of the 10 samples.

Samples were collected from 10 wells in the south Refinery area and analyze for GRO during the second semiannual sampling event. These wells included MW-28, MW-49,

MW-52, MW-57, MW-66, MW-99, MW-101, MW-104, MW-106 and MW-107. GRO concentrations were reported above the detection limits in 8 of the 10 samples.

The NMED TPH guidance document does not provide a screening value for GRO, but indicates that individual VOCs should be analyzed. The reported concentrations of GRO fluctuate through time, but in general show a stable to declining trend over the past three years. Although the GRO concentration in the sample collected from MW-66 showed an increase between the first and second semiannual sampling events, the overall trend in GRO concentrations in wells in this area is declining.

5.3.6.2 DRO

Samples were collected from 13 wells in the south Refinery area and analyzed for DRO during the first semiannual sampling event. These wells included MW-28, MW-49, MW-50, MW-52, MW-58, MW-66, MW-99, MW-101, MW-103, MW-104, MW-106, MW-107 and RW-4. DRO concentrations were reported above the CGWSL in 10 of the 13 samples.

Samples were collected from 13 wells in the south Refinery area and analyzed for DRO during the second semiannual sampling event. These wells included KWB-2R, MW-28, MW-49, MW-50, MW-52, MW-57, MW-58, MW-66, MW-99, MW-101, MW-104, MW-106 and MW-107. DRO concentrations were reported above the CGWSL in 10 of the 13 samples.

The DRO concentrations in the south Refinery area show a generally stable trend over the past three years.

5.3.6.3 VOCs

The same samples collected from wells in the south Refinery area that were analyzed for DRO were also analyzed for VOCs during both of the semiannual sampling events. In addition, samples were collected from two irrigation wells located near the southeastern portion of the Refinery and analyzed for VOCs. Irrigation well RA-313 was sampled during the first semiannual sampling event and irrigation well RA-1227 was sampled during the second semiannual sampling event. Various VOCs are present above the CGWSLs, as follows:

- Trimethylbenzenes are present above the CGWSLs in samples collected from KWB-2R, MW-28, MW-49, MW-58, MW-66, MW-99, MW-103, MW-106 and MW-107.

- Benzene is present above the CGWSL in samples collected from KWB-2R, MW-28, MW-49, MW-58, MW-66, MW-99, MW-101, MW-103, MW-104, MW-106, MW-107 and RW-4.

- Ethlybenzene is present above the CGWSL in samples collected from KWB-2R, MW-106 and MW-107.

- Toluene is present above the CGWSL in the sample collected from MW-99.

- Total xylene is present above the CGWSL in samples collected from KWB-2R and MW-99.

- MTBE is present above the CGWSL in samples collected from MW-28, MW-49, MW-58, MW-66, MW-99, MW-107 and RW-4.

- Naphthalene is present above the CGWSL in samples collected from KWB-2R, MW-66, MW-103, MW-106 and MW-107

The reported concentrations of VOCs have fluctuated over time, but in general do not show an increasing trend over the past three years with the exception of benzene in MW-58.

5.3.6.4 Metals

The same samples collected from wells in the south Refinery area that were analyzed for DRO were also analyzed for total metals during both of the semiannual sampling events. No reported concentrations exceeded of the CGWSL for chromium, mercury, nickel or vanadium in any of the samples collected from the south Refinery area. The following total metals are present above the CGWSLs, as follows:

- Arsenic concentrations exceeded the CGWSL in samples collected from MW-58, MW-99, MW-101 and RW-4. Due to matrix interferences, the detection limit exceeded the arsenic CGWSL in several samples.

- Barium concentrations exceeded the CGWSL in samples collected from MW-58, MW-66 and MW-107.

- Iron concentrations exceeded the CGWSL in samples collected from MW-58, MW-66, MW-101 and MW-107. Due to matrix interferences, the detection limit exceeded the iron CGWSL in three samples.

- The lead concentration exceeded the CGWSL in one sample collected from MW-28. Due to matrix interferences, the detection limit exceeded the lead CGWSL in several samples.

- Manganese concentrations exceeded the CGWSL in samples collected from MW-28, MW-49, MW-50, MW-57, MW-58, MW-66 and MW-101.

- The selenium concentration exceeded the CGWSL in the sample collected from MW-57.

5.3.6.5 Water Quality Parameters

Concentrations of chloride, fluoride, sulfate and TDS exceed the respective CGWSL in various wells in the south Refinery area. The reported concentrations of these compounds exhibit an overall stable or declining trend.

5.3.7 Field East of Refinery

Groundwater monitoring in the field east of the Refinery, between the Refinery and the Evaporation Ponds, is ongoing. As shown in Table 4, concentrations of several COCs exceed the CGWSL in samples collected from the field east of the Refinery, as discussed in the following subsections.

5.3.7.1 GRO

None of the samples collected from this area during the first semiannual sampling event were analyzed for GRO.

Samples were collected from 4 wells in the field east of the Refinery and analyzed for GRO during the second semiannual sampling event. These wells included KWB-11A, KWB-11B, KWB-12A and KWB-12B. GRO was not detected in any of these 4 samples.

5.3.7.2 DRO

Samples were collected from 5 wells in the field east of the Refinery and analyzed for DRO during the first semiannual sampling event. These wells included KWB-1A, KWB-3AR, KWB-7, KWB-9 and KWB-11A. DRO was not detected in any of the 5 samples.

Samples were collected from 9 wells in the field east of the Refinery and analyzed for DRO during the second semiannual sampling event. These wells included KWB-1A, KWB-3AR, KWB-7, KWB-9, KWB-11A, KWB-11B, KWB-12A, KWB-12B and RW-11. DRO was not detected in 8 of the 9 samples. DRO was reported at a concentration above the CGWSL in the sample collected from recovery well RW-11.

5.3.7.3 VOCs

The same samples collected from wells in the field east of the Refinery that were analyzed for DRO were also analyzed for VOCs during both of the semiannual sampling events. In addition, samples were collected from one recovery well (RW-18) during the first semiannual event and from two irrigation wells (RA-4196 and RA-4798) located in the field east of the Refinery during both sampling events and were analyzed for VOCs.

The only VOC concentration reported above the CGWSL was benzene in the sample collected from recovery well RW-11 during the second semiannual event. All other VOCs were either not detected or the concentrations were below the CGWSLs.

5.3.7.4 Metals

The same samples collected from wells in the field east of the Refinery that were analyzed for DRO were also analyzed for total metals during both of the semiannual sampling events. Additionally, the sample collected from RW-18 during the first semiannual event was analyzed for total metals. No reported concentrations exceeded of the CGWSL for arsenic, barium, chromium, lead, mercury, nickel, selenium or vanadium in any of the samples collected from wells in the field east of the Refinery. The following total metals are present above the CGWSLs, as follows:

- The iron concentration exceeded the CGWSL in the sample collected from RW-11.
- Manganese concentrations exceeded the CGWSL in samples collected from KWB-1A, KWB-7 and RW-11.

5.3.7.5 Water Quality Parameters

Concentrations of chloride, fluoride, sulfate and TDS exceed the respective CGWSL in various wells in the field east of the Refinery. The reported concentrations of these compounds exhibit an overall stable or declining trend.

5.3.8 Crossgradient and Upgradient Areas

Groundwater monitoring is ongoing in areas both crossgradient to and upgradient from the Refinery. The crossgradient wells include KWB-13 located south of the Refinery, NP-5 located across Eagle Draw to the north of the Refinery and RA-3156 located southeast of the Refinery. Upgradient wells include MW-53, UG-1, UG-2 and UG-3R.

Table 4 shows the analytical results for samples collected from these wells. With the exception of water quality parameters, none of the COCs were reported above CGWSLs in samples collected from crossgradient and upgradient wells during 2010. Sulfate and TDS are present above CGWSLs in most of the samples collected from crossgradient and upgradient wells in 2010. Fluoride is present above the CGWSL in samples collected from NP-5.

5.4 Reverse Osmosis Reject Water

Navajo sends the reject water from the reverse osmosis (RO) system to a nearby agricultural field to be used as irrigation water.

Samples of the RO reject water are collected and analyzed quarterly. The analytical results for the RO reject water are summarized in Table 5. The full laboratory analytical reports for the RO reject water are provided in Appendix C.

Chloride, fluoride, nitrate/nitrite and sulfate were reported at concentrations above the CGWSLs.

6. Remediation System Monitoring

The PCC Permit, the Discharge Permit and the Workplan include requirements that PSH present in the shallow groundwater within and adjacent to the Refinery be recovered, where present. A system of recovery trenches and recovery wells has been installed in the refinery and is used to recover PSH.

The recovery system is operated by a dedicated technician, who monitors the trenches and recovery wells approximately every week to document if PSH is present. Typically, when PSH is encountered, the technician activates pumps in the trench system to remove the PSH. A summary of the recovered water and PSH from the recovery trench is presented in Table 6 and the operation records are contained in Appendix F.

Pumps in RW-1, RW-2, RW-4, RW-5, RW-6, RW-7, RW-8, RW-11, RW-12, RW-13, RW-14, RW-15, and KWB-8 are operated manually when PSH is detected. Dedicated pumps are not present in RW-3, RW-9, RW-10, RW-16, RW-17 and RW-18. When PSH is present in these locations, it is removed via a portable electric pump or via a hand bailer. No PSH has ever been measured in RW-16, RW-17 or RW-18.

In addition to the recovery wells, a number of monitor wells that have historically exhibited PSH are gauged by a dedicated technician approximately monthly. PSH is periodically bailed out of these wells. Table 6 provides a summary of the approximate volume of PSH that was bailed out of each well and the bailing logs are included in Appendix F.

PSH was removed from KWB-4, KWB-6, MW-85, MW-86, MW-94, MW-102, and the "Chase well" during 2010. The Chase well is adjacent to a dewatering sump located at Chase's pecan farm to the east of Bolton Road.

Total fluids removed from the recovery trenches and any wells containing PSH are transported to the refinery wastewater treatment system, upstream of the oil/water separator. The fluid recovered from RW-13 and RW-14 is sent directly to the oil/water separator. PSH removed from RW-4, RW-5 and RW-6 is placed into dedicated tanks located adjacent to each of these recovery trenches, then transported via truck to the refinery's crude oil tanks.

The volume of total fluids recovered from the trenches and wells containing dedicated pumps is estimated based on the pump run time and an estimated flowrate. The

volume of PSH contained in the total fluids is also estimated based on an assumed percentage of water and product for each gallon recovered in each area.

During 2010, approximately 149,738 gallons of groundwater and approximately 6,673 gallons of PSH were recovered through operation of the recovery system and bailing specific wells. The majority of the PSH recovered came from MW-94 in the fourth quarter of 2010. A dedicated pump was placed in MW-94 and operated twenty-four hours a day during the fourth quarter in order to remove PSH associated with an underground pipe leak in the area.

Volumes of recovered water and PSH for 2010 were substantially lower than previous years. This reduction in recovery is attributed to critical issues with the Refinery's wastewater treatment system. The issues with the wastewater system caused a strict reduction in the volume of water treated at the onsite wastewater treatment plant (WWTP); therefore, pumping of PSH and water from the recovery system was reduced until the plant could accept the additional volume. The volume restrictions lasted through the first quarter of 2011.

An investigation of the recovery system was conducted and it was determined that most of the pumps in the current recovery system require replacement. Furthermore, the volume of water being pumped by the recovery system needs to be reduced to limit the volume of water sent to the wastewater system. As a result, a complete upgrade to the recovery system was determined to be appropriate. During 2010, a preliminary design was developed to include new pumps, separate water and PSH piping from each trench, and routing of PSH to a product recovery tank instead of through the API separator. The conceptual design was submitted to NMED and OCD in February 2011. Final design and construction of the upgraded system is expected to be completed in 2011.

Until the upgraded recovery system is operational, a dedicated technician will bail and or pump water and PSH from the recovery wells and record the volumes recovered in bailing logs.

7. Conclusions

The following conclusions are based upon the information obtained in 2010 and comparison to data from prior years:

- Groundwater flow direction and gradient remains consistent with that measured in past years.
- The extent of PSH plumes was consistent with the extent of PSH reported in 2009. PSH thickness increased significantly between the first and second semiannual sampling events in MW-94, caused by a leak in an underground pipe.
- Concentrations of organic constituents have generally remained stable or have declined.
- The operation of the recovery trench system was curtailed due to limitations of the Refinery wastewater treatment system early in 2010, which led to degradation of the pumps in the recovery system.

Navajo is currently designing and implementing a significant upgrade of the recovery trench system, including installation of separate product and produced groundwater piping, standardized pumps and improved gauges. A copy of the conceptual design for the upgraded system was submitted to NMED and OCD in January 2011. The upgrades to the recovery system are anticipated to be completed within calendar year 2011. Until the system upgrades have been completed, the existing recovery system will continue to be monitored and operated manually.

As per the requirements of the updated PCC Permit, an updated FWGMWP will be submitted in June 2011.

Tables

Table 1 - Well Information and Gauging Data

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Navajo Refinery, Artesia, New Mexico

Aquifer	Well ID	Northing	Easting	TOC Elevation (ft amsl)	Screen Interval (ft bgs)	Date Measured	Depth to PSH (ft btoc)	Depth to Water (ft btoc)	Water Elevation (ft amsl)	PSH Thickness (ft)
Shallow	KWB-1A	672969.12	526181.36	3353.46	18 to 32	3/26/2010	NP	13.25	3340.21	--
Shallow	KWB-1A	672969.12	526181.36	3353.46	18 to 32	9/22/2010	NP	14.42	3339.04	--
Shallow	KWB-1B	672968.90	526191.02	3352.83	18 to 32	3/26/2010	NP	14.54	3338.29	--
Shallow	KWB-1B	672968.90	526191.02	3352.83	18 to 32	9/22/2010	NP	15.56	3337.27	--
Valley Fill	KWB-1C	672968.22	526202.95	3351.38	30.5 to 49.5	3/26/2010	NP	15.15	3336.23	--
Valley Fill	KWB-1C	672968.22	526202.95	3351.38	30.5 to 49.5	9/22/2010	NP	16.18	3335.20	--
Shallow	KWB-2R	670207.24	524897.59	3364.32	unknown	3/26/2010	NP	22.94	3341.38	--
Shallow	KWB-2R	670207.24	524897.59	3364.32	unknown	9/22/2010	NP	18.80	3345.52	--
Shallow	KWB-3AR	669972.87	528901.80	3347.08	unknown	3/25/2010	NP	24.95	3322.13	--
Shallow	KWB-3AR	669972.87	528901.80	3347.08	unknown	10/5/2010	NP	16.77	3330.31	--
Shallow	KWB-4	670616.38	524572.44	3370.25	20 to 39	4/1/2010	23.95	25.78	3345.93	1.83
Shallow	KWB-4	670616.38	524572.44	3370.25	20 to 39	9/22/2010	22.38	23.95	3347.56	1.57
Shallow	KWB-5	670729.55	525244.51	3364.72	24.7 to 38.7	3/26/2010	23.75	24.15	3340.89	0.40
Shallow	KWB-5	670729.55	525244.51	3364.72	24.7 to 38.7	9/22/2010	21.17	21.62	3343.46	0.45
Shallow	KWB-6	670449.36	526158.70	3360.30	17.5 to 36.5	3/26/2010	22.37	24.95	3337.41	2.58
Shallow	KWB-6	670449.36	526158.70	3360.30	17.5 to 36.5	9/22/2010	18.41	18.44	3341.88	0.03
Shallow	KWB-7	671266.72	529055.47	3346.16	18 to 32	3/24/2010	NP	23.41	3322.75	--
Shallow	KWB-7	671266.72	529055.47	3346.16	18 to 32	10/5/2010	NP	17.82	3328.34	--
Shallow	KWB-8	671000.57	527874.87	3350.41	unknown	*Pump in well - not measured*				
Shallow	KWB-8	671000.57	527874.87	3350.41	unknown	11/3/2010	18.22	18.57	3332.12	0.35
Shallow	KWB-9	669628.19	527592.61	3354.53	20 to 34	3/24/2010	NP	28.54	3325.99	--
Shallow	KWB-9	669628.19	527592.61	3354.53	20 to 34	9/22/2010	NP	19.25	3335.28	--
Shallow	KWB-10	671756.34	526206.06	3350.97	unknown	3/26/2010	NP	17.68	3333.29	--
Shallow	KWB-10R	671756.34	526206.06	3350.97	unknown	9/22/2010	NP	16.40	3334.57	--
Shallow	KWB-11A	670643.67	529043.46	3348.72	30 to 39.5	3/24/2010	NP	24.87	3323.85	--
Shallow	KWB-11A	670643.67	529043.46	3348.72	30 to 39.5	10/5/2010	NP	18.06	3330.66	--
Valley Fill	KWB-11B	670653.84	529044.06	3348.03	50 to 69.5	3/24/2010	NP	25.80	3322.23	--
Valley Fill	KWB-11B	670653.84	529044.06	3348.03	50 to 69.5	10/5/2010	NP	18.78	3329.25	--
Shallow	KWB-12A	669074.44	527590.88	3351.81	15.5 to 24.5	9/22/2010	NP	Dry	#VALUE!	--
Shallow	KWB-12A	669074.44	527590.88	3351.81	15.5 to 24.5	9/22/2010	NP	17.09	3334.72	--
Valley Fill	KWB-12B	669064.18	527590.12	3351.63	25.5 to 39.5	3/24/2010	NP	26.57	3325.06	--
Valley Fill	KWB-12B	669064.18	527590.12	3351.63	25.5 to 39.5	9/22/2010	NP	16.93	3334.70	--
Shallow	KWB-13	669077.00	524892.42	3365.67	unknown	3/25/2010	NP	26.73	3338.94	--
Shallow	KWB-13	669077.00	524892.42	3365.67	unknown	9/21/2010	NP	20.87	3344.80	--

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Shallow	KWB-P2	671184.46	530219.31	3338.97	unknown	3/25/2010	NP	28.80	3310.17	--
Shallow	KWB-P2	671184.46	530219.31	3338.97	unknown	10/5/2010	NP	28.98	3309.99	--
Shallow	KWB-P3	669704.98	538134.01	3308.50	unknown	10/6/2010	NP	9.13	3299.37	--
Shallow	KWB-P4	670970.10	537416.92	3305.39	unknown	10/6/2010	NP	5.50	3299.89	--
Shallow	MW-1R	675135.17	538636.78	3313.28	unknown	3/24/2010	NP	10.17	3303.11	--
Shallow	MW-1R	675135.17	538636.78	3313.28	unknown	10/6/2010	NP	9.13	3304.15	--
Shallow	MW-2A	675979.09	540803.91	3312.97	unknown	3/25/2010	NP	9.92	3303.05	--
Shallow	MW-2A	675979.09	540803.91	3312.97	unknown	10/6/2010	NP	9.05	3303.92	--
Valley Fill	MW-2B	675969.73	540801.44	3312.49	unknown	3/25/2010	NP	10.15	3302.34	--
Valley Fill	MW-2B	675969.73	540801.44	3312.49	unknown	10/6/2010	NP	10.02	3302.47	--
Shallow	MW-3	674443.34	540503.24	3310.32	unknown	3/25/2010	NP	8.58	3301.74	--
Shallow	MW-3	674443.34	540503.24	3310.32	unknown	10/6/2010	NP	8.54	3301.78	--
Shallow	MW-4A	674083.00	540529.44	3312.71	unknown	3/24/2010	NP	11.12	3301.59	--
Shallow	MW-4A	674083.00	540529.44	3312.71	unknown	10/5/2010	NP	11.08	3301.63	--
Valley Fill	MW-4B	674089.71	540541.34	3312.01	unknown	3/24/2010	NP	10.36	3301.65	--
Valley Fill	MW-4B	674089.71	540541.34	3312.01	unknown	10/5/2010	NP	10.32	3301.69	--
Shallow	MW-5A	674272.84	541759.78	3308.62	unknown	3/24/2010	NP	7.75	3300.87	--
Shallow	MW-5A	674272.84	541759.78	3308.62	unknown	10/5/2010	NP	8.40	3300.22	--
Valley Fill	MW-5B	674272.33	541739.12	3308.95	41.5 to 50.5	3/24/2010	NP	7.88	3301.07	--
Valley Fill	MW-5B	674272.33	541739.12	3308.95	41.5 to 50.5	10/5/2010	NP	7.93	3301.02	--
Valley Fill	MW-5C	674279.57	541728.80	3309.28	59.25 to 68.75	3/24/2010	NP	8.04	3301.24	--
Valley Fill	MW-5C	674279.57	541728.80	3309.28	59.25 to 68.75	10/5/2010	NP	8.08	3301.20	--
Shallow	MW-6A	674427.07	539833.47	3313.46	unknown	3/25/2010	NP	11.76	3301.70	--
Shallow	MW-6A	674427.07	539833.47	3313.46	unknown	10/6/2010	NP	11.69	3301.77	--
Valley Fill	MW-6B	674418.57	539834.04	3313.35	unknown	3/25/2010	NP	11.61	3301.74	--
Valley Fill	MW-6B	674418.57	539834.04	3313.35	unknown	10/6/2010	NP	11.43	3301.92	--
Shallow	MW-7A	674447.64	542716.01	3309.24	unknown	3/24/2010	NP	6.97	3302.27	--
Shallow	MW-7A	674447.64	542716.01	3309.24	unknown	10/5/2010	NP	7.05	3302.19	--
Valley Fill	MW-7B	674455.63	542715.61	3307.87	unknown	3/24/2010	NP	8.27	3299.60	--
Valley Fill	MW-7B	674455.63	542715.61	3307.87	unknown	10/5/2010	NP	8.33	3299.54	--
Shallow	MW-8	673215.93	529055.18	3336.42	unknown	3/25/2010	NP	10.03	3326.39	--
Shallow	MW-8	673215.93	529055.18	3336.42	unknown	10/5/2010	NP	10.41	3326.01	--
Shallow	MW-9	673169.56	529232.03	3336.20	unknown	3/25/2010	NP	10.71	3325.49	--
Shallow	MW-9	673169.56	529232.03	3336.20	unknown	10/5/2010	NP	11.12	3325.08	--

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Shallow	MW-10	672121.15	541540.05	3304.76	unknown	3/25/2010	NP	4.60	3300.16	--
Shallow	MW-10	672121.15	541540.05	3304.76	unknown	10/5/2010	NP	5.43	3299.33	--
Shallow	MW-11A	677317.73	543675.36	3310.76	unknown	3/25/2010	NP	8.83	3301.93	--
Shallow	MW-11A	677317.73	543675.36	3310.76	unknown	10/6/2010	NP	8.35	3302.41	--
Valley Fill	MW-11B	677305.72	543685.50	3310.76	unknown	3/25/2010	NP	8.78	3301.98	--
Valley Fill	MW-11B	677305.72	543685.50	3310.76	unknown	10/6/2010	NP	8.26	3302.50	--
Shallow	MW-12	676952.63	541505.50	3312.73	unknown	3/25/2010	NP	8.57	3304.16	--
Shallow	MW-12	676952.63	541505.50	3312.73	unknown	10/20/2010	NP	9.96	3302.77	--
Shallow	MW-13	674951.80	539762.62	3314.24	unknown	3/25/2010	NP	11.66	3302.58	--
Shallow	MW-13	674951.80	539762.62	3314.24	unknown	10/20/2010	NP	11.95	3302.29	--
Shallow	MW-14	676122.48	543280.49	3311.84	unknown	3/25/2010	NP	10.76	3301.08	--
Shallow	MW-14	676122.48	543280.49	3311.84	unknown	10/15/2010	NP	8.07	3303.77	--
Shallow	MW-15	674731.39	539003.75	3313.72	unknown	3/26/2010	NP	11.16	3302.56	--
Shallow	MW-15	674731.39	539003.75	3313.72	unknown	10/6/2010	NP	10.52	3303.20	--
Shallow	MW-16	675613.35	534389.17	3316.12	unknown	3/26/2010	NP	7.58	3308.54	--
Shallow	MW-16	675613.35	534389.17	3316.12	unknown	10/6/2010	NP	7.33	3308.79	--
Shallow	MW-17	678064.09	535480.70	3322.01	unknown	10/6/2010	NP	18.98	3303.03	--
Shallow	MW-18	674172.45	522318.86	3365.42	15 to 19	3/24/2010	NP	10.58	3354.84	--
Shallow	MW-18	674172.45	522318.86	3365.42	15 to 19	9/21/2010	NP	11.47	3353.95	--
Shallow	MW-18A	672548.16	543447.78	3308.58	unknown	3/26/2010	NP	9.48	3299.10	--
Shallow	MW-18A	672548.16	543447.78	3308.58	unknown	10/5/2010	NP	8.74	3299.84	--
Valley Fill	MW-18B	672557.96	543458.22	3308.74	unknown	3/26/2010	NP	9.43	3299.31	--
Valley Fill	MW-18B	672557.96	543458.22	3308.74	unknown	10/5/2010	NP	8.55	3300.19	--
Valley Fill	MW-18T	672559.79	543449.75	3308.55	unknown	3/26/2010	NP	9.78	3298.77	--
Valley Fill	MW-18T	672559.79	543449.75	3308.55	unknown	10/5/2010	NP	8.42	3300.13	--
Shallow	MW-19	673597.29	521670.75	3368.00	unknown	3/24/2010	NP	11.91	3356.09	--
Shallow	MW-19	673597.29	521670.75	3368.00	unknown	9/21/2010	NP	12.00	3356.00	--
Shallow	MW-20	673800.56	527834.67	3340.91	9.5 to 23.5	3/26/2010	NP	9.17	3331.74	--
Shallow	MW-20	673800.56	527834.67	3340.91	9.5 to 23.5	10/5/2010	NP	11.71	3329.20	--
Shallow	MW-21	673180.38	529150.62	3337.31	7.5 to 22	3/26/2010	NP	11.47	3325.84	--
Shallow	MW-21	673180.38	529150.62	3337.31	7.5 to 22	10/5/2010	NP	11.87	3325.44	--
Shallow	MW-22A	672866.82	541801.63	3307.62	unknown	3/25/2010	NP	7.09	3300.53	--
Shallow	MW-22A	672866.82	541801.63	3307.62	unknown	10/5/2010	NP	7.68	3299.94	--

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Aquifer	Well ID	Northing	Easting	TOC Elevation (ft amsl)	Screen Interval (ft bgs)	Date Measured	Depth to PSH (ft btoc)	Depth to Water (ft btoc)	Water Elevation (ft amsl)	PSH Thickness (ft)
Valley Fill	MW-22B	672866.58	541786.97	3307.63	unknown	3/25/2010	NP	6.88	3300.75	--
Valley Fill	MW-22B	672866.58	541786.97	3307.63	unknown	10/5/2010	NP	7.43	3300.20	--
Shallow	MW-23	672851.25	522821.05	3368.38	15 to 20	3/25/2010	NP	12.82	3355.56	--
Shallow	MW-23	672851.25	522821.05	3368.38	15 to 20	9/21/2010	NP	13.72	3354.66	--
Shallow	MW-24	676498.23	544101.56	3312.85	15 to 20	3/25/2010	NP	11.39	3301.46	--
Shallow	MW-24	676498.23	544101.56	3312.85	15 to 20	10/5/2010	NP	9.34	3303.51	--
Shallow	MW-25	675386.30	537955.86	3312.29	15.75 to 25.25	3/24/2010	NP	12.29	3300.00	--
Shallow	MW-25	675386.30	537955.86	3312.29	15.75 to 25.25	10/6/2010	NP	13.51	3298.78	--
Shallow	MW-26	676229.18	535348.61	3314.87	15.75 to 25.25	3/25/2010	NP	8.82	3306.05	--
Shallow	MW-26	676229.18	535348.61	3314.87	15.75 to 25.25	10/6/2010	NP	5.97	3308.90	--
Shallow	MW-27	674495.64	532942.65	3320.85	18.25 to 27.75	3/25/2010	NP	16.56	3304.29	--
Shallow	MW-27	674495.64	532942.65	3320.85	18.25 to 27.75	10/6/2010	NP	14.35	3306.50	--
Shallow	MW-28	671508.38	524521.56	3370.27	25 to 30	3/25/2010	NP	23.35	3346.92	--
Shallow	MW-28	671508.38	524521.56	3370.27	25 to 30	9/22/2010	NP	21.99	3348.28	--
Shallow	MW-29	673481.15	523544.65	3360.64	9.75 to 19.25	3/24/2010	NP	10.98	3349.66	--
Shallow	MW-29	673481.15	523544.65	3360.64	9.75 to 19.25	9/21/2010	NP	12.67	3347.97	--
Shallow	MW-30	674125.92	523548.75	3354.33	unknown	3/24/2010	NP	7.53	3346.80	--
Shallow	MW-30	674125.92	523548.75	3354.33	unknown	9/21/2010	NP	7.81	3346.52	--
Shallow	MW-39	673039.50	523422.93	3358.79	14 to 24	3/25/2010	8.34	8.35	3350.45	0.01
Shallow	MW-39	673039.50	523422.93	3358.79	14 to 24	9/21/2010	10.24	10.26	3348.55	0.02
Shallow	MW-40	673161.12	523489.02	3356.93	unknown	3/24/2010	NP	8.59	3348.34	--
Shallow	MW-40	673161.12	523489.02	3356.93	unknown	9/21/2010	NP	8.62	3348.31	--
Shallow	MW-41	673379.87	523374.64	3356.58	14 to 19	3/24/2010	NP	7.54	3349.04	--
Shallow	MW-41	673379.87	523374.64	3356.58	14 to 19	9/21/2010	NP	9.15	3347.43	--
Shallow	MW-42	673480.27	523263.53	3358.59	unknown	3/24/2010	NP	8.55	3350.04	--
Shallow	MW-42	673480.27	523263.53	3358.59	unknown	9/21/2010	NP	9.99	3348.60	--
Shallow	MW-43	673115.86	522950.40	3365.49	15.5 to 20.5	3/26/2010	NP	10.31	3355.18	--
Shallow	MW-43	673115.86	522950.40	3365.49	15.5 to 20.5	9/21/2010	NP	11.38	3354.11	--
Shallow	MW-45	674247.07	523663.75	3351.51	10.5 to 15.5	3/24/2010	NP	5.28	3346.23	--
Shallow	MW-45	674247.07	523663.75	3351.51	10.5 to 15.5	9/22/2010	NP	5.45	3346.06	--
Shallow	MW-46	674223.03	524920.28	3350.11	unknown	3/24/2010	NP	8.51	3341.60	--
Shallow	MW-46R	674223.03	524920.28	3350.11	unknown	9/22/2010	NP	9.63	3340.48	--
Shallow	MW-48	670689.39	524080.35	3362.97	unknown	3/26/2010	18.99	19.12	3343.95	0.13
Shallow	MW-48	670689.39	524080.35	3362.97	unknown	9/22/2010	17.55	17.59	3345.41	0.04

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Aquifer	Well ID	Northing	Easting	TOC Elevation (ft amsl)	Screen Interval (ft bgs)	Date Measured	Depth to PSH (ft btoc)	Depth to Water (ft btoc)	Water Elevation (ft amsl)	PSH Thickness (ft)
Shallow	MW-49	672051.80	523610.79	3359.77	unknown	3/24/2010	NP	10.68	3349.09	--
Shallow	MW-49	672051.80	523610.79	3359.77	unknown	9/22/2010	NP	11.04	3348.73	--
Shallow	MW-50	671502.45	521857.84	3371.05	unknown	3/25/2010	NP	16.87	3354.18	--
Shallow	MW-50	671502.45	521857.84	3371.05	unknown	9/21/2010	NP	17.00	3354.05	--
Shallow	MW-52	670165.24	523370.99	3368.30	unknown	3/24/2010	NP	25.10	3343.20	--
Shallow	MW-52	670165.24	523370.99	3368.30	unknown	9/21/2010	NP	18.34	3349.96	--
Shallow	MW-53	673626.07	521459.12	3368.73	unknown	3/24/2010	NP	12.68	3356.05	--
Shallow	MW-53	673626.07	521459.12	3368.73	unknown	9/21/2010	NP	11.74	3356.99	--
Shallow	MW-54A	674138.65	522110.51	3366.49	unknown	3/24/2010	NP	11.64	3354.85	--
Shallow	MW-54A	674138.65	522110.51	3366.49	unknown	9/21/2010	NP	12.30	3354.19	--
Valley Fill	MW-54B	674148.44	522118.80	3366.47	unknown	3/24/2010	NP	11.65	3354.82	--
Valley Fill	MW-54B	674148.44	522118.80	3366.47	unknown	9/21/2010	NP	12.39	3354.08	--
Shallow	MW-55	674091.95	522766.46	3364.77	unknown	3/24/2010	NP	9.80	3354.97	--
Shallow	MW-55	674091.95	522766.46	3364.77	unknown	9/21/2010	NP	9.90	3354.87	--
Shallow	MW-56	674160.38	523450.14	3357.44	unknown	3/24/2010	NP	10.53	3346.91	--
Shallow	MW-56	674160.38	523450.14	3357.44	unknown	9/21/2010	NP	10.75	3346.69	--
Shallow	MW-57	669935.59	527579.02	3350.91	unknown	3/26/2010	NP	0.00	3350.91	--
Shallow	MW-57	669935.59	527579.02	3350.91	unknown	11/3/2010	NP	17.38	3333.53	--
Shallow	MW-58	670207.27	525197.99	3362.22	unknown	3/24/2010	NP	21.99	3340.23	--
Shallow	MW-58	670207.27	525197.99	3362.22	unknown	9/22/2010	NP	17.37	3344.85	--
Shallow	MW-59	672815.74	523854.62	3354.78	unknown	3/24/2010	NP	6.12	3348.66	--
Shallow	MW-59	672815.74	523854.62	3354.78	unknown	9/22/2010	NP	8.00	3346.78	--
Shallow	MW-60	672850.69	524144.40	3354.33	unknown	3/24/2010	NP	7.45	3346.88	--
Shallow	MW-60	672850.69	524144.40	3354.33	unknown	9/22/2010	NP	9.13	3345.20	--
Shallow	MW-61	672441.15	522574.92	3369.47	14 to 29	3/26/2010	NP	12.18	3357.29	--
Shallow	MW-61	672441.15	522574.92	3369.47	14 to 29	9/22/2010	NP	12.95	3356.52	--
Shallow	MW-62	672648.15	522702.48	3371.29	14 to 29	3/25/2010	NP	15.41	3355.88	--
Shallow	MW-62	672648.15	522702.48	3371.29	14 to 29	9/21/2010	NP	16.36	3354.93	--
Shallow	MW-64	670716.03	523338.61	3369.52	15 to 30	3/25/2010	20.00	21.63	3349.19	1.63
Shallow	MW-64	670716.03	523338.61	3369.52	15 to 30	9/22/2010	19.45	20.97	3349.77	1.52
Shallow	MW-65	670949.22	523711.75	3363.60	14.5 to 29.5	3/25/2010	16.67	17.09	3346.85	0.42
Shallow	MW-65	670949.22	523711.75	3363.60	14.5 to 29.5	9/22/2010	15.98	16.41	3347.53	0.43
Shallow	MW-66	671247.57	524560.06	3363.46	14.6 to 29.6	3/25/2010	NP	16.99	3346.47	--
Shallow	MW-66	671247.57	524560.06	3363.46	14.6 to 29.6	9/22/2010	NP	15.87	3347.59	--

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Aquifer	Well ID	Northing	Easting	TOC Elevation (ft amsl)	Screen Interval (ft bgs)	Date Measured	Depth to PSH (ft btoc)	Depth to Water (ft btoc)	Water Elevation (ft amsl)	PSH Thickness (ft)
Shallow	MW-67	673224.88	522342.43	3365.45	12 to 27	3/24/2010	NP	9.46	3355.99	--
Shallow	MW-67	673224.88	522342.43	3365.45	12 to 27	9/21/2010	NP	9.83	3355.62	--
Shallow	MW-68	674301.02	531466.90	3328.21	unknown	3/25/2010	NP	19.83	3308.38	--
Shallow	MW-68	674301.02	531466.90	3328.21	unknown	10/5/2010	NP	19.36	3308.85	--
Shallow	MW-69	675962.29	540401.29	3313.86	unknown	3/25/2010	NP	10.48	3303.38	--
Shallow	MW-69	675962.29	540401.29	3313.86	unknown	10/20/2010	NP	10.65	3303.21	--
Shallow	MW-70	670892.66	542787.60	3306.30	unknown	3/25/2010	NP	7.32	3298.98	--
Shallow	MW-70	670892.66	542787.60	3306.30	unknown	10/5/2010	NP	7.64	3298.66	--
Shallow	MW-71	673016.80	529560.41	3335.29	unknown	3/25/2010	NP	13.65	3321.64	--
Shallow	MW-71	673016.80	529560.41	3335.29	unknown	10/5/2010	NP	13.82	3321.47	--
Shallow	MW-72	676691.27	542662.31	3308.45	2 to 12	3/25/2010	NP	6.60	3301.85	--
Shallow	MW-72	676691.27	542662.31	3308.45	2 to 12	10/6/2010	NP	7.32	3301.13	--
Shallow	MW-73	675910.20	542130.56	3310.18	2 to 17	3/25/2010	NP	8.37	3301.81	--
Shallow	MW-73	675910.20	542130.56	3310.18	2 to 17	10/6/2010	NP	11.43	3298.75	--
Shallow	MW-74	675059.14	541546.30	3310.03	2 to 17	3/25/2010	NP	8.42	3301.61	--
Shallow	MW-74	675059.14	541546.30	3310.03	2 to 17	10/6/2010	NP	8.81	3301.22	--
Shallow	MW-75	674622.31	541132.78	3310.21	3 to 18	3/25/2010	NP	8.67	3301.54	--
Shallow	MW-75	674622.31	541132.78	3310.21	3 to 18	10/6/2010	NP	8.70	3301.51	--
Shallow	MW-76	674482.47	541053.83	3311.84	3 to 18	3/25/2010	NP	10.22	3301.62	--
Shallow	MW-76	674482.47	541053.83	3311.84	3 to 18	10/6/2010	NP	10.28	3301.56	--
Shallow	MW-77	674529.89	541104.86	3310.07	3 to 18	3/25/2010	NP	8.47	3301.60	--
Shallow	MW-77	674529.89	541104.86	3310.07	3 to 18	10/6/2010	NP	8.53	3301.54	--
Shallow	MW-78	674529.23	541073.45	3310.14	2 to 17	3/25/2010	NP	8.52	3301.62	--
Shallow	MW-78	674529.23	541073.45	3310.14	2 to 17	10/6/2010	NP	8.57	3301.57	--
Shallow	MW-79	675349.67	540906.08	3311.43	2 to 17	3/25/2010	NP	9.40	3302.03	--
Shallow	MW-79	675349.67	540906.08	3311.43	2 to 17	10/6/2010	NP	9.60	3301.83	--
Shallow	MW-80	675371.74	540646.46	3310.79	2 to 17	3/25/2010	NP	8.49	3302.30	--
Shallow	MW-80	675371.74	540646.46	3310.79	2 to 17	10/6/2010	NP	8.03	3302.76	--
Shallow	MW-81	675252.80	540544.47	3312.34	2 to 17	3/25/2010	NP	10.15	3302.19	--
Shallow	MW-81	675252.80	540544.47	3312.34	2 to 17	10/6/2010	NP	9.59	3302.75	--
Shallow	MW-82	675035.42	540806.88	3310.75	2 to 17	3/25/2010	NP	8.88	3301.87	--
Shallow	MW-82	675035.42	540806.88	3310.75	2 to 17	10/6/2010	NP	8.66	3302.09	--
Shallow	MW-83	674524.97	540832.80	3310.19	2 to 17	3/25/2010	NP	8.50	3301.69	--
Shallow	MW-83	674524.97	540832.80	3310.19	2 to 17	10/6/2010	NP	8.47	3301.72	--

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Aquifer	Well ID	Northing	Easting	TOC Elevation (ft amsl)	Screen Interval (ft bgs)	Date Measured	Depth to PSH (ft btoc)	Depth to Water (ft btoc)	Water Elevation (ft amsl)	PSH Thickness (ft)
Shallow	MW-84	674798.43	540109.13	3311.59	2 to 17	3/25/2010	NP	9.35	3302.24	--
Shallow	MW-84	674798.43	540109.13	3311.59	2 to 17	10/6/2010	NP	9.14	3302.45	--
Shallow	MW-85	674566.12	539805.49	3311.09	3 to 18	3/25/2010	8.65	8.66	3302.44	0.01
Shallow	MW-85	674566.12	539805.49	3311.09	3 to 18	10/6/2010	8.89	9.92	3301.99	1.03
Shallow	MW-86	674645.96	539671.17	3311.06	2 to 17	3/25/2010	8.29	8.30	3302.77	0.01
Shallow	MW-86	674645.96	539671.17	3311.06	2 to 17	10/6/2010	8.45	9.98	3302.30	1.53
Shallow	MW-87	673379.98	543280.45	3307.64	2 to 17	3/25/2010	NP	7.83	3299.81	--
Shallow	MW-87	673379.98	543280.45	3307.64	2 to 17	10/5/2010	NP	7.82	3299.82	--
Shallow	MW-88	672899.14	540832.09	3308.68	3 to 18	3/26/2010	NP	7.84	3300.84	--
Shallow	MW-88	672899.14	540832.09	3308.68	3 to 18	10/5/2010	NP	8.57	3300.11	--
Shallow	MW-89	675211.56	533835.00	3318.32	2 to 17	3/26/2010	NP	9.82	3308.50	--
Shallow	MW-89	675211.56	533835.00	3318.32	2 to 17	10/6/2010	NP	9.09	3309.23	--
Shallow	MW-90	672909.28	521960.18	3369.42	5 to 20	3/24/2010	NP	12.22	3357.20	--
Shallow	MW-90	672909.28	521960.18	3369.42	5 to 20	9/21/2010	NP	12.09	3357.33	--
Shallow	MW-91	672945.86	522146.43	3367.73	7 to 22	3/24/2010	NP	10.96	3356.77	--
Shallow	MW-91	672945.86	522146.43	3367.73	7 to 22	9/21/2010	NP	10.86	3356.87	--
Shallow	MW-92	672766.10	522167.26	3368.72	5 to 20	3/24/2010	NP	11.88	3356.84	--
Shallow	MW-92	672766.10	522167.26	3368.72	5 to 20	9/21/2010	NP	12.10	3356.62	--
Shallow	MW-93	672897.25	522446.83	3363.79	5 to 20	3/25/2010	NP	7.30	3356.49	--
Shallow	MW-93	672897.25	522446.83	3363.79	5 to 20	9/21/2010	NP	18.04	3345.75	--
Shallow	MW-94	673510.54	522336.27	3367.97	5 to 20	3/25/2010	12.21	13.58	3355.49	1.37
Shallow	MW-94	673510.54	522336.27	3367.97	5 to 20	9/22/2010	10.47	22.87	3355.02	12.40
Shallow	MW-95	673084.72	522308.89	3368.70	7 to 22	3/24/2010	NP	12.46	3356.24	--
Shallow	MW-95	673084.72	522308.89	3368.70	7 to 22	9/21/2010	NP	12.77	3355.93	--
Shallow	MW-96	673143.60	521917.50	3368.92	7 to 22	3/24/2010	NP	12.08	3356.84	--
Shallow	MW-96	673143.60	521917.50	3368.92	7 to 22	9/21/2010	NP	11.91	3357.01	--
Shallow	MW-97	672660.45	522295.96	3365.92	8 to 23	3/25/2010	9.51	10.70	3356.17	1.19
Shallow	MW-97	672660.45	522295.96	3365.92	8 to 23	9/22/2010	10.28	13.15	3355.07	2.87
Shallow	MW-98	672517.05	523220.39	3361.36	13 to 23	3/25/2010	NP	9.18	3352.18	--
Shallow	MW-98	672517.05	523220.39	3361.36	13 to 23	9/21/2010	NP	10.80	3350.56	--
Shallow	MW-99	671652.52	524579.74	3364.07	12 to 27	3/25/2010	NP	17.85	3346.22	--
Shallow	MW-99	671652.52	524579.74	3364.07	12 to 27	9/22/2010	NP	16.42	3347.65	--
Shallow	MW-101	671628.25	523506.58	3364.23	8 to 23	3/25/2010	NP	15.40	3348.83	--
Shallow	MW-101	671628.25	523506.58	3364.23	8 to 23	9/22/2010	NP	15.16	3349.07	--

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Shallow	MW-102	671176.70	522937.01	3367.64	12 to 27	3/25/2010	16.42	17.01	3351.10	0.59
Shallow	MW-102	671176.70	522937.01	3367.64	12 to 27	9/22/2010	16.12	17.57	3351.23	1.45
Shallow	MW-103	670472.55	522607.80	3372.47	7 to 22	3/26/2010	NP	18.80	3353.67	--
Shallow	MW-103	670472.55	522607.80	3372.47	7 to 22	9/22/2010	NP	18.42	3354.05	--
Shallow	MW-104	670450.35	522729.44	3371.43	3 to 18	3/26/2010	NP	14.05	3357.38	--
Shallow	MW-104	670450.35	522729.44	3371.43	3 to 18	9/22/2010	NP	13.78	3357.65	--
Shallow	MW-105	671924.44	522454.93	3364.99	8 to 18	3/25/2010	11.14	11.30	3353.82	0.16
Shallow	MW-105	671924.44	522454.93	3364.99	8 to 18	9/22/2010	11.82	11.95	3353.14	0.13
Shallow	MW-106	672207.14	523454.55	3358.98	0 to 11	3/25/2010	NP	8.28	3350.70	--
Shallow	MW-106	672207.14	523454.55	3358.98	0 to 11	9/22/2010	NP	9.02	3349.96	--
Shallow	MW-107	671961.38	524600.45	3359.44	12 to 22	3/25/2010	NP	12.43	3347.01	--
Shallow	MW-107	671961.38	524600.45	3359.44	12 to 22	9/22/2010	NP	12.33	3347.11	--
Shallow	MW-108	673659.33	521910.16	3369.11	9 to 24	3/24/2010	NP	13.50	3355.61	--
Shallow	MW-108	673659.33	521910.16	3369.11	9 to 24	9/21/2010	NP	12.98	3356.13	--
Shallow	NCL-31	673629.51	521669.01	3367.54	13 to 18	3/24/2010	NP	11.55	3355.99	--
Shallow	NCL-31	673629.51	521669.01	3367.54	13 to 18	9/21/2010	NP	10.69	3356.85	--
Shallow	NCL-32	673984.83	521808.14	3364.91	17 to 22	3/24/2010	NP	2.59	3362.32	--
Shallow	NCL-32	673984.83	521808.14	3364.91	17 to 22	9/21/2010	NP	1.33	3363.58	--
Shallow	NCL-33	673967.20	522245.18	3363.97	13 to 18	3/24/2010	NP	10.94	3353.03	--
Shallow	NCL-33	673967.20	522245.18	3363.97	13 to 18	9/21/2010	NP	10.42	3353.55	--
Shallow	NCL-34A	673885.52	522235.08	3365.49	unknown	3/24/2010	NP	10.80	3354.69	--
Shallow	NCL-34A	673885.52	522235.08	3365.49	unknown	9/21/2010	NP	10.89	3354.60	--
Shallow	NCL-44	673986.41	522062.11	3364.45	unknown	3/24/2010	NP	9.42	3355.03	--
Shallow	NCL-44	673986.41	522062.11	3364.45	unknown	9/21/2010	NP	9.66	3354.79	--
Shallow	NCL-49	674099.16	521648.40	3371.13	unknown	3/24/2010	NP	16.31	3354.82	--
Shallow	NCL-49	674099.16	521648.40	3371.13	unknown	9/21/2010	NP	16.75	3354.38	--
Shallow	NP-1	672992.73	528035.04	3342.40	unknown	3/24/2010	NP	13.45	3328.95	--
Shallow	NP-1	672992.73	528035.04	3342.40	unknown	10/5/2010	NP	14.41	3327.99	--
Shallow	NP-2	673571.19	527611.64	3342.77	9.5 to 18.5	3/24/2010	NP	10.90	3331.87	--
Shallow	NP-2	673571.19	527611.64	3342.77	9.5 to 18.5	10/5/2010	NP	13.43	3329.34	--
Shallow	NP-3	673990.66	528019.54	3342.93	9.5 to 18.5	3/24/2010	NP	11.27	3331.66	--
Shallow	NP-3	673990.66	528019.54	3342.93	9.5 to 18.5	10/5/2010	NP	13.87	3329.06	--
Shallow	NP-4	674337.35	528351.85	3345.73	24.5 to 33.5	3/24/2010	NP	18.58	3327.15	--
Shallow	NP-4	674337.35	528351.85	3345.73	24.5 to 33.5	10/5/2010	NP	22.51	3323.22	--

Table 1 - Well Information and Gauging Data

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Navajo Refinery, Artesia, New Mexico

Aquifer	Well ID	Northing	Easting	TOC Elevation (ft amsl)	Screen Interval (ft bgs)	Date Measured	Depth to PSH (ft btoc)	Depth to Water (ft btoc)	Water Elevation (ft amsl)	PSH Thickness (ft)
Shallow	NP-5	675512.24	524698.19	3349.29	unknown	3/24/2010	NP	10.83	3338.46	--
Shallow	NP-5	675512.24	524698.19	3349.29	unknown	9/21/2010	NP	12.95	3336.34	--
Shallow	NP-6	672945.23	529083.91	3338.05	unknown	3/24/2010	NP	11.89	3326.16	--
Shallow	NP-6	672945.23	529083.91	3338.05	unknown	10/5/2010	NP	11.29	3326.76	--
Shallow	NP-8	675399.60	538245.49	3314.67	unknown	3/24/2010	NP	11.88	3302.79	--
Shallow	NP-8	675399.60	538245.49	3314.67	unknown	10/6/2010	NP	11.14	3303.53	--
Shallow	NP-9	674767.14	523571.69	3360.62	unknown	3/24/2010	NP	5.32	3355.30	--
Shallow	NP-9	674767.14	523571.69	3360.62	unknown	9/21/2010	NP	6.93	3353.69	--
Shallow	OCD-1R	676741.31	541568.00	3314.27	unknown	3/25/2010	NP	11.42	3302.85	--
Shallow	OCD-1R	676741.31	541568.00	3314.27	unknown	10/6/2010	NP	10.74	3303.53	--
Shallow	OCD-2A	677036.12	542157.14	3314.16	unknown	3/25/2010	NP	11.48	3302.68	--
Shallow	OCD-2A	677036.12	542157.14	3314.16	unknown	10/6/2010	NP	10.43	3303.73	--
Valley Fill	OCD-2B	677034.65	542167.57	3313.07	unknown	3/25/2010	NP	10.73	3302.34	--
Valley Fill	OCD-2B	677034.65	542167.57	3313.07	unknown	10/6/2010	NP	10.72	3302.35	--
Shallow	OCD-3	677516.31	543024.47	3314.43	unknown	3/25/2010	NP	11.98	3302.45	--
Shallow	OCD-3	677516.31	543024.47	3314.43	unknown	10/6/2010	NP	11.17	3303.26	--
Shallow	OCD-4	678099.52	543893.55	3313.68	unknown	3/25/2010	NP	11.27	3302.41	--
Shallow	OCD-4	678099.52	543893.55	3313.68	unknown	10/6/2010	NP	10.45	3303.23	--
Shallow	OCD-5	677081.54	544295.35	3311.27	unknown	3/25/2010	NP	9.40	3301.87	--
Shallow	OCD-5	677081.54	544295.35	3311.27	unknown	10/6/2010	NP	8.61	3302.66	--
Shallow	OCD-6	676538.82	543540.03	3311.40	unknown	3/25/2010	NP	10.01	3301.39	--
Shallow	OCD-6	676538.82	543540.03	3311.40	unknown	10/6/2010	NP	8.91	3302.49	--
Shallow	OCD-7A	676169.74	543071.88	3310.03	5.5 to 19.5	3/25/2010	NP	8.81	3301.22	--
Shallow	OCD-7A	676169.74	543071.88	3310.03	5.5 to 19.5	10/6/2010	NP	8.24	3301.79	--
Valley Fill	OCD-7B	676157.36	543081.99	3310.26	43.5 to 52.5	3/25/2010	NP	8.75	3301.51	--
Valley Fill	OCD-7B	676157.36	543081.99	3310.26	43.5 to 52.5	10/6/2010	NP	8.37	3301.89	--
Valley Fill	OCD-7C	676155.95	543069.21	3310.10	60.25 to 69.75	3/25/2010	NP	8.42	3301.68	--
Valley Fill	OCD-7C	676155.95	543069.21	3310.10	60.25 to 69.75	10/6/2010	NP	8.29	3301.81	--
Shallow	OCD-8A	674976.41	543376.95	3308.72	unknown	3/25/2010	NP	9.13	3299.59	--
Shallow	OCD-8A	674976.41	543376.95	3308.72	unknown	10/6/2010	NP	10.17	3298.55	--
Valley Fill	OCD-8B	674992.24	543375.06	3309.19	unknown	3/25/2010	NP	8.16	3301.03	--
Valley Fill	OCD-8B	674992.24	543375.06	3309.19	unknown	10/6/2010	NP	8.14	3301.05	--
Shallow	RW-1	672825.27	522204.68	3367.03	--	3/26/2010	10.22	10.23	3356.81	0.01
Shallow	RW-1	672825.27	522204.68	3367.03	--	9/22/2010	10.33	10.35	3356.70	0.02

Table 1 - Well Information and Gauging Data

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Navajo Refinery, Artesia, New Mexico

Aquifer	Well ID	Northing	Easting	TOC Elevation (ft amsl)	Screen Interval (ft bgs)	Date Measured	Depth to PSH (ft btoc)	Depth to Water (ft btoc)	Water Elevation (ft amsl)	PSH Thickness (ft)
Shallow	RW-2	672781.86	522337.29	3368.43	--	3/26/2010	NP	11.68	3356.75	--
Shallow	RW-2	672781.86	522337.29	3368.43	--	9/22/2010	12.50	12.53	3355.92	0.03
Shallow	RW-4	671378.27	523010.47	3364.86	--	3/26/2010	NP	15.93	3348.93	--
Shallow	RW-4	671378.27	523010.47	3364.86	--	9/22/2010	NP	15.90	3348.96	--
Shallow	RW-5	671271.08	523652.31	3363.81	--	3/26/2010	15.49	17.42	3347.93	1.93
Shallow	RW-5	671271.08	523652.31	3363.81	--	9/22/2010	14.91	17.03	3348.48	2.12
Shallow	RW-6	670969.39	522843.22	3368.36	--	3/26/2010	16.51	16.57	3351.84	0.06
Shallow	RW-6	670969.39	522843.22	3368.36	--	9/22/2010	16.69	16.84	3351.64	0.15
Shallow	RW-7	673579.35	522098.94	3367.09	--	3/26/2010	NP	11.31	3355.78	--
Shallow	RW-7	673579.35	522098.94	3367.09	--	9/22/2010	NP	11.36	3355.73	--
Shallow	RW-8	673266.20	522321.21	3368.10	--	3/26/2010	11.89	12.34	3356.12	0.45
Shallow	RW-8	673266.20	522321.21	3368.10	--	9/22/2010	12.41	12.81	3355.61	0.40
Shallow	RW-9	673423.49	523371.16	3359.51	--	3/26/2010	NP	9.44	3350.07	--
Shallow	RW-9	673423.49	523371.16	3359.51	--	9/22/2010	NP	11.15	3348.36	--
Shallow	RW-10	673076.17	523469.29	3360.61	--	3/26/2010	NP	10.14	3350.47	--
Shallow	RW-10	673076.17	523469.29	3360.61	--	9/22/2010	NP	12.30	3348.31	--
Shallow	RW-11-0	669938.15	527541.66	3353.95	--	3/24/2010	NP	Dry	--	--
Shallow	RW-11-0	669938.15	527541.66	3353.95	--	9/22/2010	NP	18.10	3335.85	--
Shallow	RW-12	670533.38	527533.00	3352.55	--	3/26/2010	NP	Dry	--	--
Shallow	RW-12	670533.38	527533.00	3352.55	--	9/22/2010	NP	18.14	3334.41	--
Shallow	RW-13	671041.58	527528.79	3351.95	--	3/26/2010	NP	22.45	3329.50	--
Shallow	RW-13	671041.58	527528.79	3351.95	--	9/22/2010	18.08	18.20	3333.85	0.12
Shallow	RW-14	671603.65	527519.99	3351.48	--	3/26/2010	19.95	21.31	3331.26	1.36
Shallow	RW-14	671603.65	527519.99	3351.48	--	9/22/2010	17.90	18.05	3333.55	0.15
Shallow	RW-15C	670820.45	524123.41	3361.41	--	3/26/2010	17.15	18.04	3344.08	0.89
Shallow	RW-15C	670820.45	524123.41	3361.41	--	9/22/2010	16.80	17.22	3344.53	0.42
Shallow	RW-16B	673876.71	523156.09	3360.97	--	3/26/2010	NP	11.38	3349.59	--
Shallow	RW-16B	673876.71	523156.09	3360.97	--	9/21/2010	NP	12.29	3348.68	--
Shallow	RW-17A	673978.33	522723.59	3364.72	--	3/26/2010	NP	9.92	3354.80	--
Shallow	RW-17A	673978.33	522723.59	3364.72	--	9/21/2010	NP	10.91	3353.81	--
Shallow	RW-18A	673750.19	526188.64	3350.84	--	3/26/2010	NP	11.15	3339.69	--
Shallow	RW-18A	673750.19	526188.64	3350.84	--	9/22/2010	NP	12.82	3338.02	--
Shallow	TEL-1	672966.33	523412.82	3358.23	13 to 23	3/25/2010	NP	7.62	3350.61	--
Shallow	TEL-1	672966.33	523412.82	3358.23	13 to 23	9/21/2010	9.70	9.71	3348.53	0.01

Table 1 - Well Information and Gauging Data

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Navajo Refinery, Artesia, New Mexico

Aquifer	Well ID	Northing	Easting	TOC Elevation (ft amsl)	Screen Interval (ft bgs)	Date Measured	Depth to PSH (ft btoc)	Depth to Water (ft btoc)	Water Elevation (ft amsl)	PSH Thickness (ft)
Shallow	TEL-2	672885.90	523419.29	3359.12	13 to 23	3/25/2010	NP	8.45	3350.67	--
Shallow	TEL-2	672885.90	523419.29	3359.12	13 to 23	9/21/2010	NP	10.45	3348.67	--
Shallow	TEL-3	672796.06	523459.33	3358.33	13 to 23	3/25/2010	NP	7.25	3351.08	--
Shallow	TEL-3	672796.06	523459.33	3358.33	13 to 23	9/21/2010	9.52	9.53	3348.81	0.01
Shallow	TEL-4	672715.99	523181.18	3360.24	13 to 23	3/25/2010	NP	8.72	3351.52	--
Shallow	TEL-4	672715.99	523181.18	3360.24	13 to 23	9/21/2010	NP	10.02	3350.22	--
Shallow	UG-1	672453.27	520746.73	3372.94	8 to 23	3/25/2010	NP	16.65	3356.29	--
Shallow	UG-1	672453.27	520746.73	3372.94	8 to 23	9/21/2010	NP	15.80	3357.14	--
Shallow	UG-2	670726.77	520942.36	3380.41	15 to 30	3/25/2010	NP	20.37	3360.04	--
Shallow	UG-2	670726.77	520942.36	3380.41	15 to 30	9/21/2010	NP	20.36	3360.05	--
Shallow	UG-3R	671992.70	519424.77	3384.08	17 to 37	3/25/2010	NP	29.16	3354.92	--
Shallow	UG-3R	671992.70	519424.77	3384.08	17 to 37	9/21/2010	NP	27.61	3356.47	--

Definitions:

amsl = above mean sea level
bgs = below ground surface
btoc = below top of casing
ft = feet
NP = not present
PSH = phase separated hydrocarbons
unknown = screen interval not readily availble

Table 2 - Well Purging and Water Quality Measurement Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

Well	Date	Time	Purge Method	Temperature (°C)	Conductivity (S/m)	DO (mg/L)	pH (std units)	ORP (mV)
KWB-1A	4/13/2010	825	Low Flow	17.40	3.331	0.29	6.73	-113
KWB-1A	10/15/2010	917	Low Flow	18.41	4.051	1.88	6.59	31.2
KWB-2R	10/20/2010	1045	Low Flow	21.43	2.840	0.37	6.63	-138.5
KWB-3AR	4/13/2010	1115	Low Flow	17.87	4.992	4.47	6.73	53.4
KWB-3AR	10/19/2010	1023	Low Flow	18.07	5.440	1.09	6.69	191.7
KWB-7	4/13/2010	935	Low Flow	18.13	3.180	0.20	6.73	8.7
KWB-7	10/19/2010	848	Low Flow	17.42	3.943	0.36	6.59	191.5
KWB-9	4/14/2010	1355	Low Flow	18.20	3.301	1.56	6.55	41.3
KWB-9	10/19/2010	1419	Low Flow	19.68	3.773	0.69	6.41	210.9
KWB-11A	4/13/2010	1035	Low Flow	22.41	4.388	1.90	6.58	22.3
KWB-11A	10/14/2010	1612	Low Flow	18.05	4.972	0.73	6.31	107.9
KWB-11B	10/14/2010	1515	Low Flow	23.58	3.092	0.78	7.22	74.1
KWB-12A	10/19/2010	1217	Low Flow	21.47	4.005	0.63	6.50	198.5
KWB-12B	10/19/2010	1312	Low Flow	19.52	4.018	0.57	6.56	209.9
KWB-13	4/13/2010	730	Low Flow	17.47	3.083	4.61	6.73	90.2
MW-1R	4/12/2010	1200	Low Flow	18.28	6.888	0.11	7.22	-15.6
MW-2A	4/6/2010	805	Low Flow	16.40	17.990	0.43	6.90	-78.4
MW-2A	10/11/2010	1202	Low Flow	22.30	12.219	0.46	6.73	-47.1
MW-2B	4/6/2010	830	Submersible	18.55	3.647	0.23	7.08	-10.5
MW-3	4/6/2010	1125	Low Flow	19.06	6.072	0.15	6.98	-70
MW-3	10/8/2010	1330	Low Flow	23.29	6.035	8.10	6.70	47.8
MW-4A	4/12/2010	1440	Low Flow	18.95	5.803	0.10	7.14	-164
MW-4A	10/13/2010	1228	Low Flow	21.10	6.349	0.88	6.91	-107.3
MW-4B	4/12/2010	1605	Submersible	19.68	4.592	0.05	6.97	-113
MW-5A	4/8/2010	1525	Low Flow	17.98	18.000	0.05	6.98	-146
MW-5A	10/11/2010	1351	Low Flow	22.08	14.967	0.49	6.69	-80.7
MW-5B	4/8/2010	1600	Submersible	18.62	9.934	0.03	6.79	-130
MW-6A	4/6/2010	1205	Low Flow	19.74	5.104	0.07	7.42	-179
MW-6B	4/6/2010	1240	Submersible	19.33	6.060	0.06	7.23	-139
MW-7A	4/8/2010	1415	Low Flow	18.52	9.093	0.10	7.24	-151
MW-7A	10/11/2010	1440	Low Flow	22.70	9.418	0.86	6.96	-98.6
MW-7B	4/8/2010	1440	Submersible	18.83	6.437	0.05	7.03	-38
MW-8	4/14/2010	1145	Low Flow	17.77	4.606	0.08	7.04	8.6
MW-8	10/15/2010	1228	Low Flow	21.21	5.338	0.71	6.81	99.9
MW-10	4/9/2010	750	Low Flow	17.52	6.769	0.11	6.87	-24.4
MW-10	10/14/2010	1131	Low Flow	19.42	7.257	0.80	6.67	50.5
MW-11A	4/8/2010	1055	Low Flow	17.92	26.710	0.11	6.82	58.9
MW-11B	4/8/2010	1025	Submersible	19.40	21.670	0.05	6.95	-117
MW-15	4/12/2010	1400	Low Flow	18.22	6.268	0.21	6.95	-44
MW-16	4/12/2010	1035	Low Flow	16.00	4.195	1.27	7.17	38.4
MW-18	3/30/2010	1550	Low Flow	19.47	3.169	1.60	6.74	-50.7
MW-18	10/21/2010	1507	Low Flow	23.02	3.100	0.68	6.63	-12
MW-18A	4/7/2010	1205	Low Flow	17.80	19.880	0.12	7.13	-208
MW-18A	10/13/2010	1036	Low Flow	21.96	21.848	0.24	6.88	-153.7
MW-18B	4/7/2010	1300	Low Flow	19.16	5.764	0.03	6.96	-63.9
MW-20	4/14/2010	1110	Low Flow	18.80	4.789	0.20	6.96	155
MW-21	4/14/2010	1215	Low Flow	18.56	5.520	0.49	6.93	73
MW-21	10/15/2010	1138	Low Flow	20.83	6.041	0.77	6.71	91.9

Table 2 - Well Purging and Water Quality Measurement Data

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Navajo Refinery, Artesia, New Mexico

Well	Date	Time	Purge Method	Temperature (°C)	Conductivity (S/m)	DO (mg/L)	pH (std units)	ORP (mV)
MW-22A	4/9/2010	945	Low Flow	17.13	7.976	0.16	6.98	-125
MW-22A	10/14/2010	1312	Low Flow	22.95	8.470	0.43	6.76	-66.1
MW-22B	4/9/2010	915	Submersible	18.74	6.917	2.34	6.88	-133
MW-23	3/29/2010	1133	Low Flow	24.20	3.498	0.03	6.89	-350
MW-23	10/28/2010	1219	Low Flow	26.12	3.168	11.00	6.79	-240.5
MW-25	4/12/2010	1313	Low Flow	19.22	3.996	0.14	7.20	-2.5
MW-26	4/12/2010	1110	Low Flow	17.63	4.891	0.16	7.00	38.6
MW-27	4/12/2010	905	Low Flow	20.17	2.447	0.18	6.90	71.7
MW-28	4/1/2010	1520	Low Flow	20.82	2.382	0.13	6.70	-326
MW-28	10/26/2010	1510	Low Flow	22.10	2.939	0.94	6.51	-304.1
MW-29	3/29/2010	1500	Low Flow	20.58	4.428	0.13	6.60	-305
MW-29	10/28/2010	1513	Low Flow	20.75	4.385	10.32	6.41	-190
MW-30	3/31/2010	935	Low Flow	19.40	4.887	0.18	6.56	21.1
MW-40	3/29/2010	1420	Low Flow	21.34	2.605	0.04	6.71	-357
MW-41	3/29/2010	1335	Low Flow	20.10	4.918	0.04	6.39	-340
MW-41	10/27/2010	1048	Low Flow	21.43	4.773	2.98	6.54	-247.7
MW-42	3/29/2010	1300	Low Flow	19.57	4.980	0.08	6.45	-350
MW-42	10/27/2010	1147	Low Flow	22.58	4.621	0.74	6.37	-286.5
MW-43	3/29/2010	1210	Low Flow	20.03	4.081	0.04	6.78	-364
MW-43	10/27/2010	1240	Low Flow	23.41	3.673	1.67	6.70	-279.7
MW-45	3/31/2010	1145	Low Flow	19.66	4.654	0.14	6.79	-172
MW-45	11/2/2010	835	Low Flow	19.91	3.751	1.52	6.58	-45.9
MW-46R	11/2/2010	958	Low Flow	19.93	3.881	1.80	6.80	73.3
MW-49	4/2/2010	1010	Low Flow	20.85	3.132	0.14	6.61	-369
MW-49	10/28/2010	1413	Low Flow	22.04	2.945	11.42	6.43	-327.5
MW-50	4/5/2010	1050	Low Flow	23.02	3.141	0.23	6.82	-328
MW-50	11/2/2010	1420	Low Flow	23.50	2.731	1.62	6.67	-201.4
MW-52	4/15/2010	835	Low Flow	19.52	2.785	0.59	6.88	-21.7
MW-52	10/18/2010	1346	Low Flow	22.39	3.023	0.56	6.65	172.2
MW-53	4/14/2010	800	Low Flow	19.46	2.359	0.14	6.96	35.9
MW-54A	4/14/2010	920	Low Flow	18.78	2.399	0.21	6.59	50.1
MW-54A	10/20/2010	1148	Low Flow	22.17	2.565	0.50	6.42	71.4
MW-54B	4/14/2010	935	Low Flow	19.46	2.093	0.18	6.63	64.4
MW-55	3/31/2010	815	Low Flow	17.55	4.333	3.00	6.76	39.1
MW-55	10/27/2010	955	Low Flow	2.47	3.755	2.03	6.96	47.4
MW-56	3/31/2010	1020	Low Flow	20.60	4.141	0.17	6.62	-2.4
MW-56	10/27/2010	900	Low Flow	20.62	4.017	1.62	6.50	39.4
MW-57	11/3/2010	935	Low Flow	18.59	8.678	0.68	6.56	-138.2
MW-58	4/15/2010	725	Low Flow	18.20	1.352	2.79	6.70	-119
MW-58	10/19/2010	1514	Low Flow	21.15	2.286	0.26	6.48	-48.2
MW-59	4/1/2010	1720	Low Flow	20.00	3.736	1.59	6.60	-246
MW-60	4/1/2010	1630	Low Flow	20.37	4.331	0.09	6.53	-320
MW-60	11/2/2010	1311	Low Flow	21.07	3.845	3.00	6.42	-209.2
MW-61	4/5/2010	850	Low Flow	22.16	5.393	0.10	6.72	-363
MW-61	10/28/2010	949	Low Flow	21.69	4.595	1.62	6.61	-311.8
MW-62	4/5/2010	930	Low Flow	21.22	2.275	0.21	6.70	-369
MW-62	10/28/2010	21.83	Low Flow	21.83	2.250	10.40	6.44	-323.6

Table 2 - Well Purging and Water Quality Measurement Data

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Navajo Refinery, Artesia, New Mexico

Well	Date	Time	Purge Method	Temperature (°C)	Conductivity (S/m)	DO (mg/L)	pH (std units)	ORP (mV)
MW-66	4/1/2010	1440	Low Flow	22.70	1.986	0.13	6.69	-272
MW-66	10/26/2010	1409	Low Flow	24.77	1.979	0.78	6.55	-252.8
MW-67	3/30/2010	1215	Low Flow	22.03	2.306	0.24	6.83	-344
MW-67	10/29/2010	1214	Low Flow	23.10	2.079	3.84	6.53	-261
MW-68	4/13/2010	1210	Low Flow	20.51	2.642	1.70	6.92	2.7
MW-70	4/7/2010	1055	Low Flow	16.07	5.756	0.11	7.05	-73
MW-70	10/13/2010	1123	Low Flow	21.63	6.310	0.38	6.86	-93.4
MW-71	4/14/2010	1250	Low Flow	18.11	5.712	3.04	6.95	128
MW-71	10/15/2010	1055	Low Flow	19.72	6.587	1.27	6.73	96.1
MW-72	4/6/2010	900	Low Flow	15.15	14.760	0.11	6.82	-112
MW-72	10/14/2010	1035	Low Flow	19.07	13.796	0.61	6.74	-89.3
MW-73	4/5/2010	1225	Low Flow	16.90	12.480	0.13	7.07	-61.4
MW-73	10/14/2010	932	Low Flow	18.08	12.347	0.45	6.82	-55.1
MW-74	4/5/2010	1305	Low Flow	18.40	11.510	0.09	6.92	-33.7
MW-74	10/11/2010	930	Low Flow	20.80	11.903	0.94	6.74	63.4
MW-75	4/5/2010	1350	Low Flow	19.76	8.633	0.06	7.04	-131
MW-75	10/11/2010	845	Low Flow	20.36	8.578	0.32	6.78	-55.9
MW-76	4/6/2010	1455	Low Flow	19.98	7.225	0.03	6.99	-127
MW-76	10/8/2010	1215	Low Flow	23.27	7.378	8.20	6.69	-54.9
MW-77	4/6/2010	1540	Low Flow	19.01	8.710	0.05	6.87	-115
MW-77	10/8/2010	1115	Low Flow	22.19	8.640	0.60	6.59	-31.2
MW-78	4/7/2010	740	Low Flow	15.97	5.400	0.82	6.94	48.2
MW-79	4/5/2010	1425	Low Flow	17.60	10.120	0.38	6.93	-34.8
MW-79	10/14/2010	833	Low Flow	18.95	9.726	0.68	6.77	-26.7
MW-80	4/5/2010	1510	Low Flow	17.83	7.110	0.14	6.98	-60.4
MW-81	4/5/2010	1555	Low Flow	18.88	7.695	0.15	6.97	-30
MW-82	4/6/2010	1410	Low Flow	19.52	8.514	0.05	6.93	-155
MW-83	4/7/2010	855	Low Flow	16.56	6.840	0.08	6.95	-59.4
MW-83	10/8/2010	1032	Low Flow	22.82	7.440	6.60	6.60	123.3
MW-84	4/6/2010	1325	Low Flow	19.86	10.370	0.04	6.98	-15.1
MW-84	10/8/2010	910	Low Flow	21.00	10.787	1.00	6.78	-52.5
MW-87	4/7/2010	1010	Low Flow	16.26	16.890	0.92	7.13	-0.3
MW-87	10/13/2010	935	Low Flow	21.76	17.065	0.27	6.83	66.6
MW-88	4/9/2010	1045	Low Flow	17.62	7.218	0.14	7.04	3.7
MW-88	10/14/2010	1404	Low Flow	21.17	7.530	0.73	6.84	51.5
MW-89	4/12/2010	945	Low Flow	16.75	3.114	0.15	6.89	-3.8
MW-90	3/30/2010	800	Low Flow	17.76	3.391	0.09	6.76	-375
MW-90	10/22/2010	1039	Low Flow	21.81	3.566	1.80	6.62	-322.2
MW-91	3/30/2010	1105	Low Flow	22.25	2.410	0.05	6.56	-403
MW-91	10/22/2010	1221	Low Flow	23.86	2.376	1.06	6.47	-388.2
MW-92	3/30/2010	720	Low Flow	16.33	3.481	0.14	6.71	-330
MW-93	3/29/2010	1100	Low Flow	17.80	2.515	4.62	6.67	-350
MW-93	10/22/2010	947	Low Flow	21.62	2.311	2.26	6.53	-347.8
MW-95	3/30/2010	1140	Low Flow	22.23	2.515	0.05	6.73	-299
MW-96	3/30/2010	1030	Low Flow	20.93	2.604	0.05	6.77	-378
MW-96	10/22/2010	1132	Low Flow	22.70	2.421	1.44	6.65	-322.9
MW-98	4/5/2010	1005	Low Flow	20.77	3.778	0.17	6.76	-403
MW-98	10/28/2010	1327	Low Flow	22.14	3.351	19.14	6.55	-373.7

Table 2 - Well Purging and Water Quality Measurement Data

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Navajo Refinery, Artesia, New Mexico

Well	Date	Time	Purge Method	Temperature (°C)	Conductivity (S/m)	DO (mg/L)	pH (std units)	ORP (mV)
MW-99	4/1/2010	1400	Low Flow	23.33	2.318	0.03	6.67	-349
MW-99	10/26/2010	1308	Low Flow	23.20	2.450	0.75	6.52	-324.2
MW-101	4/1/2010	1555	Low Flow	22.28	2.159	0.12	6.57	-294
MW-101	11/2/2010	1215	Low Flow	22.38	1.910	5.39	6.46	-198.5
MW-103	4/1/2010	730	Low Flow	23.05	4.828	0.15	7.81	-315
MW-104	4/1/2010	810	Low Flow	14.31	1.130	0.16	7.25	-325
MW-104	10/26/2010	1145	Low Flow	21.00	1.795	1.23	6.80	-195.1
MW-106	4/2/2010	935	Low Flow	19.13	3.434	0.08	6.98	-367
MW-106	10/28/2010	1610	Low Flow	22.12	3.549	9.12	6.50	-361.9
MW-107	3/31/2010	1235	Low Flow	20.21	2.037	0.13	6.84	-172
MW-107	11/2/2010	1110	Low Flow	21.74	1.704	1.23	6.73	-71.4
MW-108	4/16/2010	1300	Low Flow	19.99	1.885	0.07	6.83	-415
MW-108	10/21/2010	1001	Low Flow	20.13	3.841	0.59	6.59	-319.3
NCL-31	3/30/2010	900	Low Flow	18.60	3.327	0.09	6.81	-277.6
NCL-31	10/21/2010	830	Low Flow	18.63	2.732	0.72	6.71	-135.8
NCL-32	3/30/2010	1455	Low Flow	18.47	1.680	0.34	7.27	-123
NCL-32	10/21/2010	1245	Low Flow	21.85	1.952	0.72	7.28	-142.1
NCL-33	3/30/2010	1340	Low Flow	21.27	3.262	0.09	6.50	-160
NCL-33	10/21/2010	1408	Low Flow	24.19	3.207	0.73	6.37	33.5
NCL-34	3/30/2010	1303	Low Flow	22.27	1.903	0.08	6.64	-356
NCL-34	10/21/2010	1054	Low Flow	23.02	2.461	0.80	6.52	-327.5
NCL-44	3/30/2010	1413	Low Flow	21.43	2.224	0.20	6.56	-272
NCL-44	10/21/2010	1320	Low Flow	22.13	2.108	1.28	6.44	-220.6
NCL-49	4/14/2010	845	Low Flow	19.44	2.909	0.54	6.89	38
NCL-49	10/20/2010	1243	Low Flow	22.19	3.281	0.88	6.72	96.2
NP-1	4/13/2010	1300	Low Flow	17.74	5.554	0.23	6.76	270
NP-1	10/18/2010	1553	Low Flow	18.97	5.967	0.46	6.65	194.9
NP-5	4/14/2010	1030	Low Flow	12.30	5.395	0.19	7.04	-4.1
NP-6	10/18/2010	1500	Low Flow	18.97	6.809	0.82	6.61	198.2
OCD-1R	4/8/2010	740	Low Flow	15.22	11.400	0.15	7.04	-89
OCD-1R	10/12/2010	1130	Low Flow	21.66	10.124	0.35	6.94	-62.7
OCD-2A	4/8/2010	820	Low Flow	15.86	9.145	0.17	7.12	-11.5
OCD-2A	10/12/2010	1245	Low Flow	21.24	8.400	0.94	6.92	63.4
OCD-2B	4/8/2010	850	Submersible	18.32	6.723	0.02	7.10	-75.3
OCD-3	4/8/2010	920	Low Flow	17.72	7.999	0.12	7.13	-57.2
OCD-3	10/12/2010	1329	Low Flow	21.32	5.195	1.33	7.09	-78
OCD-4	4/8/2010	955	Low Flow	18.67	16.480	0.16	7.09	-94
OCD-4	10/12/2010	1416	Low Flow	22.42	10.583	0.30	689.00	-69.6
OCD-5	4/8/2010	1220	Low Flow	18.26	16.450	0.24	7.09	-99.2
OCD-5	10/12/2010	1500	Low Flow	21.19	16.804	0.86	6.95	-71.9
OCD-6	4/6/2010	940	Low Flow	18.25	15.400	0.10	6.93	-100
OCD-6	10/11/2010	1112	Low Flow	20.27	15.308	1.45	6.79	-68.5
OCD-7A	4/6/2010	1015	Low Flow	18.32	11.410	0.18	6.96	-111.6
OCD-7A	10/11/2010	1026	Low Flow	22.58	11.816	0.74	6.80	-72.2
OCD-7B	4/6/2010	1045	Submersible	18.67	5.320	4.60	7.59	-120.3
OCD-8A	4/8/2010	1305	Low Flow	16.95	11.670	0.09	7.02	-145
OCD-8A	10/13/2010	847	Low Flow	21.98	13.794	0.38	6.78	-82.1
OCD-8B	4/7/2010	1335	Submersible	19.05	9.722	0.03	6.75	-54.5

Table 2 - Well Purging and Water Quality Measurement Data

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Navajo Refinery, Artesia, New Mexico

Well	Date	Time	Purge Method	Temperature (°C)	Conductivity (S/m)	DO (mg/L)	pH (std units)	ORP (mV)
RA-1227	11/3/2010	1014	Tap	17.40	2.871	6.89	6.80	-43.4
RA-313	4/16/2010	905	Tap	20.13	1.124	6.35	7.82	-61
RA-3156	4/14/2010	1402	Tap	16.69	2.941	4.01	6.92	60.6
RA-3156	11/3/2010	1041	Tap	14.50	3.106	7.47	6.77	19.3
RA-4196	4/15/2010	1135	Tap	21.39	2.351	2.38	7.37	-167
RA-4196	11/3/2010	1100	Tap	18.75	2.607	3.57	7.17	-94
RA-4798	4/15/2010	1120	Tap	18.91	1.652	8.50	7.21	-55.4
RA-4798	11/3/2010	1115	Tap	18.22	2.574	4.58	6.89	-6.5
RW-1	11/2/2010	1545	Low Flow	22.43	4.277	2.51	6.56	-338.9
RW-2	11/2/2010	1501	Low Flow	23.83	3.345	3.28	6.49	-350.2
RW-4	4/2/2010	1030	Low Flow	16.69	2.658	2.00	7.25	-345
RW-7	4/2/2010	745	Low Flow	19.91	2.225	0.39	7.03	-270
RW-9	4/2/2010	820	Low Flow	15.78	3.562	0.52	7.29	-298
RW-10	4/2/2010	855	Low Flow	17.40	3.270	1.73	7.49	-195
RW-11-0	11/3/2010	838	Low Flow	18.32	2.899	3.15	6.75	-303.5
RW-16	3/31/2010	855	Low Flow	18.19	6.727	0.25	6.75	7.4
RW-17	3/31/2010	735	Low Flow	17.08	6.769	0.54	7.07	49.2
RW-18	4/13/2010	900	Low Flow	16.45	4.574	0.59	6.90	-22.9
TEL-1	4/1/2010	1135	Low Flow	19.99	4.191	0.09	6.67	-329
TEL-1	10/29/2010	840	Low Flow	18.64	3.246	9.45	6.63	-120.9
TEL-2	4/1/2010	1055	Low Flow	19.89	3.922	0.03	6.63	-388
TEL-2	10/29/2010	930	Low Flow	19.66	3.311	16.43	6.49	-298.8
TEL-3	4/1/2010	1010	Low Flow	16.00	2.855	0.05	6.68	-344
TEL-3	10/29/2010	1015	Low Flow	19.70	2.645	10.02	6.43	-322.6
TEL-4	4/1/2010	935	Low Flow	19.23	4.215	0.13	6.52	-309
TEL-4	10/29/2010	1109	Low Flow	21.55	3.306	9.46	6.37	-230.1
UG-1	4/15/2010	1010	Low Flow	21.35	2.949	3.15	7.15	14.7
UG-1	10/18/2010	1200	Low Flow	23.75	3.429	0.99	6.77	169.8
UG-2	4/15/2010	930	Low Flow	20.82	1.759	5.79	7.24	-9.8
UG-2	10/18/2010	1105	Low Flow	23.19	2.083	0.68	6.85	188.9
UG-3R	4/15/2010	1055	Submersible	20.36	2.309	0.58	6.85	5.2
UG-3R	10/26/2010	1045	Submersible	20.12	2.337	2.57	6.64	91.5

Definitions:

°C = degrees Celsius
DO = dissolved oxygen
mg/L = milligrams per liter
mV = milliVolts
ORP = oxidation/reduction potential
S/m = Siemens per meter
std units = standard pH units

Purge Methods:

Low Flow = peristaltic pump with dedicated tubing, purged until parameters stabilized
Submersible = submersible electric pump with dedicated tubing, purged minimum of 3 well volumes
Tap = irrigation well sample collected from tap or valve nearest well

Table 3 - Groundwater Screening Levels and Selected Critical Groundwater Screening Level

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

Analyte	NMED GW Human Health (20.6.2.3103.A)	NMED GW Domestic (20.6.2.3103.B)	NMED GW Irrigation (20.6.2.3103.C)	EPA MCL	NMED Tap Water (SSG Table A-1)	NMED TPH	Critical Groundwater Screening Level (CGWSL)	CGWSL Source
Total Petroleum Hydrocarbons (mg/L)								
TPH - Gasoline Range Organics (GRO)							--	--
TPH - Diesel Range Organics (DRO)						2.00E-01	2.00E-01	NMED TPH
TPH - Oil Range Organics (ORO)						2.00E-01	2.00E-01	NMED TPH
VOCs (µg/L)								
1,1,1-Trichloroethane	6.00E+01			2.00E+02			6.00E+01	NMED GW Human Health (20.6.2.3103.A)
1,1,2,2-Tetrachloroethane	1.00E+01						1.00E+01	NMED GW Human Health (20.6.2.3103.A)
1,1,2,2-Tetrachloroethene	2.00E+01						2.00E+01	NMED GW Human Health (20.6.2.3103.A)
1,1,2-Trichloroethane	1.00E+01			5.00E+00			5.00E+00	EPA MCL
1,1,2-Trichloroethene	1.00E+02						1.00E+02	NMED GW Human Health (20.6.2.3103.A)
1,1-Dichloroethane	2.50E+01						2.50E+01	NMED GW Human Health (20.6.2.3103.A)
1,1-Dichloroethene				7.00E+00			7.00E+00	EPA MCL
1,2-Dibromo-3-chloropropane				2.00E-01			2.00E-01	EPA MCL
1,2-Dibromoethane (EDB)	1.00E-01			5.00E-02			5.00E-02	EPA MCL
1,2-Dichloroethane	1.00E+01			5.00E+00			5.00E+00	EPA MCL
1,2-Dichloroethene							--	--
1,2-Dichloropropane				5.00E+00			5.00E+00	EPA MCL
2-Butanone (MEK)					7.06E+03		7.06E+03	NMED Tap Water (SSG Table A-1)
4-Methyl-2-Pentanone (MIBK)					1.99E+03		1.99E+03	NMED Tap Water (SSG Table A-1)
Acetone					2.18E+04		2.18E+04	NMED Tap Water (SSG Table A-1)
Benzene	1.00E+01			5.00E+00			5.00E+00	EPA MCL
Bromodichloromethane					1.17E+00		1.17E+00	NMED Tap Water (SSG Table A-1)
Bromomethane					8.66E+00		8.66E+00	NMED Tap Water (SSG Table A-1)
Carbon Disulfide					1.04E+03		1.04E+03	NMED Tap Water (SSG Table A-1)
Carbon tetrachloride	1.00E+01			5.00E+00			5.00E+00	EPA MCL
Chlorobenzene				1.00E+02			1.00E+02	EPA MCL
Chlorodibromomethane (dibromochloromethane)				8.00E+01			8.00E+01	EPA MCL
Chloroethane (ethyl chloride)					2.09E+04		2.09E+04	NMED Tap Water (SSG Table A-1)
Chloroform	1.00E+02			8.00E+01			8.00E+01	EPA MCL
Chloromethane					1.78E+01		1.78E+01	NMED Tap Water (SSG Table A-1)
cis-1,2-Dichloroethene				7.00E+01			7.00E+01	EPA MCL
cis-1,3-Dichloropropene					4.33E+00		4.33E+00	NMED Tap Water (SSG Table A-1)
Dibromochloromethane				8.00E+01			8.00E+01	EPA MCL
Dichlorodifluoromethane					3.95E+02		3.95E+02	NMED Tap Water (SSG Table A-1)
Ethylbenzene	7.50E+02			7.00E+02			7.00E+02	EPA MCL
Isopropylbenzene (cumene)					6.79E+02		6.79E+02	NMED Tap Water (SSG Table A-1)
m-Xylene					1.43E+03		1.43E+03	NMED Tap Water (SSG Table A-1)
Methyl acetate					3.65E+04		3.65E+04	NMED Tap Water (SSG Table A-1)
Methylene chloride (dichloromethane)	1.00E+02			5.00E+00			5.00E+00	EPA MCL
Naphthalene	3.00E+01						3.00E+01	NMED GW Human Health (20.6.2.3103.A)
tert-Butyl methyl ether (MTBE)					1.25E+02		1.25E+02	NMED Tap Water (SSG Table A-1)
o-Xylene					1.43E+03		1.43E+03	NMED Tap Water (SSG Table A-1)
Styrene				1.00E+02			1.00E+02	EPA MCL
Tetrachloroethene				5.00E+00			5.00E+00	EPA MCL
Toluene	7.50E+02			1.00E+03			7.50E+02	NMED GW Human Health (20.6.2.3103.A)
trans-1,2-Dichloroethene				1.00E+02			1.00E+02	EPA MCL
Trichloroethylene				5.00E+00			5.00E+00	EPA MCL

Table 3 - Groundwater Screening Levels and Selected Critical Groundwater Screening Level

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Navajo Refinery, Artesia, New Mexico

Analyte	NMED GW Human Health (20.6.2.3103.A)	NMED GW Domestic (20.6.2.3103.B)	NMED GW Irrigation (20.6.2.3103.C)	EPA MCL	NMED Tap Water (SSG Table A-1)	NMED TPH	Critical Groundwater Screening Level (CGWSL)	CGWSL Source
Trichloroethene				*5.00E+00*			*5.00E+00*	*EPA MCL*
Trichlorofluoromethane					1.29E+03		1.29E+03	NMED Tap Water (SSG Table A-1)
Vinyl chloride	1.00E+00			2.00E+00			1.00E+00	NMED GW Human Health (20.6.2.3103.A)
Xylenes	6.20E+02			1.00E+04			6.20E+02	NMED GW Human Health (20.6.2.3103.A)
SVOCs (ug/L)								
1,2,4-Trichlorobenzene				7.00E+01			7.00E+01	EPA MCL
1,2-Dichlorobenzene				6.00E+02			6.00E+02	EPA MCL
1,4-Dichlorobenzene				7.50E+01			7.50E+01	EPA MCL
2,4,5-Trichlorophenol					3.65E+03		3.65E+03	NMED Tap Water (SSG Table A-1)
2,4,6-Trichlorophenol					3.65E+01		3.65E+01	NMED Tap Water (SSG Table A-1)
2,4-Dichlorophenol					1.10E+02		1.10E+02	NMED Tap Water (SSG Table A-1)
2,4-Dimethylphenol					7.30E+02		7.30E+02	NMED Tap Water (SSG Table A-1)
2,4-Dinitrophenol					7.30E+01		7.30E+01	NMED Tap Water (SSG Table A-1)
2,4-Dinitrotoluene					2.17E+00		2.17E+00	NMED Tap Water (SSG Table A-1)
2,6-Dinitrotoluene					3.65E+01		3.65E+01	NMED Tap Water (SSG Table A-1)
2-Chloronaphthalene					2.92E+03		2.92E+03	NMED Tap Water (SSG Table A-1)
2-Chlorophenol					1.83E+02		1.83E+02	NMED Tap Water (SSG Table A-1)
3,3'-Dichlorobenzidine					1.49E+00		1.49E+00	NMED Tap Water (SSG Table A-1)
4,6-Dinitro-2-methylphenol					3.65E+00		3.65E+00	NMED Tap Water (SSG Table A-1)
Acenaphthene					2.19E+03		2.19E+03	NMED Tap Water (SSG Table A-1)
Anthracene					1.10E+04		1.10E+04	NMED Tap Water (SSG Table A-1)
Benzo(a)anthracene					9.21E-01		9.21E-01	NMED Tap Water (SSG Table A-1)
Benzo(a)pyrene	7.00E-01			2.00E-01			2.00E-01	EPA MCL
Benzo(b)fluoranthene					9.21E-01		9.21E-01	NMED Tap Water (SSG Table A-1)
Benzo(k)fluoranthene					9.21E+00		9.21E+00	NMED Tap Water (SSG Table A-1)
bis(2-Chloroethyl) ether					1.19E-01		1.19E-01	NMED Tap Water (SSG Table A-1)
bis(2-Ethylhexyl)phthalate				6.00E+00			6.00E+00	EPA MCL
Chrysene					9.21E+01		9.21E+01	NMED Tap Water (SSG Table A-1)
Dibenz(a,h)anthracene					9.21E-02		9.21E-02	NMED Tap Water (SSG Table A-1)
Diethyl phthalate					2.92E+04		2.92E+04	NMED Tap Water (SSG Table A-1)
Dimethyl phthalate					3.65E+05		3.65E+05	NMED Tap Water (SSG Table A-1)
Di-n-butyl phthalate					3.65E+03		3.65E+03	NMED Tap Water (SSG Table A-1)
Fluoranthene					1.46E+03		1.46E+03	NMED Tap Water (SSG Table A-1)
Fluorene					1.46E+03		1.46E+03	NMED Tap Water (SSG Table A-1)
Hexachloro-1,3-butadiene					8.62E+00		8.62E+00	NMED Tap Water (SSG Table A-1)
Hexachlorobenzene				1.00E+00			1.00E+00	EPA MCL
Hexachlorocyclopentadiene				5.00E+01			5.00E+01	EPA MCL
Hexachloroethane					3.65E+01		3.65E+01	NMED Tap Water (SSG Table A-1)
Indeno(1,2,3-c,d)pyrene					9.21E-01		9.21E-01	NMED Tap Water (SSG Table A-1)
Isophorone					7.07E+02		7.07E+02	NMED Tap Water (SSG Table A-1)
Naphthalene	3.00E+01						3.00E+01	NMED GW Human Health (20.6.2.3103.A)
Nitrobenzene					1.49E+01		1.49E+01	NMED Tap Water (SSG Table A-1)
N-Nitrosodiphenylamine					1.37E+02		1.37E+02	NMED Tap Water (SSG Table A-1)
Pentachlorophenol				1.00E+00			1.00E+00	EPA MCL
Phenanthrene					1.10E+03		1.10E+03	NMED Tap Water (SSG Table A-1)
Phenol		5.00E+00					5.00E+00	NMED GW Domestic (20.6.2.3103.B)
Pyrene					1.10E+03		1.10E+03	NMED Tap Water (SSG Table A-1)

Table 3 - Groundwater Screening Levels and Selected Critical Groundwater Screening Level

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Navajo Refinery, Artesia, New Mexico

Analyte	NMED GW Human Health (20.6.2.3103.A)	NMED GW Domestic (20.6.2.3103.B)	NMED GW Irrigation (20.6.2.3103.C)	EPA MCL	NMED Tap Water (SSG Table A-1)	NMED TPH	Critical Groundwater Screening Level (CGWSL)	CGWSL Source
Metals (mg/L)								
Aluminum			5.00E+00				5.00E+00	NMED GW Irrigation (20.6.2.3103.C)
Arsenic	1.00E-01			1.00E-02			1.00E-02	EPA MCL
Barium	1.00E+00			2.00E+00			1.00E+00	NMED GW Human Health (20.6.2.3103.A)
Boron			7.50E-01				7.50E-01	NMED GW Irrigation (20.6.2.3103.C)
Cadmium	1.00E-02			5.00E-03			5.00E-03	EPA MCL
Chromium	5.00E-02			1.00E-01			5.00E-02	NMED GW Human Health (20.6.2.3103.A)
Cobalt			5.00E-02				5.00E-02	NMED GW Irrigation (20.6.2.3103.C)
Copper		1.00E+00		1.30E+00			1.00E+00	NMED GW Domestic (20.6.2.3103.B)
Iron		1.00E+00					1.00E+00	NMED GW Domestic (20.6.2.3103.B)
Lead	5.00E-02			1.50E-02			1.50E-02	EPA MCL
Manganese		2.00E-01					2.00E-01	NMED GW Domestic (20.6.2.3103.B)
Mercury	2.00E-03			2.00E-03			2.00E-03	NMED GW Human Health (20.6.2.3103.A)
Molybdenum			1.00E+00				1.00E+00	NMED GW Irrigation (20.6.2.3103.C)
Nickel			2.00E-01				2.00E-01	NMED GW Irrigation (20.6.2.3103.C)
Selenium	5.00E-02			5.00E-02			5.00E-02	NMED GW Human Health (20.6.2.3103.A)
Silver	5.00E-02						5.00E-02	NMED GW Human Health (20.6.2.3103.A)
Zinc		1.00E+01					1.00E+01	NMED GW Domestic (20.6.2.3103.B)
Water Quality Parameters (mg/L, unless noted)								
Chloride		2.50E+02					2.50E+02	NMED GW Domestic (20.6.2.3103.B)
Cyanide	2.00E-01			2.00E-01			2.00E-01	NMED GW Human Health (20.6.2.3103.A)
Fluoride	1.60E+00						1.60E+00	NMED GW Human Health (20.6.2.3103.A)
Nitrate (NO3 as N)	1.00E+01			1.00E+01			1.00E+01	NMED GW Human Health (20.6.2.3103.A)
pH (Std pH units)		6 to 9					6 to 9	NMED GW Domestic (20.6.2.3103.B)
Sulfate		6.00E+02					6.00E+02	NMED GW Domestic (20.6.2.3103.B)
Total Dissolved Solids		1.00E+03					1.00E+03	NMED GW Domestic (20.6.2.3103.B)

mg/L = milligrams per liter

ug/L = micrograms per liter

CGWSL = Critical Groundwater Screening Level

Heirarchy of selecting the CGWSL is as follows:

1. Lowest of either NMED GW Standard (20.6.2.3103) or EPA MCL was selected.
2. If no NMED GW Standard or EPA MCL available, then NMED Tap Water value from SSG Table A-1, if available.
3. NMED TPH screening for "unknown oil" used for both DRO and ORO range TPH.

CGWSL Source = Source for CGWSL value

EPA MCL = EPA Maximum Contaminant Level from "Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites"

NMED GW Domestic = NMED Groundwater standard for domestic exposure taken from 20.6.2.3103.B

NMED GW Human Health = NMED Groundwater standard for human health exposure taken from 20.6.2.3103.A

NMED GW Irrigation = NMED Groundwater standard for irrigation exposure taken from 20.6.2.3103.C

NMED Tap Water = New Mexico Environment Department Soil Screening Levels, Revions 4.0, June 2006, Tap Water Screening Level

NMED TPH = New Mexico Environment Department TPH Screening Guidelines, October 2006

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

		Analyte Group:		TPH		Total Metals									
		Analyte:		GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
		Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:			0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
		CGWSL Source:			NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**												
NCL	MW-18	Apr-08		< 0.020 U	< 0.020 U	< 0.00500 J	0.0134	< 0.00500 J	< 0.200 J	< 0.00500 J	0.0784	< 0.00004 U	< 0.00500 J	0.00595	0.0152
		Sep-08		< 0.020 U	**0.36**	< 0.00500 J	0.0208	< 0.00500 J	0.415	< 0.0012 U	0.128	< 0.00004 U	< 0.00500 J	0.00803	0.0189
		Apr-09		< 0.020 U	**0.28**	< 0.0100 J	0.0135	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0100 J	
		Sep-09		< 0.0500 U	**0.38**	**0.0123**	0.00995	< 0.00500 U		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Mar-10			0.18	< 0.00500 U	0.0178	< 0.00500 U		< 0.00500 U		< 0.000200 U		0.00748	
		Oct-10			**0.48**	< 0.00500 U	0.0147	< 0.00500 U	< 0.200 U	< 0.00500 U	0.156	< 0.000200 U	0.00747 J	0.00716	0.0161
	MW-54A	Apr-08			**0.48**	**0.0154**	0.0180	< 0.00050 U	0.488	< 0.00500 J	**0.538**	< 0.00004 U	0.00537	< 0.0017 U	< 0.00500 J
		Sep-08			**0.58**	< 0.00500 J	0.0257	< 0.00070 U	0.314	< 0.0012 U	**0.541**	< 0.00004 U	0.00772	< 0.00500 J	0.00559
		Apr-09			**0.42**	< 0.0100 J	0.0167	< 0.0012 U		< 0.0100 J				< 0.0050 U	
		Oct-09			**0.30**										
		Oct-09	FD		**0.29**										
		Apr-10			**0.40**	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10			**0.32**	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	**0.467**			< 0.0500 U	
	MW-54B	Apr-10		< 0.0500 U	**0.33**	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
	MW-108	Oct-09		2.55	**8.2**	< 0.00500 J	0.0109	< 0.00500 J		< 0.00500 U		< 0.000200 J		0.00815	
		Mar-10			**1.6**	0.00555	0.0479	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10			**5.9**	**< 0.0250 U**	0.155	0.0387		**0.0361**		< 0.000200 U		< 0.0250 U	
		Oct-10			**1.8**	**< 0.0250 U**	0.0615	< 0.0250 U	< 1.00 U	**< 0.0250 U**	0.0856			< 0.0250 U	
NCL-31	Mar-10				**0.65**	0.00731	0.0246	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
	Oct-10				**0.56**	**< 0.0250 U**	0.0312	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**1.16**			< 0.0250 U	
NCL-32	Apr-08			0.17	**0.0136**	0.207	**0.146**	**10.8**	**0.0554**	**1.03**	< 0.000200 J	0.0180	< 0.0017 U	0.0418	
	Sep-08			**0.38**	**0.0186**	0.173	0.0257	**3.68**	**0.0153**	**1.16**	0.000202	0.0138	< 0.0022 U	0.0166	
	Sep-08	FD		0.14	**0.0191**	0.326	**0.0993**	**13.1**	**0.0705**	**1.37**	< 0.000200 J	0.0246	0.00501	0.0470	
	Apr-09			**2.1**	< 0.0100 J	0.143	0.0442		**0.0294**		< 0.00004 U		< 0.0050 U		
	Sep-09			**0.21**	0.00685	0.0136	< 0.00500 U		< 0.00500 J	**0.347**	< 0.000200 U		< 0.00500 J		
	Mar-10			< 0.050 U	**0.0664**	**1.74**	**0.593**		**0.415**		< 0.000200 U		0.0125		
	Oct-10			**0.48**	**< 0.0250 U**	0.0413	< 0.0250 U	< 1.00 U	**< 0.0250 U**	0.149			< 0.0250 U		
NCL-33	Apr-08			**0.49**	< 0.00500 J	0.0231	< 0.00500 J	**1.45**	< 0.00500 J	0.109	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J	
	Sep-08			**1.4**	< 0.00500 J	0.0285	< 0.00070 U	**1.38**	< 0.0012 U	0.130	< 0.000200 J	< 0.00500 J	< 0.00500 J	< 0.00500 J	
	Apr-09			**0.52**	< 0.0100 J	0.0229	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U		
	Sep-09			**0.60**	**0.0389**	**1.15**	**0.383**		**0.267**	**1.84**	0.000223		0.00667		
	Mar-10			**0.64**	< 0.00500 U	0.0263	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U		
	Oct-10			**0.57**	**< 0.0250 U**	0.0253	< 0.0250 U	**4.35**	**< 0.0250 U**	0.126			< 0.0250 U		
NCL-34	Apr-08			**2.7**	< 0.00500 J	0.605	< 0.00500 J	0.212	< 0.00500 J	0.0675	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J	
	Apr-08	FD		**1.1**	< 0.00500 J	0.774	< 0.00500 J	0.421	< 0.00500 J	0.0822	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J	
	Sep-08			**2.1**	0.00846	0.368	< 0.00500 J	0.354	< 0.00500 J	0.0627	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.0014 U	
	Apr-09			0.12	< 0.0100 J	0.608	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U		
	Sep-09			**1.7**	< 0.00500 J	0.0240	< 0.00500 U		< 0.00500 U	0.127	< 0.000200 U		< 0.00500 U		
	Mar-10			**0.95 J**	< 0.00500 U	0.370 J	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U		
	Mar-10	FD		**1.8 J**	0.00568	0.0538 J	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U		
	Oct-10			**0.95**	**< 0.0250 U**	0.349	< 0.0250 U	< 1.00 U	**< 0.0250 U**	0.0393			< 0.0250 U		
	Oct-10	FD		**1.3**	< 0.00500 U	0.342	< 0.00500 U	< 0.200 U	< 0.00500 U	0.0339			< 0.00500 U		

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

		Analyte Group:		TPH		Total Metals									
		Analyte:		GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
		Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:			0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
		CGWSL Source:			NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**												
NCL (continued)	NCL-44	Apr-08			**0.63**	**0.0348**	0.0291	< 0.00500 J	**1.38**	< 0.00500 J	**0.686**	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J
		Sep-08			**1.4**	**0.0394**	0.0266	< 0.00500 J	**1.37**	< 0.00500 J	**0.712**	< 0.00004 U	0.00740	< 0.0022 U	< 0.0014 U
		Apr-09			**0.62**	**0.0436**	0.0273	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09			**0.66**	< 0.00500 J	0.317	< 0.00500 J		< 0.00500 U	0.0337	< 0.000200 U		< 0.00500 U	
		Mar-10			**0.60**	**0.0440**	0.0298	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10			**0.63**	**0.0543 J**	0.0267	< 0.0250 U	**1.40**	**< 0.0250 U**	**0.716**			< 0.0250 U	
	NCL-49	Apr-08			< 0.020 U	< 0.0018 U	0.0143	< 0.00050 U	< 0.025 U	< 0.00020 U	< 0.0010 U	< 0.00004 U	< 0.00500 J	0.0108	0.0110
		Sep-08			< 0.050 J	< 0.00500 J	0.0113	< 0.00070 U	< 0.10 U	< 0.0012 U	< 0.00500 J	< 0.000200 J	< 0.00500 J	0.00882	0.00938
		Sep-08	FD		< 0.020 U	< 0.00500 J	0.0110	< 0.00070 U	< 0.10 U	< 0.0012 U	< 0.00090 U	< 0.00004 U	< 0.00500 J	0.0100	0.00988
		Apr-09			< 0.020 U	< 0.0018 U	0.0117	< 0.0012 U		< 0.0100 J				< 0.0100 J	
		Apr-09	FD		< 0.020 U	< 0.0018 U	0.0115	< 0.0012 U		< 0.0100 J				< 0.0100 J	
		Oct-09			< 0.050 U										
		Apr-10			< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10			< 0.050 U	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	< 0.0500 U			< 0.0500 U	
	RW-17A	Mar-10		< 0.0500 U	0.13	0.00876	0.0224	< 0.00500 U		0.00885		< 0.000200 U		0.00820	
TEL	TEL-1	Apr-08		0.594	**1.9**	< 0.00500 J	0.0131	< 0.00050 U	< 0.200 J	< 0.00500 J	0.136	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00040 U
		Sep-08		0.513	**2.6**	0.00568	0.0107	< 0.00500 J	< 0.200 J	< 0.0012 U	**0.204**	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.00500 J
		Apr-09		0.567	**1.7**	< 0.0100 J	0.0125	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Apr-09	FD	0.580	**3.2**	**0.0107**	0.0132	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		0.400	**2.9**	< 0.00500 J	**1.61**	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10		0.210	**1.9**	< 0.00500 U	0.0130	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		0.430	**5.0 J**	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	0.0818			< 0.0250 U	
	TEL-2	Apr-08		5.13	**5.1**	**0.0156**	0.135	< 0.00500 J	< 0.200 J	< 0.00500 J	0.0352	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J
		Apr-08	FD	4.59	**5.5**	**0.0167**	0.139	< 0.00050 U	< 0.200 J	< 0.00500 J	0.0390	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J
		Sep-08		8.76	**8.1**	**0.0158**	0.0768	< 0.00500 J	< 0.10 U	< 0.00500 J	0.0315	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.00500 J
		Apr-09		5.08	**3.3**	**0.0112**	0.0761	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		5.05	**4.3**	0.00662	0.0112	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10		5.62	**7.8**	0.00999	0.0753	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		4.67	**5.4 J**	**< 0.0250 U**	0.0452	< 0.0250 U	< 1.00 U	**< 0.0250 U**	< 0.0250 U			< 0.0250 U	
	TEL-3	Apr-08		1.25	**2.2**	0.00528	0.0166	< 0.00050 U	< 0.200 J	< 0.00500 J	0.00741	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J
		Apr-09		2.04	**2.6**	< 0.0100 J	0.0177	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		0.814	**1.4**	0.00979	0.0547	< 0.00500 U		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10		0.556	**2.3 J**	< 0.00500 U	0.0109	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10	FD	0.603	**1.3 J**	< 0.00500 U	0.0109	< 0.00500 U		< 0.0100 U		< 0.000200 U		< 0.00500 U	
		Oct-10		0.688	**1.4**	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	< 0.0250 U			< 0.0250 U	
	TEL-4	Apr-08		4.40	**3.3**	**0.0117**	0.0620	0.0253	0.659	< 0.00500 J	**0.800**	< 0.00004 U	0.0319	< 0.0017 U	< 0.00040 U
		Sep-08		3.17	**2.6**	**0.0135**	0.0352	**0.0502**	0.750	< 0.00500 J	**0.869**	< 0.00004 U	0.0588	< 0.0022 U	< 0.00500 J
		Apr-09		2.61	**1.8**	**0.0120**	0.0409	**0.0567**		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		1.92	**1.9**	< 0.00500 J	0.0140	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10		1.65	**3.6**	0.00810	0.0269	0.00710		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		1.70	**2.0**	**< 0.0250 U**	< 0.0250 U	**0.0648**	< 1.00 U	**< 0.0250 U**	**1.02**			< 0.0250 U	

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

		Analyte Group:		TPH		Total Metals									
		Analyte:		GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
		Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:			0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
		CGWSL Source:			NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**												
EP	MW-1R	Apr-08			< 0.020 U	< 0.00500 J	0.0718	< 0.00500 J	**5.31**	< 0.00500 J	**1.72**	< 0.00004 U	0.00508	< 0.00500 J	0.00813
		Sep-08				0.00585	0.0710	< 0.00500 J	**5.76**	< 0.00500 J	**1.81**	< 0.00004 U	0.00538	< 0.00500 J	0.00906
		Apr-09			< 0.020 U	< 0.0100 J	0.0250	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09			< 0.050 U	**0.0185**	0.0201	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10			**0.98**	< 0.0100 U	0.0204	< 0.0100 U		< 0.0100 U		< 0.000200 U		0.0113	
	MW-2A	Apr-08		< 0.0500 J	0.11	**0.0353**	0.0265	< 0.0025 U	**6.18**	< 0.0010 U	**2.66**	< 0.00004 U	< 0.0250 J	< 0.0085 U	< 0.0020 U
		Sep-08		< 0.0500 J	0.18	**0.0271**	0.0302	< 0.00500 J	**2.21**	< 0.0012 U	**2.64**	< 0.00004 U	0.0122	0.00652	< 0.0014 U
		Apr-09		< 0.0500 J	0.099	**0.0142**	0.0266	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Apr-09		5.78	**2.2**	**0.302**	0.0141	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09			0.094	**0.0131**	0.0199	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10		< 0.0500 U	< 0.050 U	**0.0187**	0.0236	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		< 0.0500 U	< 0.050 U	**< 0.0250 U**	0.0343	< 0.0250 U	**7.90**	**< 0.0250 U**	**4.00**			< 0.0250 U	
		Oct-10	FD	< 0.0500 U	**3.6 J**	**< 0.0250 UJ**	0.0332	< 0.0250 U	**7.45 J**	**< 0.0250 U**	**3.68 J**			< 0.0250 U	
	MW-2B	Apr-10			< 0.050 U	< 0.0100 U	0.0113	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
	MW-3	Apr-08		0.386	**1.3**	**0.0295**	0.0184	< 0.00500 J	**1.19**	< 0.00500 J	**1.35**	< 0.00004 U	0.00561	< 0.00500 J	< 0.00500 J
		Sep-08		0.410	**1.7**	**0.0317**	0.0172	< 0.00500 J	0.997	< 0.0012 U	**1.65**	< 0.00004 U	0.00786	< 0.00500 J	< 0.0014 U
		Apr-09		0.270	**1.0**	**0.0300**	0.0145	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		0.447	**1.3**	**0.0413**	0.0152	< 0.00500 J		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10		0.201	**1.2**	**0.0278**	0.0130	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		0.526	**1.4**	**0.0524**	0.0164	< 0.00500 U	**1.34**	< 0.0100 U	**1.47**			< 0.00500 U	
	MW-4A	Apr-08		0.315	**0.79**	**0.0782**	0.0114	< 0.00050 U	**2.15**	< 0.00020 U	**1.93**	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00040 U
		Apr-08	FD	0.310	**0.74**	**0.0759**	0.0111	< 0.00050 U	**2.04**	< 0.00020 U	**1.94**	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00040 U
		Sep-08		0.446	**0.73**	**0.114**	0.0154	< 0.00500 J	**2.16**	< 0.0012 U	**1.80**	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.0014 U
		Apr-09		0.328	**0.79**	**0.0930**	0.0146	< 0.0012 U		< 0.0100 J				< 0.0050 U	
		Sep-09		0.339	**0.97**	< 0.00500 J	0.0112	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10		0.236	< 0.050 U	**0.0748**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Apr-10	FD	0.268	**1.1**	**0.0812**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10		0.436	**0.56 J**	**0.113 J**	0.0137	< 0.00500 U	**2.79 J**	< 0.00500 U	**2.13 J**			< 0.00500 U	
	MW-4B	Apr-10			**0.57**	**0.0730**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
	MW-5A	Apr-08		7.12	**5.3**	**0.181**	0.422	0.0331	**43.9**	**< 0.0250 J**	**3.36**	< 0.00004 U	0.0329	< 0.0085 U	0.0642
		Sep-08		5.95	**4.2**	**0.219**	0.233	0.0232	**30.2**	0.0126	**1.66**	< 0.00004 U	0.0248	0.00847	0.0399
		Sep-09		5.70	**4.6**	**0.235**	0.0146	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Sep-09	FD	5.54	**4.9**	0.00873	0.0172	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Apr-10		4.34	**3.4**	**0.206**	0.0130	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		4.67	< 0.050 U	**0.253**	< 0.0250 U	< 0.0250 U	**13.7**	**< 0.0250 U**	**0.980**			< 0.0250 U	
	MW-5B	Apr-10			**6.2**	**0.208**	< 0.0100 U	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
	MW-6A	Apr-08		0.443	**3.1**	**0.0146**	0.0158	< 0.00050 U	0.706	< 0.00500 J	**0.227**	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00040 U
		Sep-08		0.379	**1.4**	**0.0176**	0.0158	< 0.00500 J	0.918	< 0.0012 U	**0.236**	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Apr-09		0.410	**1.5**	**0.0141**	0.0142	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		0.264	**1.5**	**0.0112**	0.0126	< 0.00500 J		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10		0.139	**1.1**	**0.0102**	0.0140	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
	MW-6B	Apr-10			0.084	**0.0152**	0.0168	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	

Table 4 - Summary of Groundwater Analytical Data

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Navajo Refinery, Artesia, New Mexico

				Analyte Group:	TPH		Total Metals									
				Analyte:	GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:		0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
				CGWSL Source:		NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**													
EP (continued)	MW-7A	Apr-08		0.747	**0.78**	**0.0363**	0.0176	< 0.00050 U	**6.67**	< 0.00020 U	**0.437**	< 0.00004 U	0.0123	< 0.00500 J	< 0.00040 U	
		Sep-08		0.736	**1.0**	**0.0450**	0.0617	0.00797	**9.59**	< 0.00500 J	**0.440**	< 0.00004 U	0.0157	< 0.00500 J	< 0.00500 J	
		Apr-09		0.602	**0.51**	**0.0404**	0.0157	< 0.0012 U		< 0.0100 J		< 0.000200 J		< 0.0050 U		
		Sep-09		0.510	**0.84**	**0.0169**	0.0164	< 0.0100 U		< 0.0100 J		< 0.000200 U		< 0.0100 U		
		Apr-10		0.462	**0.52**	**0.0335**	0.0164	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U		
		Oct-10		0.483	**0.39**	**0.0331**	0.0164	< 0.0100 U	**5.72**	< 0.0100 U	**0.402**			< 0.0100 U		
	MW-7B	Apr-10			0.11 J	**0.0136**	0.0129	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U		
	MW-10	Apr-08		1.72	**0.73**	**0.0226**	0.0173	< 0.00500 J	0.746	< 0.00500 J	**1.83**	< 0.00004 U	0.0187	< 0.0017 U	0.00647	
		Sep-08		1.62	**1.0**	**0.0239**	0.0130	< 0.00500 J	0.522	< 0.00500 J	**2.06**	< 0.00004 U	0.0229	< 0.00500 J	0.00590	
		Apr-09		1.51	**0.97**	**0.0250**	0.0355	< 0.0100 J		< 0.0100 J				< 0.0050 U		
		Sep-09		1.23	**1.1**	**0.132**	0.0165	< 0.00500 J		< 0.00500 U		< 0.000200 U		< 0.00500 J		
		Apr-10		1.26	0.14 J	**0.0201**	< 0.0250 U	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U		
		Oct-10		1.22	**0.50**	**0.0231**	0.0114	< 0.00500 U	< 0.200 U	< 0.0100 U	**2.50**			< 0.00500 U		
	MW-11A	Apr-08		< 0.020 U	< 0.020 U	< 0.0090 U	0.0261	< 0.0025 U	**11.6**	< 0.0010 U	**1.56**	< 0.00004 U	< 0.0015 U	< 0.0085 U	< 0.0020 U	
		Sep-08		< 0.020 U	< 0.020 U	0.00914	0.0317	< 0.00070 U	**10.6**	< 0.0012 U	**1.65**	< 0.00004 U	< 0.00500 J	0.00527	< 0.00500 J	
		Apr-09		< 0.0500 J	< 0.020 U	< 0.0100 J	0.0314	< 0.0012 U		< 0.0100 J		< 0.000200 J		< 0.0050 U		
		Sep-09		< 0.0500 U	< 0.050 U	**0.262**	0.0151	< 0.00500 J		< 0.00500 U		< 0.000200 U		< 0.00500 J		
		Apr-10		< 0.0500 U	< 0.050 U	**< 0.0250 U**	0.0260	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U		
		Apr-10	FD	< 0.0500 U	< 0.050 UJ	**< 0.0250 U**	0.0285	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U		
	MW-11B	Apr-10			< 0.050 UJ	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U		
	MW-15	Apr-08		0.640	**0.50**	**0.0200**	0.0248	< 0.00050 U	< 0.200 J	< 0.00500 J	**1.55**	< 0.00004 U	0.00969	< 0.00500 J	0.00648	
		Sep-08		0.559	**0.69**	**0.0312**	0.0175	< 0.00500 J	< 0.200 J	< 0.0012 U	**1.57**	< 0.00004 U	0.0102	< 0.0022 U	< 0.00500 J	
		Apr-09		0.515	**0.67**	**0.0958**	0.0321	< 0.0012 U		< 0.00080 U				< 0.0050 U		
		Sep-09		0.108	0.16	**0.0197**	0.00999	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U		
		Apr-10		0.393	0.070	**0.0433**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U		
	MW-18A	Apr-08			**0.23**	< 0.0090 U	< 0.0250 J	< 0.0025 U	< 0.12 U	< 0.0010 U	**2.88**	< 0.00004 U	< 0.0250 J	< 0.0085 U	< 0.0020 U	
		Sep-08			**0.30**	**0.0270**	0.0160	< 0.00500 J	0.471	< 0.0012 U	**1.65**	< 0.00004 U	0.0102	0.00735	< 0.0014 U	
		Apr-09			**0.24**	< 0.0100 J	0.0183	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U		
		Sep-09			**0.24**	< 0.0100 J	0.0319	< 0.0100 J		< 0.0100 U		< 0.000200 U		< 0.0100 U		
		Apr-10			< 0.050 U	**0.0144 UB**	0.0213	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U		
		Oct-10			0.19	< 0.0100 U	0.0218	< 0.0100 U	**2.75**	**< 0.0250 U**	**2.11**	< 0.000200 U	0.0208	< 0.0100 U	< 0.0100 U	
	MW-18B	Apr-10			< 0.050 U	**0.0126**	0.0131	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U		
	MW-22A	Apr-08			**3.1**	**0.0618**	0.0214	< 0.00050 U	**5.22**	< 0.00500 J	**3.97**	< 0.00004 U	0.0185	< 0.00500 J	< 0.00040 U	
		Sep-08		9.19	**3.1**	**0.0515**	0.0157	< 0.00500 J	**5.24**	< 0.0012 U	**5.18**	< 0.00004 U	0.0220	< 0.00500 J	< 0.0014 U	
		Apr-09		6.87	**2.8**	**0.0561**	0.0162	< 0.0012 U		< 0.0100 J				< 0.0050 U		
		Sep-09		6.01	**3.0**	< 0.00500 J	0.0200	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U		
		Apr-10		6.18	**2.4**	**0.0514**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U		
		Apr-10	FD	6.18	**3.1**	**0.0518**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U		
		Oct-10		6.21	**1.1**	**0.0600**	0.0158	< 0.00500 U	**4.04**	< 0.00500 U	**5.30 J**			< 0.00500 U		
	MW-22B	Apr-10			**1.3 J**	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U		

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		Analyte Group:		TPH		Total Metals									
		Analyte:		GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
		Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:			0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
		CGWSL Source:			NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**												
EP (continued)	MW-70	Apr-08		1.47	**0.29**	**0.0162**	0.0145	< 0.00050 U	**2.37**	< 0.00020 U	**0.242**	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00040 U
		Sep-08		1.36	**0.31**	**0.0229**	0.0136	< 0.00500 J	**2.63**	< 0.0012 U	**0.211**	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.0014 U
		Sep-08	FD	1.35	**0.36**	**0.0218**	0.0138	< 0.00500 J	**2.62**	< 0.0012 U	**0.205**	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.0014 U
		Apr-09		1.42	**0.80**	**0.0213**	0.0148	< 0.0012 U		< 0.0100 J		< 0.000200 J		< 0.0050 U	
		Sep-09		1.21	**0.28**	**0.232**	0.0143	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Apr-10		1.18	< 0.062 U	**0.0237**	0.0164	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		1.36	**0.32**	**0.0202**	0.0164	< 0.0100 U	**3.29**	< 0.0100 U	**0.279**			< 0.0100 U	
	MW-72	Apr-08		0.433	**0.59**	**0.157**	0.0248	< 0.0010 U	**28.1**	< 0.00040 U	**4.23**	< 0.00004 U	< 0.0100 J	< 0.0100 J	< 0.00080 U
		Sep-08		0.442		**0.153**	0.0159	< 0.00070 U	**28.8**	< 0.0012 U	**5.77**	< 0.00004 U	0.0111	0.00724	< 0.0014 U
		Mar-09		110	**0.56**	**0.0909**	0.0147	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09		0.299	**0.49**	**0.125**	0.0180	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Apr-10		0.252	**0.42**	**0.0807**	0.0139	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		0.322	0.16	**0.113**	< 0.0250 U	< 0.0250 U	**25.5**	**< 0.0250 U**	**4.57**			< 0.0250 U	
	MW-73	Apr-08		0.992	**1.1**	**0.100**	0.0384	< 0.00500 J	**12.6**	< 0.00500 J	**2.85**	< 0.00004 U	0.0215	< 0.00500 J	< 0.00500 J
		Sep-08		1.11		**0.106**	0.0104	< 0.00070 U	**9.88**	< 0.00500 J	**2.85**	< 0.00004 U	0.0213	0.0105	< 0.0014 U
		Mar-09		12.0	**0.98**	**0.107**	0.0116	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09		0.226	**1.3**	**0.112**	0.0125	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Apr-10		0.545	**1.2**	**0.110**	< 0.0100 U	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		1.03	**0.66**	**0.111**	< 0.0250 U	< 0.0250 U	**6.64**	**< 0.0250 U**	**3.02**			< 0.0250 U	
	MW-74	Apr-08		2.01	**8.9**	**0.196**	0.0281	< 0.00500 J	**14.5**	< 0.00500 J	**2.30**	< 0.00004 U	0.0127	0.00734	< 0.00500 J
		Sep-08		2.20		**0.203**	0.0144	< 0.00070 U	**9.25**	< 0.0012 U	**2.34**	< 0.00004 U	0.0134	0.0109	< 0.0014 U
		Mar-09		6.87	**6.0**	**0.127**	0.0141	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09		1.57	**8.4**	**0.102**	0.0163	< 0.00500 J		< 0.00500 J		< 0.000200 U		0.0187	
		Apr-10		1.35	**9.9**	**0.0935**	0.0132	< 0.0100 U		< 0.0100 U		< 0.000200 U		0.0463	
		Apr-10	FD	1.27	**10**	**0.0905**	0.0117	< 0.0100 U		< 0.0100 U		< 0.000200 U		0.0426	
		Oct-10		1.45	**11 J**	**0.0820**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**2.24**			**0.0540**	
	MW-75	Apr-08		4.85	**9.0**	**0.436**	0.0240	< 0.00500 J	**4.34**	< 0.00500 J	**1.13**	< 0.00004 U	0.0234	< 0.00500 J	0.00870
		Sep-08		5.04		**0.391**	0.0214	< 0.00500 J	**3.58**	< 0.0012 U	**1.06**	< 0.00004 U	0.0212	< 0.00500 J	0.00808
		Mar-09		5.59	**5.8**	**0.337**	0.0177	< 0.0100 J		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09		3.84	**6.2**	**0.365**	0.0140	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Sep-09	FD	3.76	**6.0**	**0.374**	0.0149	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Apr-10		2.56	**6.3**	**0.294 J**	0.0164	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		2.74	**3.0 J**	**0.362**	0.0141	< 0.0100 U	**2.97**	< 0.0100 U	**1.04**			< 0.0100 U	
	MW-76	Apr-08		2.40	**8.1**	**0.0644**	0.0195	< 0.00500 J	**2.73**	< 0.00500 J	**0.523**	< 0.00004 U	0.00955	< 0.00500 J	< 0.00500 J
		Sep-08		2.78		**0.0584**	0.0140	< 0.00500 J	**2.73**	< 0.0012 U	**0.538**	< 0.00004 U	0.00922	< 0.00500 J	< 0.0014 U
		Mar-09		1.44	**4.2**	**0.0627**	0.0136	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		1.99	**6.5**	**0.0723**	0.0135	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Apr-10		0.780	**3.8**	**0.0774**	0.0137	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		0.701	**2.6**	**0.0737**	0.0148	< 0.00500 U	**2.46**	< 0.0100 U	**0.597 J**			< 0.00500 U	
	MW-77	Apr-08		1.98	**4.7**	**0.112**	0.0236	< 0.00500 J	**4.13**	< 0.00500 J	**1.02**	< 0.00004 U	0.0144	0.00608	< 0.00500 J
		Sep-08		1.68		**0.107**	0.0339	0.00582	**5.27**	< 0.0012 U	**0.846**	< 0.00004 U	0.0193	0.00932	0.00714
		Mar-09		2.14	**5.4**	**0.0931**	0.0131	< 0.0100 J		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09		1.53	**4.8**	**0.0856**	0.0129	< 0.00500 J		< 0.00500 J		< 0.000200 U		0.00574	
		Apr-10		0.986	**6.1**	**0.0775**	0.0128	< 0.0100 U		< 0.0100 U		< 0.000200 U		0.0120	
		Oct-10		1.18	**5.8 J**	**0.0769**	0.0138	< 0.00500 U	**4.30**	**< 0.0250 U**	**0.637 J**	< 0.000200 U	0.0176	0.00667	< 0.00500 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	TPH		Total Metals									
				Analyte:	GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:		0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
				CGWSL Source:		NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**													
EP (continued)	MW-78	Apr-08		1.59	**4.4**	**0.0548**	0.0300	0.00740	**2.56**	< 0.00500 J	**0.769**	< 0.00004 U	0.0126	< 0.00500 J	< 0.00500 J	
		Sep-08		1.16		**0.0547**	0.0303	0.00569	**5.36**	< 0.0012 U	**0.572**	< 0.00004 U	0.0119	< 0.00500 J	< 0.00500 J	
		Mar-09		0.726	**7.2**	**0.0267**	0.0211	0.0242		< 0.00080 U		< 0.00004 U		< 0.0050 U		
		Sep-09		0.628	**5.7**	**0.0268**	0.0328	0.0421		< 0.00500 J		< 0.000200 U		0.00693		
		Apr-10		0.185	**5.7**	**0.0155 UB**	0.0306	0.0458		< 0.0100 U		< 0.000200 U		0.0200		
	MW-79	Apr-08		0.292	**0.58**	**0.0456**	0.0311	< 0.00500 J	**3.54**	< 0.00500 J	**2.44**	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J	
		Sep-08		0.312		**0.0404**	0.0191	< 0.00070 U	**1.60**	< 0.0012 U	**3.40**	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J	
		Mar-09		0.235	**0.54**	**0.0207**	0.0186	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U		
		Mar-09	FD	0.229	**0.57**	**0.0230**	0.0175	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0100 J		
		Sep-09		0.183	**0.51**	**0.0165**	0.0182	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J		
		Apr-10		0.156	**0.34**	**0.0148**	0.0184	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U		
		Oct-10		0.116	0.13	**0.0194**	0.0183	< 0.0100 U	**3.03**	< 0.0100 U	**6.05**			< 0.0100 U		
	MW-80	Apr-08		0.0663	0.12	**0.0440**	0.0260	< 0.00050 U	**14.6**	< 0.00500 J	**2.11**	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J	
		Mar-09		0.0528	0.11	**0.0111**	0.0157	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U		
		Sep-09		0.0870	0.15	**0.0146**	0.0173	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U		
		Apr-10		< 0.0500 U	< 0.050 U	< 0.0100 U	0.0157	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U		
	MW-81	Apr-08		0.253	**0.46**	**0.0240**	0.0273	< 0.00500 J	**1.01**	< 0.00500 J	**3.85**	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J	
		Sep-08		0.159		**0.0197**	0.0194	< 0.00070 U	0.410	< 0.0012 U	**4.01**	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J	
		Mar-09		0.138	**0.59**	**0.0164**	0.0185	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U		
		Sep-09		0.135	**0.34**	**0.0114**	0.0186	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U		
		Apr-10		0.0892	**0.54**	**0.0153**	0.0158	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U		
	MW-82	Apr-08		1.85	**2.8**	**0.199**	0.0464	0.00500	**3.18**	< 0.00500 J	**1.42**	< 0.00004 U	0.0212	0.00520	0.00662	
		Apr-08	FD	5.51	**4.8**	**0.141**	0.132	0.0154	**7.14**	< 0.00500 J	**0.458**	< 0.00004 U	0.0260	< 0.00500 J	0.00849	
		Sep-08		1.78		**0.196**	0.0250	< 0.00500 J	**1.95**	< 0.0012 U	**1.48**	< 0.00004 U	0.0279	0.0104	< 0.00500 J	
		Sep-08	FD	1.97		**0.197**	0.0245	< 0.00500 J	**1.94**	< 0.0012 U	**1.54**	< 0.00004 U	0.0271	0.00698	0.00513	
		Mar-09		1.66	**2.6**	**0.198**	0.0255	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U		
		Sep-09		1.61	**3.0**	**0.184**	0.0214	< 0.00500 J		< 0.00500 J		< 0.000200 U		0.00534		
		Apr-10		1.22	**4.2**	**0.211**	0.0379	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U		
	MW-83	Apr-08		5.33	**4.8**	**0.156**	0.0864	0.00976	**6.41**	< 0.00500 J	**0.434**	< 0.00004 U	0.0279	< 0.00500 J	0.00648	
		Sep-08		5.04		**0.130**	0.0150	< 0.00500 J	**2.69**	< 0.0012 U	**0.303**	< 0.00004 U	0.0201	0.00543	< 0.00500 J	
		Mar-09		5.32	**7.2**	**0.133**	0.0159	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U		
		Sep-09		2.22	**7.3**	**0.0690**	0.0185	< 0.00500 J		< 0.00500 J		< 0.000200 J		0.00547		
		Apr-10		2.18	**5.5**	**0.0825**	0.0162	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U		
		Oct-10		0.950	**7.0 J**	**0.0308**	0.0270	< 0.00500 U	**1.25**	< 0.0100 U	**0.465**			0.0125		
	MW-84	Apr-08		2.36	**8.5**	**0.113**	0.0330	< 0.00500 J	**4.85**	< 0.00500 J	**1.98**	< 0.00004 U	0.0598	0.00602	0.00673	
		Sep-08		2.07		**0.100**	0.0182	0.00633	**3.21**	< 0.00500 J	**2.79**	< 0.00004 U	0.0616	0.0103	0.0112	
		Mar-09		33.9	**11**	**0.111**	0.0162	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U		
		Sep-09		1.36	**10**	**0.143**	0.0173	< 0.00500 J		< 0.00500 J		< 0.000200 U		0.00769		
		Apr-10		0.813	**9.3**	**0.0868**	0.0161	< 0.0100 U		< 0.0100 U		< 0.000200 U		0.0112		
		Oct-10		1.41	**7.5 J**	**0.157**	0.0147	< 0.00500 U	**4.82**	**< 0.0250 U**	**3.90**			0.00809		

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

		Analyte Group:		TPH		Total Metals									
		Analyte:		GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
		Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:			0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
		CGWSL Source:			NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**												
EP (continued)	MW-87	Apr-09		0.0518	**0.27**	**0.0125**	0.0199	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		0.0909	**0.25**	**0.0325**	0.0146	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10		< 0.0500 U	< 0.050 U	**0.0159**	0.0188	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Apr-10	FD	< 0.0500 U	< 0.050 U	**0.0149**	0.0187	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		0.0764	0.12	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**1.62 J**			< 0.0250 U	
		Oct-10	FD	0.0883	0.12	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 UJ**	**1.68 J**			< 0.0250 U	
	MW-88	Apr-08		0.479	**0.47**	**0.0134**	0.0234	< 0.00500 J	0.724	< 0.00500 J	**0.458**	< 0.00004 U	0.00830	< 0.0017 U	0.0122
		Sep-08		0.420	**0.59**	**0.0142**	0.0352	< 0.00500 J	**1.86**	< 0.00500 J	**0.413**	< 0.00004 U	0.0110	< 0.00500 J	0.0173
		Apr-09		0.298	**0.40**	**0.0140**	< 0.0100 J	< 0.0012 U		< 0.0100 J				< 0.0050 U	
		Apr-09	FD	0.301	**0.45**	**0.0103**	< 0.0100 J	< 0.0012 U		< 0.0100 J				< 0.0050 U	
		Sep-09		0.242	**0.54**	**0.0118**	0.00980	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Sep-09	FD	0.226	**0.43**	**0.157**	0.0127	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10		0.212	**0.39**	**0.0110**	0.0102	< 0.00500 U		**< 0.0250 U**		< 0.000200 U		< 0.00500 U	
		Oct-10		0.158	< 0.050 U	**0.0123**	0.0101	< 0.0100 U	< 0.400 U	< 0.0100 U	**0.555**			< 0.0100 U	
	OCD-1R	Apr-08		0.111	0.16	**0.0124**	0.0249	< 0.0010 U	**6.10**	< 0.0100 J	**2.92**	< 0.00004 U	< 0.0100 J	0.0102	< 0.0100 J
		Sep-08		0.0514	0.15	**0.0161**	0.0240	< 0.00500 J	**4.58**	< 0.0012 U	**2.95**	< 0.00004 U	0.0100	0.00613	< 0.00500 J
		Apr-09		0.0552	0.054	< 0.0100 J	0.0193	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Apr-10		< 0.0500 U	0.083 J	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10		< 0.0500 U	0.066	**0.0103**	0.0228	< 0.0100 U	**4.81**	< 0.0100 U	**2.78**			< 0.0100 U	
	OCD-2A	Apr-08		< 0.020 U	< 0.050 J	< 0.0100 J	0.0295	< 0.0100 J	**5.53**	< 0.0100 J	**0.986**	< 0.00004 U	< 0.0100 J	< 0.0034 U	< 0.0100 J
		Sep-08		< 0.020 U	< 0.050 J	0.00662	0.0223	< 0.00070 U	**3.35**	< 0.0012 U	**1.37**	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Mar-09	FD	< 0.020 U	< 0.020 U	< 0.0100 J	0.0257	< 0.0012 U		< 0.00080 U		< 0.00004 U		0.0118	
		Apr-09		< 0.020 U	< 0.020 U	< 0.0100 J	0.0251	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09		< 0.0500 U	< 0.050 U	**0.0153**	0.0210	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10		< 0.0500 U	< 0.050 UJ	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10		< 0.0500 U	< 0.050 U	< 0.0100 U	0.0248	< 0.0100 U	**3.99**	< 0.0100 U	**1.50**			< 0.0100 U	
	OCD-2B	Apr-10			< 0.050 UJ	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
	OCD-3	Apr-08		< 0.020 U	< 0.020 U	< 0.00500 J	0.0245	< 0.00050 U	0.850	< 0.00500 J	0.185	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J
		Apr-08	FD	< 0.020 U	< 0.020 U	< 0.0036 U	0.0265	< 0.0010 U	**1.78**	< 0.00040 U	**0.234**	< 0.00004 U	< 0.00060 U	< 0.0034 U	< 0.00080 U
		Sep-08		< 0.020 U	< 0.020 U	0.00705	0.0241	< 0.00070 U	**1.36**	< 0.0012 U	0.116	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Apr-09		< 0.020 U	< 0.020 U	< 0.0100 J	0.0223	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0100 J	
		Sep-09		< 0.0500 U	< 0.050 U	< 0.00500 J	0.0266	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10		< 0.0500 U	< 0.050 UJ	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10		< 0.0500 U	< 0.050 U	< 0.0100 U	0.0193	< 0.0100 U	**3.65**	< 0.0100 U	**0.296**			< 0.0100 U	
	OCD-4	Apr-08		< 0.020 U	< 0.020 U	< 0.0090 U	< 0.0250 J	< 0.0025 U	**4.32**	< 0.0010 U	**0.225**	< 0.00004 U	< 0.0015 U	< 0.0085 U	< 0.0020 U
		Sep-08		< 0.020 U	< 0.020 U	0.00811	0.0245	< 0.00070 U	**3.72**	< 0.0012 U	**0.230**	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Apr-09		< 0.020 U	< 0.020 U	< 0.0100 J	0.0231	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		< 0.0500 U	< 0.050 U	< 0.00500 J	0.0214	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10		< 0.0500 U	< 0.050 UJ	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10		< 0.0500 U	< 0.050 U	**< 0.0250 U**	0.0263	< 0.0250 U	**5.05**	**< 0.0250 U**	**0.274**			< 0.0250 U	

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2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

		Analyte Group:		TPH		Total Metals									
		Analyte:		GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
		Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:			0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
		CGWSL Source:			NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**												
EP (continued)	OCD-5	Apr-08		0.136	0.10	< 0.0090 U	< 0.0250 J	< 0.0025 U	**3.54**	< 0.0010 U	**0.279**	< 0.00004 U	< 0.0015 U	< 0.0085 U	< 0.0020 U
		Sep-08		0.498	0.12	**0.0137**	0.0243	< 0.00070 U	**3.22**	< 0.0012 U	**0.288**	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Apr-09		0.263	**0.22**	**0.0115**	0.0238	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		0.319	**0.21**	< 0.0100 J	0.0222	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Apr-10		0.162	0.094 J	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10		< 0.0500 U	< 0.050 U	**< 0.0250 U**	0.0265	< 0.0250 U	**3.57**	**< 0.0250 U**	**0.334**			< 0.0250 U	
	OCD-6	Apr-08		0.635	**1.1**	**0.0474**	0.0139	< 0.0010 U	**8.70**	< 0.00040 U	**2.08**	< 0.00004 U	< 0.0100 J	< 0.0034 U	< 0.00080 U
		Sep-08		0.636	**1.1**	**0.0501**	0.0172	< 0.00500 J	**9.36**	< 0.0012 U	**1.91**	< 0.00004 U	0.00927	0.00827	< 0.0014 U
		Apr-09		0.527	**0.83**	**0.0456**	0.0168	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		0.486	**0.89**	**0.0104**	0.0194	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10		0.307	**0.77**	**0.0299**	0.0167	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		0.536	**0.75**	**0.0469**	< 0.0250 U	< 0.0250 U	**11.6**	**< 0.0250 U**	**2.24**			< 0.0250 U	
	OCD-7A	Apr-08		1.71	**2.6**	**0.293**	0.0152	< 0.0010 U	**10.0**	< 0.0100 J	**3.53**	< 0.00004 U	0.0103	< 0.0034 U	< 0.00080 U
		Sep-08		1.84	**2.2**	**0.334**	0.0220	< 0.00500 J	**12.2**	< 0.0012 U	**3.95**	< 0.00004 U	0.0132	0.00994	< 0.00500 J
		Apr-09		1.35	**1.7**	**0.318**	0.0162	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		1.15	**1.7**	**0.236**	0.0137	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Sep-09	FD	1.14	**1.5**	**0.0436**	0.0170	< 0.00500 J		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10		1.01	**2.2**	**0.254**	0.0151	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		1.28	**1.4**	**0.270**	< 0.0250 U	< 0.0250 U	**10.8**	**< 0.0250 U**	**3.28**			< 0.0250 U	
	OCD-7B	Apr-10			< 0.050 U	< 0.0100 U	0.0302	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Apr-10	FD		< 0.050 U	< 0.0100 U	0.0319	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
	OCD-8A	Apr-08		1.21	**1.6**	**0.119**	0.0293	< 0.0010 U	**10.3**	< 0.00040 U	**3.70**	< 0.00004 U	0.0232	< 0.0034 U	< 0.00080 U
		Sep-08		1.10	**1.6**	**0.138**	0.0378	< 0.00500 J	**4.80**	< 0.00500 J	**3.09**	< 0.00004 U	0.0342	0.00573	0.0123
		Sep-08	FD	1.15	**1.9**	**0.170**	0.0652	0.00712	**7.83**	< 0.00500 J	**2.99**	< 0.00004 U	0.0319	0.00789	0.0118
		Apr-09		1.07	**0.93**	**0.105**	0.0140	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		0.757	**1.6**	< 0.0100 J	0.0215	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Apr-10		0.826	**1.2**	**0.110**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10		1.14	**1.3**	**0.135**	< 0.0250 U	< 0.0250 U	**10.7**	**< 0.0250 U**	**3.89**	< 0.000200 U	0.0363	< 0.0250 U	< 0.0250 U
	OCD-8B	Apr-10			**0.35 J**	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
TMD	MW-8	Apr-08			< 0.020 U	**0.0876**	0.0192	**4.47**	**16.7**	0.00593	**0.332**	< 0.00004 U	**0.223**	0.0204	**0.270**
		Sep-08			< 0.020 U	**0.0181**	0.0139	**0.438**	**2.06**	< 0.00500 J	**0.346**	< 0.00004 U	0.0201	0.00919	0.0691
		Apr-09			< 0.020 U	< 0.0100 J	0.0141	0.0137		< 0.00080 U		< 0.00004 U		0.0139	
		Oct-09			< 0.050 U										
		Apr-10			< 0.050 U	**< 0.0250 U**	< 0.0250 U	0.0462		**< 0.0250 U**		< 0.000200 U		0.0280	
		Oct-10		< 0.0500 U	< 0.050 U	< 0.0100 U	0.0154	**0.0521**	< 0.400 U	< 0.0100 U	**0.661**			0.0278	
	MW-16	Apr-08			0.058	0.00633	0.0212	< 0.00500 J	0.541	< 0.00500 J	**1.76**	< 0.00004 U	0.0183	< 0.0017 U	< 0.00500 J
		Sep-08				**0.0209**	0.0230	< 0.00500 J	**6.78**	< 0.00500 J	**3.01**	< 0.00004 U	0.0175	< 0.0022 U	0.00743
		Apr-09			< 0.020 U	< 0.0100 J	0.0188	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Apr-09	FD		< 0.050 J	< 0.0100 J	0.0204	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09			< 0.050 J	0.00711	0.0203	< 0.00500 U		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10			< 0.050 U	< 0.0100 U	0.0164	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	

Table 4 - Summary of Groundwater Analytical Data

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Navajo Refinery, Artesia, New Mexico

				Analyte Group:	TPH	Total Metals									
				Analyte:	GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:		0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
				CGWSL Source:		NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	Location	Date	Dup													
TMD (continued)	MW-20	Apr-08			< 0.020 U	0.00814	0.00853	< 0.00050 U	< 0.025 U	< 0.00020 U	0.149	< 0.00004 U	< 0.00500 J	0.0155	0.0501
		Sep-08			< 0.020 U	0.00901	0.00922	< 0.00500 J	< 0.200 J	< 0.00500 J	**0.229**	< 0.00004 U	0.00701	0.0164	0.0501
		Apr-09			< 0.020 U	< 0.0100 J	< 0.0100 J	< 0.0012 U		< 0.00080 U		< 0.00004 U		0.0157	
		Oct-09			< 0.050 U										
		Apr-10			< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
	MW-21	Apr-08			< 0.020 U	0.00571	0.00910	< 0.00500 J	< 0.025 U	< 0.00020 U	**0.207**	< 0.00004 U	0.00763	0.0179	0.0392
		Sep-08			< 0.020 U	0.00794	0.00953	< 0.00500 J	< 0.200 J	< 0.0012 U	**0.391**	< 0.00004 U	0.00958	0.0240	0.0406
		Apr-09			< 0.020 U	< 0.0100 J	< 0.0100 J	< 0.0012 U		< 0.00080 U		< 0.00004 U		0.0261	
		Oct-09			< 0.050 U										
		Apr-10			< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		0.0399	
		Oct-10		< 0.0500 U	< 0.050 U	< 0.0100 U	< 0.0100 U	< 0.0100 U	< 0.400 U	< 0.0100 U	**0.790**			0.0246 J	
	MW-25	Apr-08			< 0.020 U	< 0.00500 J	0.0133	< 0.00050 U	< 0.200 J	< 0.00500 J	**1.11**	< 0.00004 U	< 0.00500 J	< 0.00500 J	0.0107
		Sep-08			< 0.020 U	< 0.00500 J	0.0102	< 0.00070 U	< 0.10 U	< 0.0012 U	0.100	< 0.00004 U	< 0.00500 J	< 0.00500 J	0.00867
		Apr-09			< 0.020 U	< 0.0100 J	0.0103	< 0.0100 J		< 0.00080 U				0.0232	
		Sep-09			< 0.050 U	**0.0505**	0.0154	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10			< 0.050 U	< 0.0100 U	0.0139	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
	MW-26	Apr-08			< 0.020 U	< 0.00500 J	0.00807	< 0.00050 U	< 0.025 U	< 0.00020 U	**0.333**	< 0.00004 U	0.00770	< 0.00500 J	0.0123
		Sep-08				0.00567	0.00761	< 0.00070 U	< 0.10 U	< 0.0012 U	**0.278**	< 0.00004 U	0.00603	0.00743	0.0132
		Apr-09			< 0.020 U	< 0.0100 J	< 0.0100 J	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0100 J	
		Sep-09			< 0.050 U	< 0.00500 J	0.00818	< 0.00500 U		< 0.00500 J		< 0.000200 U		0.00535	
		Apr-10			**0.62**	< 0.0100 U	< 0.0100 U	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
	MW-27	Apr-08													
		Sep-08													
		Apr-09			< 0.020 U	< 0.0100 J	0.0149	< 0.0012 U		< 0.00080 U		< 0.00004 U		0.0118	
		Sep-09			< 0.050 U	< 0.00500 J	0.0156	< 0.00500 J		< 0.00500 J		< 0.000200 U		0.0135	
		Apr-10			< 0.050 U	< 0.0100 U	0.0158	< 0.0100 U		< 0.0100 U		< 0.000200 U		0.0116	
	MW-68	Apr-08			< 0.020 U	< 0.00500 J	0.0299	< 0.00500 J	**1.44**	< 0.00500 J	0.0449	< 0.00004 U	< 0.00500 J	0.00714	0.0254
		Sep-08			< 0.020 U	< 0.00500 J	0.0126	< 0.00500 J	< 0.10 U	< 0.0012 U	< 0.00500 J	< 0.00004 U	< 0.00500 J	0.0216	0.0138
		Apr-09			< 0.020 U	< 0.0100 J	0.0122	< 0.0012 U		< 0.00080 U		< 0.00004 U		0.0163	
		Sep-09			< 0.050 U	< 0.00500 J	0.0166	< 0.00500 J		< 0.00500 U		< 0.000200 U		0.0121	
		Apr-10			< 0.050 U	< 0.0100 U	0.0127	< 0.0100 U		< 0.0100 U		< 0.000200 U		0.0127	
	MW-71	Apr-10			< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		0.0311	
		Oct-10			< 0.050 U	< 0.0100 U	< 0.0100 U	< 0.0100 U	< 0.400 U	< 0.0100 U	< 0.0100 U	< 0.000200 U	< 0.0100 U	0.0330	0.0234
	MW-89	Apr-08			**0.27**	**0.0209**	0.0177	< 0.00500 J	**2.55**	< 0.00500 J	**0.951**	< 0.00004 U	0.00526	< 0.0017 U	< 0.00500 J
		Sep-08				**0.0393**	0.166	0.0142	**13.9**	0.0106	**1.09**	< 0.00004 U	0.0120	< 0.00500 J	0.0271
		Sep-08		0.112		**0.0192**	0.0161	< 0.00070 U	**4.28**	< 0.0012 U	**2.12**	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.0014 U
		Apr-09			0.14	**0.0197**	0.0131	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09			0.084	**0.0101**	0.0157	< 0.00500 J		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10			< 0.050 U	< 0.0100 U	0.0133	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	

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Navajo Refinery, Artesia, New Mexico

		Analyte Group:		TPH		Total Metals									
		Analyte:		GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
		Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:			0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
		CGWSL Source:			NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**												
TMD (continued)	NP-1	Apr-08													
		Sep-08													
		Apr-09													
		Sep-09				**0.0139**	0.612	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10													
		Oct-10													
	NP-6	Apr-08			< 0.020 U	0.00792	0.0251	0.00927	0.962	< 0.00500 J	0.0214	< 0.000200 J	< 0.00500 J	0.0277	0.0358
		Sep-08			< 0.020 U	0.00508	0.0116	< 0.00070 U	< 0.10 U	< 0.0012 U	< 0.00500 J	< 0.00004 U	< 0.00500 J	0.0255	0.0337
		Apr-09			< 0.020 U	< 0.0100 J	0.0101	< 0.0012 U		< 0.00080 U				0.0245	
		Oct-09			< 0.050 U										
		Oct-10													
N Refinery	MW-23	Apr-08			**10**	**0.0247**	**12.2**	< 0.00050 U	< 0.200 J	< 0.00500 J	0.0856	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J
		Sep-08			**11**	**0.0249**	**14.4**	< 0.00070 U	< 0.10 U	< 0.00500 J	0.0764	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.0014 U
		Apr-09			**17**	**0.0212**	**15.3**	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09			**3.7**	< 0.00500 J	0.0166	< 0.00500 J		< 0.00500 U		< 0.000200 U		0.0106	
		Mar-10		5.81	**3.4**	**0.0152**	**6.82**	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		38.3	**5.1 J**	**< 0.0250 U**	**6.02**	< 0.0250 U	< 1.00 U	**< 0.0250 U**	0.0840			< 0.0250 U	
	MW-29	Apr-08			**0.30**	**0.0168**	0.0138	< 0.00050 U	**1.08**	< 0.00500 J	**0.446**	< 0.00004 U	< 0.00500 J	0.00772	0.0320
		Sep-08			**0.85**	**0.0429**	0.0291	< 0.00500 J	**2.69**	0.00865	**0.695**	< 0.00004 U	0.00509	< 0.00500 J	0.0207
		Apr-09			**0.53**	**0.0274**	0.0173	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09			**0.48**	< 0.00500 J	0.0118	< 0.00500 U		< 0.00500 U		< 0.000200 U		0.00821	
		Mar-10		0.0784	**0.22**	< 0.00500 U	0.0168	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		0.0693	**0.38**	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**0.350**			< 0.0250 U	
	MW-30	Mar-10		< 0.0500 U	**0.47**	**0.0126**	0.0128	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
	MW-40	Mar-10		0.974	**1.2**	< 0.00500 U	0.0259	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
	MW-41	Apr-08			**1.0**	**0.0124**	0.0213	< 0.00050 U	0.260	< 0.00500 J	**0.778**	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J
		Sep-08			**0.75**	**0.0143**	0.0228	< 0.00070 U	0.226	< 0.0012 U	**0.944**	< 0.000200 J	0.00626	< 0.00500 J	< 0.0014 U
		Apr-09			**1.0**	**0.0181**	0.0271	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09			**1.1**	0.00720	0.0222	< 0.00500 U		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Mar-10		0.417	**0.92**	**0.0105**	0.0188	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		0.744	**0.97**	**< 0.0250 U**	0.0323	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**0.876**			< 0.0250 U	
	MW-42	Apr-08			**4.7**	**0.0139**	0.111	< 0.00500 J	**1.64**	< 0.00500 J	**0.210**	< 0.00004 U	0.00844	< 0.0017 U	< 0.00500 J
		Sep-08			**3.4**	**0.0111**	0.0274	< 0.00070 U	0.572	< 0.0012 U	0.158	< 0.00004 U	0.00780	< 0.00500 J	< 0.0014 U
		Apr-09			**2.6**	**0.0150**	0.0268	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Apr-09	FD		**2.2**	**0.0154**	0.0256	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09			**1.3**	**0.0138**	0.0179	< 0.00500 U		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Mar-10		1.89	**1.7**	**0.0122**	0.0283	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		1.96	**1.0**	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**0.209**			< 0.0250 U	
	MW-43	Apr-08			**3.2**	**0.0124**	0.390	< 0.00050 U	< 0.200 J	< 0.00500 J	**0.435**	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00040 U
		Sep-08			**5.0**	**0.0133**	0.510	< 0.00070 U	< 0.10 U	< 0.0012 U	**0.358**	< 0.00004 U	0.00719	< 0.00500 J	< 0.0014 U
		Apr-09			**5.7**	**0.0126**	0.903	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09			**2.0**	**0.0182**	**4.59**	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Mar-10		12.9	**3.1**	0.00998	0.489	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		15.7	**1.2**	**< 0.0250 U**	**1.22**	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**0.229**	< 0.000200 U	< 0.0250 U	< 0.0250 U	< 0.0250 U

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		Analyte Group:		TPH		Total Metals									
		Analyte:		GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
		Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:			0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
		CGWSL Source:			NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**												
N Refinery (continued)	MW-45	Apr-08			**0.26**	< 0.00500 J	0.0163	< 0.00500 J	0.971	0.00956	**0.328**	< 0.00004 U	0.0127	< 0.0017 U	< 0.00500 J
		Sep-08			**0.42**	0.00539	0.0160	< 0.00500 J	0.749	0.00816	**0.296**	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.00500 J
		Apr-09			**0.37**	< 0.0100 J	0.0147	< 0.0100 J		< 0.0100 J				0.0112	
		Sep-09			**0.33**	**0.0136**	0.0224	< 0.00500 U		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Mar-10			**0.29**	< 0.00500 U	0.0137	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Nov-10			**0.38**	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**0.390**	< 0.000200 U	< 0.0250 U	< 0.0250 U	< 0.0250 U
		Nov-10	FD		**0.21**	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	**0.450**	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U
	MW-46	Nov-10			< 0.050 U	**< 0.0500 U**	0.497	**0.0593**	**39.4**	**< 0.0500 U**	**0.392**		< 0.0500 U	< 0.0500 U	**0.189**
	MW-55	Apr-08			< 0.020 U	0.00570	0.0101	< 0.00050 U	< 0.200 J	< 0.00500 J	**0.492**	< 0.00004 U	0.00769	0.0134	0.0139
		Sep-08			0.051	0.00710	0.0118	< 0.00500 J	< 0.10 U	< 0.0012 U	**0.202**	< 0.00004 U	0.00766	0.0209	0.0176
		Apr-09			< 0.050 J	< 0.0100 J	0.0160	< 0.0012 U		< 0.00080 U		< 0.00004 U		0.0128	
		Sep-09			0.059	< 0.00500 J	0.0146	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Mar-10		< 0.0500 U	< 0.050 U	< 0.00500 U	0.00913	< 0.00500 U		< 0.00500 U		< 0.000200 U		0.0216	
		Oct-10		< 0.0500 U	< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	< 0.0250 U	< 0.000200 U	< 0.0250 U	< 0.0250 U	< 0.0250 U
	MW-56	Apr-08			**0.52**	0.00755	0.0150	< 0.00500 J	< 0.200 J	< 0.00500 J	**0.278**	< 0.00004 U	0.0136	0.00553	0.0232
		Sep-08			**0.30**	0.00790	0.0184	< 0.00070 U	0.279	< 0.00500 J	**0.314**	< 0.00004 U	0.00721	0.00548	0.0242
		Apr-09			< 0.020 U	< 0.0100 J	0.0142	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U	
		Sep-09			0.073	0.00639	0.0135	< 0.00500 U		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Sep-09	FD		0.067	0.00525	0.00838	< 0.00500 U		< 0.0100 U	0.0573	< 0.000200 J		0.0184	
		Mar-10			**0.23**	0.00654	0.0122	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10			0.089	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**0.304**			< 0.0250 U	
	MW-59	Apr-10		0.0946	< 0.050 U	**0.0316**	0.0127	< 0.00500 U		< 0.0100 U		< 0.000200 U		< 0.00500 U	
	MW-60	Apr-10		0.917	**0.35**	**0.0180**	0.0193	< 0.00500 U		< 0.0100 U		< 0.000200 U		< 0.00500 U	
		Nov-10		0.962	**0.27**	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	**0.351**	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U
	MW-61	Apr-08		19.2	**3.8**	< 0.00500 J	0.0602	< 0.00500 J	0.393	0.00610	0.0187	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J
		Sep-08		14.6	**3.5**	< 0.00500 J	0.0685	< 0.00500 J	0.844	0.00593	0.0236	< 0.00004 U	0.00607	< 0.00500 J	< 0.00500 J
		Apr-09		16.2	**3.2**	< 0.0100 J	0.0556	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Oct-09		9.80	**1.4**										
		Apr-10		9.31	**1.5**	< 0.0100 U	0.0327	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		11.3	**1.4**	**< 0.0250 U**	0.0294	< 0.0250 U	< 1.00 U	**< 0.0250 U**	0.0264			< 0.0250 U	
	MW-62	Apr-08		12.6	**8.3**	0.00891	0.270	< 0.00050 U	0.305	< 0.00500 J	0.0179	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J
		Sep-08		11.5	**5.5**	0.00653	0.361	< 0.00070 U	0.250	< 0.0012 U	0.0118	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.0014 U
		Apr-09		10.2	**7.0**	**0.0192**	0.445	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Oct-09		6.61	**1.2**										
		Apr-10		3.91	**1.2**	< 0.0100 U	0.876	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 U	
		Oct-10		4.44	**0.65**	**< 0.0250 U**	0.206 J	< 0.0250 U	< 1.00 U	**< 0.0250 U**	< 0.0250 U			< 0.0250 U	
		Oct-10	FD	4.79	**0.61**	< 0.00500 U	0.217 J	< 0.00500 U	< 0.200 U	< 0.00500 U	0.00520			< 0.00500 U	
	MW-67	Apr-08		0.743	**1.1**	< 0.00500 J	0.127	< 0.00500 J	0.487	< 0.00500 J	**0.254**	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00040 U
		Sep-08		2.33	**2.3**	0.00987	0.201	< 0.00500 J	0.439	< 0.0012 U	**0.212**	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.0014 U
		Apr-09			**2.7**	< 0.0100 J	0.165	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Oct-09		0.368	**0.67**										
		Mar-10		0.402	**1.0**	< 0.00500 U	0.154	< 0.00500 U		< 0.00500 U		< 0.000200 J		< 0.00500 U	
		Oct-10		1.22	**1.3**	**< 0.0250 U**	0.287	< 0.0250 U	< 1.00 U	**< 0.0250 U**	0.142	< 0.000200 U	< 0.0250 U	< 0.0250 U	< 0.0250 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	TPH		Total Metals									
				Analyte:	GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:		0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
				CGWSL Source:		NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**													
N Refinery (continued)	MW-90	May-08		0.547	**2.8**	< 0.00500 U	0.0188	< 0.00500 U	< 0.200 U	< 0.00500 U	0.0759	< 0.000200 U	< 0.00500 U	< 0.00500 U	< 0.00500 U
		Sep-08		0.402	**2.6**	**0.0237**	0.0146	< 0.00500 J	0.660	< 0.0012 U	0.0904	< 0.00004 U	< 0.00500 J	0.0296	0.0178
		Sep-08	FD	0.362	**2.6**	**0.0256**	0.0152	< 0.00500 J	0.772	< 0.0012 U	0.0952	< 0.00004 U	< 0.00500 J	0.0328	0.0209
		Apr-09		0.440	**1.9**	< 0.0100 J	0.0218	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Oct-09		0.244	**2.0**										
		Mar-10		0.274	**1.9**	< 0.00500 U	0.0164	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		0.269	**1.7**	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	0.0520			< 0.0250 U	
	MW-91	May-08		20.5	**2.3**	0.00965	0.107	< 0.00500 U	**1.44**	< 0.00500 U	0.0919	< 0.000200 U	< 0.00500 U	< 0.00500 U	0.00702
		Sep-08		11.4	**2.4**	**0.0147**	0.0926	< 0.00500 J	**1.83**	< 0.00500 J	0.0708	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.0014 U
		Apr-09		15.3	**2.1**	< 0.0100 J	0.0934	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Oct-09		27.5	**2.6**										
		Mar-10		21.9	**1.2**	< 0.00500 U	0.0433	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		29.8	**1.9**	**< 0.0250 U**	0.0618	< 0.0250 U	< 1.00 U	**< 0.0250 U**	< 0.0250 U			< 0.0250 U	
	MW-92	May-08		6.78	**6.3**	0.00531	0.336	< 0.00500 U	0.305	< 0.00500 U	0.0392	< 0.000200 U	< 0.00500 U	< 0.00500 U	< 0.00500 U
		Sep-08		6.18	**3.3**	0.00739	0.519	< 0.00500 J	0.211	< 0.0012 U	0.0310	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.00500 J
		Apr-09		6.79	**4.4**	< 0.0100 J	0.313	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Oct-09		9.45	**4.9**										
		Mar-10		5.26	**3.6**	< 0.00500 U	**2.29**	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
	MW-93	May-08		6.85	**4.1**	**0.0139**	0.515	**0.0726**	**28.0**	**0.0585**	**0.598**	< 0.000200 U	0.0183	< 0.00500 U	0.0644
		Sep-08		7.51	**9.9**	**0.0164**	0.206	0.0265	**19.1**	**0.0288**	**0.316**	< 0.00004 U	0.00904	< 0.0022 U	0.0464
		Apr-09		10.4	**1.2**	< 0.0100 J	0.123	0.0413		**0.0592**		< 0.000200 J		< 0.0050 U	
		Oct-09		5.08	**1.9**										
		Mar-10		31.8 J	**1.5 J**										
		Mar-10	FD	< 0.0500 UJ	0.14 J	0.00826	0.0207 J	< 0.00500 U		0.00880		< 0.000200 U		0.00508	
		Oct-10		8.49	**1.9**	**< 0.0250 U**	0.0427	< 0.0250 U	< 1.00 U	**< 0.0250 U**	< 0.0250 U			< 0.0250 U	
	MW-95	May-08		4.31	**2.6**	< 0.00500 U	0.0886	< 0.00500 U	**1.34**	< 0.00500 U	**0.375**	< 0.000200 U	< 0.00500 U	< 0.00500 U	< 0.00500 U
		Sep-08		0.365	**1.3**	**0.0119**	0.0546	< 0.00500 J	0.734	< 0.00500 J	**0.387**	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.0014 U
		Apr-09		0.273	**1.6**	< 0.0100 J	0.0756	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Oct-09		0.113	**1.2**										
		Mar-10		0.144	**0.95**	< 0.00500 U	0.0905	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
	MW-96	May-08		56.4	**3.3**	< 0.00500 U	0.160	< 0.00500 U	0.535	< 0.00500 U	0.00838	< 0.000200 U	< 0.00500 U	< 0.00500 U	< 0.00500 U
		Sep-08		42.6	**3.9**	< 0.00500 J	0.216	< 0.00500 J	0.686	< 0.0012 U	0.0135	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.00500 J
		Apr-09		37.3	**2.4**	< 0.0100 J	0.146	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Apr-09	FD	37.3	**1.5**	< 0.0100 J	0.152	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Oct-09		35.2	**1.6**										
		Oct-09	FD	38.0	**1.8**										
		Mar-10		25.8	**1.6**	< 0.00500 U	0.0675	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		31.2	**1.7**	**< 0.0250 U**	0.0854	< 0.0250 U	< 1.00 U	**< 0.0250 U**	< 0.0250 U			< 0.0250 U	
	MW-98	May-08		18.7	**2.5**	< 0.00500 U	0.0137	< 0.00500 U	< 0.200 U	< 0.00500 U	0.148	< 0.000200 U	< 0.00500 U	< 0.00500 U	< 0.00500 U
		Sep-08		28.7	**2.0**	< 0.00500 J	0.0132	< 0.00500 J	0.387	< 0.00500 J	0.130	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.00500 J
		Apr-09		22.9	**2.5**	< 0.0100 J	0.0104	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09		33.9	**2.7**	< 0.00500 J	0.0205	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10		27.4	**3.3**	< 0.0100 U	0.0142	< 0.0100 U		0.0108		< 0.000200 U		< 0.0100 U	
		Oct-10		30.2	**1.7**	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	< 0.0250 U			< 0.0250 U	

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2010 Groundwater Report

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		Analyte Group:		TPH		Total Metals									
		Analyte:		GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
		Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:			0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
		CGWSL Source:			NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**												
N Refinery (continued)	RW-1	Apr-08				< 0.00500 J	0.0542	0.00692	**3.58**	**0.0171**	0.0267	< 0.000200 J	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Sep-08				< 0.00500 J	0.141	< 0.00070 U	< 0.10 U	< 0.00500 J	0.0197	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Apr-09				< 0.0100 J	0.0517	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Oct-09													
		Nov-10			**5.6**	**< 0.0500 U**	0.0634	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	0.172		< 0.0500 U	< 0.0500 U	< 0.0500 U
	RW-2	Nov-10			**5.4**	**< 0.0250 U**	**3.10**	< 0.0250 U	< 1.00 U	**< 0.0250 U**	< 0.0250 U		< 0.0250 U	< 0.0250 U	< 0.0250 U
	RW-7	Apr-10		0.320	**1.0 J**	< 0.00500 U	0.142	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
	RW-9	Apr-10		0.926	**0.44 J**	< 0.00500 U	0.0614	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10	FD	0.708	**0.42 J**	< 0.00500 U	0.0598	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
	RW-10	Apr-10		< 0.0500 U	**0.29**	< 0.00500 U	0.0214	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
	RW-16A	Mar-10			**0.40**	**0.0157**	0.0170	< 0.00500 U		< 0.00500 U		< 0.000200 U		0.0127	
S Refinery	KWB-2R	Oct-10			**1.3**	**< 0.0500 U**	0.733	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	0.167			< 0.0500 U	
	MW-28	Apr-08			**3.5**	0.00652	0.0293	< 0.00050 U	0.230	0.0148	0.124	< 0.00004 U	0.00621	< 0.0017 U	< 0.00500 J
		Apr-09			**3.0**	< 0.0100 J	0.0321	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09			**1.6**	< 0.00500 J	0.0141	< 0.00500 U		< 0.00500 U		< 0.000200 U		0.00501	
		Apr-10		5.42	**3.5**	0.00684	0.0365	< 0.00500 U		**0.0194**		< 0.000200 U		< 0.00500 U	
		Oct-10		6.81 J	**3.6 J**	**< 0.0250 U**	0.0364	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**0.251**	< 0.000200 U	< 0.0250 U	< 0.0250 U	< 0.0250 U
	MW-49	Apr-08		6.57	**1.8**	< 0.00500 J	0.0471	< 0.00500 J	< 0.200 J	< 0.00500 J	**0.282**	< 0.00004 U	0.00748	< 0.0017 U	< 0.00500 J
		Sep-08		5.79	**2.2**	< 0.00500 J	0.0486	< 0.00070 U	< 0.200 J	< 0.0012 U	**0.302**	< 0.00004 U	0.00844	< 0.00500 J	< 0.0014 U
		Apr-09		4.27	**1.9**	< 0.0100 J	0.0486	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Apr-10		3.72	**0.74**	< 0.00500 U	0.0515	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		3.29	**1.8**	**< 0.0250 U**	0.0493	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**0.209**	< 0.000200 U	< 0.0250 U	< 0.0250 U	< 0.0250 U
	MW-50	Apr-08			**0.42**	< 0.0018 U	0.0224	< 0.00500 J	0.272	< 0.00500 J	**1.61**	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00500 J
		Apr-08	FD		**0.45**	< 0.0018 U	0.0209	< 0.00050 U	0.255	< 0.00500 J	**1.46**	< 0.00004 U	< 0.00500 J	< 0.0017 U	< 0.00500 J
		Sep-08			**0.38**	< 0.00500 J	0.0217	< 0.00070 U	0.563	< 0.0012 U	**1.42**	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.00500 J
		Sep-08	FD		**0.56**	< 0.00500 J	0.0258	< 0.00070 U	0.615	< 0.0012 U	**1.47**	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.00500 J
		Apr-09			**0.36**	< 0.0100 J	0.0208	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Sep-09			0.12	< 0.00500 J	0.0260	< 0.00500 U		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Sep-09	FD		0.12	**0.0119**	0.213	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Apr-10			0.13	< 0.0100 U	0.0215	< 0.0100 U		< 0.0100 U		< 0.000200 U		< 0.0100 UJ	
		Nov-10			0.090	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**1.27**		< 0.0250 U	< 0.0250 U	< 0.0250 U
	MW-52	Apr-08			< 0.020 U	< 0.00500 J	0.0133	< 0.00500 J	0.259	< 0.00500 J	0.100	< 0.00004 U	0.00737	< 0.00500 J	0.0233
		Sep-08			**0.22**	< 0.00500 J	0.0117	< 0.00070 U	0.321	< 0.0012 U	0.0975	< 0.00004 U	0.00838	< 0.00500 J	0.0216
		Apr-09			0.084	< 0.0100 J	0.0106	< 0.0012 U		< 0.00080 U				< 0.0050 U	
		Sep-09			0.080	0.00588	0.0110	< 0.00500 J		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Sep-09	FD		0.11	0.00602	0.0109	< 0.00500 U		< 0.00500 U		< 0.000200 U		0.00894	
		Apr-10		< 0.0500 U	0.057	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10		< 0.0500 U	< 0.050 U	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	0.0764	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U
MW-57		Nov-10		< 0.0500 U	< 0.050 U	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	**0.201**			**0.0542**	

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	TPH		Total Metals									
				Analyte:	GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:		0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
				CGWSL Source:		NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**													
S Refinery (continued)	MW-58	Apr-08			**0.47**	**0.0588**	0.318	< 0.00050 U	**2.38**	< 0.00500 J	**0.811**	< 0.00004 U	< 0.00500 J	< 0.00500 J	< 0.00040 U	
		Sep-08			**0.75**	**0.0631**	0.210	< 0.00500 J	**2.87**	< 0.0012 U	**0.784**	< 0.00004 U	0.0114	< 0.00500 J	< 0.00500 J	
		Apr-09			**0.68**	**0.0603**	0.373	< 0.0012 U		< 0.00080 U				< 0.0050 U		
		Sep-09			**0.73**	0.00568	0.0109	< 0.00500 J		< 0.00500 U		< 0.000200 U		< 0.00500 U		
		Apr-10			**4.6**	**0.0423**	**1.27**	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U		
		Apr-10	FD		**5.6**	**0.0275**	**1.10**	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U		
		Oct-10			**0.49**	**< 0.0500 U**	**3.19**	< 0.0500 U	**10.8**	**< 0.0500 U**	**0.364**	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U	
	MW-66	Apr-08		16.6	**1.4**	0.00540	**1.40**	< 0.00500 J	0.688	< 0.00500 J	**0.260**	< 0.00004 U	0.0184	< 0.00500 J	< 0.00500 J	
		Sep-08		20.7	**1.4**	0.00880	**1.53**	0.00999	**5.57**	**0.0479**	**0.329**	< 0.00004 U	0.0231	< 0.0022 U	0.0138	
		Apr-09		12.0	**1.7**	< 0.0100 J	**1.45**	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U		
		Sep-09		12.5	**0.59**	< 0.00500 J	0.0299	< 0.00500 U		0.00771		< 0.000200 U		< 0.00500 U		
		Apr-10		8.27	**2.0**	< 0.00500 U	**1.78**	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U		
		Oct-10		23.0	**0.96**	**< 0.0250 U**	**2.78**	< 0.0250 U	**2.50**	**< 0.0250 U**	0.199	< 0.000200 U	< 0.0250 U	< 0.0250 U	< 0.0250 U	
	MW-99	Sep-08		31.5	**0.93**	**0.0158**	0.337	< 0.00500 J	0.808	< 0.0012 U	**0.251**	< 0.00004 U	0.123	< 0.0022 U	0.00507	
		Apr-09		2.04	**0.70**	**0.0465**	0.0811	< 0.0012 U		< 0.0100 J		< 0.00004 U		< 0.0050 U		
		Sep-09		29.2	**0.59**	< 0.00500 J	0.0136	< 0.00500 J		0.00946		< 0.000200 U		< 0.00500 U		
		Apr-10		27.3	**1.5**	**0.0138**	0.239	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U		
		Oct-10		22.6	**0.83**	**< 0.0250 U**	0.0800	< 0.0250 U	< 1.00 U	**< 0.0250 U**	**0.288**			< 0.0250 U		
	MW-101	May-08		3.82	**1.2**	**0.0360**	0.0800	< 0.00500 U	**2.12**	< 0.00500 U	**1.24**	< 0.000200 U	0.00793	< 0.00500 U	< 0.00500 U	
		May-08	FD	3.81	**1.2**	**0.0395**	0.0937	< 0.00500 U	**4.23**	< 0.00500 U	**1.13**	< 0.000200 U	0.00781	< 0.00500 U	< 0.00500 U	
		Sep-08		2.51	**1.0**	**0.0569**	0.0775	< 0.00070 U	**3.69**	< 0.0012 U	**1.21**	< 0.00004 U	0.0107	< 0.0022 U	< 0.0014 U	
		Apr-09		24.4	**0.83**	**0.0145**	0.194	< 0.0012 U		< 0.00080 U		< 0.00004 U		< 0.0050 U		
		Sep-09		0.736	**0.81**	**0.0129**	0.0349	0.0118		< 0.00500 J		< 0.000200 U		< 0.00500 U		
		Apr-10		1.99	**0.82**	**0.0246**	0.104	< 0.00500 U		< 0.0100 U		< 0.000200 U		< 0.00500 U		
		Nov-10		1.45	**1.1**	**0.0323**	0.0814	< 0.0250 U	**1.56**	**< 0.0250 U**	**0.982**			< 0.0250 U		
	MW-103	Sep-08		20.7	**2.5**					**0.0161**						
		Mar-09		9.54	**3.9**	< 0.00500 J	0.494	< 0.00500 J	< 0.200 J	< 0.00500 J	0.0191	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.00500 J	
		Sep-09		5.15	**1.6**	**0.0595**	0.0651	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 J		
		Apr-10		4.47	**3.4**	< 0.00500 U	0.614	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U		
	MW-104	Sep-08		3.12	**1.3**					0.00798						
		Mar-09		1.61	**0.85**	< 0.00500 J	0.0280	< 0.00500 J	< 0.200 J	< 0.0012 U	0.0177	< 0.00004 U	< 0.00500 J	< 0.0022 U	< 0.0014 U	
		Sep-09		1.08	**0.50**	< 0.00500 J	0.561	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J		
		Apr-10		0.714	**0.38**	< 0.00500 U	0.0278	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U		
		Oct-10		0.784	**0.56**	**< 0.0250 U**	0.0286	< 0.0250 U	< 1.00 U	**< 0.0250 U**	0.0273			< 0.0250 U		
		Oct-10	FD	0.812 J	**0.47 J**	**< 0.0250 U**	0.0322	< 0.0250 U	< 1.00 U	**< 0.0250 U**	0.0283			< 0.0250 U		
	MW-106	Sep-09		37.8	**3.2**	0.00597	0.0400	< 0.00500 J		< 0.00500 U		< 0.000200 U		< 0.00500 U		
		Apr-10		22.7	**0.81 J**	< 0.00500 U	0.0180	< 0.00500 U		0.00593		< 0.000200 U		< 0.00500 U		
		Oct-10		40.1	**2.0**	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	< 0.0250 U			< 0.0250 U		
	MW-107	Sep-09		44.3	**2.8**	**0.0112**	0.0341	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J		
		Mar-10		28.7	**3.1**	0.00857	**1.98**	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U		
		Nov-10		34.2	**1.8**	**< 0.0250 U**	**2.46**	< 0.0250 U	**10.8**	**< 0.0250 U**	0.196			< 0.0250 U		
	RW-4	Apr-10			**1.0**	**0.0283**	0.193	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U		

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Navajo Refinery, Artesia, New Mexico

		Analyte Group:	TPH		Total Metals									
		Analyte:	GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
		Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:		0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
		CGWSL Source:		NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	Location	Date	Dup											
S Refinery (continued)	RA-313	Mar-08												
		Sep-08												
		Sep-08	FD											
		Oct-09												
		Apr-10												
		Apr-10	FD											
	RA-1227	Nov-10												
		Nov-10	FD											
Field E of Refinery	KWB-1A	Sep-08			< 0.050 J	< 0.00500 J	0.00863	< 0.00500 J	< 0.200 J	< 0.0012 U	**0.231**	< 0.00004 U	0.00907	< 0.00500 J	0.0149
		Apr-09			< 0.020 U	< 0.0100 J	< 0.0100 J	< 0.0012 U		< 0.00080 U				< 0.0050 U	
		Sep-09			< 0.050 U	< 0.00500 J	0.0183	< 0.00500 J		< 0.00500 U		< 0.000200 U		0.0169	
		Apr-10			< 0.050 U	**< 0.0250 U**	0.0101	< 0.0250 U		< 0.0100 U		< 0.000200 U		< 0.0250 U	
		Oct-10			< 0.050 U	< 0.00500 U	0.00887	< 0.00500 U	< 0.200 U	< 0.00500 U	**0.234**	< 0.000200 U	0.0114	< 0.00500 U	0.0166
		Oct-10	FD		< 0.050 U	< 0.00500 U	0.00979	< 0.00500 U	< 0.200 U	< 0.00500 U	**0.251**	< 0.000200 U	0.0110	< 0.00500 U	0.0181
	KWB-3AR	Apr-08			< 0.020 U	< 0.00500 J	0.0354	< 0.00500 J	**2.34**	< 0.00500 J	0.0379	< 0.00004 U	< 0.00500 J	0.0191	0.0241
		Sep-08			< 0.020 U	< 0.00500 J	0.0187	< 0.00500 J	0.729	< 0.00500 J	0.0128	< 0.00004 U	0.00598	0.0194	0.0188
		Sep-08	FD		< 0.020 U	< 0.00500 J	0.0192	< 0.00500 J	0.702	< 0.00500 J	0.00765	< 0.00004 U	0.00713	0.0200	0.0185
		Apr-09			< 0.020 U	< 0.0100 J	0.0242	< 0.0100 J		< 0.0100 J		< 0.00004 U		0.0146	
		Sep-09			< 0.050 U	< 0.00500 J	0.00846	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Apr-10			< 0.050 U	**< 0.0250 U**	0.0236	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		0.0282	
		Oct-10			< 0.050 U	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	< 0.0500 U	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U
		Oct-10	FD		< 0.050 U	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	< 0.0500 U	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U
	KWB-7	Apr-08			< 0.020 U	< 0.00500 J	0.0359	< 0.00050 U	< 0.200 J	< 0.00500 J	**1.40**	< 0.00004 U	0.0217	< 0.00500 J	0.0242
		Sep-08			< 0.020 U	< 0.00500 J	0.0404	< 0.00070 U	< 0.10 U	< 0.0012 U	**2.29**	< 0.00004 U	0.0365	0.0105	0.0202
		Apr-09			< 0.050 J	< 0.0100 J	0.0343	< 0.0012 U		< 0.00080 U				0.0135	
		Oct-09			< 0.050 J										
		Apr-10			< 0.050 U	**< 0.0250 U**	0.0302	< 0.0250 U		< 0.0100 U		< 0.000200 U		< 0.0250 U	
		Oct-10			< 0.050 U	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	**2.34**	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U
	KWB-9	Apr-08			< 0.020 U	< 0.00500 J	0.0104	< 0.00050 U	< 0.200 J	< 0.00020 U	0.0226	< 0.00004 U	< 0.00030 U	< 0.00500 J	0.00766
		Apr-08	FD		< 0.020 U	< 0.00500 J	0.00942	< 0.00050 U	< 0.200 J	< 0.00020 U	0.0230	< 0.00004 U	< 0.00030 U	< 0.00500 J	0.00790
		Sep-08			< 0.020 U	< 0.00500 J	0.0116	< 0.00500 J	< 0.200 J	< 0.0012 U	0.0225	< 0.00004 U	< 0.00500 J	< 0.00500 J	0.00826
		Apr-09			< 0.020 U	< 0.0100 J	0.0109	< 0.0012 U		< 0.0100 J				< 0.0050 U	
		Sep-09			< 0.050 U	0.00559	0.0159	< 0.00500 U		< 0.00500 U		< 0.000200 U		0.0183	
		Apr-10			< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10			< 0.050 U	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	< 0.0500 U	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U
	KWB-11A	Apr-08			< 0.020 U	< 0.00500 J	0.0167	< 0.00050 U	< 0.200 J	< 0.00020 U	0.0127	< 0.00004 U	< 0.00030 U	< 0.00500 J	0.0130
		Sep-08			< 0.020 U	< 0.00500 J	0.0187	< 0.00500 J	< 0.10 U	< 0.0012 U	0.0197	< 0.000200 J	< 0.00500 J	0.00822	0.0127
		Apr-09			< 0.020 U	< 0.0100 J	0.0215	< 0.0100 J		< 0.00080 U				0.0255	
		Oct-09			< 0.050 J										
		Apr-10			< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10		< 0.0500 U	< 0.050 U	< 0.00500 U	0.0203	< 0.00500 U	< 0.200 U	< 0.0100 U	< 0.00500 U		0.00707	0.00897	0.0128
	KWB-11B	Oct-10		< 0.0500 U	< 0.050 U	< 0.00500 U	0.0172	< 0.00500 U	< 0.200 U	< 0.00500 U	< 0.00500 U	< 0.000200 U	0.00639	0.00981	0.00751

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		Analyte Group:		TPH		Total Metals									
		Analyte:		GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
		Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:			0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
		CGWSL Source:			NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**												
Field E of Refinery (continued)	KWB-12A	Sep-08			< 0.020 U	0.00894	0.0750	0.00599	**5.18**	0.00791	0.130	< 0.000200 J	0.00680	0.0108	0.0162
		Sep-09			< 0.050 U	**0.0147**	0.103	< 0.00500 U		< 0.00500 U		< 0.000200 U		< 0.00500 U	
		Oct-10		< 0.0500 U	< 0.050 U	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	< 0.0500 U	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U
	KWB-12B	Oct-10		< 0.0500 U	< 0.050 U	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	< 0.0500 U	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U
	RW-11-1	Nov-10			**3.5**	**< 0.0250 U**	0.106	< 0.0250 U	**9.62**	**< 0.0250 U**	**0.812**		< 0.0250 U	< 0.0250 U	< 0.0250 U
	RW-18	Apr-08				< 0.00500 J	0.0138	< 0.00500 J	0.826	< 0.00500 J	0.0201	< 0.000200 J	< 0.00500 J	0.0121	0.0248
		Sep-08				0.00541	0.0110	< 0.00500 J	< 0.200 J	< 0.0012 U	0.0440	< 0.000200 J	0.00515	0.00926	0.0228
		Apr-09				< 0.0100 J	0.0108	< 0.0012 U		< 0.00080 U				0.0115	
		Sep-09				0.00566	0.0156	< 0.00500 U		< 0.00500 U		< 0.000200 U		0.0379	
		Apr-10				**< 0.0250 U**	0.0102	< 0.0250 U		< 0.0100 U		< 0.000200 U		< 0.0250 U	
	RA-4196	Mar-08													
		Sep-08													
		Apr-09										< 0.00004 U			
		Sep-09													
		Apr-10													
		Nov-10													
	RA-4798	Mar-08													
		Sep-08													
		Apr-09										< 0.00004 U			
		Sep-09				< 0.00500 J	0.0138	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 U	
		Apr-10													
		Nov-10													
Crossgradient	KWB-13	Apr-08			< 0.020 U	< 0.00500 J	0.0217	< 0.00500 J	0.262	< 0.00500 J	0.00877	< 0.00004 U	< 0.00500 J	0.0183	0.0178
		Sep-08			< 0.020 U	< 0.00500 J	0.0239	< 0.00500 J	0.832	< 0.00500 J	0.0170	< 0.00004 U	< 0.00500 J	0.0163	0.0184
		Apr-09			< 0.020 U	< 0.0100 J	0.0186	< 0.0100 J		< 0.0100 J		< 0.00004 U		0.0181	
		Apr-09	FD		< 0.020 U	< 0.0100 J	0.0202	< 0.0100 J		< 0.0100 J		< 0.00004 U		0.0203	
		Sep-09			< 0.050 U	< 0.00500 J	0.0173	< 0.00500 J		< 0.00500 J		< 0.000200 U		< 0.00500 J	
		Apr-10			< 0.050 U	**< 0.0250 U**	0.0290	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
	NP-5	Apr-08			**1.5**	< 0.00500 J	0.0223	< 0.00500 J	0.645	< 0.00500 J	0.00506	< 0.00004 U	< 0.00500 J	**0.0711**	0.0218
		Sep-08			< 0.020 U	< 0.00500 J	0.00887	< 0.00500 J	< 0.200 J	< 0.0012 U	< 0.00500 J	< 0.00004 U	< 0.00500 J	0.0408	0.0183
		Apr-09			< 0.020 U	< 0.0100 J	< 0.0100 J	< 0.0012 U		< 0.0100 J				0.0435	
		Oct-09			< 0.050 U										
		Apr-10			< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		0.0412	
	RA-3156	Mar-08													
		Sep-08													
		Apr-09										< 0.00004 U			
		Apr-10													
		Nov-10													

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

		Analyte Group:		TPH		Total Metals									
		Analyte:		GRO	DRO	Arsenic	Barium	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium
		Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:			0.2	0.01	1	0.05	1	0.015	0.2	0.002	0.2	0.05	0.183
		CGWSL Source:			NMED TPH	EPA MCL	WQCC HH	WQCC HH	WQCC Dom	EPA MCL	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	NMED TW
Area	**Location**	**Date**	**Dup**												
Upgradient	MW-53	Apr-08			< 0.020 U	< 0.00500 J	0.0228	< 0.00050 U	< 0.200 J	< 0.00500 J	**1.72**	< 0.00004 U	0.00601	< 0.0017 U	0.0137
		Sep-08			0.074	< 0.00500 J	0.0478	< 0.00070 U	0.223	< 0.0012 U	**3.15**	< 0.00004 U	0.00863	< 0.00500 J	0.0127
		Apr-09			< 0.020 U	< 0.0100 J	0.0347	< 0.0012 U		< 0.00080 U				< 0.0050 U	
		Oct-09			< 0.050 U										
		Apr-10			< 0.050 U	**< 0.0250 U**	0.0280	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Apr-10	FD		< 0.050 U	**< 0.0250 U**	0.0261	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
	UG-1	Apr-09				< 0.0100 J	0.473	0.0315		**0.0404**		< 0.00004 U		0.0126	
		Oct-09													
		Apr-10		< 0.0500 U	< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10		< 0.0500 U	< 0.050 U	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	< 0.0500 U	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U
	UG-2	Apr-09				< 0.0100 J	0.115	< 0.0100 J		< 0.0100 J		< 0.00004 U		< 0.0050 U	
		Oct-09													
		Apr-10		< 0.0500 U	< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10		< 0.0500 U	< 0.050 U	**< 0.0500 U**	< 0.0500 U	< 0.0500 U	**< 2.00 U**	**< 0.0500 U**	< 0.0500 U	< 0.000200 U	< 0.0500 U	< 0.0500 U	< 0.0500 U
	UG-3R	Apr-09				< 0.0100 J	0.0613	< 0.0100 J		< 0.0100 J		0.000309		< 0.0050 U	
		Oct-09													
		Apr-10		< 0.0500 U	< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U		**< 0.0250 U**		< 0.000200 U		< 0.0250 U	
		Oct-10		< 0.0500 U	< 0.050 U	**< 0.0250 U**	< 0.0250 U	< 0.0250 U	< 1.00 U	**< 0.0250 U**	< 0.0250 U	< 0.000200 U	< 0.0250 U	< 0.0250 U	< 0.0250 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
NCL	MW-18	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Mar-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-54A	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-09	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-54B	Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-108	Oct-09		**75**	11	**480**	< 5.0 U	96	< 5.0 J	**98**	< 5.0 U	11	110	< 5.0 U
		Mar-10		**34**	**15**	**330**	< 5.0 U	24	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	29	< 5.0 U
		Apr-10		**41**	5.5	**400**	< 5.0 U	11	< 5.0 U	27	< 5.0 UJ	7.6	58	< 5.0 U
		Oct-10		**38**	< 5.0 U	**460**	< 5.0 U	7.9	< 5.0 U	< 5.0 U	< 5.0 U	6.9	51	< 5.0 U
	NCL-31	Mar-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	8.5	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	8.7 J	< 5.0 UJ	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	NCL-32	Apr-08		< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08	FD	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Mar-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	NCL-33	Apr-08		< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Mar-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	NCL-34	Apr-08		**37**	< 5.0 J	**1200**	< 0.50 U	310	< 0.50 U	29	< 0.60 U	< 0.50 U	85	< 0.50 U
		Apr-08	FD	**36**	**28**	**1400**	< 0.50 U	370	< 0.50 U	24	< 0.60 U	< 0.50 U	84	< 0.50 U
		Sep-08		**27**	< 5.0 J	**590**	< 0.50 U	150	< 0.50 U	13	< 0.60 U	< 5.0 J	44	< 0.50 U
		Apr-09		**120**	**81**	**2500**	< 0.50 U	170	< 0.50 U	25	< 0.60 U	< 5.0 J	260	< 0.50 U
		Sep-09		**96**	< 5.0 J	**1800**	< 5.0 U	11	< 5.0 U	7.1	< 5.0 U	< 5.0 U	220	< 5.0 U
		Mar-10		**37**	**29**	**340**	< 5.0 U	5.6 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	65 J	< 5.0 U
		Mar-10	FD	**37**	**13**	**330**	< 5.0 U	23 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	25 J	< 5.0 U
		Oct-10		**76**	< 5.0 U	**1600**	< 5.0 U	12	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	150	< 5.0 U
		Oct-10	FD	**76**	< 5.0 U	**1400**	< 5.0 U	11	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	150	< 5.0 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
NCL (continued)	NCL-44	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Mar-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	NCL-49	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08	FD	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09	FD	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	RW-17A	Mar-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
TEL	TEL-1	Apr-08		9.5	< 5.0 J	**17**	< 0.50 U	< 5.0 J	5.6	< 5.0 J	< 0.60 U	< 5.0 J	17	< 0.50 U
		Sep-08		5.8	< 5.0 J	**19**	< 0.50 U	< 5.0 J	7.2	< 5.0 J	< 0.60 U	< 5.0 J	21	< 0.50 U
		Apr-09		< 5.0 J	< 5.0 J	< 5.0 J	< 0.50 U	< 5.0 J	7.0	< 5.0 J	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Apr-09	FD	< 5.0 J	< 5.0 J	< 5.0 J	< 0.50 U	< 5.0 J	7.2	< 5.0 J	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Sep-09		< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	7.3	< 5.0 U	< 5.0 U	< 5.0 J	< 15 J	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	TEL-2	Apr-08		**170**	**18**	**1100**	< 0.50 U	21	15	25	< 0.60 U	60	230	< 0.50 U
		Apr-08	FD	**130**	12	**610**	< 0.50 U	13	16	14	< 0.60 U	33	150	< 0.50 U
		Sep-08		**210**	**30**	**2200**	< 0.50 U	43	11	**58**	< 0.60 U	110	310	< 0.50 U
		Apr-09		**150**	**22**	**1200**	< 0.50 U	12	17	27	< 0.60 U	43	200	< 0.50 U
		Sep-09		**160**	**22**	**1100**	< 5.0 U	9.4	17	28	< 5.0 U	56	240	< 5.0 U
		Apr-10		**180**	**35**	**1500**	< 5.0 U	15	7.5	**52**	< 5.0 U	75	250	< 5.0 U
		Oct-10		**46**	**< 25 U**	**910**	< 25 U	< 25 U	< 25 U	< 25 U	**< 25 U**	26	160	**< 25 U**
	TEL-3	Apr-08		**63**	**15**	**100**	< 0.50 U	< 5.0 J	17	< 5.0 J	< 0.60 U	< 5.0 J	24	< 0.50 U
		Apr-09		**48**	12	**540**	< 0.50 U	< 5.0 J	41	< 5.0 J	< 0.60 U	6.0	30	< 0.50 U
		Sep-09		**37**	8.8	**44**	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 J	< 15 J	< 5.0 U
		Apr-10		**25**	< 5.0 U	**35**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10	FD	**28**	< 5.0 U	**41**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		5.3	< 5.0 U	**30**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	TEL-4	Apr-08		**160**	**73**	**51**	< 0.50 U	49	**190**	6.2	< 0.60 U	< 5.0 J	87	< 0.50 U
		Sep-08		**160**	< 5.0 J	**27**	< 0.50 U	43	**190**	7.7	< 0.60 U	< 5.0 J	63	< 0.50 U
		Apr-09		< 0.50 U	**55**	**38**	< 0.50 U	24	**210**	< 5.0 J	< 0.60 U	< 5.0 J	42	< 0.50 U
		Sep-09		**91**	**36**	**12**	< 5.0 U	13	**200**	< 5.0 J	< 5.0 U	< 5.0 J	28	< 5.0 U
		Apr-10		**93**	**43**	**7.2**	< 5.0 U	7.6	**180**	< 5.0 U	< 5.0 U	< 5.0 U	30	< 5.0 U
		Oct-10		**51**	**25**	**10**	< 5.0 U	< 5.0 U	**160**	< 5.0 U	< 5.0 U	< 5.0 U	20	< 5.0 U

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Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
EP	MW-1R	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-2A	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	7.1	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-2B	Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U		< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-3	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 5.0 J	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 15 J	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 15 J	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-4A	Apr-08		< 0.60 U	< 0.70 U	< 5.0 J	< 0.50 U	< 5.0 J	< 0.50 U	< 1.1 U	< 0.50 U	< 5.0 J	28	< 0.70 U
		Apr-08	FD	< 0.60 U	< 0.70 U	< 5.0 J	< 0.50 U	< 5.0 J	< 0.50 U	< 1.1 U	< 0.50 U	< 5.0 J	26	< 0.70 U
		Sep-08		< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.60 U	< 5.0 J	20	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	16	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-4B	Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U		< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-5A	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	6.8	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	6.2	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	6.2	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Sep-09	FD	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	5.9	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-5B	Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U		< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-6A	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 5.0 J	< 0.50 U	< 1.1 U	< 0.50 U	< 5.0 J	< 15 J	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 15 J	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-6B	Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
EP (continued)	MW-7A	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 5.0 J	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 5.0 J	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 15 J	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-7B	Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-10	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 5.0 J	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-11A	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-11B	Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U		< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-15	Apr-08		< 0.60 U	< 0.70 U	**18**	< 0.50 U	< 5.0 J	< 5.0 J	< 1.1 U	< 0.50 U	< 5.0 J	< 15 J	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	5.0	< 0.50 U	33	< 5.0 J	< 0.50 U	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Apr-09		< 5.0 J	< 0.50 U	**9.1**	< 0.50 U	14	< 0.50 U	< 0.50 U	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	**8.4**	< 5.0 U	5.1	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-18A	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-18B	Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U		< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-22A	Apr-08		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	8.3	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	7.3	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	5.5	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	7.9	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	6.5	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	5.9	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	8.2	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-22B	Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	9.1		< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

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2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
EP (continued)	MW-70	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08	FD	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-72	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 5.0 J	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Mar-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-73	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	7.5	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	5.3	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Mar-09		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	5.5	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-74	Apr-08		< 5.0 J	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 5.0 J	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		5.2	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 15 J	< 0.50 U
		Mar-09		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 15 J	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-75	Apr-08		< 5.0 J	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	11	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	6.7	< 0.50 U	< 0.60 U	< 0.50 U	< 15 J	< 0.50 U
		Mar-09		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	5.8	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	9.3	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Sep-09	FD	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	10	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	7.0	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-76	Apr-08		< 5.0 J	< 5.0 J	< 0.60 U	< 0.50 U	< 0.50 U	5.4	< 1.1 U	< 0.50 U	< 0.50 U	< 15 J	< 0.70 U
		Sep-08		< 5.0 J	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 15 J	< 0.50 U
		Mar-09		< 5.0 J	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	5.9	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 J	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	11	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	6.3	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-77	Apr-08		< 5.0 J	< 5.0 J	< 5.0 J	< 0.50 U	< 0.50 U	7.9	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 5.0 J	< 5.0 J	**54**	< 0.50 U	5.7	13	< 0.50 U	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Mar-09		< 5.0 J	< 5.0 J	**12**	< 0.50 U	< 5.0 J	12	< 0.50 U	< 0.60 U	< 0.50 U	< 15 J	< 0.50 U
		Sep-09		< 5.0 J	< 5.0 J	**32**	< 5.0 U	< 5.0 J	10	< 5.0 U	< 5.0 U	< 5.0 J	< 15 J	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	**20**	< 5.0 U	< 5.0 U	9.7	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	**11**	< 5.0 U	< 5.0 U	9.8	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

			Analyte Group:	Volatile Organic Compounds										
			Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
			Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			CGWSL:	15	12	5	70	700	125	30	5	750	620	5
			CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**											
EP (continued)	MW-78	Apr-08		< 5.0 J	< 5.0 J	< 5.0 J	< 0.50 U	< 0.50 U	< 5.0 J	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 5.0 J	< 5.0 J	< 5.0 J	< 0.50 U	< 5.0 J	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 15 J	< 0.50 U
		Mar-09		< 5.0 J	< 5.0 J	**6.7**	< 0.50 U	< 5.0 J	< 5.0 J	< 0.50 U	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Sep-09		5.0	< 5.0 J	**13**	< 5.0 U	< 5.0 J	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 J	< 15 J	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-79	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 5.0 J	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Mar-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Mar-09	FD	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-80	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Mar-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-81	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Mar-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-82	Apr-08		< 5.0 J	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 5.0 J	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Apr-08	FD	8.9	< 5.0 J	**12**	< 0.50 U	10	< 5.0 J	< 1.1 U	< 0.50 U	< 5.0 J	52	< 0.70 U
		Sep-08		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08	FD	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 5.0 J	< 1.0 U	< 0.50 U
		Mar-09		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-83	Apr-08		8.9	< 5.0 J	**13**	< 0.50 U	11	< 5.0 J	< 1.1 U	< 0.50 U	< 5.0 J	53	< 0.70 U
		Sep-08		< 5.0 J	< 5.0 J	**5.3**	< 0.50 U	6.0	< 5.0 J	< 0.50 U	< 0.60 U	< 5.0 J	29	< 0.50 U
		Mar-09		6.2	< 5.0 J	**5.5**	< 0.50 U	6.3	< 5.0 J	< 0.50 U	< 0.60 U	< 5.0 J	44	< 0.50 U
		Sep-09		< 5.0 J	< 5.0 U	**5.3**	< 5.0 U	< 5.0 J	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 J	< 15 J	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-84	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	16	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	13	< 1.0 U	< 1.2 U	< 1.0 U	< 2.0 U	< 1.0 U
		Mar-09		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 J	< 1.0 U	< 1.2 U	< 1.0 U	< 2.0 U	< 1.0 U
		Sep-09		< 10 U	< 10 U	**< 10 U**	< 10 U	< 10 U	12	< 10 U	**< 10 U**	< 10 J	< 30 U	**< 10 U**
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	7.1	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
EP (continued)	MW-87	Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-88	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09	FD	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Sep-09	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	OCD-1R	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	OCD-2A	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Mar-09	FD	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	OCD-2B	Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U		< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	OCD-3	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Apr-08	FD	< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	OCD-4	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Volatile Organic Compounds										
Analyte Group:														
Analyte:				1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
Units:				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CGWSL:				15	12	5	70	700	125	30	5	750	620	5
CGWSL Source:				EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**											
EP (continued)	OCD-5	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	OCD-6	Apr-08		< 5.0 J	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 5.0 J	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 UJ	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	OCD-7A	Apr-08		< 5.0 J	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 5.0 J	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Sep-09	FD	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	5.0	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 UJ	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	OCD-7B	Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U		< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U		< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	OCD-8A	Apr-08		< 5.0 J	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	8.3	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	8.7	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08	FD	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	8.4	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	9.0	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	8.4	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	6.5	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	7.9	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	OCD-8B	Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U		< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
TMD	MW-8	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	5.6	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	5.7	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-16	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09	FD	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
TMD (continued)	MW-20	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-21	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	5.7	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	8.8	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	12	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	8.3	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	6.2	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-25	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-26	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-27	Apr-08												
		Sep-08												
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-68	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-71	Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-89	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 5.0 J	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

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2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
TMD (continued)	NP-1	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	**190**	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	**230**	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	**150**	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	**130**	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	**150**	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	100	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	NP-6	Apr-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	22	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
N Refinery	MW-23	Apr-08		**660**	**130**	**14000**	< 0.50 U	**2600**	32	**330**	< 0.60 U	**1100**	**2200**	< 0.50 U
		Sep-08		**450**	**85**	**13000**	< 0.50 U	**1800**	33	**300**	< 5.0 J	680	**1800**	< 0.50 U
		Apr-09		**580**	**90**	**15000**	< 0.50 U	**1900**	27	**370**	< 0.60 U	600	**1700**	< 0.50 U
		Sep-09		**110**	**89**	**7700**	< 5.0 U	140	7.0	**99**	< 5.0 J	5.2	310	< 5.0 U
		Mar-10		**150**	< 5.0 U	**15000**	< 5.0 U	**1100**	8.1	**200**	< 5.0 U	9.7	500	< 5.0 U
		Oct-10		**190**	< 5.0 U	**14000**	< 5.0 U	**1200**	8.0	**190**	< 5.0 U	9.4	**< 1500 U**	< 5.0 U
	MW-29	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Mar-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-30	Mar-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-40	Mar-10		< 5.0 U	< 5.0 U	**55**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-41	Apr-08		< 5.0 J	< 5.0 J	**85**	< 0.50 U	< 5.0 J	8.0	< 5.0 J	< 0.60 U	< 0.50 U	17	< 0.50 U
		Sep-08		< 5.0 J	< 5.0 J	**76**	< 0.50 U	< 0.50 U	24	< 0.50 U	< 0.60 U	< 0.50 U	< 15 J	< 0.50 U
		Apr-09		< 5.0 J	< 0.50 U	**23**	< 0.50 U	< 0.50 U	60	< 0.50 U	< 0.60 U	< 0.50 U	< 15 J	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	**35**	< 5.0 U	< 5.0 U	24	< 5.0 U	< 5.0 U	< 5.0 U	< 15 J	< 5.0 U
		Mar-10		< 5.0 U	< 5.0 U	**75**	< 5.0 U	< 5.0 U	10	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	**210**	< 5.0 U	< 5.0 U	39	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-42	Apr-08		**52**	**22**	**2300**	< 0.50 U	< 5.0 J	27	5.3	< 0.60 U	< 5.0 J	99	< 0.50 U
		Sep-08		**270**	**120**	**2000**	< 0.50 U	26	24	**45**	< 0.60 U	6.1	470	< 0.50 U
		Apr-09		**250**	9.3	**1600**	< 0.50 U	27	28	**40**	< 0.60 U	5.7	420	< 0.50 U
		Apr-09	FD	**270**	9.0	**1700**	< 0.50 U	26	24	**41**	< 0.60 U	5.6	450	< 0.50 U
		Sep-09		**56**	**26**	**560**	< 5.0 U	< 5.0 J	31	< 5.0 J	< 5.0 U	< 5.0 J	98	< 5.0 U
		Mar-10		**54**	**23**	**660**	< 5.0 U	< 5.0 U	27	< 5.0 U	< 5.0 U	< 5.0 U	120	< 5.0 U
		Oct-10		**37**	< 5.0 U	**610**	< 5.0 U	< 5.0 U	26	< 5.0 U	< 5.0 U	< 5.0 U	80	< 5.0 U
	MW-43	Apr-08		**95**	9.4	**1800**	< 0.50 U	180	< 0.50 U	**39**	< 0.60 U	61	360	< 0.50 U
		Sep-08		**200**	**14**	**4400**	< 0.50 U	370	< 0.50 U	**73**	< 0.60 U	87	540	< 5.0 J
		Apr-09		**200**	**23**	**4900**	< 0.50 U	510	< 0.50 U	**84**	< 0.60 U	140	**720**	< 0.50 U
		Sep-09		**81**	**52**	**810**	< 5.0 U	24	8.7	< 5.0 J	< 5.0 U	50	220	< 5.0 U
		Mar-10		**120**	11	**4700 J**	< 5.0 U	200	6.1	**35**	< 5.0 UJ	120	460	< 5.0 U
		Oct-10		**89**	**< 50 U**	**5800**	< 50 U	59	< 50 U	**< 50 U**	**< 50 U**	99	460	**< 50 U**

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
N Refinery (*continued*)	MW-45	Apr-08		< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 5.0 J	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 5.0 J	< 5.0 J	< 0.50 U	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 15 J	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Mar-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Nov-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Nov-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-46	Nov-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-55	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Mar-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-56	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Sep-09	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Mar-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-59	Apr-10		< 5.0 U	< 5.0 U	**8.0**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-60	Apr-10		5.0	6.2	**170**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Nov-10		9.8	7.7	**220**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	20	< 5.0 U
	MW-61	Apr-08		**370**	**80**	**4000**	< 0.50 U	92	< 0.50 U	**250**	< 0.60 U	230	**980**	< 0.50 U
		Sep-08		**340**	**79**	**3500**	< 0.50 U	80	< 0.50 U	**220**	< 0.60 U	190	**760**	< 0.50 U
		Apr-09		**320**	**78**	**3600**	< 0.50 U	79	< 0.50 U	**170**	< 0.60 U	210	**820**	< 0.50 U
		Oct-09		**180**	**43**	**2400**	< 5.0 U	46	< 5.0 U	**130**	< 5.0 U	150	460	< 5.0 U
		Apr-10		**200**	**50**	**2200**	< 5.0 U	64	< 5.0 U	**150**	< 5.0 U	150	550	< 5.0 U
		Oct-10		**230**	< 5.0 U	**2000**	< 5.0 U	85	< 5.0 U	**160**	< 5.0 U	140	560	< 5.0 U
	MW-62	Apr-08		**180**	11	**3900**	< 0.50 U	60	< 0.50 U	**79**	< 0.60 U	< 5.0 J	380	< 0.50 U
		Sep-08		**190**	**14**	**3900**	< 0.50 U	56	13	**82**	< 0.60 U	< 5.0 J	400	< 0.50 U
		Apr-09		**140**	11	**3500**	< 0.50 U	44	17	**65**	< 0.60 U	< 5.0 J	320	< 0.50 U
		Oct-09		**80**	8.4	**2900**	< 5.0 U	32	19	**32**	< 5.0 U	< 5.0 J	240	< 5.0 U
		Apr-10		**52**	5.2	**1500 J**	< 5.0 U	39	36	14	< 5.0 U	< 5.0 U	170	< 5.0 U
		Oct-10		14 J	11	**560 J**	< 5.0 U	34	23	23	< 5.0 U	< 5.0 U	260	< 5.0 U
		Oct-10	FD	**85 J**	9.7	**1400 J**	< 5.0 U	33	21	25	< 5.0 U	< 5.0 U	250	< 5.0 U
	MW-67	Apr-08		< 0.50 U	< 0.50 U	**64**	< 5.0 J	< 5.0 J	27	< 5.0 J	< 5.0 J	< 5.0 J	< 15 J	**14**
		Sep-08		< 0.50 U	< 0.50 U	**110**	< 5.0 J	< 5.0 J	**1300**	< 5.0 J	< 5.0 J	< 5.0 J	< 15 J	**9.0**
		Apr-09		< 0.50 U	< 0.50 U	**78**	< 5.0 J	< 5.0 J	**150**	< 5.0 J	< 5.0 J	< 0.50 U	< 15 J	**17**
		Oct-09		< 5.0 U	< 5.0 U	**45**	< 5.0 J	< 5.0 J	110	< 5.0 U	< 5.0 J	< 5.0 J	< 15 J	5.0
		Mar-10		< 5.0 U	< 5.0 U	**86**	< 5.0 U	< 5.0 U	86	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	**6.3**
		Oct-10		< 5.0 U	< 5.0 U	**160**	< 5.0 U	< 5.0 U	**580**	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
N Refinery (continued)	MW-90	May-08		6.2	< 5.0 U	**8.0**	< 5.0 U	< 5.0 U	< 5.0 U	5.9	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Sep-08		< 0.50 U	< 0.50 U	**29**	< 0.50 U	< 5.0 J	< 0.50 U	7.1	< 0.60 U	< 5.0 J	< 1.0 U	< 0.50 U
		Sep-08	FD	< 0.50 U	< 0.50 U	**29**	< 0.50 U	< 5.0 J	< 0.50 U	7.7	< 0.60 U	< 5.0 J	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	**20**	< 0.50 U	< 5.0 J	< 0.50 U	< 5.0 J	< 0.60 U	< 5.0 J	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 J	< 5.0 U	**14**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 J	< 15 U	< 5.0 U
		Mar-10		< 5.0 U	< 5.0 U	**11**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	**14**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-91	May-08		**200**	**45**	**2200**	< 5.0 U	**1300**	< 5.0 U	**54**	< 5.0 U	**3100**	**1200**	< 5.0 U
		Sep-08		**140**	**26**	**1600**	< 0.50 U	**960**	< 0.50 U	**32**	< 0.60 U	**780**	**660**	< 0.50 U
		Apr-09		**140**	**34**	**1900**	< 0.50 U	**1100**	< 0.50 U	**43**	< 0.60 U	**2200**	**1100**	< 0.50 U
		Oct-09		**150**	**41**	**3900**	< 5.0 U	**1500**	< 5.0 U	**57**	< 5.0 U	**4800**	**1800**	< 5.0 U
		Mar-10		**170**	**49**	**3500**	< 5.0 U	**1500**	< 5.0 U	**47**	< 5.0 U	**3900**	**1900**	< 5.0 U
		Oct-10		**140**	**67**	**4800**	< 5.0 U	**1900**	< 5.0 U	**58**	< 5.0 U	**6000**	**2400**	< 5.0 U
	MW-92	May-08		**20**	**37**	**2500**	48	530	110	**190**	**11**	18	86	**19**
		Sep-08		9.1	< 5.0 J	**1400**	15	290	38	**84**	**17**	14	62	**31**
		Apr-09		6.6	< 5.0 J	**1800**	28	220	68	**90**	**7.9**	16	57	**20**
		Oct-09		< 5.0 J	12	**3600**	**94**	260	**260**	**110**	< 5.0 U	18	40	< 5.0 J
		Mar-10		< 5.0 U	12	**2200**	60	160	**130**	**34**	< 5.0 U	13	34	< 5.0 U
	MW-93	May-08		**190**	< 5.0 U	**2000**	< 5.0 U	7.1	< 5.0 U	11	< 5.0 U	5.9	400	< 5.0 U
		Sep-08				**1800**		19			< 0.60 U	< 5.0 J	460	< 0.50 U
		Apr-09		**300**	**25**	**2700**	< 0.50 U	40	< 5.0 J	**110**	< 0.60 U	12	**790**	< 5.0 J
		Oct-09		**190**	**16**	**1300**	< 5.0 U	13	< 5.0 U	**64**	< 5.0 U	5.3	380 J	< 5.0 U
		Mar-10		**180**	**25 J**	**1500 J**	< 5.0 U	20 J	< 5.0 U	**71 J**	< 5.0 U	7.1	480	< 5.0 U
		Mar-10	FD	< 5.0 U	< 5.0 UJ	< 5.0 UJ	< 5.0 U	< 5.0 UJ	< 5.0 U	< 5.0 UJ	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		**320**	**33**	**2700**	< 5.0 U	42	< 5.0 U	**100**	< 5.0 U	11	**870**	< 5.0 U
	MW-95	May-08		< 5.0 U	< 5.0 U	**110**	< 5.0 U	6.0	< 5.0 U	8.8	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Sep-08		< 5.0 J	< 0.50 U	**47**	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.60 U	< 5.0 J	< 1.0 U	< 0.50 U
		Apr-09		< 5.0 J	< 0.50 U	**23**	< 0.50 U	< 5.0 J	< 0.50 U	< 5.0 J	< 0.60 U	< 5.0 J	< 15 J	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Mar-10		< 5.0 U	< 5.0 U	**16**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-96	May-08		< 5.0 U	< 5.0 U	**12**	< 5.0 U	9.7	**57000**	9.1	< 5.0 U	< 5.0 U	28	< 5.0 U
		Sep-08		< 5.0 J	< 0.50 U	**9.7**	< 0.50 U	8.1	**63000**	7.2	< 0.60 U	< 5.0 J	23	< 0.50 U
		Apr-09		< 5.0 J	**20**	**6.8**	< 0.50 U	6.1	**63000**	< 5.0 J	< 0.60 U	< 5.0 J	24	< 0.50 U
		Apr-09	FD	< 5.0 J	**18**	**8.3**	< 0.50 U	5.9	**64000**	< 5.0 J	< 0.60 U	< 5.0 J	22	< 0.50 U
		Oct-09		< 5.0 J	11	< 5.0 J	< 5.0 U	< 5.0 J	**53000**	< 5.0 J	< 5.0 U	< 5.0 J	< 15 J	< 5.0 U
		Oct-09	FD	< 5.0 J	11	**5.1**	< 5.0 U	< 5.0 J	**53000**	< 5.0 J	< 5.0 U	< 5.0 J	< 15 J	< 5.0 U
		Mar-10		< 5.0 U	8.8	< 5.0 U	< 5.0 U	< 5.0 U	**33000**	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	**30000**	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-98	May-08		**150**	**27**	**8100**	< 5.0 U	330	5.8	**83**	< 5.0 U	270	440	< 5.0 U
		Sep-08		**210**	**32**	**7500**	< 0.50 U	450	< 0.50 U	**120**	< 0.60 U	250	**< 750 J**	< 0.50 U
		Apr-09		**160**	**34**	**7100**	< 0.50 U	590	< 0.50 U	**93**	< 0.60 U	180	**700**	< 0.50 U
		Sep-09		**320**	**95**	**7700**	< 5.0 U	**1200**	< 5.0 U	**170**	< 5.0 U	210	**1300**	< 5.0 U
		Apr-10		**320**	**75**	**9500**	< 5.0 U	**1300**	< 5.0 U	**140**	< 5.0 U	230	**1600**	< 5.0 U
		Oct-10		**140**	**77**	**7600**	< 25 U	**770**	< 25 U	**160**	**< 25 U**	190	**1300**	**< 25 U**

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2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
N Refinery (continued)	RW-1	Apr-08			**590**	**140**	**1700**	**100**	270	47	**500**	**110**	120	580	**810**
		Sep-08			**370**	**62**	**2100**	**160**	300	24	**160**	**71**	160	360	**1500**
		Apr-09			**130**	10	**990**	**110**	110	39	28	**42**	21	170	**760**
		Oct-09			**590**	**150**	**1900**	**360**	430	46	**340**	**140**	310	**670**	**660**
		Nov-10			**35**	**69**	**950**	**3300**	210	29	**140**	**48**	49	230	**700**
	RW-2	Nov-10			**81**	**120**	**11000**	**460**	**1200**	43	**320**	**37**	130	**770**	**17**
	RW-7	Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 UJ	< 15 U	< 5.0 U
	RW-9	Apr-10			< 5.0 U	< 5.0 U	**230**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 UJ	< 15 U	< 5.0 U
		Apr-10	FD		< 5.0 U	< 5.0 U	**240**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 UJ	< 15 U	< 5.0 U
	RW-10	Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	RW-16A	Mar-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 UJ	< 5.0 UJ	< 15 U	< 5.0 U
S Refinery	KWB-2R	Oct-10			**510**	**41**	**5200**	< 5.0 U	**2000**	82	**280**	< 5.0 U	190	**730**	< 5.0 U
	MW-28	Apr-08			**150**	**69**	**310**	< 0.50 U	21	**8500**	19	< 0.60 U	8.0	130	< 0.50 U
		Apr-09			**190**	< 0.50 U	**340**	< 0.50 U	22	**7400**	11	< 0.60 U	8.8	140	< 0.50 U
		Sep-09			14	**25**	**180**	< 5.0 U	10	**7700**	< 5.0 J	< 5.0 U	5.7	49	< 5.0 U
		Apr-10			**100**	**48**	**130**	< 5.0 U	8.5	**5100**	< 5.0 U	< 5.0 U	< 5.0 UJ	62	< 5.0 U
		Oct-10			**44**	< 5.0 U	**180**	< 5.0 U	9.2	**3700**	< 5.0 U	< 5.0 U	5.2	58	< 5.0 U
	MW-49	Apr-08			**120**	**19**	**1000**	< 0.50 U	39	120	27	< 0.60 U	29	170	< 0.50 U
		Sep-08			**140**	**17**	**890**	< 0.50 U	38	**130**	27	< 0.60 U	23	150	< 0.50 U
		Apr-09			**92**	12	**650**	< 0.50 U	34	**160**	17	< 0.60 U	20	130	< 0.50 U
		Apr-10			**73**	6.1	**790**	< 5.0 U	16	110	< 5.0 U	< 5.0 U	9.6 J	120	< 5.0 U
		Oct-10			**61**	< 5.0 U	**450**	< 5.0 U	15	93	7.1	< 5.0 U	6.8	94	< 5.0 U
	MW-50	Apr-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-08	FD		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08			< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08	FD		< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Sep-09	FD		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 UJ	< 5.0 U	< 15 U	< 5.0 U
		Nov-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-52	Apr-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08			< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09			< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Sep-09	FD		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-57	Nov-10			< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
S Refinery (continued)	MW-58	Apr-08		**30**	< 5.0 J	**640**	< 0.50 U	71	**180**	13	< 0.60 U	< 5.0 J	53	< 0.50 U
		Sep-08		**16**	< 5.0 J	**510**	< 0.50 U	42	**250**	< 5.0 J	< 0.60 U	< 5.0 J	29	< 0.50 U
		Apr-09		**31**	< 5.0 J	**730**	< 0.50 U	37	**220**	16	< 0.60 U	< 5.0 J	45	< 0.50 U
		Sep-09		**39**	6.8	**1800**	< 5.0 U	120	**190**	17	< 5.0 U	< 5.0 J	85	< 5.0 U
		Apr-10		**34**	< 5.0 U	**1100**	< 5.0 U	47	**180**	19	< 5.0 U	< 5.0 U	34	< 5.0 U
		Apr-10	FD	**34**	< 5.0 U	**1300**	< 5.0 U	47	**200**	18	< 5.0 U	< 5.0 U	33	< 5.0 U
		Oct-10		**53**	5.1	**6200**	< 5.0 U	270	**260**	16	< 5.0 U	8.0	200	< 5.0 U
	MW-66	Apr-08		**39**	< 5.0 J	**3300**	< 0.50 U	110	**7400**	**71**	< 0.60 U	< 5.0 J	50	< 0.50 U
		Sep-08		**46**	< 5.0 J	**5200**	< 0.50 U	140	**5500**	**110**	< 0.60 U	8.8	70	< 0.50 U
		Apr-09		**19**	< 5.0 J	**2100**	< 0.50 U	60	**5400**	**78**	< 0.60 U	< 5.0 J	21	< 0.50 U
		Sep-09		7.2	< 5.0 J	**3300**	< 5.0 U	37	**5500**	**47**	< 5.0 U	< 5.0 J	18	< 5.0 U
		Apr-10		6.0	< 5.0 U	**2300**	< 5.0 U	32	**4200**	**36**	< 5.0 U	< 5.0 UJ	21	< 5.0 U
		Oct-10		**64**	< 5.0 U	**7500**	< 5.0 U	190	**2900**	**89 UB**	< 5.0 U	24	130	< 5.0 U
	MW-99	Sep-08		**26**	< 5.0 J	**9800**	< 0.50 U	120	**4900**	9.9	< 0.60 U	420	200	< 0.50 U
		Apr-09		< 5.0 J	< 0.50 U	**550**	< 0.50 U	41	97	< 5.0 J	< 0.60 U	< 5.0 J	26	< 0.50 U
		Sep-09		**82**	12	**9200**	< 5.0 U	380	**5900**	27	< 5.0 U	750	610	< 5.0 U
		Apr-10		**120**	**< 25 U**	**9700**	< 25 U	450	**4300**	< 25 U	**< 25 U**	**2500 J**	**1100**	**< 25 U**
		Oct-10		13	< 5.0 U	**8000**	< 5.0 U	19	**5500**	< 5.0 U	< 5.0 U	45	130	< 5.0 U
	MW-101	May-08		5.3	< 5.0 U	**730**	< 5.0 U	47	85	5.2	< 5.0 U	< 5.0 U	16	< 5.0 U
		May-08	FD	8.9	< 5.0 U	**1100**	< 5.0 U	83	88	8.3	< 5.0 U	< 5.0 U	25	< 5.0 U
		Sep-08		5.4	< 0.50 U	**680**	< 0.50 U	49	99	5.9	< 0.60 U	< 5.0 J	16	< 0.50 U
		Apr-09		**42**	7.1	**4700**	< 0.50 U	150	**2600**	14	< 0.60 U	220	280	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	**180**	< 5.0 U	8.5	100	< 5.0 J	< 5.0 U	< 5.0 J	< 15 J	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	**560 J**	< 5.0 U	36	94 J	< 5.0 U	< 5.0 U	< 5.0 UJ	< 15 U	< 5.0 U
		Nov-10		< 5.0 U	< 5.0 U	**420**	< 5.0 U	25	91	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-103	Sep-08		**380**	**100**	**1200**	< 0.50 U	**1100**	< 0.50 U	**280**	< 0.60 U	380	**1300**	< 0.50 U
		Mar-09		**220**	**110**	**1000**	< 0.50 U	610	< 5.0 J	**190**	< 0.60 U	120	410	< 0.50 U
		Sep-09		**100**	**39**	**860**	< 5.0 U	350	< 5.0 U	**90**	< 5.0 U	22	170	< 5.0 U
		Apr-10		**81**	< 5.0 U	**810**	< 5.0 U	380	< 5.0 U	**59**	< 5.0 U	7.2	170	< 5.0 U
	MW-104	Sep-08		< 5.0 J	< 0.50 U	**230**	< 0.50 U	120	< 5.0 J	6.3	< 0.60 U	< 5.0 J	< 15 J	< 5.0 J
		Mar-09		< 0.50 U	< 0.50 U	**34**	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	**190**	< 5.0 U	10	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	**28**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	**120**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10	FD	< 5.0 U	< 5.0 U	**150**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	MW-106	Sep-09		**290**	**36**	**15000**	< 5.0 U	**1100**	39	**180**	< 5.0 U	260	560	< 5.0 U
		Apr-10		**240**	**< 50 U**	**9300**	< 50 U	**710**	< 50 U	**130**	**< 50 U**	120 J	440	**< 50 U**
		Oct-10		**250**	**< 50 U**	**14000**	< 50 U	600	< 50 U	**130**	**< 50 U**	140	450	**< 50 U**
	MW-107	Sep-09		**320**	**89**	**14000**	< 5.0 U	**1400**	**7400**	**190**	< 5.0 U	36	570	< 5.0 U
		Mar-10		**300**	**58**	**10000 J**	< 5.0 U	**1000**	**5800 J**	**150**	< 5.0 U	35	490	< 5.0 U
		Nov-10		**250**	**52**	**11000**	< 5.0 U	**1000**	**4600**	**140**	< 5.0 U	39	460	< 5.0 U
	RW-4	Apr-10		7.1	< 5.0 U	**280**	< 5.0 U	< 5.0 U	**2500**	< 5.0 U	< 5.0 U	5.3 J	36	< 5.0 U

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2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
S Refinery (continued)	RA-313	Mar-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08	FD	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	RA-1227	Nov-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Nov-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
Field E of Refinery	KWB-1A	Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	KWB-3AR	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08	FD	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	KWB-7	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	**160**	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	**140**	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	59	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	42	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	34	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	22	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	KWB-9	Apr-08		< 0.50 U	< 0.50 U	< 5.0 J	< 0.50 U	< 0.50 U	< 0.50 U	< 5.0 J	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-08	FD	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	KWB-11A	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	19	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	11	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	12	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 J	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	24	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	6.5	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	KWB-11B	Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
				Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
				CGWSL:	15	12	5	70	700	125	30	5	750	620	5
				CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**												
Field E of Refinery (continued)	KWB-12A	Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	KWB-12B	Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	RW-11-1	Nov-10		5.0	< 5.0 U	**160**	< 5.0 U	24	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	RW-18	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	RA-4196	Mar-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 5.0 J	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	7.1	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	5.4	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	6.2	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Nov-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	6.4	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	RA-4798	Mar-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	5.0	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	18	< 5.0 U	< 5.0 U	< 5.0 J	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Nov-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	12	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
Crossgradient	KWB-13	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09	FD	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	NP-5	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	RA-3156	Mar-08		< 0.60 U	< 0.70 U	< 0.60 U	< 0.50 U	< 0.50 U	< 5.0 J	< 1.1 U	< 0.50 U	< 0.50 U	< 1.5 U	< 0.70 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Nov-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

		Analyte Group:	Volatile Organic Compounds										
		Analyte:	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	cis-1,2-Dichloroethene	Ethylbenzene	Methyl-Tert-Butylether	Naphthalene	Tetrachloroethene	Toluene	Total Xylenes	Trichloroethene
		Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
		CGWSL:	15	12	5	70	700	125	30	5	750	620	5
		CGWSL Source:	EPA TW	EPA TW	EPA MCL	EPA MCL	EPA MCL	NMED TW	WQCC HH	EPA MCL	WQCC HH	WQCC HH	EPA MCL
Area	**Location**	**Date**	**Dup**										
Upgradient	MW-53	Apr-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Sep-08		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10	FD	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	UG-1	Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10				< 5.0 U		< 5.0 U	< 5.0 U			< 5.0 U	< 15 U	
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	UG-2	Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10				< 5.0 U		< 5.0 U	< 5.0 U			< 5.0 U	< 15 U	
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
	UG-3R	Apr-09		< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.60 U	< 0.50 U	< 1.0 U	< 0.50 U
		Oct-09		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U
		Apr-10				< 5.0 U		< 5.0 U	< 5.0 U			< 5.0 U	< 15 U	
		Oct-10		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 15 U	< 5.0 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

		Analyte Group:	Cyanide	Cations/Anions						Water Quality		
		Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
		Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
		CGWSL:	200		250	1.6			600		1000	
		CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**									
NCL	MW-18	Apr-08			318	163	0.899	1.08	71.1	**1220**	443		16.3
		Sep-08			402	168	1.06	2.19	79.7	**1410**	365	**3240**	21.4
		Apr-09			344	177	0.721	1.45	76.9	**1240**	399	**2690**	13.7
		Sep-09				173	0.713			**1160**	430	**2680**	11.2
		Mar-10			372 UB	178 UB	1.03	1.70	92.1	**1330**	391	**2850**	14.7
		Oct-10		< 20.0 U	328 J	207	0.981	1.56	91.7	**1110**		**2650**	14
	MW-54A	Apr-08			378	**287**	0.836	0.285	47.1	**767**	535		< 1.00 J
		Sep-08			481	**277**	1.22	0.471	50.5	**764**	504	**2590**	5.89
		Apr-09			384	**286**	0.668	< 0.400 J	48.4	**754**	520	**2230**	< 0.500 J
		Oct-09				249	0.768			**779**	408	**2240**	< 0.500 J
		Oct-09	FD			**262**	0.797			**758**	504	**2280**	< 0.500 U
		Apr-10			408 UB	226 UB	1.09	< 1.00 U	67.5 UB	**843**	497	**2380**	2.83
		Oct-10			343	205	1.00	< 2.00 U	57.2	**671**		**1980**	< 0.100 U
	MW-54B	Apr-10			318 UB	153 UB	0.492	< 1.00 U	47.6 UB	**808**	388	**2080**	< 0.500 U
	MW-108	Oct-09				120	**4.93**			**978**	593	**2580**	0.544
		Mar-10			350 UB	161 UB	**4.24**	0.878	111 UB	**1150**	601	**2610**	< 0.500 U
		Apr-10			258 UB	90.8	1.42	4.18	48.3 UB	358	676	**1610**	< 0.500 U
		Oct-10			436	191	**3.92**	6.18	185	**1510**		**3340**	< 1.0 U
	NCL-31	Mar-10			369 UB	176 UB	1.34	0.441 J	190 UB	**1480**	591	**3000**	< 0.500 U
		Oct-10			278	179	1.52	< 1.00 U	187	**859**		**2250**	< 0.10 U
	NCL-32	Apr-08			431	176	**1.74**	7.42	61.6	**1060**	387		< 1.00 J
		Sep-08			1170	234	1.57	5.51	62.4	**1280**	355	**2470**	< 0.500 J
		Sep-08	FD		972	231	**1.71**	9.37	68.6	**1210**	656	**2730**	< 0.500 J
		Apr-09			453	204	1.49	5.83	64.8	**1130**	386	**2560**	< 0.500 J
		Sep-09				198	**2.54**			**1100**	290	**2540**	< 1.00 J
		Mar-10			1570	97.5 UB	**1.95**	36.6	80.4	**715**	190	**1920**	< 0.500 U
		Oct-10			423	43.4	**2.40**	21.6	26.1 UB	**840**		**1680**	4.9
	NCL-33	Apr-08			388	**473**	**2.25**	3.88	79.1	**824**	528		< 0.100 U
		Sep-08			546	**516**	**1.94**	4.39	99.7	**767**	523	**2720**	1.15
		Apr-09			476	**511**	**2.22**	4.06	94.4	**937**	483	**3160**	1.03
		Sep-09				**468**	**2.40**			**882**	450	**3010**	< 1.00 J
		Mar-10			450 UB	**462**	**2.46**	4.02	88.0	**645**	536	**2480**	< 0.500 U
		Oct-10			472	**383**	**2.59**	5.20	99.5 UB	**732**		**2420**	0.12 J
	NCL-34	Apr-08			205	**268**	1.27	1.04	98.2	155	582		< 0.100 U
		Apr-08	FD		196	**263**	1.28	1.17	110	161	592		< 0.100 U
		Sep-08			216	213	1.03	0.911	99.8	142	694	**1270**	< 0.500 J
		Apr-09			256	**434**	**2.22**	1.75	112	134	570	**1860**	1.03
		Sep-09				**379**	1.28			128	550	**1890**	< 1.00 J
		Mar-10			188 UB	187	1.30 J	1.16 J	103 UB	121 J	667	**1190 J**	< 0.500 U
		Mar-10	FD		381 UB	162 UB	**4.60 J**	0.961 J	119 UB	**1170 J**	576	**2800 J**	< 0.500 U
		Oct-10			276	**410**	1.52	1.93	112 UB	148		**1460**	0.18
		Oct-10	FD		253 UB	**435**	1.52	2.09	107	139		**1670**	0.29

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Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**											
NCL (continued)	NCL-44	Apr-08				227	181	1.54	1.96	56.1	487	568		< 1.00 J
		Sep-08				282	169	1.49	2.09	60.4	485	591	**1700**	< 0.500 J
		Apr-09				268	171	1.35	1.95	54.5	496	630	**1800**	< 0.500 J
		Sep-09					185	1.40			469	550	**1710**	< 1.00 J
		Mar-10				267 UB	166 UB	1.55	2.08	57.3	476	546	**1680**	< 0.500 U
		Oct-10				264	168	**1.67**	2.18	61.5 UB	443		**1620**	< 0.10 U
	NCL-49	Apr-08				431	170	0.404	0.696	115	**1760**	232		12.4
		Sep-08				464	166	0.567	0.730	122	**1720**	242	**3310**	10.1
		Sep-08	FD			442	164	0.583	0.678	120	**1700**	241	**3260**	9.65
		Apr-09				461	165	< 0.500 J	0.708	117	**1720**	260	**3180**	9.65
		Apr-09	FD			457	163	< 0.500 J	0.707	115	**1720**	202	**3210**	9.29
		Oct-09					152	0.561			**1630**	224	**3190**	9.33
		Apr-10				443	134 UB	0.486	< 1.00 U	120 UB	**1720**	229	**3130**	8.94
		Oct-10				409	134	0.641	< 2.00 U	106	**1590**		**2900**	5.42
	RW-17A	Mar-10				459 UB	**494 UB**	**2.61**	5.40	376	**3320**	526	**6680**	< 0.500 U
TEL	TEL-1	Apr-08				461	231	**1.99**	1.14	308	**1610**	495		< 0.100 U
		Sep-08				494	147	**2.75**	1.95	261	**1850**	421	**3860**	< 0.500 J
		Apr-09				214	249	**1.96**	0.805	444	**919**	582	**2590**	< 0.150 U
		Apr-09	FD			205	**251**	**1.93**	1.00	462	**908**	618	**2560**	< 0.500 J
		Sep-09					126	**2.14**			507	640	**2850**	< 1.00 J
		Apr-10				542	170 UB	**2.59**	1.75	278	**2150**	382	**4120**	< 0.500 U
		Oct-10				267	**256**	**2.24**	1.10	425	**967**		**2660**	< 10.0 U
	TEL-2	Apr-08				149	**378**	0.746	1.04	356	464	816		< 0.100 U
		Apr-08	FD			168	**373**	0.737	1.12	406	462	937		< 0.100 U
		Sep-08				239	**380**	0.897	1.42	379	**872**	931	**3290**	< 0.500 J
		Apr-09				224	**392**	0.562	1.19	384	**825**	825	**3040**	< 0.150 U
		Sep-09					**411**	0.900			**737**	930	**3030**	< 1.00 J
		Apr-10				304 UB	**278 UB**	0.833	2.54	337	**1130**	864	**3440**	< 0.500 U
		Oct-10				219	188	1.07	1.44	320	**746**		**2570**	0.293
	TEL-3	Apr-08				582	**263**	**2.46**	4.38	188	**1560**	526		< 0.100 U
		Apr-09				304	**597**	**2.06**	3.92	325	580	698	**2660**	< 0.500 J
		Sep-09					34.2	**2.93**			**1520**	400	**3180**	< 1.00 J
		Apr-10				570	14.2	**2.92**	5.27	28.3	**1640**	372	**2900**	< 0.500 U
		Apr-10	FD			546	14.0 UB	**2.89**	5.52	31.8	**1530**	342	**2860**	< 0.500 U
		Oct-10				568	8.82	**3.14**	6.99	16.1 UB	**1300**		**2530**	< 10.0 U
	TEL-4	Apr-08				201	**435**	0.614	0.511	235	472	891		< 0.100 U
		Sep-08				231	**375**	0.787	0.440	199	495	729	**2180**	< 0.500 J
		Apr-09				274	**508**	< 0.500 J	0.593	219	**680**	689	**2570**	< 0.150 U
		Sep-09					**595**	0.615			**844**	920	**3220**	< 1.00 J
		Apr-10				339 UB	**523**	0.602	0.538	311	**957**	774	**3400**	< 0.500 U
		Oct-10				270	**414**	0.787	< 1.00 U	251	556		**2370**	< 0.100 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**											
EP	MW-1R	Apr-08				637	**1830**	< 1.00 J	4.50	991	**1800**	241	**6340**	< 0.100 U
		Sep-08				525	**2130**	0.748	5.80	1170	**2000**	291		< 0.200 J
		Apr-09				646	**1830**	0.515	3.62	1150	**1840**	167	**6240**	< 0.500 J
		Sep-09					**1690**	0.612			**1850**	198	**5960**	< 1.00 J
		Apr-10				576	**1640**	0.591	4.24	946 UB	**1900**	207	**6040**	< 0.500 U
	MW-2A	Apr-08				614	**6200**	**5.75**	5.64	3850	**4460**	490	**15900**	< 1.00 J
		Sep-08				685	**7740**	**5.57**	6.97	4370	**5710**	555	**18000**	< 0.500 J
		Apr-09				562	**3750**	**4.74**	5.34	2550	**2960**	335	**10400**	0.712
		Apr-09				478	**3230**	**2.64**	9.23	2540	**4960**	523	**12800**	< 0.150 U
		Sep-09					**2020**	**5.45**			**1980**	207	**6900**	< 1.00 J
		Apr-10				722	**4780**	**4.16**	5.85	3680	**3940**	378	**6290**	< 0.500 U
		Oct-10				664	**3710**	**20.3**	6.74	3010 UB	**3550**		**10200**	< 0.100 U
		Oct-10	FD			618	**3480 J**	**20.0**	6.37	2830 UB	**3370 J**		**10100 J**	< 0.100 U
	MW-2B	Apr-10				470 UB	**586 UB**	0.933	3.08	441 UB	**1160 UB**	168		< 0.500 U
	MW-3	Apr-08				485	**1060**	1.57	3.99	807	**2090**	279	**5110**	< 0.100 U
		Sep-08				533	**1190**	**2.07**	4.33	772	**2440**	266	**5220**	< 0.500 J
		Apr-09				517	**1090**	**1.91**	4.26	730	**2260**	236	**4960**	< 0.500 J
		Sep-09					**976**	**2.11**			**1870**	236	**4700**	< 1.00 J
		Apr-10				578	**906 UB**	**1.94 J**	3.82	838 UB	**2030 UB**	209	**4850**	< 0.500 U
		Oct-10				454 UB	**894**	**2.31**	5.59	676 UB	**1580**		**4360**	< 0.100 UJ
	MW-4A	Apr-08				354	**1200**	1.59	3.85	770	**1650**	225	**4640**	< 0.100 U
		Apr-08	FD			366	**1210**	1.55	3.84	808	**1650**	221	**4690**	< 1.00 J
		Sep-08				375	**1210**	**1.79**	4.62	841	**1410**	223	**4520**	< 0.500 J
		Apr-09				352	**1180**	1.55	5.33	725	**1540**	216	**4540**	< 0.500 J
		Sep-09					**1280**	**1.65**			**1570**	222	**4710**	< 1.00 J
		Apr-10				408 UB	**1150 UB**	**1.70**	5.00	778 UB	**1700**	251	**4500**	< 0.500 U
		Apr-10	FD			372 UB	**1190 UB**	**1.61**	4.48	718 UB	**1780**	253	**4960**	< 0.500 U
		Oct-10				443 UB	**1310 J**	**18.9**	5.74	955 UB	**1700 J**		**4660 J**	< 0.100 UJ
	MW-4B	Apr-10				298 UB	**1010**	0.757	2.36	612 UB	**1200**	207	**3470**	< 0.500 U
	MW-5A	Apr-08				1040	**3630**	**2.34**	16.2	4150	**5760**	784	**16300**	< 0.100 U
		Sep-08				524	**4730**	**2.50**	14.9	3090	**7440**	467	**16000**	< 0.500 J
		Sep-09					**3360**	**2.71**			**5160**	414	**13200**	< 1.00 J
		Sep-09	FD				**3320**	**2.70**			**5160**	419	**16400**	< 1.00 J
		Apr-10				483	**4010**	**2.34**	7.92	3340	**7050**	497	**15200**	< 0.500 U
		Oct-10				584	**2760**	**18.7**	10.4	3310 UB	**4660**		**10700**	< 0.100 U
	MW-5B	Apr-10				540	**1720**	0.852	9.18	1660	**2740**	358	**7900**	< 0.500 U
	MW-6A	Apr-08				247	**863**	1.36	1.17	761	**1550**	169	**3770**	< 0.100 U
		Sep-08				225	**883**	1.60	1.37	663	**1680**	149	**3850**	< 0.500 J
		Apr-09				294	**864**	1.35	1.32	733	**1510**	148	**3720**	< 0.500 J
		Sep-09					**876**	1.32			**1410**	130	**3680**	< 1.00 J
		Apr-10				316 UB	**963 UB**	1.33	1.20	770 UB	**1540 UB**	136	**3700**	< 0.500 U
	MW-6B	Apr-10				447 UB	**1290 UB**	0.544	4.22	694 UB	**1530 UB**	104	**4570**	< 0.500 U

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Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**											
EP (continued)	MW-7A	Apr-08				377	**1970**	1.02	4.03	1600	**2420**	267	**7890**	< 0.100 U
		Sep-08				398	**2440**	1.17	5.11	1540	**2980**	297	**7390**	< 0.500 J
		Apr-09				434	**1980**	0.972	4.02	1820	**2450**	455	**6880**	< 0.150 U
		Sep-09					**1960**	1.10			**2430**	246	**7580**	< 1.00 J
		Apr-10				341 UB	**1850**	1.16	4.07	1560 UB	**2510**	278	**6580**	< 0.500 U
		Oct-10				393 UB	**1570**	**16.5**	4.19	1630 UB	**2080**		**6330**	< 0.100 U
	MW-7B	Apr-10				574	**1230**	0.913	6.42	890 UB	**1910**	189	**5030**	< 0.500 U
	MW-10	Apr-08				434	**1440**	< 1.00 J	3.65	908	**1930**	255	**5400**	< 0.100 U
		Sep-08				546	**1370**	0.702	3.48	1010	**1900**	256	**5610**	< 0.500 J
		Apr-09					**1370**	0.519	5.69	928	**1880**	216	**5260**	< 0.500 J
		Sep-09					**1680**	0.596			**1900**	236	**5530**	< 1.00 J
		Apr-10				516	**1340 UB**	0.517	3.22	1060 UB	**1940**	249	**5150**	< 0.500 U
		Oct-10				568 UB	**1160**	0.730	3.70	977	**1710**		**5060**	< 1.00 U
	MW-11A	Apr-08				967	**9040**	< 1.00 J	20.2	4120	**3020**	431	**20300**	< 0.100 U
		Sep-08				1030	**9020**	< 0.500 J	22.0	4410	**3110**	392	**20700**	0.540
		Apr-09				1160	**9040**	0.503	21.2	4930	**2820**	416	**18000**	< 0.500 J
		Sep-09					**9290**	0.698			**2850**	366	**19100**	< 1.00 J
		Apr-10				1160	**8570**	0.710	20.5	4890	**2980**	418	**17400**	< 0.500 U
		Apr-10	FD			1130	**8300**	0.675	21.9	4810	**2880**	398	**17600**	< 0.500 U
	MW-11B	Apr-10				862	**6250**	0.723	34.4	3680 R	**3020**	259	**14500**	< 0.500 U
	MW-15	Apr-08				587	**1370**	**1.84**	6.19	773	**2170**	184	**5710**	< 0.100 U
		Sep-08				511	**1100**	**2.93**	6.12	794	**1870**	182	**4920**	< 0.500 J
		Apr-09				621	**1280**	**3.43**	7.25	806	**2070**	167	**5290**	< 0.150 U
		Sep-09					**1500**	1.22			**1970**	111	**5830**	< 1.00 J
		Apr-10				650	**1280 UB**	**4.01**	7.74	816 UB	**2150**	199	**5520**	< 0.500 U
	MW-18A	Apr-08				678	**5490**	**1.72**	36.7	4040	**4530**	350	**19100**	< 0.100 U
		Sep-08				709	**7950**	**2.85**	39.3	4160	**6370**	340	**18800**	< 0.500 J
		Apr-09				649	**5410**	**2.41**	31.3	3530	**5000**	372	**15600**	< 0.150 U
		Sep-09					**6130**	**2.32**			**5180**	308	**16400**	< 1.00 J
		Apr-10				727	**5220**	1.16	35.6	3810	**5250**	328	**13800**	< 0.500 U
		Oct-10		< 20.0 U		680 UB	**6000**	**19.3**	43.2	3630 UB	**5480**		**14400**	< 0.100 U
	MW-18B	Apr-10				604	**1060 UB**	0.636	6.34	701 UB	**2060**	199	**5110**	< 0.500 U
	MW-22A	Apr-08				445	**1740**	0.673	3.52	1060	**1940**	226		1.33
		Sep-08				554	**1800**	0.586	3.25	1280	**2010**	229	**6300**	< 0.500 J
		Apr-09				565	**1750**	0.561	3.64	1320	**1920**	196	**5780**	< 0.500 J
		Sep-09					**1810**	0.517			**2040**	217	**6430**	< 1.00 J
		Apr-10				474	**1650**	0.344	3.45	1140 UB	**2030**	219	**6070**	< 0.500 U
		Apr-10	FD			469	**1620**	0.360	3.51	1140 UB	**1960**	229	**5860**	< 0.500 U
		Oct-10												
	MW-22B	Apr-10				485	**1310 UB**	0.364	3.71	972 UB	**1910**	249	**5380**	< 0.500 U

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Navajo Refinery, Artesia, New Mexico

		Analyte Group:	Cyanide	Cations/Anions						Water Quality		
		Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
		Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
		CGWSL:	200		250	1.6			600		1000	
		CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**									
EP (continued)	MW-70	Apr-08			668	**1040**	0.726	4.33	673	**1910**	246	**5210**	< 1.00 J
		Sep-08			661	**1100**	0.731	4.54	633	**1990**	234	**5260**	< 0.500 J
		Sep-08	FD		668	**1160**	0.720	4.46	647	**2090**	237	**5030**	< 0.500 J
		Apr-09			647	**1100**	< 0.500 J	4.38	637	**2010**	264	**4990**	< 0.150 U
		Sep-09				**1050**	0.606			**1970**	217	**5390**	< 1.00 J
		Apr-10			651	**838 UB**	0.481	4.79	663 UB	**1760**	209		< 0.500 U
		Oct-10											
	MW-72	Apr-08			658	**3730**	**6.54**	8.36	2110	**3080**	406	**11000**	< 1.00 J
		Sep-08			882	**3970**	**5.61**	10.0	2580	**3140**	369		< 0.500 J
		Mar-09			762	**3800**	**5.84**	8.88	2130	**2760**	317	**10600**	< 0.500 J
		Sep-09				**4050**	**5.36**			**2820**	228	**10800**	< 1.00 J
		Apr-10			904	**3790**	**5.88**	9.30	2540	**2860**	368	**9710**	< 0.500 U
		Oct-10			666 UB	**2940**	**5.92**	8.78	1950	**2370**		**8530**	< 1.00 U
	MW-73	Apr-08			546	**2450**	**1.87**	2.70	2070	**3930**	536	**10300**	< 1.00 J
		Sep-08			600	**2360**	< 1.00 J	2.40	2330	**3700**	514		< 0.500 J
		Mar-09			571	**2410**	**2.06**	2.20	2040	**3770**	452	**10200**	< 0.500 J
		Sep-09				**2290**	**3.38**			**3570**	402	**9130**	1.44
		Apr-10			699	**2190**	**3.85 J**	3.81	2710	**3640**	447	**9390**	1.26
		Oct-10			633 UB	**1920**	**1.96**	2.60	2170	**3250**		**8920**	< 0.100 UJ
	MW-74	Apr-08			519	**2100**	**8.60**	37.6	1770	**3320**	388	**8480**	< 1.00 J
		Sep-08			612	**2360**	**7.41**	35.8	1920	**3720**	403		< 0.500 J
		Mar-09			636	**2060**	**8.53**	36.2	1930	**3270**	360	**8140**	0.552
		Sep-09				**2050**	**8.73**			**3240**	373	**8610**	3.16
		Apr-10			683	**1960**	**8.49**	35.3	2270	**3440**	388	**8920**	13.9
		Apr-10	FD		655	**1950**	**8.01**	34.4	2250	**3450**	368	**8820**	13.8
		Oct-10			643	**1810**	**23.3**	47.8	2410 UB	**3330**		**8670**	< 0.100 U
	MW-75	Apr-08			339	**1600**	**8.43**	25.8	1400	**2050**	623	**6260**	< 0.100 U
		Sep-08			418	**1670**	**8.44**	23.7	1610	**2180**	630		< 0.200 J
		Mar-09			340	**1480**	**9.93**	21.5	1510	**2020**	509	**5840**	< 0.500 J
		Sep-09				**1500**	**8.48**			**1840**	591	**5900**	< 1.00 J
		Sep-09	FD			**1550**	**8.46**			**1910**	581	**5800**	< 1.00 J
		Apr-10			444 UB	**1450 J**	**8.66 J**	20.0 J	1890 J	**1940**	626 J	**6060 J**	< 0.500 U
		Oct-10			421 UB	**1310**	**21.7**	19.7	1760 UB	**1930**		**5330**	< 0.100 U
	MW-76	Apr-08			369	**1210**	**3.35**	28.1	938	**2010**	301	**5630**	< 1.00 J
		Sep-08			510	**1510**	**3.61**	26.3	1120	**2300**	323		< 0.200 J
		Mar-09			415	**1400**	**3.32**	25.2	949	**1960**	266	**5460**	0.724
		Sep-09				**1310**	**3.22**			**2000**	344	**5710**	< 1.00 J
		Apr-10			418 UB	**1380 UB**	**3.24**	28.1	1010 UB	**2030 UB**	288	**5320**	< 0.500 U
		Oct-10			389 UB	**1220**	**2.72**	28.4	904 UB	**1640**		**4850**	< 0.100 U
	MW-77	Apr-08			382	**1620**	**3.30**	29.8	1130	**2110**	412	**6520**	< 1.00 J
		Sep-08			651	**1600**	**2.30**	51.0	1650	**2750**	659		< 0.200 J
		Mar-09			439	**1580**	**2.76**	43.3	1210	**2420**	463	**6460**	< 0.200 J
		Sep-09				**1510**	**2.53**			**2310**	494	**6080**	< 1.00 J
		Apr-10			505	**1410 UB**	**2.15**	55.2	1330 UB	**2810**	517	**6920**	< 0.500 U
		Oct-10		< 100 U	452 UB	**1170**	1.37	62.3	1140 UB	**2200**		**2340**	< 0.100 U

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				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**											
EP (continued)	MW-78	Apr-08				360	**1590**	**4.90**	27.9	1120	**1970**	378	**6290**	< 0.100 U
		Sep-08				349	**1680**	**6.16**	28.6	1160	**2010**	344		< 0.200 J
		Mar-09				372	**1110**	**8.38**	21.9	835	**2000**	443	**5420**	< 0.200 J
		Sep-09					**1080**	**11.1**			**1760**	358	**5030**	< 1.00 J
		Apr-10				369 UB	**622**	**15.2**	22.1	650 UB	**2150**	557	**5120**	1.06
	MW-79	Apr-08				336	**1800**	**13.2**	9.30	1310	**2210**	292	**6620**	< 1.00 J
		Sep-08				454	**1940**	**10.7**	10.9	1490	**2120**	259		0.489
		Mar-09				562	**2120**	**11.4**	10.1	1490	**2230**	246	**6600**	0.762
		Mar-09	FD			606	**2290**	**11.4**	11.3	1690	**2460**	216	**6680 H**	0.760
		Sep-09					**2170**	**10.2**			**2180**	218	**7770**	< 1.00 J
		Apr-10				684	**2230**	**10.0**	10.5	1630 UB	**2410**	219	**6670**	1.13
		Oct-10				804 UB	**1790**	**9.62**	10.7	1540	**2160**		**6530**	2.00
	MW-80	Apr-08				495	**1720**	**4.01**	4.02	1040	**2210**	248	**6270**	< 1.00 J
		Mar-09				535	**1300**	**4.75**	3.56	1200	**1900**	207	**5110**	0.809
		Sep-09					**1340**	**4.28**			**1930**	184	**5650**	< 1.00 J
		Apr-10				720	**1330 UB**	**3.70**	3.54	1060 UB	**2130**	164	**5750**	< 0.500 U
	MW-81	Apr-08				497	**1370**	**9.58**	7.67	862	**2030**	251	**5600**	2.78
		Sep-08				518	**1450**	**7.64**	8.19	870	**1990**	249		6.23
		Mar-09				566	**1490**	**8.92**	8.81	1060	**2260**	286	**6140**	21.6
		Sep-09					**1290**	**8.55**			**1990**	218	**4990**	4.57
		Apr-10				625	**1240 UB**	**8.55**	8.77	1380 UB	**2250**	268	**5790**	25.7
	MW-82	Apr-08				245	**1450**	**12.0**	8.22	1340	**2280**	798	**6500**	< 1.00 J
		Apr-08	FD			304	**1340**	**3.21**	18.5	828	**1510**	670	**5230**	< 1.00 J
		Sep-08				387	**1410**	**10.8**	8.11	1790	**2390**	794		< 0.200 J
		Sep-08	FD			412	**1560**	**10.5**	8.80	1850	**2620**	846		< 0.200 J
		Mar-09				348	**1460**	**13.1**	8.91	1630	**2380**	852	**6320**	< 0.500 J
		Sep-09					**1480**	**13.4**			**2420**	718	**7090**	< 1.00 U
		Apr-10				382 UB	**1530 UB**	**11.0**	8.25	1930	**2390**	994	**6320**	< 0.500 U
	MW-83	Apr-08				290	**1350**	**3.19**	19.8	794	**1530**	548	**5310**	< 0.100 U
		Sep-08				403	**1280**	**3.86**	20.6	968	**1970**	516		0.220
		Mar-09				339	**1180**	**4.03**	29.2	946	**1840**	502	**5050**	< 0.500 J
		Sep-09					**715**	**4.32**			**2950**	655	**6690**	< 1.00 J
		Apr-10				334 UB	**1020 UB**	**3.55**	34.8	936 UB	**2410**	527	**5490**	< 0.500 U
		Oct-10				433 UB	**440**	**4.73 J**	51.5	694 UB	**2940**		**17300**	2.96
	MW-84	Apr-08				495	**1930**	**4.36**	8.11	1200	**3550**	418	**9200**	< 1.00 J
		Sep-08				653	**1590**	**4.30**	7.81	1450	**3580**	449		< 0.500 J
		Mar-09				608	**1770**	**4.84**	6.64	1400	**3490**	561	**8470**	< 0.500 J
		Sep-09					**2010**	**4.84**			**3780**	434	**8380**	< 1.00 J
		Apr-10				622	**1580 UB**	**6.79**	7.51	1560 UB	**4100**	487	**9060**	< 0.500 U
		Oct-10												

Table 4 - Summary of Groundwater Analytical Data

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Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**											
EP (continued)	MW-87	Apr-09				677	**4340**	1.52	23.1	2670	**4110**	255	**14300**	< 0.500 J
		Sep-09					**4290**	**1.67**			**4300**	270	**13000**	< 1.00 J
		Apr-10				697	**4100**	0.913	23.3	3120	**4260**	268	**11600**	< 0.500 U
		Apr-10	FD			616	**4310 J**	0.840 J	22.7 J	2770 J	**4640 J**	278	**3320 J**	< 0.500 U
		Oct-10												
		Oct-10	FD											
	MW-88	Apr-08				558	**1740**	1.04	3.14	1390	**2230**	228	**6440**	< 0.100 U
		Sep-08				441	**1450**	0.944	3.70	1070	**1990**	239	**5530**	< 0.500 J
		Apr-09				374	**1470**	0.733	3.79	1010	**1890**	201	**5580**	0.595
		Apr-09	FD			392	**1500**	0.765	2.94	1030	**1990**	192	**6500**	< 0.500 J
		Sep-09					**1370**	0.814			**1800**	207	**5380**	< 1.00 J
		Sep-09	FD				**1370**	0.818			**1800**	212	**5390**	< 1.00 J
		Apr-10				409 UB	**1370 UB**	0.917	3.21	1080 UB	**1910**	219		< 0.500 U
		Oct-10												
	OCD-1R	Apr-08				655	**2340**	**5.59**	5.47	1560	**2480**	251	**7800**	< 0.100 U
		Sep-08				576	**4270**	**5.18**	6.29	2340	**3670**	272	**12000**	< 0.500 J
		Apr-09				569	**2170**	**5.26**	5.21	1220	**2220**	172	**6220**	< 0.500 J
		Apr-10				668	**2720**	**4.93**	5.09	1920	**2740**	268	**5760**	< 0.500 U
		Oct-10												
	OCD-2A	Apr-08				458	**1760**	< 1.00 J	3.48	1140	**2380**	227	**6850**	< 0.100 U
		Sep-08				507	**2020**	1.02	3.88	1050	**2460**	182	**6760**	0.624
		Mar-09	FD			656	**2270**	0.776	4.81	1390	**2650**	236	**6980 H**	0.714
		Apr-09				590	**2360**	0.811	4.09	1250	**2770**	175	**7080**	< 0.500 J
		Sep-09					**1570**	0.718			**1770**	169	**5380**	< 1.00 J
		Apr-10				604	**1910**	1.11	2.94	1430 UB	**2770**	259	**7030**	< 0.500 U
		Oct-10												
	OCD-2B	Apr-10				676	**1420**	0.757	5.53	776 UB	**1860**	128		< 0.500 U
	OCD-3	Apr-08				604	**1890**	< 1.00 J	14.1	1360	**2380**	279	**7190**	< 0.100 U
		Apr-08	FD			494	**1710**	0.937	13.3	1220	**2180**	259	**6720**	< 0.100 U
		Sep-08				434	**1700**	1.03	13.8	1100	**2290**	223	**6260**	< 0.500 J
		Apr-09				426	**1010**	0.783	12.9	596	**1350**	125	**3700**	< 0.500 J
		Sep-09					**958**	0.949			**1490**	130	**4120**	< 1.00 J
		Apr-10				562	**1410**	0.896	12.6	1100 UB	**2150**	219	**5640**	< 0.500 U
		Oct-10												
	OCD-4	Apr-08				832	**4540**	< 0.100 U	35.2	2550	**2660**	205	**12500**	< 0.100 U
		Sep-08				674	**4780**	< 0.0500 U	37.5	2550	**2680**	228	**13100**	< 0.500 J
		Apr-09				777	**4630**	0.595	35.4	2380	**2910**	161	**10800**	< 0.500 J
		Sep-09					**4590**	0.723			**2770**	193	**10800**	< 1.00 J
		Apr-10				868	**4630**	0.780	35.5	2890	**2910**	229	**11600**	< 0.500 U
		Oct-10												

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Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**											
EP (continued)	OCD-5	Apr-08				746	**4720**	< 0.100 U	31.9	2710	**2640**	217	**12900**	< 0.100 U
		Sep-08				621	**5710**	< 0.500 J	28.8	2560	**3360**	277	**12600**	< 0.500 J
		Apr-09				789	**4950**	0.614	32.8	2820	**2990**	184	**11600**	< 0.500 J
		Sep-09					**4690**	0.754			**2890**	217	**12600**	< 1.00 J
		Apr-10				878	**4580**	0.775	29.2	3170	**2880**	199	**12100**	< 0.500 U
		Oct-10												
	OCD-6	Apr-08				614	**3510**	**3.37**	10.2	2720	**3560**	380	**11400**	< 0.100 U
		Sep-08				594	**4130**	**2.44**	12.6	2470	**3900**	648	**11700**	< 0.500 J
		Apr-09				599	**3480**	**3.22**	11.6	2710	**3270**	566	**11400**	< 0.500 J
		Sep-09					**3680**	**3.29**			**3170**	564	**11300**	< 1.00 J
		Apr-10				773	**3660**	**3.15**	13.1	3310	**2960**	487	**10400**	< 0.500 U
		Oct-10												
	OCD-7A	Apr-08				541	**2260**	**4.73**	7.13	1930	**3230**	283	**9120**	< 0.100 U
		Sep-08				614	**2560**	**4.80**	7.49	2060	**3690**	605	**9350**	< 0.500 J
		Apr-09				550	**2170**	**4.57**	7.16	2000	**3050**	601	**9210**	0.673
		Sep-09					**2200**	**4.32**			**3280**	540	**9530**	< 1.00 J
		Sep-09	FD				**2160**	**4.41**			**3220**	554	**9890**	< 1.00 J
		Apr-10				719	**2010**	**4.12**	6.86	2690	**3210**	597	**8740**	< 0.500 U
		Oct-10												
	OCD-7B	Apr-10				642	**676 UB**	1.00	10.7	841 UB	**2330**	193	**4900**	< 0.500 U
		Apr-10	FD			628	**688 UB**	1.03	10.9	832 UB	**2380**	189	**4780**	< 0.500 U
	OCD-8A	Apr-08				662	**2530**	**2.81**	7.37	2360	**3320**	525	**10200**	< 0.100 U
		Sep-08				515	**3150**	**2.11**	10.6	2260	**4130**	551	**10600**	< 0.500 J
		Sep-08	FD			511	**3430**	**2.07**	10.8	2200	**4380**	607	**11000**	< 0.500 J
		Apr-09				573	**2700**	**2.84**	7.88	2220	**3380**	499	**9550**	< 0.150 U
		Sep-09					**2880**	**3.40**			**3840**	520	**10100**	< 1.00 J
		Apr-10				576	**2270**	**2.87**	7.73	2100	**3420**	527	**8930**	< 0.500 U
		Oct-10		< 20.0 U										
	OCD-8B	Apr-10				637	**2040**	0.803	8.18	1450 UB	**2810**	259	**7940**	< 0.500 U
TMD	MW-8	Apr-08				322	**260**	**2.21**	1.48	299	**1910**	279	**3580**	< 1.00 J
		Sep-08				392	**283**	**1.92**	1.64	328	**2070**	290	**4150**	0.989
		Apr-09				359	**344**	**1.89**	1.53	275	**2570**	296	**4380**	3.21
		Oct-09					**425**	**2.02**			**2690**	293	**5350**	12.2
		Apr-10				468 UB	**326 UB**	**1.94**	1.57	399 UB	**2680**	298	**4760**	5.69
		Oct-10				513 UB	**472**	**3.41**	2.11	422	**2850**		**5140**	16.3
	MW-16	Apr-08				526	**627**	**2.11**	9.76	449	**2390**	295	**5140**	< 0.100 U
		Sep-08				471	**526**	**2.08**	9.83	426	**2240**	290		< 0.200 J
		Apr-09				528	**502**	**2.12**	8.10	434	**2280**	249	**4740**	0.577
		Apr-09	FD			549	**521**	**2.15**	8.80	442	**1990**	296	**4830**	0.579
		Sep-09					**495**	**2.01**			**2350**	262	**4510**	< 1.00 J
		Apr-10				481	**418 UB**	**2.26**	8.47	355 UB	**2320**	271	**4500**	< 0.500 U

Table 4 - Summary of Groundwater Analytical Data

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Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**											
TMD (continued)	MW-20	Apr-08				441	**431**	**2.45**	0.611	282	**3080**	312		2.63
		Sep-08				495	**398**	**2.14**	0.685	290	**3150**	295	**5880**	2.33
		Apr-09				494	**353**	**2.32**	0.632	290	**3120**	277	**5480**	2.12
		Oct-09					**301**	**2.46**			**3000**	273	**5710**	1.50
		Apr-10				525	**279 UB**	**2.51**	< 1.00 U	301 UB	**3170**	269	**5170**	0.811
	MW-21	Apr-08				391	**393**	1.28	1.82	380	**2880**	314	**5250**	5.08
		Sep-08				559	**391**	**1.74**	2.00	489	**2980**	328	**5690**	7.49
		Apr-09				556	**482**	**1.71**	1.92	479	**3150**	301	**5800**	15.6
		Oct-09					**475**	**1.62**			**2930**	293	**5950**	16.8
		Apr-10				598	**519 UB**	**1.88**	1.96	503 UB	**2800**	259	**5830**	27.4
		Oct-10				514 UB	**479**	**1.96**	2.06	420	**2500**		**5210**	22.1
	MW-25	Apr-08				270	**1050**	1.16	3.70	642	**1360**	191	**3920**	< 1.00 J
		Sep-08				292	**891**	1.08	3.48	614	**1270**	183	**3770**	< 0.500 J
		Apr-09				294	**882**	0.878	5.20	581	**1240**	157	**3570**	0.525
		Sep-09					**825**	1.10			**1230**	159	**3560**	< 1.00 J
		Apr-10				259 UB	**748 UB**	1.03	3.57	445 UB	**1240 UB**	178	**3430**	< 0.500 U
	MW-26	Apr-08				522	**714**	**1.81**	4.48	422	**3270**	201	**6660**	< 0.100 U
		Sep-08				452	**468**	1.48	4.08	338	**2390**	189		0.219
		Apr-09				566	**734**	**1.74**	4.38	502	**3540**	177	**6720**	< 0.500 J
		Sep-09					**590**	**1.92**			**2860**	179	**5310**	< 1.00 J
		Apr-10				449 UB	**526 UB**	**1.83**	4.43	332 UB	**2920**	205	**5410**	< 0.500 U
	MW-27	Apr-08					**271**	1.12			**1400**	210	**2840**	6.12
		Sep-08				463	218	1.12	9.56	155	**1410**	214	**2880**	1.61
		Apr-09				441	212	0.979	9.23	142	**1430**	201	**2720**	1.65
		Sep-09					201	1.18			**1350**	199	**2710**	2.60
		Apr-10				352 UB	166 UB	1.10	9.08	132 UB	**1420**	186	**2610**	1.16
	MW-68	Apr-08				254	120	**1.90**	4.28	131	**918**	338	**2040**	< 1.00 J
		Sep-08				313	**260**	**1.74**	4.04	179	**1130**	281	**2730**	5.99
		Apr-09				239	186	**1.80**	3.81	142	**1150**	234	**2290**	3.32
		Sep-09					**381**	**1.61**			**1380**	281	**3200**	9.38
		Apr-10				275 UB	215 UB	**1.87**	4.12	180 UB	**1200**	307	**2460**	3.47
	MW-71	Apr-10				572	**714 UB**	1.50	3.37	406 UB	**2680**	259	**5850**	42.9
		Oct-10		< 20.0 U		669 UB	**759**	1.29	3.81	448	**3190**		**5510**	48.8
	MW-89	Apr-08				466	240	**1.87**	10.1	161	**1710**	222	**3310**	< 1.00 J
		Sep-08				502	245	**1.97**	14.7	175	**1560**	264		0.264
		Sep-08				549	**1240**	**4.25**	3.67	1060	**2030**	227		0.230
		Apr-09				536	**419**	**2.31**	8.33	188	**3190**	186	**3040**	0.550
		Sep-09					218	**3.09**			**1630**	199	**3020**	< 1.00 J
		Apr-10				470	240 UJ	**3.14 J**	9.92 J	168 UJ	**1740 J**	< 5.00	**10800 J**	< 0.500 U

Table 4 - Summary of Groundwater Analytical Data

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Navajo Refinery, Artesia, New Mexico

Area	Location	Date	Dup	Cyanide	Cations/Anions						Water Quality		
Analyte Group:				Cyanide	Cations/Anions						Water Quality		
Analyte:				Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
Units:				ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
CGWSL:				200		250	1.6			600		1000	
CGWSL Source:				EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
TMD (continued)	NP-1	Apr-08											
		Sep-08											
		Apr-09											
		Sep-09											
		Apr-10				**689 UB**	**1.94**			**2970**	365	**6260**	30.2
		Oct-10											
	NP-6	Apr-08			560	**472**	**2.36**	3.42	453	**3170**	353	**5850**	14.9
		Sep-08			565	**707**	**1.94**	3.25	437	**2660**	292	**6070**	41.9
		Apr-09			577	**671**	**1.93**	3.23	416	**2640**	313	**5180**	36.4
		Oct-09				**780**	**2.22**			**2710**	278	**6660**	41.9
		Oct-10											
N Refinery	MW-23	Apr-08			116	**448**	0.590	1.45	401	28.7	962		< 0.100 U
		Sep-08			123	**488**	0.420	1.53	407	6.24	991	**2020**	< 0.500 J
		Apr-09			112	**467**	0.592	1.30	433	15.9	1140	**2040**	< 0.150 U
		Sep-09				**555**	1.06			29.7	1010	**2270**	< 0.500 J
		Mar-10			106	**507**	1.46	1.24	452	37.1	1120	**2220**	< 0.500 U
		Oct-10			89.2 UB	**503**	1.33	1.26	437	24.1		**2040**	0.255
	MW-29	Apr-08			393	**495**	**2.54**	7.04	291	**2650**	510		1.72
		Sep-08			397	**481**	**2.07**	4.44	335	**2140**	645	**4890**	< 0.500 J
		Apr-09			440	**398**	**1.97**	3.18	415	**1890**	591	**3900**	< 0.150 U
		Sep-09				**454**	**1.69**			**2140**	670	**4780**	< 1.00 J
		Mar-10			371 UB	**348 UB**	**2.23**	5.40	335 UB	**1760**	637	**3880**	< 0.500 U
		Oct-10			388	**332**	**2.47**	4.66	346	**1670**		**4010**	< 1.00 U
	MW-30	Mar-10			473 UB	**416 UB**	1.02	1.53	323	**1930**	521	**4160**	0.891
	MW-40	Mar-10			294 UB	123 UB	1.45	0.963	86.3	**912**	516	**2120**	< 0.500 U
	MW-41	Apr-08			247	**438**	0.715	0.540	451	**1120**	1110		< 0.100 U
		Sep-08			290	**855**	0.628	0.545	539	**1170**	1120	**4550**	< 0.500 J
		Apr-09			316	**995**	0.522	0.870	680	**1250**	1090	**4430**	1.08
		Sep-09				**736**	0.546			**1210**	1040	**4070**	< 1.00 J
		Mar-10			234 UB	**595 UB**	0.667	0.486	450	**1170**	952	**3590**	< 0.500 U
		Oct-10			312	**875**	0.73	< 1.00 U	614	**886**		**3750**	< 1.00 U
	MW-42	Apr-08			269	**598**	< 0.100 U	0.979	424	**959**	1200		< 0.100 U
		Sep-08			217	**601**	0.753	0.544	396	**840**	953	**3490**	< 0.500 J
		Apr-09			203	**693**	0.502	0.682	392	**991**	875	**3460**	< 0.150 U
		Apr-09	FD		210	**641**	0.595	0.743	410	**874**	1120	**3400**	1.07
		Sep-09				**750**	0.605			**979**	1030	**3680**	< 1.00 J
		Mar-10			257 UB	**278 UJ**	0.655	0.469	453	359 UJ	1050	**3380**	< 0.500 U
		Oct-10			244	**670**	0.74	< 1.00 U	419	**730**		**3420**	< 1.00 U
	MW-43	Apr-08			140	**721**	0.627	0.470	614	215	1020		< 0.100 U
		Sep-08			123	**726**	0.881	0.495	745	188	1200	**2790**	< 0.500 J
		Apr-09			99.6	**652**	0.624	0.508	632	140	1120	**2290**	< 0.150 U
		Sep-09				**626**	0.690			128	972	**2280**	< 0.500 J
		Mar-10			104 UB	**623**	0.958	0.456	597	65.8	1220	**2420**	< 0.500 U
		Oct-10		< 20.0 U	87.3	**610**	0.93	< 1.00 U	627	39		**2220**	< 1.00 U

Table 4 - Summary of Groundwater Analytical Data

2010 Groundwater Report

Navajo Refinery, Artesia, New Mexico

		Analyte Group:	Cyanide	Cations/Anions						Water Quality		
		Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
		Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
		CGWSL:	200		250	1.6			600		1000	
		CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**									
N Refinery (continued)	MW-45	Apr-08			333	204	**1.80**	3.97	221	**1720**	367		< 0.100 U
		Sep-08			335	223	**1.86**	4.02	220	**1580**	355	**3320**	< 0.500 J
		Apr-09			383	**264**	**1.75**	5.69	207	**1690**	304	**3200**	< 0.500 J
		Sep-09				**343**	**2.00**			**1840**	320	**3850**	< 1.00 J
		Mar-10			462 UB	**353 UB**	**1.65**	4.51	202	**2060**	436	**4190**	< 0.500 U
		Nov-10		< 20.0 U	487	**377**	**1.96**	4.54	212	**1920**		**4290**	< 10.0 U
		Nov-10	FD	< 20.0 U	540	**368**	**1.82**	5.15	235	**1730**		**4020**	< 10.0 U
	MW-46	Nov-10			800	**357**	**2.02**	13.7	182	**2050**		**4270**	< 10.0 U
	MW-55	Apr-08			430	**296**	< 0.100 U	0.749	209	**2130**	354		3.77
		Sep-08			572	227	1.30	0.975	262	**3010**	288	**5500**	19.7
		Apr-09			447	**278**	0.911	0.897	218	**2140**	313	**4190**	6.23
		Sep-09				**277**	1.15			**2480**	280	**4850**	6.58
		Mar-10			495 UB	243	**1.71**	0.764	193	**2640**	261	**4760**	10.8
		Oct-10		< 20.0 U	530	130	**2.48**	1.15	156	**2400**		**4160**	9.65
	MW-56	Apr-08			436	**426**	< 0.100 U	1.79	220	**1700**	516		< 1.00 J
		Sep-08			516	**310**	1.01	2.20	266	**1830**	450	**3890**	0.766
		Apr-09			524	**329**	0.750	2.09	217	**1920**	432	**3940**	0.619
		Sep-09				**337**	0.854			**1850**	380	**4030**	< 1.00 J
		Sep-09	FD			**338**	0.853			**1830**	390	**4100**	< 1.00 J
		Mar-10			442 UB	**306 UB**	0.863	1.84	187 UB	**1790**	416	**3890**	< 0.500 U
		Oct-10			511	**360**	1.1	2.08	207	**1800**		**3830**	< 1.00 U
	MW-59	Apr-10			494	228 UB	0.984	0.605	140	**1750**	382	**3420**	< 0.500 U
	MW-60	Apr-10			404 UB	**316 UB**	0.807	0.627	194	**1750**	704	**3840**	< 0.500 U
		Nov-10		< 20.0 U	383	**289**	0.381	< 2.00 U	193	**1460**		**3380**	< 10.0 U
	MW-61	Apr-08			429	**1440**	0.655	0.769	260	**623**	580		< 0.100 U
		Sep-08			477	**1860**	0.498	0.804	332	**914**	674	**5740**	< 0.500 J
		Apr-09			438	**1190**	0.703	0.846	382	**1010**	653	**4670**	< 0.500 J
		Oct-09				**1050**	0.858			**824**	658	**4320**	< 0.500 U
		Apr-10			514	**809 UB**	1.08	0.628	575 UB	**1440 UB**	507	**4440**	< 0.500 UJ
		Oct-10			395	**700**	1.14	< 1.00 U	422	**1220**		**3700**	0.140 J
	MW-62	Apr-08			180	128	0.855	0.860	195	272	957		< 0.100 U
		Sep-08			198	177	0.601	0.816	185	235	872	**1620**	< 0.500 J
		Apr-09			186	171	0.720	1.08	177	158	943	**1600**	< 0.150 U
		Oct-09				201	0.888			105	806	**1600**	< 0.500 J
		Apr-10			237 UB	228	1.10	0.891	172 UB	164	835	**1570**	< 0.500 U
		Oct-10			250	234	1.13	1.01	140 UB	211		**1550**	0.101
		Oct-10	FD		257	**264**	1.12	1.00	140 UB	217		**1590**	< 0.100 U
	MW-67	Apr-08			194	**251**	0.546	0.415	139	360	707		< 0.100 U
		Sep-08			206	**288**	0.204	0.466	133	393	690	**1770**	< 0.500 J
		Apr-09			177	238	< 0.250 U	0.632	127	322	729	**1590**	< 0.150 U
		Oct-09				202	< 0.500 J			558	544	**2030**	< 0.500 J
		Mar-10			173 UB	243	0.432	0.602	134 UB	246	687	**1520**	< 0.500 U
		Oct-10		< 20.0 U	167	201	0.570	< 1.00 U	147	197		**1350**	< 0.100 U

Table 4 - Summary of Groundwater Analytical Data

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Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**											
N Refinery (continued)	MW-90	May-08				277	69.1	0.892	0.738	184	**1150**	598		< 0.100 U
		Sep-08				321	193	**2.54**	2.83	420	**2640**	546	**5060**	10.1
		Sep-08	FD			338	195	**2.56**	3.08	444	**2610**	548	**5150**	9.83
		Apr-09				283	114	1.31	1.69	311	**1640**	567	**3770**	< 0.150 U
		Oct-09					98.9	1.27			**1500**	603	**3420**	< 0.500 U
		Mar-10				245 UB	117 UB	1.31	1.10	220 UB	**1430**	612	**2960**	< 0.500 U
		Oct-10				288	111	1.56	1.37 UB	280	**1330**		**2980**	< 0.10 U
	MW-91	May-08				256	67.2	0.902	0.402	49.0	544	795		< 0.100 U
		Sep-08				260	78.0	0.373	0.769	50.1	**621**	793	**2020**	< 0.500 J
		Apr-09				241	48.8	0.625	0.523	51.3	535	713	**1820**	< 0.150 U
		Oct-09					20.1	1.12			**790**	722	**2250**	0.562
		Mar-10				324 UB	13.4 UB	1.24	0.332	33.3	**664**	787	**2040**	< 0.500 U
		Oct-10				323	17.9	1.39	< 1.00 U	39.2 UB	581		**1890**	0.11
	MW-92	May-08				172	**486**	0.832	0.545	333	315	1200		0.476
		Sep-08				162	**426**	0.673	0.488	340	376	933	**2400**	< 0.500 J
		Apr-09				172	**401**	0.549	0.590	325	310	970	**2280**	< 0.150 U
		Oct-09					**603**	0.871			40.0	1100	**2260**	< 0.100 U
		Mar-10				119 UB	**488**	0.997	1.11	377 UB	64.8	1150	**2190**	< 0.500 U
	MW-93	May-08				778	75.9	1.60	8.28	95.7	**713**	549		< 0.100 U
		Sep-08				622	78.6	0.878	5.63	88.7	**932**	510	**2330**	< 0.500 J
		Apr-09				329	60.1	1.26	4.55	90.3	**817**	529	**2000**	< 0.500 J
		Oct-09					46.7	1.32			**709**	480	**1920**	< 0.500 J
		Mar-10				378 UB	47.9 J	**1.64 J**	2.28 J	81.8 J	**847 J**	642	**2180 J**	< 0.500 U
		Mar-10	FD			451 UB	**572 J**	**2.41 J**	5.11 J	379 UJ	**3350 J**	531	**6530 J**	< 0.500 U
		Oct-10				355	42.3	1.55	2.46 UB	88.8	**686**		**1740**	0.14 J
	MW-95	May-08				218	**251**	0.643	0.508	105	426	861		< 0.100 U
		Sep-08				269	**306**	0.216	0.327	100	**648**	636	**2130**	< 0.500 J
		Apr-09				240	**261**	< 0.500 J	0.446	112	477	669	**1980**	< 0.150 U
		Oct-09					235	0.657			488	643	**2060**	< 0.500 J
		Mar-10				219 UB	**263**	0.631	0.559	142 UB	302	697		< 0.500 U
	MW-96	May-08				169	247	0.988	0.893	215	293	837		< 0.100 U
		Sep-08				194	250	0.888	1.28	216	294	961	**1750**	< 0.500 J
		Apr-09				164	248	0.667	0.829	214	308	839	**1880**	< 0.150 U
		Apr-09	FD			166	242	0.630	0.780	214	337	854	**1830**	< 0.150 U
		Oct-09					222	1.04			243	757	**1790**	0.633
		Oct-09	FD				220	0.791			242	801	**1710**	< 0.500 J
		Mar-10				178 UB	149 UB	0.951	1.01	225 UB	422	827	**1760**	< 0.500 U
		Oct-10				187	133	1.18	1.14 UB	236	359		**1730**	0.24
	MW-98	May-08				311	38.0	0.966	0.352	209	**1910**	472		< 0.100 U
		Sep-08				311	22.9	0.842	0.344	123	**1670**	439	**3410**	< 0.500 J
		Apr-09				294	18.3	0.730	< 0.400 J	72.9	**1610**	320	**2860**	< 0.150 U
		Sep-09					55.4	**1.64**			**2040**	518	**3810**	< 0.500 J
		Apr-10				509	59.1	**1.64**	< 0.400 U	90.5 UB	**1950**	567	**3760**	< 0.500 U
		Oct-10				397	54.8	1.43	< 1.00 U	70.3 UB	**1540**		**3160**	< 0.100 U

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				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	***Dup***											
N Refinery (continued)	RW-1	Apr-08				198	**336**	0.914	1.39	278	**701**	769		< 1.00 J
		Sep-08				252	**266**	0.850	1.46	242	595	781	**2330**	< 0.500 J
		Apr-09				300	**312**	0.573	1.84	290	**736**	820	**2670**	< 0.150 U
		Oct-09					**324**	0.597			**671**	742	**2510**	< 0.500 J
		Nov-10				470	**296**	0.755	3.71	275	**905**		**3270**	< 10.0 U
	RW-2	Nov-10				243	**271**	0.966	2.07	245	34.3		**2100**	< 10.0 U
	RW-7	Apr-10				164	**280**	0.709	0.893	131	164	814	**1600**	< 0.500 U
	RW-9	Apr-10				240 UB	**296 UB**	1.22	2.18	361	**878**	784	**2510**	< 0.500 U
		Apr-10	FD			193 UB	**251 UB**	1.33	2.19	288	**750**	694	**2470**	< 0.500 U
	RW-10	Apr-10				293 UB	183 UB	**2.74**	5.98	200	**1430**	201	**2890**	< 0.500 U
	RW-16A	Mar-10				483 UB	**535**	**4.92**	1.27	508	**3000**	526	**6410**	1.46
S Refinery	KWB-2R	Oct-10				113	**363**	**1.73**	< 2.00 U	292	13.2		**1580**	< 0.100 UJ
	MW-28	Apr-08				232	180	1.10	0.576	89.7	**816**	1080		< 0.100 U
		Apr-09				251	179	0.919	0.484	99.8	567	858	**2090**	< 0.150 U
		Sep-09					182	1.10			460	760	**1830**	< 1.00 J
		Apr-10				255 UB	182 UB	1.01	0.716	112	**614**	764	**2150**	< 0.500 U
		Oct-10			45.0	292	230 J	1.1 J	1.20 J	86.4 UB	**740**		**2560 J**	< 1.00 U
	MW-49	Apr-08				202	**445**	1.34	2.14	285	359	818		< 0.100 U
		Sep-08				204	**499**	1.22	2.28	273	394	719	**2360**	< 0.500 J
		Apr-09				216	**541**	0.977	2.12	298	358	703	**2310**	1.07
		Apr-10				184 UB	**464**	1.24	2.55	278	329	754	**2170**	< 0.500 U
		Oct-10			< 20.0 U	166	**416**	1.36	2.17	260	288		**1940**	< 0.100 U
	MW-50	Apr-08				346	172	0.766	2.11	117	**1320**	359		< 0.100 U
		Apr-08	FD			356	178	0.757	1.90	121	**1330**	373		< 0.100 U
		Sep-08				433	181	0.759	2.13	127	**1240**	370	**2780**	< 0.500 J
		Sep-08	FD			389	193	0.749	2.21	119	**1270**	364	**2700**	< 0.500 J
		Apr-09				374	170	0.583	2.11	116	**1290**	304	**2700**	< 0.500 J
		Sep-09					167	0.863			**1310**	311	**2690**	0.565
		Sep-09	FD				167	0.723			**1280**	316	**2730**	< 0.500 J
		Apr-10				489	170 UB	0.828	2.19	159 UB	**1420 UB**	338	**2750**	< 0.500 U
		Nov-10				337	156	0.840	2.23	112	**1230**		**2510**	< 10.0 U
	MW-52	Apr-08				197	**345**	**1.67**	0.392	358	**1090**	590		4.12
		Sep-08				234	**283**	**1.64**	0.438	383	**1090**	611	**2780**	2.86
		Apr-09				190	**261**	1.40	< 0.400 J	342	**1060**	616	**2600**	2.24
		Sep-09					180	1.42			**1030**	552	**2330**	2.18
		Sep-09	FD				181	**1.71**			**1020**	538	**2500**	2.11
		Apr-10				215 UB	221 UB	**1.67**	< 1.00 U	366 UB	**1080**	517	**2750**	3.08
		Oct-10			< 20.0 U	160	159	**1.76**	< 2.00 U	284	**849**		**2220**	1.15
	MW-57	Nov-10				679	**1380**	**2.78**	3.02	924	**3410**		**8720**	< 10.0 U

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				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**											
S Refinery (continued)	MW-58	Apr-08				185	**319**	0.822	< 0.200 J	91.8	201	793		< 0.100 U
		Sep-08				234	**328**	0.987	0.410	108	228	805	**1640**	< 0.100 J
		Apr-09				214	**327**	0.701	< 0.20 U	102	209	770	**1610**	< 0.150 U
		Sep-09					**317**	1.11			95.9	794	**1500**	< 0.500 U
		Apr-10				210 UB	**303**	0.933	< 1.00 U	84.2 UB	157 J	756	**1710**	< 0.500 U
		Apr-10	FD			195 UB	**260**	0.998	< 1.00 U	83.0 UB	90.9 J	776	**1510**	< 0.500 U
		Oct-10			< 20.0 U	217	**282**	0.977	< 2.00 U	80.3	< 0.500 U		**1300**	< 0.100 U
	MW-66	Apr-08				180	246	0.994	0.868	195	5.01	978		< 0.100 U
		Sep-08				180	219	1.03	3.11	162	1.37	945	**1140**	< 0.500 J
		Apr-09				153	238	0.901	1.09	191	6.21	883	**1230**	< 0.150 U
		Sep-09					231	1.05			6.96	750	**1230**	< 0.100 J
		Apr-10				142 UB	216	1.04	0.920	180	3.59 UB	864	**1340**	< 0.500 U
		Oct-10			< 20.0 U	119	200	1.2	1.80	149 UB	1.1		**1010**	< 1.00 U
	MW-99	Sep-08				185	**290**	0.415	0.578	200	236	828	**1780**	< 0.500 J
		Apr-09				177	248	< 0.500 J	0.594	133	218	616	**1390**	< 0.150 U
		Sep-09					249	< 0.500 J			205	774	**1680**	< 0.500 J
		Apr-10				183 UB	**268**	0.534	0.632	200	236	804	**1790**	< 0.500 U
		Oct-10				187	**290**	0.58	< 1.00 U	192	200		**1510**	< 1.00 U
	MW-101	May-08				219	250	0.829	0.478	170	239	693		< 0.100 U
		May-08	FD			204	250	0.824	0.647	156	235	689		< 0.100 U
		Sep-08				221	**291**	0.642	0.635	157	263	690	**1530**	< 0.500 J
		Apr-09				171	**289**	< 0.500 J	0.581	180	229	718	**1680**	< 0.150 U
		Sep-09					241	0.847			212	617	**1440**	< 0.500 U
		Apr-10				186 UB	244	0.658	0.649	154	195	663	**1430**	< 0.500 U
		Nov-10				172	**271**	0.734	< 1.00 U	139	187		**1320**	< 10.0 U
	MW-103	Sep-08											**1860**	
		Mar-09				12.1	**919**	**12.0**	1.15	1050	42.5	1020	**2710**	< 1.00 J
		Sep-09					**819**	**11.7**			39.8	1060	**2700**	< 0.500 J
		Apr-10				12.3	**817**	**12.4**	0.729	974	12.1 UJ	1380	**3070**	< 0.500 U
	MW-104	Sep-08											**1810**	
		Mar-09				208	64.8	**2.91**	5.01	38.3	**620**	139	**1180**	< 1.00 J
		Sep-09					74.1	**2.33**			**730**	202	**1560**	< 0.500 J
		Apr-10				151	26.9	**2.53**	4.55	31.9	436	148	874	< 0.500 U
		Oct-10				264	87	**2.0 J**	7.07	46.5 UB	**620**		**1500**	< 1.00 U
		Oct-10	FD			262	96.6 J	**2.03 J**	7.25 J	48.5 UB	**691**		**1500 J**	< 1.00 U
	MW-106	Sep-09					83.2	0.989			**1880**	508	**3680**	0.507
		Apr-10				366 UB	36.6	0.919	1.70	146	**1640**	452	**3270**	< 0.500 U
		Oct-10				365	54.3	0.956	< 1.00 U	196	**1460**		**3400**	< 10.0 U
	MW-107	Sep-09					**306**	0.918			< 2.50 J	730	**1570**	< 0.500 J
		Mar-10				128	**253**	1.23	0.989	61.9	0.813	727	**1270**	< 0.500 U
		Nov-10				111	**272**	1.20	1.15	61.2	1.03		**1160**	< 1.00 U
	RW-4	Apr-10				178	**297**	0.667	1.41	171	404	613	**1780**	< 0.500 U

Table 4 - Summary of Groundwater Analytical Data

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Navajo Refinery, Artesia, New Mexico

		Analyte Group:	Cyanide	Cations/Anions						Water Quality		
		Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
		Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
		CGWSL:	200		250	1.6			600		1000	
		CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**									
S Refinery (continued)	RA-313	Mar-08				28.4	0.843			483	193	**1030**	< 1.00 J
		Sep-08			180	16.0	0.775	1.06	14.4	441	199	952	0.636
		Sep-08	FD		183	15.6	0.776	1.09	14.5	436	205	866	0.639
		Oct-09				15.2	0.711			429	184	976	1.14
		Apr-10			207 UB	33.6	0.698	0.965	21.3 UB	494	199	**1030**	< 0.500 U
		Apr-10	FD		215 UB	34.3	0.698	1.11	22.8 UB	496	189	**1100**	0.992
	RA-1227	Nov-10				135	0.373			**1340**		**2520**	< 10.0 U
		Nov-10	FD			140	0.344			**1340**		**2880**	< 10.0 U
Field E of Refinery	KWB-1A	Sep-08			423	210	1.01	1.06	178	**1830**	438	**3750**	< 0.500 J
		Apr-09			385	210	0.784	1.02	170	**1890**	365	**3610**	< 0.500 J
		Sep-09				198	0.955			**1850**	409	**3570**	0.709
		Apr-10			355 UB	223 UB	1.11	1.07	149 UB	**1950**	421	**3840**	< 0.500 U
		Oct-10		< 20.0 U	409 UB	220	1.15	0.996	155	**1490 J**		**3840**	< 0.100 U
		Oct-10	FD	< 20.0 U	434 UB	248	1.18	1.07	170	**1660**		**3730**	< 0.100 U
	KWB-3AR	Apr-08			541	206	0.213	1.53	334	**2600**	334		22.6
		Sep-08			707	243	0.280	0.828	419	**2770**	367	**5410**	19.7
		Sep-08	FD		657	248	0.261	0.847	392	**2790**	333	**5330**	19.9
		Apr-09			601	176	< 0.250 U	1.05	329	**2780**	379	**5270**	12.1
		Sep-09				176	< 0.500 J			**3050**	335	**5490**	11.9
		Apr-10			615	**292 UB**	0.284	0.938	467 UB	**3200**	373	**5340**	18.0
		Oct-10		< 20.0 U	532	216	0.511	< 2.00 U	428	**2810**		**5230**	8.78
		Oct-10	FD	< 20.0 U	502	237 J	0.501	< 2.00 U	434 J	**2720**		**4870**	9.14 J
	KWB-7	Apr-08			256	**393**	0.566	0.490	201	**722**	844		3.63
		Sep-08			422	**585**	0.645	0.633	297	**1120**	373	**3860**	14.8
		Apr-09			313	**474**	< 0.500 J	1.25	229	**860**	630	**2940**	5.74
		Oct-09				**517**	0.789			**1010**	686	**3130**	7.15
		Apr-10			273 UB	**419 UB**	0.771	0.558	228 UB	**895 UB**	769	**2820**	1.27
		Oct-10		< 20.0 U	323	**468**	0.870	< 2.00 U	230	**830**		**2940**	0.518
	KWB-9	Apr-08			348	189	0.259	0.830	130	**1290**	482		< 1.00 J
		Apr-08	FD		361	197	0.252	0.761	135	**1330**	509		< 1.00 J
		Sep-08			396	196	0.308	0.824	144	**1340**	474	**3140**	< 0.500 J
		Apr-09			433	205	< 0.250 U	0.812	141	**1370**	482	**2990**	0.564
		Sep-09				242	< 0.500 U			**1450**	424	**3070**	1.17
		Apr-10			532	**269 UB**	0.198	< 1.00 U	180 UB	**1570**	438	**3540**	1.65
		Oct-10		< 20.0 U	473	**259**	0.358	< 2.00 U	151	**1510**		**3140**	0.508
	KWB-11A	Apr-08			260	**1060**	0.615	0.510	202	**1500**	614		5.94
		Sep-08			341	**591**	0.584	0.748	217	**647**	569	**3100**	22.0
		Apr-09			389	**864**	< 0.500 J	1.67	269	**814**	466	**3510**	30.1
		Oct-09				**890**	0.840			**954**	477	**3940**	33.7
		Apr-10			404 UB	**909**	0.633	< 1.00 U	319 UB	**879 UB**	555	**3740**	27.4
		Oct-10		< 20.0 U	541 UB	**960**	1.01	0.603	364	**903**		**4020**	26.9
	KWB-11B	Oct-10		< 20.0 U	409	**288**	0.483	3.11	81.5	**1180**		**2690**	1.26

Table 4 - Summary of Groundwater Analytical Data

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Navajo Refinery, Artesia, New Mexico

				Analyte Group:	Cyanide	Cations/Anions						Water Quality		
				Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
				Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
				CGWSL:	200		250	1.6			600		1000	
				CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**											
Field E of Refinery (continued)	KWB-12A	Sep-08				576	114	0.436	3.32	203	**2260**	364	**3850**	5.99
		Sep-09					130	< 0.500 J			**2290**	281	**4010**	5.47
		Oct-10		< 20.0 U		541	126	0.447 J	< 2.00 U	134	**2200**		**3740**	5.61 J
	KWB-12B	Oct-10		< 20.0 U		538	116 J	0.305	< 2.00 U	140 J	**2090**		**3760**	4.42 J
	RW-11-1	Nov-10				398	189	0.605	6.06	73.0	**766**		**2660**	< 10.0 U
	RW-18	Apr-08				420	**261**	**2.31**	1.11	235	**3400**	321		< 1.00 J
		Sep-08				530	**283**	**1.95**	0.899	252	**3190**	307	**5990**	0.925
		Apr-09				509	**321**	**1.98**	0.864	231	**3140**	255	**5520**	1.07
		Sep-09					**309**	**1.93**			**2920**	296		1.53
		Apr-10				413 UB	**362 UB**	**2.30**	0.950	188 UB	**3190**	311	**5480**	0.822
	RA-4196	Mar-08					**677**	0.486			**1280**	198	**3460**	< 0.100 U
		Sep-08				394	**268**	0.200	2.34	146	**1190**	219	**2510**	< 0.500 J
		Apr-09				377	**875**	< 0.250 U	2.89	419	**1230**	157	**3370**	< 0.150 U
		Sep-09					**329**	< 0.500 U			**1280**	197	**2770**	< 0.500 J
		Apr-10				412 UB	187 UB	0.115	2.36	121 UB	**1120**	213	**2400**	< 0.500 U
		Nov-10					201	0.274			**1150**		**2440**	< 10.0 U
	RA-4798	Mar-08					77.4	0.293			**875**	173	**1700**	< 1.00 J
		Sep-08				298	84.8	0.230	2.23	58.4	**876**	182	**1720**	< 0.500 J
		Apr-09				238	70.0	< 0.250 U	2.02	44.7	**768**	128	**1460**	< 0.500 J
		Sep-09					165	< 0.500 U			**1560**	286	**3000**	0.758
		Apr-10				283 UB	73.0	0.154	1.74	47.8 UB	**842**	179	**1740**	1.20
		Nov-10					139	0.251			**1210**		**2460**	< 10.0 U
Crossgradient	KWB-13	Apr-08				419	160	0.640	1.22	129	**1760**	328		14.5
		Sep-08				457	196	0.653	1.11	147	**1940**	321	**3590**	17.9
		Apr-09				496	181	< 0.500 J	1.02	154	**1760**	255	**3270**	13.0
		Apr-09	FD			505	181	< 0.500 J	1.25	124	**1760**	282	**3370**	13.8
		Sep-09					157	0.501			**1710**	286	**3500**	14.4
		Apr-10				431 UB	158 UB	0.582	1.40	139 UB	**1900**	294	**3540**	14.5
	NP-5	Apr-08				430	153	**2.63**	0.729	480	**4160**	305		4.23
		Sep-08				525	161	**2.33**	0.474	545	**4040**	285	**7210**	4.85
		Apr-09				527	171	**2.62**	0.441	516	**4470**	289	**6930**	< 0.150 U
		Oct-09					164	**2.70**			**3980**	258	**6690**	5.75
		Apr-10				521	216 UB	**2.77**	< 1.00 U	452 UB	**3860**	249	**6050**	6.39
	RA-3156	Mar-08					233	0.136			**1570**	250	**3190**	5.69
		Sep-08				522	235	0.181	2.73	163	**1540**	262	**3080**	5.64
		Apr-09				454	218	< 0.250 U	2.54	140	**1490**	231	**2880**	5.28
		Apr-10				555	209 UB	< 0.100 U	2.32	171 UB	**1570**	239	**3070**	5.12
		Nov-10					215	0.235			**1460**		**3120**	< 10.0 U

Table 4 - Summary of Groundwater Analytical Data

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Navajo Refinery, Artesia, New Mexico

		Analyte Group:	Cyanide	Cations/Anions						Water Quality		
		Analyte:	Cyanide	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	Alkalinity, Total	Total Dissolved Solids	Nitrate/Nitrite as N
		Units:	ug/l	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/l	mg/l
		CGWSL:	200		250	1.6			600		1000	
		CGWSL Source:	EPA MCL		WQCC Dom	WQCC HH			WQCC Dom		WQCC Dom	
Area	**Location**	**Date**	**Dup**									
Upgradient	MW-53	Apr-08			262	71.3	0.835	0.998	98.8	**1090**	285		< 0.100 U
		Sep-08			326	132	0.973	1.15	84.4	**1270**	261	**2490**	3.60
		Apr-09			330	119	0.848	1.07	98.1	**1250**	265	**2370**	0.507
		Oct-09				135	0.990			**1290**	223	**2460**	2.27
		Apr-10			290 UB	109 UB	0.870	< 1.00 U	85.8 UB	**1330**	239	**2390 J**	< 0.500 U
		Apr-10	FD		350 UB	108 UB	0.851	< 1.00 U	106 UB	**1310**	199	902 J	< 0.500 U
	UG-1	Apr-09			907	177	< 0.500 J	7.06	70.5	**1900**	1330	**3410**	5.54
		Oct-09				166	0.691			**1810**	252	**3450**	7.21
		Apr-10			530 UB	159 UB	0.627	1.69	87.6 UB	**1820**	219	**3410**	7.36
		Oct-10		< 20.0 U	494	151	0.680	< 2.00 U	78.8	**1590**		**3060**	6.61
	UG-2	Apr-09			374	62.1	1.25	4.61	75.9	**1010**	120	**1940**	1.70
		Oct-09				53.0	1.30			**961**	247	**1900**	2.56
		Apr-10			267 UB	44.0	1.34	3.05	71.0 UB	**910**	249	**1900**	2.44
		Oct-10		< 20.0 U	263	45.4	1.34 J	2.46	71.1	**809**		**1740**	1.90
	UG-3R	Apr-09			434	62.9	< 0.250 U	4.06	63.3	**1390**	379	**2590**	4.96
		Oct-09				68.0	0.565			**1330**	208	**2520**	5.38
		Apr-10			464	59.6	0.372	2.10	79.4 UB	**1360**	209	**2470**	6.28
		Oct-10		< 20.0 U	359	46	0.50 J	1.82	49.3 UB	**1100**		**2170**	1.97

Table 4 - Summary of Groundwater Analytical Data
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Navajo Refinery, Artesia, New Mexico

Abbreviation	Definition
X	Reported concentration equal to X was above the CGWSL.
< x	Analyte was not detected at reporting limit equal to x. If the < x value is bolded, the reporting limit exceeded the CGWSL.
CGWSL	Critical Groundwater Screening Level (see Table 3)
CGWSL Source	Source for CGWSL value (see Table 3)
Dup	Duplicate sample indicator
EPA MCL	EPA Maximum Contaminant Level from "Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites"
FD	Field Duplicate sample
mg/L	milligrams per liter
NMED TPH	New Mexico Environment Department TPH Screening Guidelines, October 2006
NMED TW	New Mexico Environment Department Soil Screening Levels, Revions 4.0, June 2006, Tap Water Screening Level
ug/L	micrograms per liter
WQCC Dom	NMED Groundwater standard for domestic exposure taken from 20.6.2.3103.B
WQCC HH	NMED Groundwater standard for human health exposure taken from 20.6.2.3103.A
WQCC Irr	NMED Groundwater standard for irrigation exposure taken from 20.6.2.3103.C

Lab Footnote	Definition
B	Analyte was also detected in the associated method blank.
J	Indicates an estimated value.
R	Rejected.
U	The compound was analyzed for but not detected at the reporting limit shown.

Table 5
RO System Reject Water Analytical Data
Navajo Refinery, Artesia, New Mexico

		Metals																				
		Aluminum	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Mag nesium	Man ganese	Molyb denum	Nickel	Potas sium	Selenium	Silver	Sodium	Vanadium	Zinc
	Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
	CGWSL:	5	0.01	1	0.004	0.75	0.005	--	0.05	0.05	1	1	0.05	-	0.2	1	0.2	-	0.05	0.05	-	0.18	10
	Source:	WQCC	MCL	WQCC	MCL	WQCC	MCL		WQCC	WQCC	WQCC	WQCC	WQCC		WQCC	WQCC	WQCC		WQCC	WQCC		EPA	WQCC
	Date																						
Reverse Osmosis Reject Water	12/27/2004	<0.01	0.00725	0.0669	<0.002	0.071	<0.002	628	<0.005	<0.005	0.00586	<0.2	<0.005	198	<0.005	0.00793	<0.005	4.11	0.01	<0.005	131	0.0104	0.0259
	1/16/2007	<0.01	<0.005	0.0638	<0.002	0.0568	<0.002	694	<0.005	<0.005	<0.005	<0.2	<0.005	233	<0.005	0.00744	<0.005	4.48	0.0095	<0.005	234	0.00991	0.00839
	2/22/2007	<0.01	0.00941	0.0681	<0.002	0.0643	<0.002	735	<0.005	<0.005	<0.005	<0.2	<0.005	246	<0.005	0.00813	<0.005	4.49	0.00761	<0.005	320	0.0102	0.00734
	7/5/2007	0.0168	<0.005	0.0553	<0.002	0.0644	<0.002	600	<0.005	<0.005	<0.005	<0.2	<0.005	176	<0.005	0.00882	<0.005	3.47	0.00763	<0.005	167	0.00974	0.00749
	12/14/2007	<0.01	<0.005	0.0704	<0.002	0.0752	<0.002	594	<0.005	<0.005	<0.005	<0.2	<0.005	208	<0.005	0.00952	<0.005	4.32	0.00793	<0.005	218	0.0104	0.00677
	2/7/2008	<0.01	<0.005	0.0564	<0.002	0.0773	<0.002	548	<0.005	<0.005	<0.005	<0.2	<0.005	179	<0.005	0.00639	<0.005	3.34	0.0058	<0.005	206	0.00771	<0.005
	5/22/2008	<0.01	<0.005	0.0602	<0.002	0.0819	<0.002	562	<0.005	<0.005	<0.005	<0.2	<0.005	180	<0.005	0.0073	<0.005	3.72	0.00877	<0.005	167	0.0116	0.00694
	8/29/2008	<0.01	<0.005	0.0783	<0.002	0.0896	<0.002	786	<0.005	<0.005	<0.005	<0.2	<0.005	247	<0.005	0.0108	<0.005	4.68	0.00658	<0.005	152	0.0106	0.00657
	12/4/2008	NA	<0.005	0.0759	NA	NA	<0.002	NA	<0.005	NA	NA	NA	<0.005	NA	NA	NA	NA	NA	0.00942	<0.005	NA	NA	NA
	2/23/2009	<0.01	<0.005	0.0611	<0.002	0.0786	<0.002	698	<0.005	<0.005	<0.005	<0.2	<0.005	215	<0.005	0.00976	<0.005	4.14	0.00893	<0.005	192	0.0107	<0.005
	5/7/2009	<0.05	<0.025	0.074	<0.01	<0.1	<0.01	596	<0.025	<0.025	<0.025	<1	<0.025	198	<0.025	<0.025	<0.025	4	<0.025	<0.025	224	<0.025	<0.025
	8/25/2009	NA	<0.005	0.0751	NA	NA	<0.002	NA	<0.005	NA	NA	NA	<0.005	NA	NA	NA	NA	NA	0.0082	<0.005	NA	NA	NA
	11/9/2009	NA	<0.005	0.0816	<0.002	<0.005	<0.002	NA	<0.005	NA	NA	NA	<0.005	NA	NA	NA	NA	NA	0.00702	<0.005	NA	NA	NA
	2/25/2010	NA	<0.005	0.0644	NA	NA	<0.002	NA	<0.005	NA	NA	NA	<0.005	NA	NA	NA	NA	NA	0.00668	<0.005	NA	NA	NA
	5/27/2010	NA	<0.005	0.0529	NA	NA	<0.002	602	<0.005	NA	NA	NA	<0.005	144	NA	NA	NA	3.22	0.00627	<0.005	115	NA	NA
	8/12/2010	NA	<0.005	0.0819	NA	NA	<0.004	651	<0.005	NA	NA	NA	<0.010	186	NA	NA	NA	4.72	0.0106	<0.005	164	NA	NA
	11/23/2010	NA	<0.025	0.344	NA	NA	<0.01	NA	<0.025	NA	NA	NA	<0.025	NA	NA	NA	NA	NA	0.0347	<0.025	NA	NA	NA

		Volatiles				Semi Volatiles	Anions				Total Alkalinity
		Benzene	Ethyl benzene	Tetrachloro ethene	Xylenes	Naph thalene	Chloride	Fluoride	Nitrate/Nitrite as Nitrogen	Sulfate	
	Units:	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L
	CGWSL:	5	700	5	620	30	250	1.6	1	600	-
	Source:	MCL	MCL	MCL	WQCC	WQCC	WQCC	WQCC	WQCC	WQCC	-
	Date										
Reverse Osmosis Reject Water	12/27/2004	<5	<5	<5	<10	<10	233	**3.16**	**1.78**	**1660**	622
	1/16/2007	NA	NA	NA	NA	NA	**515**	**3.98**	NA	**2160**	669
	2/22/2007	<5	<5	<5	<15	<5	**583**	**3.38**	**1.56**	**1920**	638
	7/5/2007	<5	<5	<5	<15	<5	**328**	**2.91**	**1.86**	**1560**	520
	12/14/2007	<5	<5	<5	<15	<5	**464**	**3.46**	0.58	**1910**	982
	2/7/2008	<5	<5	<5	<15	<5	**417**	**2.55**	0.928	**1540**	575
	5/22/2008	<5	<5	<5	<15	<5	**293**	**2.82**	NA	**1530**	296
	8/29/2008	<5	<5	<5	<15	<5	241	**3.98**	NA	**1980**	869
	12/4/2008	<5	<5	<5	<15	<5	**307**	**3.76**	NA	**1810**	819
	2/23/2009	NA	NA	NA	NA	NA	**325**	**3.17**	NA	**1740**	691
	5/7/2009	NA	NA	NA	NA	NA	**392**	**2.83**	NA	**1740**	664
	8/25/2009	NA	NA	NA	NA	NA	**461**	**3.62**	NA	**1870**	729
	11/9/2009	NA	NA	NA	NA	NA	**525**	**3.92**	NA	**2040**	787
	2/25/2010	NA	NA	NA	NA	NA	**355**	**3.1**	NA	**1650**	613
	5/27/2010	NA	NA	NA	NA	NA	180	**2.66**	NA	**1290**	557
	8/12/2010	NA	NA	NA	NA	NA	**357**	**3.95**	NA	**2220**	920
	11/23/2010	NA	NA	NA	NA	NA	**344**	**3.46**	NA	**1750**	822

Footnotes and Definitions

3.16 Concentration shown exceeds the groundwater standard

Abbreviations:

CGWSL = Critical Groundwater Screening Level (see Table 3)
mg/L = Milligrams per liter
µg/L = Micrograms per liter
NA = Not analyzed

CGWSL Source (see Table 3):

" - " = No standard available
MCL = Maximum Contaminant Level from the National Primary Drinking Water Standards
NMED TPH = New Mexico Environment Department Total Petroleum Hydrocarbon Standards Oct 2006
WQCC = Water Quality Control Commission; standard for groundwater from NMAC 20.6.2.3103

Table 6

Summary of Production from Recovery Trenches and Wells

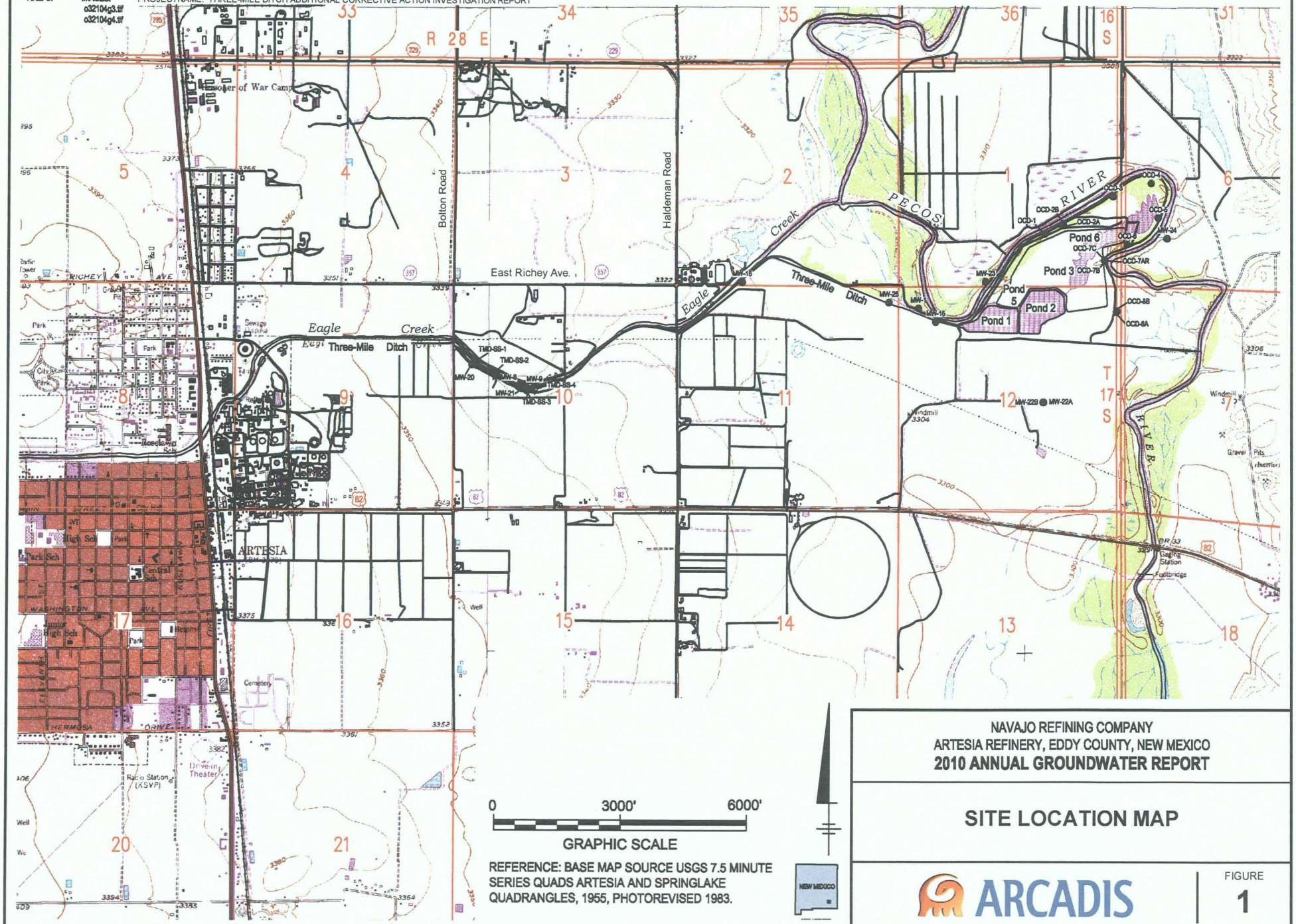
Navajo Refinery, Artesia, New Mexico

Recovery Well	Volume of Hydrocarbons Recovered (gallons)					Volume of Water Recovered (gallons)				
	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total 2010	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total 2010
RW-1	0	0	0	0	0	0	0	0	0	0
RW-2	0	0	0	0	1	0	0	0	0	0
RW-3	0	0	0	0	0	0	0	0	0	0
RW-4	0	0	0	0	0	0	0	0	0	0
RW-5	1,036	0	0	0	1,036	6,035	0	0	0	6,035
RW-6	0	0	0	0	0	0	0	0	0	0
RW-7	0	0	0	0	0	0	0	0	0	0
RW-8	0	0	0	0	0	0	0	0	0	0
RW-9	0	0	0	0	0	0	0	0	0	0
RW-10	0	0	0	0	0	0	0	0	0	0
RW-11	0	0	0	0	0	0	0	0	0	0
RW-12	0	0	0	0	0	0	0	0	0	0
RW-13	3	0	0	0	3	0	0	0	0	0
RW-14	0	0	0	0	0	0	0	0	0	0
RW-15	0	0	0	0	0	0	0	0	0	0
RW-16	0	0	0	0	0	0	0	0	0	0
RW-17	0	0	0	0	0	0	0	0	0	0
RW-18	0	0	0	0	0	0	0	0	0	0
Chase	35	0	0	1,447	1,482	0	0	0	143,243	143,243
KWB-4	6	0	0	0	6	0	0	0	0	0
KWB-6	2	0	0	0	2	0	0	0	0	0
KWB-8	0	0	0	0	0	0	0	0	0	0
MW-85	1	0	0	0	1	0	0	0	0	0
MW-86	1	0	0	0	1	0	0	0	0	0
MW-94	1	0	0	4,141	4,142	0	0	0	460	460
MW-102	2	0	0	0	2	0	0	0	0	0
TOTAL	1,085	0	0	5,588	**6,673**	6,035	0	0	143,703	**149,738**

ARCADIS

Figures

CITY: HOU-TX DIV 85/GROUP: ENV DB: HI LD: PIC: PM: PK TM: LYR: ON=*;OFF=*REF* UN: 31-009-00403
G:\ENVCAD\HOUSTON\ACT\MT001043\0001\00001\DWG\01043B02.DWG LAYOUT: 1 SAVED: 2/15/2011 3:53 PM ACADVER: 17.0S (LMS TECH) PAGESETUP: — PLOTSTYLETABLE: AGANDM.CTB PLOTTED: — BY: INNISS, HAYDEN
XREFS: IMAGES: o32104g3.tif o32104g4.tif
PROJECTNAME: THREE-MILE DITCH ADDITIONAL CORRECTIVE ACTION INVESTIGATION REPORT



NAVAJO REFINING COMPANY
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO
2010 ANNUAL GROUNDWATER REPORT

SITE LOCATION MAP

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FIGURE
1

Appendices (all on compact disc)

Appendix A Replacement Well Completion Logs

Appendix B Field Sampling Notes

Appendix C Laboratory Reports and Tabulated Data 2008-2010

Tables:

C.1 Groundwater Analytical Data 2008-2010: Total Petroleum Hydrocarbons

C.2 Groundwater Analytical Data 2008-2010: Total Metals

C.3 Groundwater Analytical Data 2008-2010: Dissolved Metals

C.4 Groundwater Analytical Data 2008-2010: Volatile Organic Compounds

C.5 Groundwater Analytical Data 2008-2010: Semivolatile Organic Compounds

C.6 Groundwater Analytical Data 2008-2010: Water Quality Parameters

2010 Analytical Data Reports

Appendix D Plots of COC Concentrations and Groundwater Elevations Versus Time

Appendix E Data Validation Reports

Appendix F Trench Inspection Reports and Pumping Bailing Logs