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Q1 2010 GWMR

04 / 27 / 2010

Animas Environmental Services, LLC

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April 27, 2010

Glen von Gonten
Edward Hansen
New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

RE: 1st Quarter Report 2010 of Sampling Program during active LNAPL Remediation for the Thriftway Refinery, 626 County Road 5500, Bloomfield, New Mexico

Dear Mr. von Gonten and Mr. Hansen:

Animas Environmental Services, LLC (AES) has prepared this 1st Quarter Report 2010 of the First Year Sampling Program during active LNAPL Remediation on behalf of Thriftway Company (Thriftway) for the Thriftway Refinery, located at 626 County Road 5500, Bloomfield, San Juan County, New Mexico, in accordance with New Mexico Oil Conservation Division (NMOCD) and New Mexico Environment Department (NMED) Ground Water Quality Bureau (GWQB) regulations.

This groundwater analytical report details groundwater monitoring and sampling activities conducted at the site during February 2010. Also included within this report are summaries of recent site activities including Multi-Phase Extraction (MPE) well installation and MPE system operation results from March 10 to March 31, 2010. A General Site Plan is included as Figure 1.

1.0 Groundwater Monitoring and Sampling

BioTech Remediation, Inc. (BioTech) conducted groundwater monitoring and sampling at the site on February 17 and 18, 2010. The table below, taken from the Interim Groundwater Sampling Plan submitted to NMOCD on January 25, 2010, lists wells which were gauged and/or sampled during the February 2010 sampling event. The surface completions of monitor wells TW-19 and TW-21 were damaged during refinery dismantling. These two wells were not gauged or sampled.

Year 1 Quarterly Gauging/Sampling Monitor Well List

Well Name	Gauging Only	Gauging and Sampling
TW-1 through TW-10	X	
TW-11 through TW-12		X
TW-13 through TW-14		X*
TW-15 through TW-17	X	
TW-18		X
TW-19 through TW-22		X*
TW-23	X	
TW-24		X
TW-25 through TW-29		X*
TW-30 through TW-31		X
TW-32 through TW-33		X*
TW-34 through TW-35		X
TW-36		X*
TW-37		X
TW-38		X*
TW-39		X
TW-40		X*
TW-41 through TW-44		X
MW-5, MW-20, MW-21		X
* Well currently has measurable NAPL, but will be added to the sampling list during the first quarter in which NAPL is not observed.		

1.1 Well Development of MW-5, MW-20, and MW-21

As proposed in the Interim Groundwater Sampling Plan, Biotech evaluated monitor wells MW-5, MW-20, and MW-21 for possible inclusion in the sampling list. This evaluation consisted of the following: measuring the depth to groundwater in each well, measuring the total depth of each well, and bailing the well to ensure that water recharged into the well during sample purging.

AES and Biotech found that monitor wells MW-5, MW-20, and MW-21 were still in adequate condition to collect samples. Following well evaluation, Biotech re-developed the wells following standard development procedures. The wells were sampled within two weeks of being re-developed during the sampling event in February 2010.

1.2 Measurement of Groundwater Elevations

Before collection of groundwater samples, depth to groundwater in each of the selected wells was measured with an electronic water level indicator, which has an accuracy of 0.01 feet. Depth to groundwater measurements were recorded on Water Sample Collection Forms. Electronic copies of the Water Sample Collection Forms are included in Appendix A.

1.3 Measurement of Free Product

Each of the wells previously known to contain Light Non-Aqueous Phase Liquid (LNAPL, or "free product") was measured with an electronic interface probe, and the depths to the top of product and the oil/water interface were recorded on a groundwater measurement form. Free product was measured in February 2010 in a total of 12 wells, including TW-13, TW-14, TW-20, TW-22, TW-25, TW-26, TW-28, TW-32, TW-33, TW-36, TW-40, and TW-44. Monitor wells containing free product were not sampled during February 2010.

In monitor wells containing free product, corrected groundwater elevations (Hc) were determined using the following formula:

$$H_c = H_m + (H_o * (\rho_o/\rho_w))$$

where:

H_m is the measured elevation of the hydrocarbon-water interface (ft)

H_o is the thickness of the hydrocarbon layer (ft)

ρ_o is the hydrocarbon density of diesel, assumed to be 0.827 (g/ml) (API, 1986)

ρ_w is the water density, assumed to be 1.0 (g/ml)

1.4 Groundwater Sampling

Once the depth to groundwater was measured in each well to be sampled, the well was purged with a new disposable bailer to remove stagnant water from the well. Groundwater samples were then collected. Groundwater sampling procedures included the following:

1. A new disposable bailer was used at each well. Samples were collected using a slow release valve attached to the bottom of the bailer (to ensure a slow flow and less volatilization of contaminants from groundwater). Each sample container was filled completely, ensuring there were no bubbles or headspace in the sample bottles.

2. Each bottle was labeled, and chain-of-custody documentation was filled out as each well was sampled. Clean sample containers, obtained from the analyzing laboratory, were utilized during the sampling events.

3. Samples were placed in an insulated cooler and maintained below 6°C during transportation to Hall Environmental Analysis Laboratory (Hall), Albuquerque, New Mexico.

In order to reduce the potential for cross-contamination, groundwater samples were collected in the order from the least contaminated sampling location to the most contaminated sampling location, as determined by the previous sampling event.

1.5 Equipment Decontamination Protocols

In order to ensure data validity and prevent cross-contamination, the following decontamination protocols for sampling equipment were employed:

- Wash with detergent (Alconox) and warm water
- Rinse with warm water
- Wash with detergent (Alconox) and warm water
- Rinse with de-ionized water

1.6 Laboratory Analyses

Samples collected from 18 wells, including TW-11, TW-12, TW-18, TW-24, TW-29 through TW-31, TW-34, TW-35, TW-37 through TW-39, TW-41 through TW-43, MW-5, MW-20, and MW-21, were analyzed for the following:

- Total Petroleum Hydrocarbons (TPH) including Gasoline Range Organics (GRO), Motor Oil Range Organics (MRO), and Diesel Range Organics (DRO), per EPA Method 8015B;
- BTEX, MTBE, and naphthalene per EPA Method 8260;
- Total Dissolved Solids (TDS) per Standard Method 2540C.

All samples were analyzed at Hall in Albuquerque, New Mexico.

2.0 Groundwater Monitoring and Sampling Results

2.1 Hydraulic Gradient and Water Quality Data

2.1.1 Hydraulic Gradient

Prior to sampling each well, depth to groundwater measurements were recorded on a Water Sample Collection Form. Using surveyed TOC elevations and these groundwater depths, AES determined specific groundwater elevations, relative to sea level, for each well measured. Groundwater elevations across the site in February 2010 ranged from 5,424.24 feet above mean sea level (AMSL) in MW-5 to 5,440.9 feet AMSL in TW-1. Groundwater elevations generally increased across the site by an average of 0.31 feet since the last sampling event in August 2009. Groundwater gradient was calculated between TW-1 and MW-5 with a magnitude of 0.008 ft/ft to the northwest for February 2010. The groundwater flow direction has remained stable, in a northwesterly direction, which is consistent with historical site data.

Table 1 includes depth to groundwater measurements and final water table elevations. Groundwater elevation contours for February 2010 are included on Figure 2. Electronic copies of the Water Sample Collection Forms are included in Appendix A.

2.1.2 Water Quality Data

During the purging of each well prior to sampling, water quality data was recorded for all wells being sampled until temperature, pH, conductivity, and dissolved oxygen (DO) measurements stabilized. Temperature during the February 2010 sampling event ranged from 7.78°C in TW-42 to 15.59°C in TW-12. Groundwater pH ranged between 6.00 in TW-29 and 7.39 in MW-5, and conductivity readings were between 5.727 mS in TW-12 and 11.52 mS in TW-35. Dissolved oxygen concentrations ranged from 0.57 mg/L in TW-38 to 8.21 mg/L in MW-21.

2.2 Free Product

Free product (LNAPL) was measured in 12 monitor wells, including TW-13, TW-14, TW-20, TW-22, TW-25, TW-26, TW-28, TW-32, TW-33, TW-36, TW-40, and TW-44. Measured LNAPL thicknesses ranged from 0.02 feet (TW-36 and TW-44) to 1.33 feet (TW-20). Although a sheen was noted in TW-24, it may have been either a free product sheen or a biological sheen. Free product thickness contours for February 2010 are presented in Figure 3.

2.3 Dissolved Phase Contaminant Concentrations

2.3.1 Volatile Organics

Dissolved phase benzene concentrations outside the area of free product exceeded the New Mexico Water Quality Control Commission (WQCC) standard of 10 µg/L in 4 of the 18 wells sampled, including TW-29 (34 µg/L), TW-37 (290 µg/L), TW-38 (26 µg/L), and TW-41 (140 µg/L). Dissolved phase benzene concentration contours for February 2010 are included on Figure 4.

Toluene and ethylbenzene concentrations outside the area of free product were below laboratory detection limits, or below the applicable WQCC standards of 750 µg/L, in all sampled wells. Xylene concentrations were also below laboratory detection limits, or below the applicable WQCC standard of 620 µg/L, in all wells sampled, except TW-41 with 2,500 µg/L.

Dissolved phase MTBE concentrations outside the area of free product were above the WQCC standard of 100 µg/L in three of the wells sampled in February 2010, including TW-37 (130 µg/L), TW-43 (430 µg/L), and MW-20 (190 µg/L). All other wells were either below the laboratory detection limit of 1.0 µg/L or below applicable WQCC standards. MTBE concentration contours for February 2010 are included on Figure 5.

Dissolved phase total naphthalene concentrations outside the area of free product were above the WQCC standard of 30 µg/L in two wells, TW-29 (40 µg/L) and TW-41 (49 µg/L). The remaining wells sampled were either below laboratory detection limits or below the applicable WQCC standard.

Dissolved phase TPH-GRO concentrations outside the area of free product ranged from below laboratory detection limits of 0.050 mg/L to 7.7 mg/L (TW-41). TPH-MRO concentrations were below laboratory detection limits of 5.0 mg/L in all sampled wells. TPH-DRO concentrations ranged from below laboratory detection limits of 1.0 mg/L to 13 mg/L (TW-29).

BTEX, MTBE, naphthalene, and TPH analytical data are summarized in Table 2, and electronic copies of laboratory analytical reports are presented in Appendix A.

2.3.3 Geochemical Parameters

TDS concentrations were above the WQCC standard of 1,000 mg/L in all wells sampled, with the highest TDS concentrations detected in TW-35 (6,870 mg/L). Laboratory data

have been summarized in Table 2. Electronic copies of laboratory analytical reports are included in Appendix A.

3.0 MPE System Installation and Free Product Measurement

3.1 Installation of MPE Wells

BioTech installed 37 multi-phase extraction (MPE) wells at the site as part of Phase 1 (November 2009) and Phase 2 (December 2009/February 2010). The MPE wells were installed on 60-foot centers in order to provide a full radius of influence of up to 40 feet from each well, as presented in the Corrective Action Plan (CAP). All MPE wells were completed to 3 feet above grade and were manifolded together with 2-inch diameter vacuum hose. Soil boring logs for MPE 1 through MPE-38 (no MPE-15 or MPE-32) with remediation well construction schematics are included in Appendix B. Ambient air monitoring results recorded during MPE well installation are included (electronically) in Appendix A.

3.2 Well Development of MPE Wells

MPE wells were developed using a combination of surge and pump techniques. BioTech personnel purged approximately 5 to 20 gallons of water from Phase 1 wells (MPE-1 through MPE-19) and approximately 15 gallons of water from each of the Phase 2 wells (MPE-20 through MPE 38). Groundwater purged from the wells was placed in the two lined ponds for evaporation. The MPE wells were developed in general accordance with AES's SOP - Well Installation and Development and applicable ASTM standards. Well development forms are presented in Appendix A.

3.3 Measurement of Groundwater in MPE Wells

BioTech personnel measured the depth to groundwater in the 36 MPE wells on March 3, 2010. The depth to groundwater ranged from 18.72 feet below TOC in MPE-20 to 23.63 feet below TOC in MPE-1. Free product was measured, also on March 3, 2010, in MPE-2, MPE-5, MPE-21, MPE-22, MPE-26, MPE-35, MPE-37, and MPE-38. Observed free product in the MPE wells ranged from 0.03 feet in MPE-2 and MPE-38 to 0.66 feet in MPE-26. MPE well data is included in Table 3, and well measurement forms are included in Appendix A.

4.0 MPE Remediation System

The MPE Remediation system was brought online on March 10, 2010 (see Figure 6 for system location and Appendix C for system photos). The MPE system consists of a RSI internal combustion engine (ICE) unit with two engines (Engine #1 and Engine #2) to

extract soil vapors and free product from the MPE extractions wells. The system was brought online with Engine #1 operating within MPE wells MPE-21, MPE-22, MPE-35, MPE-36, MPE-37, and MPE-38. Engine #2 operated within MPE wells MPE-16 through MPE-20 and MPE-23. Adjustments were made to Engine #2 on March 30, 2010, with the unit operating only within MPE-2, MPE-5, and MPE-19. On April 8, 2010, additional adjustments were made on Engine #2, and MPE-2, MPE-5, and MPE-19 were taken offline. Remediation wells MPE-16 through MPE-20 and MPE-23 were brought online.

In Engine #1, well vacuums for the reporting period from March 10 through March 31, 2010, ranged from approximately 10 to 60 in-H_2O during MPE operations, with total process flow typically ranging between 25 and 79 standard cubic feet per minute (scfm). Well flow dilution air is estimated to be approximately 10 percent at each well (as needed to lift product).

In Engine #2, well vacuums for the reporting period from March 10 through March 31, 2010, ranged from approximately 2 to 28 in-H_2O during MPE operations, with total process flow typically ranging between 9 and 80 scfm. Well flow dilution air is estimated to be approximately 10 percent at each well (as needed to lift product).

4.1 System Operations

Based on system operations from March 10 to March 31, 2010, the following remedial summary is presented:

MPE Remediation System Summary, Thriftway Refinery, Bloomfield, New Mexico

Parameters	***Engine #1 Reporting Period (3/10/10—3/31/10)***	***Engine #2 Reporting Period (3/10/10 – 3/31/10)***	***Total Cumulative to Date***
Estimated Petroleum Hydrocarbons Removed (lbs)*	1,902.2	1,060.3	2,962.5
Equivalent Gallons Gasoline Removed (gal)*	306.70	171.03	477.73
Total Cubic Feet Processed (scf)	1,011,859	631,149	1,643,008

*from soil vapors only

MPE Remediation System Run Time Summary, Thriftway Refinery, Bloomfield, New Mexico

Month	*Engine #1 Run Time During Month (hrs)*	*Engine #1 Percent Run Time*	*Engine #2 Run Time During Month (hrs)*	*Engine #2 Percent Run Time*
March 2010 (3/10/10 – 3/31/10)	463	94%	290	59%

An operations report (electronic) from March 10 through March 31, 2010, is presented in Appendix A.

4.2 Air Emissions Sampling

Influent and effluent photo-ionization detector (PID) readings and air samples were collected from the well gas influent and from the pre-cat and post-cat sample ports from Unit #1 and Unit #2 on March 16, 2010. Air samples were collected in Tedlar bags and subsequently submitted to Hall in Albuquerque, New Mexico, where they were analyzed for volatile organic compounds per EPA Method 8021B and EPA Method 8015B GRO. For both units and for all contaminants analyzed, a 99 percent reduction in contaminant emissions was achieved through combustion and post-combustion catalytic oxidation.

4.2.1 Unit #1

Analytical results for the well gas influent had reported concentrations of 109.1 parts per million by volume (ppmv) benzene, 60.85 ppmv toluene, 15.84 ppmv ethylbenzene, 105.6 ppmv xylenes, 14,160 ppmv TPH-GRO, and MTBE concentrations were below laboratory detection limits (12.745 ppmv).

Analytical results for the pre-cat sample showed reported concentrations of 0.092 ppmv benzene, 0.071 ppmv toluene, 0.097 ppmv ethylbenzene, 0.781 ppmv xylenes, 11.04 ppmv TPH-GRO, and MTBE concentrations were below laboratory detection limits (0.0637 ppmv).

The analytical results for the post-cat sample had reported concentrations of 0.057 ppmv benzene, 0.032 ppmv toluene, 0.038 ppmv ethylbenzene, 0.317 ppmv xylenes, 6.00 ppmv TPH-GRO, and MTBE concentrations were below laboratory detection limits (0.0637 ppmv).

4.2.2 Unit #2

Analytical results for the well gas influent had reported concentrations of 2.153 ppmv benzene, 5.598 ppmv toluene, 0.887 ppmv ethylbenzene, 8.448 ppmv xylenes, 600 ppmv

TPH-GRO, and MTBE concentrations were below laboratory detection limits (1.2745 ppmv).

Analytical results for the pre-cat sample showed reported concentrations of 0.281 ppmv benzene, 0.166 ppmv toluene, 0.080 ppmv ethylbenzene, 0.697 ppmv xylenes, 15.12 ppmv TPH-GRO, and MTBE concentrations were below laboratory detection limits (0.0637 ppmv).

The analytical results for the post-cat sample had reported concentrations of 0.139 ppmv xylenes and 2.88 ppmv TPH-GRO. Concentrations of benzene, toluene, ethylbenzene, and MTBE were below laboratory detection limits.

Tabulated air analyses are included in Table 4, and air laboratory analytical reports (electronic) are presented in Appendix A.

5.0 Summary and Conclusions

BioTech personnel conducted groundwater sampling at the site in February 2010 following the Interim Groundwater Sampling Plan approval by the OCD in correspondence dated February 1, 2010.

Overall groundwater elevations increased by an average of 0.31 feet since August 2009, but increases are consistent historical seasonal fluctuations. Groundwater gradient was calculated to be approximately 0.008 ft/ft in a northwest direction across the site in February 2010, which is consistent with historical site data.

In February 2010, free product was observed and measured in 12 monitor wells, including TW-13, TW-14, TW-20, TW-22, TW-25, TW-26, TW-28, TW-32, TW-33, TW-36, TW-40, and TW-44. Measured thicknesses ranged from 0.02 ft (TW-36 and TW-44) to 1.33 feet (TW-20). In March 2010, free product was also observed in MPE wells MPE-2, MPE-5, MPE-21, MPE-22, MPE-26, MPE-35, MPE-37, and MPE-38.

Based upon the analytical results for the February 2010 sampling event, dissolved phase contaminant concentrations of benzene, MTBE, and TDS exceeded the New Mexico WQCC standards in several wells. The highest benzene concentration was reported at 290 µg/L in TW-37. The highest MTBE concentration was detected in TW-43 (430 µg/L). Monitor well TW-41 exceeded the WQCC standard for xylene. Wells TW-29 and TW-41 exceeded the WQCC standard for naphthalene. TDS concentrations were reported above the WQCC standard of 1,000 mg/L in all sampled wells, ranging from 3,250 mg/L (TW-29)

to 6,870 mg/L (TW-35). A sheen (most likely biological) was observed in TW-24, and analytical results from TW-24 showed contaminant concentrations below WQCC standards for BTEX, MTBE, and naphthalene.

The MPE remediation unit has been operating since March 10, 2010, when both engines (Engine #1 and Engine #2) were started. Based on system data and field monitoring measurements, AES estimates that approximately **2,962.5 lbs** of petroleum hydrocarbons have been removed as vapor during the reporting period of March 10 through March 31, 2010.

6.0 Recommendations and Scheduled Site Activities

The following items are scheduled to occur during the 2nd Quarter 2010:

BioTech will repair surface completions for monitor wells TW-19 and TW-21, which were damaged during product line removal. Repairs should be completed prior to the next scheduled sampling event.

Based on the most recent groundwater sampling results, AES and Thriftway recommend the installation of three additional monitor wells downgradient of MW-20. The proposed monitor wells will be installed prior to Phase 3 of MPE well installation. Monitor wells will be installed by BioTech. Following installation, BioTech will develop the monitor wells according to standard development procedures to ensure that a representative sample can be collected. Following well development, the additional monitor wells will be sampled at the next sampling event (May, 2010).

Site grading within Phase 3 was completed the week of April 5, 2010. Phase 3 well installations are scheduled to begin at the end of April 2010 with the installation of MPE wells MPE-39 through MPE-54. Following installation, BioTech will develop the MPE wells according to standard development procedures as outlined within the CAP.

BioTech completed installation of the irrigation system during the week of April 5, 2010. Boring installation and initial tree planting was completed during the week of April 12, 2010. The work included the planting of approximately 500 trees along the western half of the north fence line of the property (an area approximately 500 feet long). Trees were planted in rows 10 feet apart (to provide adequate access into the stand for maintenance and monitoring), and plants were spaced 5 feet along rows as described within the phytoremediation plan. Vegetation included hybrid poplar clones provided by the New Mexico State University Farmington Agricultural Experiment Center. Planting of the

remaining proposed phytoremediation area, located along the western north fence line and along the west fence line, is tentatively scheduled to occur in the spring of 2011. Photographs of trees that have been planted are included in Appendix C.

In accordance with the conditions of the Interim Groundwater Sampling Plan approval by NMOCD, the next quarterly sampling event will occur at the site on about May 15, 2010. The previously determined selected wells and newly installed monitor wells will be sampled for:

- Total Petroleum Hydrocarbons (TPH) including Gasoline Range Organics (GRO), Motor Oil Range Organics (MRO), and Diesel Range Organics (DRO);
- BTEX, MTBE, and naphthalene per EPA Method 8260B;
- Total Dissolved Solids (TDS) per Standard Method 2540C.

At this time AES is currently evaluating air data results and determining whether an air permit is required at the site. If a permit is deemed necessary by the NMED Air Quality Bureau (AQB), the necessary requirements for the permit will be completed on a timely basis.

If you have any questions regarding this report or scheduled site activities, please do not hesitate to contact Ross Kennemer or Elizabeth McNally at (505) 564-2281.

Sincerely,

Deborah Watson

Deborah Watson, Project Manager

Elizabeth D. McNally

Elizabeth McNally, P.E.
New Mexico Registration #15799

Tables

Figures

Appendices

cc: Robert Moss
Thriftway Company
501 Airport Drive
Farmington, NM 87401

TABLE 1

SUMMARY OF RECENT GROUNDWATER MEASUREMENTS AND WATER QUALITY DATA

Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Well ID	Date	T.O.C. (ft amsl)	Depth to Product (ft)	Depth to Water (ft)	NAPL Thickness (ft)	Corrected GW Elev. (ft)	pH	Conductivity (mS)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Purge Volume (gallons)
TW-1	15-Dec-08	5471.58		27.95		5443.63	6.24	2.772	7.51*	14.64	113.8	0.25
TW-1	26-Jan-09	5471.58		30.53		5441.05	NM	NM	NM	NM	NM	NM
TW-1	19-Aug-09	5471.58		30.73		5440.85	7.09	1.795	8.08	16.17	289.1	1.00
TW-1	19-Feb-10	5471.58		30.68		5440.90	NM	NM	NM	NM	NM	NM
TW-2	15-Dec-08	5469.31		28.91		5440.40	6.63	4.421	3.60	13.08	125.5	1.25
TW-2	26-Jan-09	5469.31		28.80		5440.51	NM	NM	NM	NM	NM	NM
TW-2	19-Aug-09	5469.31		28.97		5440.34	7.03	2.948	2.68	16.85	291.3	2.00
TW-2	19-Feb-10	5469.31		28.93		5440.38	NM	NM	NM	NM	NM	NM
TW-3	15-Dec-08	5468.14		27.99		5440.15	6.63	4.249	2.01	14.44	-1.6	1.25
TW-3	26-Jan-09	5468.14		27.87		5440.27	NM	NM	NM	NM	NM	NM
TW-3	19-Aug-09	5468.14		28.05		5440.09	6.95	4.16	2.120	16.34	289.5	2.50
TW-3	19-Feb-10	5468.14		27.96		5440.18	NM	NM	NM	NM	NM	NM
TW-4	16-Dec-08	5458.72		19.16		5439.56	6.67	7.258	4.09	13.40	170.6	1.25
TW-4	26-Jan-09	5458.72		NM			NM	NM	NM	NM	NM	NM
TW-4	19-Aug-09	5458.72		19.22		5439.50	7.08	6.739	4.19	16.19	289.9	4.30
TW-4	19-Feb-10	5458.72		19.09		5439.63	NM	NM	NM	NM	NM	NM
TW-5	15-Dec-08	5465.18		25.54		5439.64	6.56	3.704	3.26	14.25	16.0	1.25
TW-5	26-Jan-09	5465.18		25.44		5439.74	NM	NM	NM	NM	NM	NM
TW-5	19-Aug-09	5465.18		25.58		5439.60	6.96	3.636	5.53	16.55	298.9	3.60

TABLE 1

SUMMARY OF RECENT GROUNDWATER MEASUREMENTS AND WATER QUALITY DATA

Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Well ID	Date	T.O.C. (ft amsl)	Depth to Product (ft)	Depth to Water (ft)	NAPL Thickness (ft)	Corrected GW Elev. (ft)	pH	Conductivity (mS)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Purge Volume (gallons)
TW-5	19-Feb-10	5465.18		25.53		5439.65	NM	NM	NM	NM	NM	NM
TW-6	15-Dec-08	5463.57		24.78		5438.79	6.50	4.719	0.99	14.50	9.0	1.25
TW-6	26-Jan-09	5463.57		24.67		5438.90	NM	NM	NM	NM	NM	NM
TW-6	19-Aug-09	5463.57		24.82		5438.75	6.95	4.535	1.81	16.24	295.6	4.00
TW-6	19-Feb-10	5463.57		24.74		5438.83	NM	NM	NM	NM	NM	NM
TW-7	15-Dec-08	5461.17		22.25		5438.92	6.47	5.302	0.82	14.88	0.8	1.25
TW-7	26-Jan-09	5461.17		22.14		5439.03	NM	NM	NM	NM	NM	NM
TW-7	19-Aug-09	5461.17		22.25		5438.92	6.92	4.780	1.67	16.37	290.3	3.00
TW-7	19-Feb-10	5461.17		22.17		5439.00	NM	NM	NM	NM	NM	NM
TW-8	16-Dec-08	5458.29		19.76		5438.53	6.42	5.575	0.51	12.78	-258.2	1.25
TW-8	26-Jan-09	5458.29		19.62		5438.67	NM	NM	NM	NM	NM	NM
TW-8	20-Aug-09	5458.29		19.88		5438.41	7.12	4.523	1.40	14.52	264.7	4.00
TW-8	19-Feb-10	5458.29		19.59		5438.70	NM	NM	NM	NM	NM	NM
TW-9	16-Dec-08	5450.61		12.20		5438.41	6.90	3.473	2.27	14.53	15.6	1.25
TW-9	26-Jan-09	5450.61		12.05		5438.56	NM	NM	NM	NM	NM	NM
TW-9	20-Aug-09	5450.61		12.49		5438.12	7.57	2.397	1.33	16.93	269.2	2.50
TW-9	19-Feb-10	5450.61		11.99		5438.62	NM	NM	NM	NM	NM	NM
TW-10	16-Dec-08	5450.16		12.42		5437.74	6.49	3.876	0.98	11.97	-189.3	1.25

TABLE 1
SUMMARY OF RECENT GROUNDWATER MEASUREMENTS AND WATER QUALITY DATA
Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Well ID	Date	T.O.C. (ft amsl)	Depth to Product (ft)	Depth to Water (ft)	NAPL Thickness (ft)	Corrected GW Elev. (ft)	pH	Conductivity (mS)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Purge Volume (gallons)
TW-10	26-Jan-09	5450.16		12.25		5437.91	NM	NM	NM	NM	NM	NM
TW-10	20-Aug-09	5450.16		12.70		5437.46	7.37	4.019	1.42	16.75	254.7	4.00
TW-10	19-Feb-10	5450.16		12.19		5437.97	NM	NM	NM	NM	NM	NM
TW-11	16-Dec-08	5456.31		18.12		5438.19	6.75	6.941	1.41	14.32	72.0	1.25
TW-11	26-Jan-09	5456.31		18.02		5438.29	NM	NM	NM	NM	NM	NM
TW-11	20-Aug-09	5456.31		18.22		5438.09	7.43	6.704	2.52	15.35	261.4	4.00
TW-11	17-Feb-10	5456.31		18.04		5438.27	7.14	10.42	3.98	12.88	49.7	4.20
TW-12	15-Dec-08	5460.44		22.44		5438.00	6.49	4.247	0.95	16.15	-97.3	1.25
TW-12	26-Jan-09	5460.44	22.34	22.44	0.1	5438.08	NM	NM	NM	NM	NM	NM
TW-12	20-Aug-09	5460.44		22.50		5437.94	7.02	3.881	2.34	17.09	266.5	2.50
TW-12	17-Feb-10	5460.44		22.39		5438.05	6.94	5.727	1.46	15.59	206.2	3.00
TW-13	16-Dec-08	5458.17	20.64	21.48	0.84	5437.38	Not Sampled - NAPL Present					
TW-13	26-Jan-09	5458.17	20.52	21.46	0.94	5437.49	NM	NM	NM	NM	NM	NM
TW-13	12-Aug-09	5458.17	20.75	21.77	1.02	5437.24	NM	NM	NM	NM	NM	NM
TW-13	11-Nov-09	5458.17	20.76	21.86	1.10	5437.22	NM	NM	NM	NM	NM	NM
TW-13	15-Feb-10	5458.17	20.59	21.48	0.89	5437.43	NM	NM	NM	NM	NM	NM
TW-14	16-Dec-08	5454.24		16.82		5437.42	Not Sampled - Sheen of NAPL present					
TW-14	26-Jan-09	5454.24	16.71	17.02	0.31	5437.48	NM	NM	NM	NM	NM	NM
TW-14	20-Aug-09	5454.24	16.89	17.02	0.13	5437.33	Not Sampled - NAPL present					

TABLE 1
SUMMARY OF RECENT GROUNDWATER MEASUREMENTS AND WATER QUALITY DATA
Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Well ID	Date	T.O.C. (ft amsl)	Depth to Product (ft)	Depth to Water (ft)	NAPL Thickness (ft)	Corrected GW Elev. (ft)	pH	Conductivity (mS)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Purge Volume (gallons)
TW-14	11-Nov-09	5454.24	17.20	17.67	0.47	5436.96	NM	NM	NM	NM	NM	NM
TW-14	15-Feb-10	5454.24	16.98	17.22	0.24	5437.22	NM	NM	NM	NM	NM	NM
TW-15	16-Dec-08	5450.44		13.15		5437.29	6.69	6.647	1.25	13.17	-176.5	1.25
TW-15	26-Jan-09	5450.44		12.99		5437.45	NM	NM	NM	NM	NM	NM
TW-15	20-Aug-09	5450.44		13.35		5437.09	7.26	6.056	3.64	16.49	320.0	4.30
TW-15	17-Feb-10	5450.44		12.93		5437.51	NM	NM	NM	NM	NM	NM
TW-16	16-Dec-08	5448.45		8.76		5439.69	6.71	6.593	1.64	14.90	7.3	1.25
TW-16	26-Jan-09	5448.45		11.11		5437.34	NM	NM	NM	NM	NM	NM
TW-16	20-Aug-09	5448.45		11.85		5436.60	7.40	6.025	3.66	16.57	285.2	1.00
TW-16	17-Feb-10	5448.45		11.1		5437.35	NM	NM	NM	NM	NM	NM
TW-17	16-Dec-08	5446.24		9.99		5436.25	6.68	6.643	1.26	14.10	-31.3	1.25
TW-17	26-Jan-09	5446.24		9.82		5436.42	NM	NM	NM	NM	NM	NM
TW-17	21-Aug-09	5446.24		10.31		5435.93	7.13	6.100	8.37	17.86	289.9	3.00
TW-17	17-Feb-10	5446.24		9.75		5436.49	NM	NM	NM	NM	NM	NM
TW-18	16-Dec-08	5452.73		16.40		5436.33	6.65	5.094	0.88	16.42	-170.9	1.25
TW-18	26-Jan-09	5452.73		16.29		5436.44	NM	NM	NM	NM	NM	NM
TW-18	21-Aug-09	5452.73		16.48		5436.25	6.94	5.273	7.64	17.32	285.8	4.00
TW-18	17-Feb-10	5452.73		16.21		5436.52	6.8	7.990	2.04	15.58	210	3.30

TABLE 1
SUMMARY OF RECENT GROUNDWATER MEASUREMENTS AND WATER QUALITY DATA
Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Well ID	Date	T.O.C. (ft amsl)	Depth to Product (ft)	Depth to Water (ft)	NAPL Thickness (ft)	Corrected GW Elev. (ft)	pH	Conductivity (mS)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Purge Volume (gallons)
TW-19	16-Dec-08	5458.49	22.15	22.62	0.47	5436.26	Not Sampled - NAPL Present					
TW-19	26-Jan-09	5458.49	22.01	22.57	0.56	5436.38	NM	NM	NM	NM	NM	NM
TW-19	13-Aug-09	5458.49	22.13	22.86	0.73	5436.23	Not Sampled - NAPL present					
TW-19	11-Nov-09	5458.49	TW damaged by demolition work									
TW-19	15-Feb-10	5458.49	TW damaged by demolition work									
TW-20	17-Dec-08	5453.74	15.14	15.86	0.72	5438.48	Not Sampled - NAPL Present					
TW-20	26-Jan-09	5453.74	17.36	18.62	1.26	5436.16	NM	NM	NM	NM	NM	NM
TW-20	13-Aug-09	5453.74	17.64	19.17	1.53	5435.84	Not Sampled - NAPL present					
TW-20	11-Nov-09	5453.74	17.52	19.45	1.93	5435.89	NM	NM	NM	NM	NM	NM
TW-20	15-Feb-10	5453.74	17.4	18.73	1.33	5436.11	NM	NM	NM	NM	NM	NM
TW-21	17-Dec-08	5451.85	15.42	17.19	1.77	5436.12	Not Sampled - NAPL Present					
TW-21	26-Jan-09	5451.85	16.35	16.94	0.59	5435.40	NM	NM	NM	NM	NM	NM
TW-21	13-Aug-09	5451.85	16.50	16.94	0.44	5435.27	Not Sampled - NAPL present					
TW-21	12-Nov-09	5451.85	TW damaged by demolition work									
TW-21	15-Feb-10	5451.85	TW damaged by demolition work									
TW-22	17-Dec-08	5450.19	14.75	14.76	0.01	5435.44	Not Sampled - NAPL Present					
TW-22	26-Jan-09	5450.19	14.69	15.26	0.57	5435.40	NM	NM	NM	NM	NM	NM
TW-22	13-Aug-09	5450.19	14.79	15.39	0.60	5435.30	Not Sampled - NAPL present					
TW-22	12-Nov-09	5450.19	14.88	15.58	0.70	5435.19	NM	NM	NM	NM	NM	NM
TW-22	15-Feb-10	5450.19	14.72	15.03	0.31	5435.42	NM	NM	NM	NM	NM	NM

TABLE 1

SUMMARY OF RECENT GROUNDWATER MEASUREMENTS AND WATER QUALITY DATA

Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Well ID	Date	T.O.C. (ft amsl)	Depth to Product (ft)	Depth to Water (ft)	NAPL Thickness (ft)	Corrected GW Elev. (ft)	pH	Conductivity (mS)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Purge Volume (gallons)
TW-23	18-Dec-08	5443.64		6.60		5437.04	7.09	6.727	3.77	13.65	-138.4	1.25
TW-23	26-Jan-08	5443.64		8.73		5434.91	NM	NM	NM	NM	NM	NM
TW-23	21-Aug-09	5443.64		9.07		5434.57	7.17	7.95	5.40	18.47	286.8	3.00
TW-23	17-Feb-10	5443.64		8.61		5435.03	NM	NM	NM	NM	NM	NM
TW-24	17-Dec-08	5444.79		10.97		5433.82	6.21	5.942	4.88	15.60	-64.3	1.25
TW-24	26-Jan-09	5444.79	11.84	11.85	0.01	5432.95	NM	NM	NM	NM	NM	NM
TW-24	21-Aug-09	5444.79	11.10	11.22	0.12	5433.67	Not Sampled - NAPL Present					
TW-24	13-Nov-09	5444.79	11.07	11.15	0.08	5433.71	NM	NM	NM	NM	NM	NM
TW-24	17-Feb-10	5444.79		10.78		5434.01	6.62	7.86	0.74	13.77	436.8	3.00
TW-25	17-Dec-08	5448.80	14.13	14.62	0.49	5434.59	Not Sampled - NAPL Present					
TW-25	26-Jan-09	5448.80	14.05	14.41	0.36	5434.69	NM	NM	NM	NM	NM	NM
TW-25	13-Aug-09	5448.80	14.14	14.63	0.49	5434.58	Not Sampled - NAPL present					
TW-25	12-Nov-09	5448.80	14.24	14.91	0.67	5434.44	NM	NM	NM	NM	NM	NM
TW-25	15-Feb-10	5448.80	14.03	14.41	0.38	5434.70	NM	NM	NM	NM	NM	NM
TW-26	17-Dec-08	5450.34	13.49	14.47	0.98	5436.68	Not Sampled - NAPL Present					
TW-26	26-Jan-09	5450.34	15.80	16.76	0.96	5434.37	NM	NM	NM	NM	NM	NM
TW-26	13-Aug-09	5450.34	15.83	17.29	1.46	5434.26	Not Sampled - NAPL present					
TW-26	12-Nov-09	5450.34	15.91	17.47	1.56	5434.16	NM	NM	NM	NM	NM	NM
TW-26	15-Feb-10	5450.34	15.81	16.86	1.05	5434.35	NM	NM	NM	NM	NM	NM

TABLE 1

SUMMARY OF RECENT GROUNDWATER MEASUREMENTS AND WATER QUALITY DATA

Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Well ID	Date	T.O.C. (ft amsl)	Depth to Product (ft)	Depth to Water (ft)	NAPL Thickness (ft)	Corrected GW Elev. (ft)	pH	Conductivity (mS)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Purge Volume (gallons)
TW-28	17-Dec-08	5449.24	15.37	15.96	0.59	5433.77	Not Sampled - NAPL Present					
TW-28	26-Jan-09	5449.24	15.28	15.79	0.51	5433.87	NM	NM	NM	NM	NM	NM
TW-28	13-Aug-09	5449.24	15.27	16.31	1.04	5433.79	Not Sampled - NAPL present					
TW-28	12-Nov-09	5449.24	15.35	16.74	1.39	5433.65	NM	NM	NM	NM	NM	NM
TW-28	15-Feb-10	5449.24	15.22	16.10	0.88	5433.87	NM	NM	NM	NM	NM	NM
TW-29	17-Dec-08	5441.87	9.19	9.20	0.01	5432.68	Not Sampled - NAPL Present					
TW-29	26-Jan-09	5441.87	9.12	9.14	0.02	5432.75	NM	NM	NM	NM	NM	NM
TW-29	13-Aug-09	5441.87	9.22	10.06	0.84	5432.50	Not Sampled - NAPL present					
TW-29	13-Nov-09	5441.87	9.25	9.91	0.66	5432.51	NM	NM	NM	NM	NM	NM
TW-29	17-Feb-10	5441.87		8.96		5432.91	6.00	8.583	0.60	13.79	357.9	3.60
TW-30	18-Dec-08	5437.93		5.90		5432.03	6.46	6.328	6.25*	12.89	-66.2	1.25
TW-30	26-Jan-09	5437.93		5.69		5432.24	NM	NM	NM	NM	NM	NM
TW-30	21-Aug-09	5437.93		6.07		5431.86	6.61	7.238	5.52	18.52	304.0	5.50
TW-30	17-Feb-10	5437.93		5.65		5432.28	6.26	8.169	1.47	11.21	476.9	5.60
TW-31	16-Dec-08	5438.54		7.03		5431.51	6.37	7.298	2.97	14.00	12.8	1.25
TW-31	26-Jan-09	5438.54		6.94		5431.60	NM	NM	NM	NM	NM	NM
TW-31	21-Aug-09	5438.54		7.18		5431.36	6.84	10.35	6.90	21.75	319.9	3.00
TW-31	17-Feb-10	5438.54		6.82		5431.72	6.63	9.906	3.95	9.75	358.8	3.00

TABLE 1

SUMMARY OF RECENT GROUNDWATER MEASUREMENTS AND WATER QUALITY DATA

Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Well ID	Date	T.O.C. (ft amsl)	Depth to Product (ft)	Depth to Water (ft)	NAPL Thickness (ft)	Corrected GW Elev. (ft)	pH	Conductivity (mS)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Purge Volume (gallons)
TW-32	17-Dec-08	5441.61	7.22	8.79	1.57	5434.12	Not Sampled - NAPL Present					
TW-32	26-Jan-09	5441.61	9.02	10.31	1.29	5432.37	NM	NM	NM	NM	NM	NM
TW-32	13-Aug-09	5441.61	9.12	10.86	1.74	5432.19	Not Sampled - NAPL present					
TW-32	12-Nov-09	5441.61	9.26	10.88	1.62	5432.07	NM	NM	NM	NM	NM	NM
TW-32	16-Feb-10	5441.61	8.97	9.98	1.01	5432.47	NM	NM	NM	NM	NM	NM
TW-33	17-Dec-08	5445.85	12.96	13.02	0.06	5432.88	Not Sampled - NAPL Present					
TW-33	26-Jan-09	5445.85	12.92	13.02	0.10	5432.91	NM	NM	NM	NM	NM	NM
TW-33	13-Aug-09	5445.85	12.96	13.10	0.14	5432.87	Not Sampled - NAPL present					
TW-33	12-Nov-09	5445.85	13.10	13.40	0.30	5432.70	NM	NM	NM	NM	NM	NM
TW-33	16-Feb-10	5445.85	12.89	12.93	0.04	5432.95	NM	NM	NM	NM	NM	NM
TW-34	18-Dec-08	5455.80		19.82		5435.98	7.48	6.744	3.97	14.29	-183.8	1.25
TW-34	26-Jan-09	5455.80		19.74		5436.06	NM	NM	NM	NM	NM	NM
TW-34	19-Aug-09	5455.80		20.23		5435.57	7.06	10.07	6.19	15.43	303.7	3.00
TW-34	18-Feb-10	5455.80		19.79		5436.01	7.06	9.266	2.40	12.35	-55.0	3.00
TW-35	18-Dec-08	5449.14		15.21		5433.93	7.04	7.929	4.39	14.98	-189.4	1.25
TW-35	26-Jan-09	5449.14		15.12		5434.02	NM	NM	NM	NM	NM	NM
TW-35	24-Aug-09	5449.14		15.29		5433.85	7.02	11.80	6.40	16.41	295.1	3.30
TW-35	18-Feb-10	5449.14		15.15		5433.99	7.20	11.52	2.91	12.99	-283.0	3.60
TW-36	18-Dec-08	5441.91		13.03		5428.88	6.94	7.874	3.6	15.28	-270.7	1.25

TABLE 1

SUMMARY OF RECENT GROUNDWATER MEASUREMENTS AND WATER QUALITY DATA

Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Well ID	Date	T.O.C. (ft amsl)	Depth to Product (ft)	Depth to Water (ft)	NAPL Thickness (ft)	Corrected GW Elev. (ft)	pH	Conductivity (mS)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Purge Volume (gallons)
TW-36	26-Jan-09	5441.91	12.94	12.97	0.03	5428.96	NM	NM	NM	NM	NM	NM
TW-36	13-Aug-09	5441.91	13.17	13.35	0.18	5428.71	Not Sampled - NAPL present					
TW-36	13-Nov-09	5441.91	13.25	13.63	0.38	5428.59	NM	NM	NM	NM	NM	NM
TW-36	16-Feb-10	5441.91	12.96	12.98	0.02	5428.95	NM	NM	NM	NM	NM	NM
TW-37	17-Dec-08	5439.59		10.57		5429.02	6.51	4.698	3.5	14.02	-221.3	1.25
TW-37	26-Jan-09	5439.59		10.47		5429.12	NM	NM	NM	NM	NM	NM
TW-37	21-Aug-09	5439.59		10.71		5428.88	7.22	6.162	4.35	18.77	296.1	3.00
TW-37	16-Feb-10	5439.59		10.44		5429.15	6.77	6.700	1.11	12.18	430.5	3.00
TW-38	17-Dec-08	5442.11		9.55		5432.56	6.95	5.466	4.06	12.82	-179.3	1.25
TW-38	26-Jan-09	5442.11		11.36		5430.75	NM	NM	NM	NM	NM	NM
TW-38	21-Aug-09	5442.11	11.57	11.58	0.01	5430.54	Not Sampled - NAPL Present					
TW-38	12-Nov-09	5442.11	11.64	11.70	0.06	5430.46	NM	NM	NM	NM	NM	NM
TW-38	18-Feb-10	5442.11		11.28		5430.83	6.73	7.314	0.57	12.54	549.0	2.10
TW-39	18-Dec-08	5438.43	7.7	7.71	0.01	5430.73	Not Sampled - Sheen of NAPL Present					
TW-39	26-Jan-09	5438.43		7.44		5430.99	NM	NM	NM	NM	NM	NM
TW-39	21-Aug-09	5438.43		7.96		5430.47	6.93	8.946	4.48	23.34	328.1	3.00
TW-39	17-Feb-10	5438.43		7.11		5431.32	6.64	6.092	1.22	8.11	244.4	2.10
TW-40	18-Dec-08	5437.50		5.30		5432.20	Not Sampled - Sheen of NAPL Present					
TW-40	26-Jan-09	5437.50		7.27		5430.23	NM	NM	NM	NM	NM	NM

TABLE 1

SUMMARY OF RECENT GROUNDWATER MEASUREMENTS AND WATER QUALITY DATA

Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Well ID	Date	T.O.C. (ft amsl)	Depth to Product (ft)	Depth to Water (ft)	NAPL Thickness (ft)	Corrected GW Elev. (ft)	pH	Conductivity (mS)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Purge Volume (gallons)
TW-40	13-Aug-09	5437.50	7.90	8.53	0.63	5429.49	Not Sampled - NAPL present					
TW-40	13-Nov-09	5437.50	7.93	8.49	0.56	5429.47	NM	NM	NM	NM	NM	NM
TW-40	16-Feb-10	5437.50	6.84	7.76	0.92	5430.50	NM	NM	NM	NM	NM	NM
TW-41	18-Dec-08	5434.77		5.85		5428.92	6.16	5.669	3.92	10.95	-339.4	1.25
TW-41	26-Jan-09	5434.77		5.59		5429.18	NM	NM	NM	NM	NM	NM
TW-41	24-Aug-09	5434.77		6.27		5428.50	6.72	9.811	8.50	20.12	126.3	2.50
TW-41	16-Feb-10	5434.77		5.34		5429.43	6.06	8.192	0.46	8.01	461.4	3.00
TW-42	16-Dec-08	5433.76		6.09		5427.67	6.48	6.036	1.07	12.04	23.5	1.25
TW-42	26-Jan-09	5433.76		5.97		5427.79	NM	NM	NM	NM	NM	NM
TW-42	24-Aug-09	5433.76		6.37		5427.39	7.23	10.81	6.43	19.48	219.0	2.50
TW-42	16-Feb-10	5433.76		5.84		5427.92	6.43	7.885	2.50	7.78	456.9	3.00
TW-43	16-Dec-08	5440.42		12.19		5428.23	6.35	6.716	1.01	14.39	7.0	1.25
TW-43	26-Jan-09	5440.42		12.10		5428.32	NM	NM	NM	NM	NM	NM
TW-43	24-Aug-09	5440.42		12.44		5427.98	6.94	8.834	6.92	17.73	204.1	3.00
TW-43	16-Feb-10	5440.42		12.11		5428.31	6.79	7.655	3.56	12.46	431.3	3.00
TW-44	17-Dec-08	5444.08		12.66		5431.42	6.71	6.494	2.75	15.75	-43.4	1.25
TW-44	26-Jan-09	5444.08		14.93		5429.15	NM	NM	NM	NM	NM	NM
TW-44	24-Aug-09	5444.08		15.15		5428.93	6.74	9.788	6.47	16.80	248.3	1.50
TW-44	18-Feb-10	5444.08	15.02	15.04	0.02	5429.06	NM	NM	NM	NM	NM	NM

TABLE 1

SUMMARY OF RECENT GROUNDWATER MEASUREMENTS AND WATER QUALITY DATA

Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Well ID	Date	T.O.C. (ft amsl)	Depth to Product (ft)	Depth to Water (ft)	NAPL Thickness (ft)	Corrected GW Elev. (ft)	pH	Conductivity (mS)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Purge Volume (gallons)
MW-5	19-Dec-08	5428.97		5.04			6.76	7.748	4.02	11.73		0.25
MW-5	19-Dec-08	5428.97		5.04		5423.93	6.76	7.748	4.02	11.73		0.25
MW-5	18-Feb-10	5428.97		4.73		5424.24	7.39	8.422	3.30	9.93	403.1	3.00
MW-20	18-Dec-07	5430.45		5.89			7.05	5.621	2.89	12.10		1.25
MW-20	21-Jan-09	5430.45		5.86			6.73	5.996	3.58	8.34		0.5
MW-20	18-Feb-10	5430.45		5.81		5424.64	6.67	7.249	3.67	8.20	395.0	2.50
MW-21	18-Dec-07	5428.62		3.54			7.12	8.043	0.62	12.90		3.25
MW-21	19-Dec-08	5428.62		3.43			6.79	7.562	9.78	11.04		1.25
MW-21	18-Feb-10	5428.62		2.86		5425.76	6.82	9.049	8.21	7.91	367.2	3.00

NOTES: NM - Not Measured

* Denotes erroneous DO measurement - sensor malfunction

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICALS
(VOCs ,TOTAL PETROLEUM HYDROCARBONS, and TDS)
Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Well ID	Date Sampled	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	Naph-thalene	GRO C6-C10	DRO C10-C22	MRO	Total Dissolved Solids
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L
Sample Method		EPA Method 8260						EPA Method 8015M			2540C
NM WQCC STANDARD		10	750	750	620	100	30	NE	NE	NE	1,000
TW-1	15-Dec-08	<1.0	<1.0	<1.0	<1.5	<1.0	<10	<0.050	<1.0	<5.0	NA
TW-1	19-Aug-09	<1.0	<1.0	<1.0	<1.5	<1.0	<2.0	<0.050	<1.0	<5.0	**2,530**
TW-2	15-Dec-08	<1.0	<1.0	<1.0	<1.5	<1.0	<10	<0.050	<1.0	<5.0	NA
TW-2	19-Aug-09	<1.0	<1.0	<1.0	<1.5	<1.0	<2.0	<0.050	<1.0	<5.0	**4,020**
TW-3	15-Dec-08	<1.0	<1.0	<1.0	<1.5	<1.0	<10	<0.050	<1.0	<5.0	NA
TW-3	19-Aug-09	<1.0	<1.0	<1.0	<1.5	<1.0	<2.0	<0.050	<1.0	<5.0	**4,170**
TW-4	16-Dec-08	<1.0	<1.0	<1.0	<1.5	<1.0	<10	<0.050	<1.0	<5.0	NA
TW-4	19-Aug-09	<1.0	<1.0	<1.0	<1.5	<1.0	<2.0	<0.050	<1.0	<5.0	**6,530**
TW-5	15-Dec-08	<1.0	<1.0	<1.0	<1.5	<1.0	<10	<0.050	<1.0	<5.0	NA
TW-5	19-Aug-09	<1.0	<1.0	<1.0	<1.5	<1.0	<2.0	<0.050	<1.0	<5.0	**3,180**
TW-6	15-Dec-08	<1.0	<1.0	<1.0	<1.5	<1.0	<10	<0.050	<1.0	<5.0	NA
TW-6	19-Aug-09	<1.0	<1.0	<1.0	<1.5	<1.0	<2.0	<0.050	<1.0	<5.0	**4,020**
TW-7	15-Dec-08	**67**	**1,700**	710	**4,200**	<10	**308**	15	2.1	<5.0	NA
TW-7	19-Aug-09	3.8	11	98	15	<1.0	19	0.79	<1.0	<5.0	**3,930**
TW-8	16-Dec-08	**120**	15	330	**950**	<5.0	**92**	8.9	1.4	<5.0	NA
TW-8	19-Aug-09	**26**	<1.0	82	130	<1.0	<2.0	1.7	<1.0	<5.0	**4,490**

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICALS
(VOCs ,TOTAL PETROLEUM HYDROCARBONS, and TDS)
Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Well ID	Date Sampled	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	Naph-thalene	GRO C6-C10	DRO C10-C22	MRO	Total Dissolved Solids
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L
Sample Method		EPA Method 8260						EPA Method 8015M			2540C
NM WQCC STANDARD		10	750	750	620	100	30	NE	NE	NE	1,000
TW-9	16-Dec-08	<1.0	<1.0	<1.0	<1.5	<1.0	<10	<0.050	<1.0	<5.0	NA
TW-9	20-Aug-09	<1.0	<1.0	<1.0	<1.5	<1.0	<2.0	<0.050	<1.0	<5.0	**2,070**
TW-10	16-Dec-08	1.4	<1.0	3.9	9.9	<1.0	<10	0.29	<1.0	<5.0	NA
TW-10	20-Aug-09	<1.0	<1.0	1.1	<1.5	<1.0	<2.0	<0.050	<1.0	<5.0	**3,250**
TW-11	16-Dec-08	<1.0	<1.0	<1.0	<1.5	<1.0	<10	<0.050	<1.0	<5.0	NA
TW-11	20-Aug-09	<1.0	<1.0	<1.0	<1.5	<1.0	<2.0	<0.050	<1.0	<5.0	**6,290**
TW-11	17-Feb-10	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<0.050	<1.0	<5.0	**6,260**
TW-12	15-Dec-08	6.9	33	670	**1,700**	<5.0	**317**	3.4	1.9	<5.0	NA
TW-12	20-Aug-09	<1.0	<1.0	19	25	<1.0	<2.0	0.25	<1.0	<5.0	**3,490**
TW-12	17-Feb-10	1.3	<1.0	35	48	<1.0	2.4	0.43	<1.0	<5.0	**3,470**
TW-13	17-Dec-08	**Not Sampled-NAPL present**									
TW-13	21-Aug-09	**Not Sampled-NAPL present**									
TW-13	17-Feb-10	**Not Sampled-NAPL present**									
TW-14	17-Dec-08	**Not Sampled-NAPL present**									
TW-14	21-Aug-09	**Not Sampled-NAPL present**									
TW-14	17-Feb-10	**Not Sampled-NAPL present**									

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICALS
(VOCs ,TOTAL PETROLEUM HYDROCARBONS, and TDS)
Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Well ID	Date Sampled	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	Naph-thalene	GRO C6-C10	DRO C10-C22	MRO	Total Dissolved Solids
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L
Sample Method		EPA Method 8260						EPA Method 8015M			2540C
NM WQCC STANDARD		10	750	750	620	100	30	NE	NE	NE	1,000
TW-15	16-Dec-08	**22**	9.2	190	10	<1.0	10	1.1	1.2	<5.0	NA
TW-15	20-Aug-09	6.2	1.7	94	<1.5	<1.0	<2.0	0.69	<1.0	<5.0	**5,240**
TW-16	16-Dec-08	<1.0	<1.0	<1.0	<1.5	<1.0	<10	<0.050	<1.0	<5.0	NA
TW-16	20-Aug-09	<1.0	<1.0	<1.0	<1.5	<1.0	<2.0	<0.050	<1.0	<5.0	**4,240**
TW-17	16-Dec-08	<1.0	<1.0	<1.0	<1.5	<1.0	<10	<0.050	<1.0	<5.0	NA
TW-17	21-Aug-09	<1.0	<1.0	<1.0	<1.5	<1.0	<2.0	<0.050	<1.0	<5.0	**4,640**
TW-18	16-Dec-08	8.9	<1.0	31	18	1.9	<10	0.70	<1.0	<5.0	NA
TW-18	21-Aug-09	2.5	<1.0	12	<1.5	3.2	<2.0	0.11	<1.0	<5.0	**4,440**
TW-18	17-Feb-10	8.0	<1.0	38	12	1.2	<2.0	0.37	<1.0	<5.0	**4,440**
TW-19	17-Dec-08	**Not Sampled-NAPL present**									
TW-19	21-Aug-09	**Not Sampled-NAPL present**									
TW-19	17-Feb-10	**Not Sampled-Surface Casing Damaged**									
TW-20	17-Dec-08	**Not Sampled-NAPL present**									
TW-20	21-Aug-09	**Not Sampled-NAPL present**									
TW-20	17-Feb-10	**Not Sampled-NAPL present**									
TW-21	17-Dec-08	**Not Sampled-NAPL present**									
TW-21	21-Aug-09	**Not Sampled-NAPL present**									

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICALS
(VOCs ,TOTAL PETROLEUM HYDROCARBONS, and TDS)
Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Well ID	Date Sampled	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	Naph-thalene	GRO C6-C10	DRO C10-C22	MRO	Total Dissolved Solids
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L
Sample Method		EPA Method 8260						EPA Method 8015M			2540C
NM WQCC STANDARD		10	750	750	620	100	30	NE	NE	NE	1,000
TW-21	17-Feb-10	Not Sampled-Surface Casing Damaged									
TW-22	17-Dec-08	Not Sampled-NAPL present									
TW-22	21-Aug-09	Not Sampled-NAPL present									
TW-22	17-Feb-10	Not Sampled-NAPL present									
TW-23	18-Dec-08	<1.0	<1.0	93	<1.5	<1.0	<10	0.77	1.4	<5.0	NA
TW-23	21-Aug-09	<1.0	<1.0	24	<1.5	<1.0	<2.0	0.34	<1.0	<5.0	**5,440**
TW-24	17-Dec-08	7.5	<1.0	10	<1.5	5.6	2.6	0.26	<1.0	<5.0	NA
TW-24	21-Aug-09	Not Sampled-NAPL present									
TW-24	17-Feb-10	1.7	<1.0	7.0	<2.0	4.3	<2.0	0.62	2.4	<5.0	**4,170**
TW-25	17-Dec-08	Not Sampled-NAPL present									
TW-25	21-Aug-09	Not Sampled-NAPL present									
TW-25	17-Feb-10	Not Sampled-NAPL present									
TW-26	17-Dec-08	Not Sampled-NAPL present									
TW-26	21-Aug-09	Not Sampled-NAPL present									
TW-26	17-Feb-10	Not Sampled-NAPL present									
TW-28	17-Dec-08	Not Sampled-NAPL present									
TW-28	21-Aug-09	Not Sampled-NAPL present									

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICALS
(VOCs ,TOTAL PETROLEUM HYDROCARBONS, and TDS)
Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Well ID	Date Sampled	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	Naph-thalene	GRO C6-C10	DRO C10-C22	MRO	Total Dissolved Solids
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L
Sample Method		EPA Method 8260						EPA Method 8015M			2540C
NM WQCC STANDARD		10	750	750	620	100	30	NE	NE	NE	1,000
TW-28	17-Feb-10	Not Sampled-NAPL present									
TW-29	17-Dec-08	Not Sampled-NAPL present									
TW-29	21-Aug-09	Not Sampled-NAPL present									
TW-29	17-Feb-10	**34**	<1.0	16	260	7.9	**40**	2.7	13	<5.0	**3,250**
TW-30	18-Dec-08	<1.0	<1.0	<1.0	<1.5	24	<10	0.087	2.8	<5.0	NA
TW-30	21-Aug-09	<1.0	<1.0	<1.0	<1.5	20	<2.0	0.055	<1.0	<5.0	**4,550**
TW-30	17-Feb-10	<1.0	<1.0	<1.0	<2.0	21	<2.0	0.056	<1.0	<5.0	**4,290**
TW-31	16-Dec-08	<1.0	<1.0	<1.0	<1.5	12	<10	<0.050	<1.0	<5.0	NA
TW-31	21-Aug-09	<1.0	<1.0	<1.0	<1.5	16	<2.0	<0.050	<1.0	<5.0	**4,790**
TW-31	17-Feb-10	<1.0	<1.0	<1.0	<2.0	10	<2.0	<0.050	<1.0	<5.0	**4,690**
TW-32	17-Dec-08	Not Sampled-NAPL present									
TW-32	21-Aug-09	Not Sampled-NAPL present									
TW-32	17-Feb-10	Not Sampled-NAPL present									
TW-33	17-Dec-08	Not Sampled-NAPL present									
TW-33	21-Aug-09	Not Sampled-NAPL present									
TW-33	17-Feb-10	Not Sampled-NAPL present									
TW-34	18-Dec-08	<1.0	<1.0	<1.0	<1.5	<1.0	<10	<0.050	<1.0	<5.0	NA

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICALS
(VOCs ,TOTAL PETROLEUM HYDROCARBONS, and TDS)
Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Well ID	Date Sampled	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	Naph-thalene	GRO C6-C10	DRO C10-C22	MRO	Total Dissolved Solids
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L
Sample Method		EPA Method 8260						EPA Method 8015M			2540C
NM WQCC STANDARD		10	750	750	620	100	30	NE	NE	NE	1,000
TW-34	24-Aug-09	<1.0	<1.0	<1.0	<1.5	<1.0	<2.0	<0.050	<1.0	<5.0	**5,460**
TW-34	18-Feb-10	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<0.050	<1.0	<5.0	**5,520**
TW-35	18-Dec-08	<1.0	<1.0	<1.0	<1.5	<1.0	<10	<0.050	<1.0	<5.0	NA
TW-35	24-Aug-09	<1.0	<1.0	<1.0	<1.5	<1.0	<2.0	<0.050	<1.0	<5.0	**6,700**
TW-35	18-Feb-10	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<0.050	<1.0	<5.0	**6,870**
TW-36	18-Dec-08	<1.0	<1.0	16	22	<1.0	**91.9**	0.30	4.3	<5.0	
TW-36	21-Aug-09	**Not Sampled-NAPL present**									
TW-36	17-Feb-10	**Not Sampled-NAPL present**									
TW-37	17-Dec-08	**820**	<50	560	**1,800**	**180**	<500	8.4	19	<5.0	NA
TW-37	21-Aug-09	**250**	<5.0	51	32	**180**	<10	1.7	1.2	<5.0	**3,740**
TW-37	18-Feb-10	**290**	<5.0	53	61	**130**	<10	2.0	1.4	<5.0	**3,400**
TW-38	17-Dec-08	**140**	<5.0	36	220	**190**	<50	0.99	<1.0	<5.0	NA
TW-38	21-Aug-09	**Not Sampled-NAPL present**									
TW-38	18-Feb-10	**26**	<1.0	6.3	18	88	<2.0	0.50	<1.0	<5.0	**4,070**
TW-39	17-Dec-08	**Not Sampled-NAPL present**									
TW-39	21-Aug-09	1.7	<1.0	2.8	<1.5	16	<2.0	0.47	<1.0	<5.0	**4,460**
TW-39	17-Feb-10	2.6	<1.0	2.5	3.5	9.8	<2.0	0.45	<1.0	<5.0	**3,580**

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICALS
(VOCs ,TOTAL PETROLEUM HYDROCARBONS, and TDS)
Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Well ID	Date Sampled	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	Naph-thalene	GRO C6-C10	DRO C10-C22	MRO	Total Dissolved Solids
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L
Sample Method		EPA Method 8260						EPA Method 8015M			2540C
NM WQCC STANDARD		10	750	750	620	100	30	NE	NE	NE	1,000
TW-40	17-Dec-08	Not Sampled-NAPL present									
TW-40	21-Aug-09	Not Sampled-NAPL present									
TW-40	17-Feb-10	Not Sampled-NAPL present									
TW-41	18-Dec-08	**480**	<50	570	**4,000**	<50	<500	8.4	2.0	<5.0	NA
TW-41	24-Aug-09	**170**	6.6	400	**2,000**	24	**49**	7.0	1.1	<5.0	**3,510**
TW-41	18-Feb-10	**140**	<10	400	**2,500**	24	**49**	7.7	1.5	<5.0	**4,230**
TW-42	16-Dec-08	<1.0	<1.0	31	<1.5	**130**	<10	0.18	1.2	<5.0	NA
TW-42	24-Aug-09	<1.0	<1.0	<1.0	<1.5	70	<2.0	0.10	<1.0	<5.0	**4,260**
TW-42	18-Feb-10	<1.0	<1.0	<1.0	<2.0	75	<2.0	0.15	<1.0	<5.0	**4,070**
TW-43	16-Dec-08	<1.0	<1.0	31	<1.5	**1,700**	<10	0.80	<1.0	<5.0	
TW-43	24-Aug-09	<1.0	<1.0	<1.0	<1.5	**500**	<10	0.17	<1.0	<5.0	**4,610**
TW-43	18-Feb-10	<1.0	<1.0	<1.0	<2.0	**430**	<2.0	0.37	<1.0	<5.0	**4,390**
TW-44	17-Dec-08	**58**	<5.0	69	340	**330**	**245**	2.0	1.8	<5.0	NA
TW-44	24-Aug-09	**56**	<1.0	6.9	7.3	**360**	<2.0	0.20	1.2	<5.0	**5,520**
TW-44	18-Feb-10	Not Sampled-NAPL present									
MW-5	5-Jul-07*	2.4	<0.5	0.8	<2.0	28*	NA	0.14	<2.0	NA	NA
MW-5	19-Dec-08	<1.0	<1.0	<1.0	<1.5	46	<10	0.066	<1.0	<5.0	NA
MW-5	18-Feb-10	<1.0	<1.0	<1.0	<2.0	49	<2.0	0.12	<1.0	<5.0	**4,350**

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICALS
(VOCs ,TOTAL PETROLEUM HYDROCARBONS, and TDS)
Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Well ID	Date Sampled	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	Naph-thalene	GRO C6-C10	DRO C10-C22	MRO	Total Dissolved Solids
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L
Sample Method		EPA Method 8260						EPA Method 8015M			2540C
NM WQCC STANDARD		10	750	750	620	100	30	NE	NE	NE	1,000
MW-20	18-Dec-07*	<0.5	8.3	<0.5	3.6	**360**	NA	0.52	<2.0	NA	NA
MW-20	21-Jan-09	<1.0	<1.0	<1.0	<1.5	**170**	<10	0.47	1.8	<5.0	NA
MW-20	18-Feb-10	2.5	<1.0	<1.0	<2.0	**190**	<2.0	0.32	<1.0	<5.0	**4,420**
MW-21	18-Dec-07*	<0.5	<0.5	<0.5	<2.0	79	NA	<0.10	<2.0	NA	NA
MW-21	19-Dec-08	<1.0	<1.0	<1.0	<1.5	**100**	<10	0.11	<1.0	<5.0	NA
MW-21	18-Feb-10	<1.0	<1.0	<1.0	<2.0	85	<2.0	0.11	<1.0	<5.0	**5,220**

Notes:

*	Sample analyzed per EPA Method 8021 instead of EPA Method 8260
<	Analyte not detected above listed method limit
NA	Not analyzed
NE	Not established
ug/L	Micrograms per liter (ppb)
mg/L	Milligrams per liter (ppm)
GRO	Gasoline range organics
DRO	Diesel range organics
MRO	Motor oil range organics

TABLE 3

SUMMARY OF RECENT GROUNDWATER MEASUREMENTS OF PHASE 1 AND PHASE 2 MPE WELLS

Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Well ID	*Date*	*T.O.C. (ft amsl)*	*Depth to Product (ft)*	*Depth to Water (ft)*	*NAPL Thickness (ft)*
Phase 1 Wells					
MPE-1	03-Mar-10	TBD		23.63	
MPE-2	03-Mar-10	TBD	21.51	21.54	0.03
MPE-3	03-Mar-10	TBD		20.79	
MPE-4	03-Mar-10	TBD		19.95	
MPE-5	03-Mar-10	TBD	19.30	19.41	0.11
MPE-6	03-Mar-10	TBD		19.66	
MPE-7	03-Mar-10	TBD		20.46	
MPE-8	03-Mar-10	TBD		21.74	
MPE-9	03-Mar-10	TBD		23.44	
MPE-10	03-Mar-10	TBD		23.28	
MPE-11	03-Mar-10	TBD		21.83	
MPE-12	03-Mar-10	TBD		22.34	
MPE-13	03-Mar-10	TBD		22.70	
MPE-14	03-Mar-10	TBD		21.80	
MPE-16	03-Mar-10	TBD		19.92	
MPE-17	03-Mar-10	TBD		20.11	

TABLE 3

SUMMARY OF RECENT GROUNDWATER MEASUREMENTS OF PHASE 1 AND PHASE 2 MPE WELLS

Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Well ID	*Date*	*T.O.C. (ft amsl)*	*Depth to Product (ft)*	*Depth to Water (ft)*	*NAPL Thickness (ft)*
MPE-18	03-Mar-10	TBD		19.23	
MPE-19	03-Mar-10	TBD		19.02	
Phase 2 Wells					
MPE-20	03-Mar-10	TBD		18.72	
MPE-21	03-Mar-10	TBD	19.88	19.99	0.11
MPE-22	03-Mar-10	TBD	20.73	20.81	0.08
MPE-23	03-Mar-10	TBD		21.10	
MPE-24	03-Mar-10	TBD		22.69	
MPE-25	03-Mar-10	TBD		23.02	
MPE-26	03-Mar-10	TBD	22.75	23.41	0.66
MPE-27	03-Mar-10	TBD		21.92	
MPE-28	03-Mar-10	TBD		21.54	
MPE-29	03-Mar-10	TBD		20.54	
MPE-30	03-Mar-10	TBD		21.19	
MPE-31	03-Mar-10	TBD		22.46	
MPE-33	03-Mar-10	TBD		22.34	
MPE-34	03-Mar-10	TBD		22.16	
MPE-35	03-Mar-10	TBD	20.64	20.98	0.34

TABLE 3

SUMMARY OF RECENT GROUNDWATER MEASUREMENTS OF PHASE 1 AND PHASE 2 MPE WELLS

Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Well ID	*Date*	*T.O.C. (ft amsl)*	*Depth to Product (ft)*	*Depth to Water (ft)*	*NAPL Thickness (ft)*
MPE-36	03-Mar-10	TBD		19.91	
MPE-37	03-Mar-10	TBD	20.11	20.67	0.56
MPE-38	03-Mar-10	TBD	19.80	19.83	0.03

TABLE 4

SUMMARY OF AIR LABORATORY ANALYTICAL RESULTS

Thriftway Refinery, 626 CR 5500, Bloomfield, New Mexico

Sample ID	*Sample Date*	*Lab Analytical Method*	*Benzene (ppmv)*	*Toluene (ppmv)*	*Ethyl-benzene (ppmv)*	*Xylene (ppmv)*	*MTBE (ppmv)*	*TPH GRO (ppmv)*
Unit #1 Pre-Engine†	16-Mar-10	8021/8015	109.10	60.850	15.84	105.6	<12.745	14,160
Unit #1 Pre-Cat†	16-Mar-10	8021/8015	0.092	0.071	0.097	0.781	<0.0637	11.04
Unit #1 Post-Cat†	16-Mar-10	8021/8015	0.057	0.032	0.038	0.317	<0.0637	6.00
Percent Contaminant Reduction by Catox (%)			**99.999**	**99.999**	**99.998**	**99.997**	**99.999**	**99.999**
Unit #2 Pre-Engine†	16-Mar-10	8021/8015	2.153	5.598	0.887	8.448	<1.2745	600
Unit #2 Pre-Cat†	16-Mar-10	8021/8015	0.281	0.166	0.080	0.697	<0.0637	15.12
Unit #2 Post-Cat†	16-Mar-10	8021/8015	<0.0287	<0.02434	<0.02112	0.139	<0.064	2.88
Percent Contaminant Reduction by Catox (%)			**99.986**	**99.996**	**99.976**	**99.983**	**99.949**	**99.995**

Notes:

< Analyte not detected above listed method limit

ppmv Parts per million (by volume)

† These results were reported in µg/L, they were converted to ppmv using the following formulas

Benzene ppmv = µg/L x 0.2871

Toluene ppmv = µg/L x 0.2434

Ethylbenzene ppmv = µg/L x 0.2112

Xylenes ppmv = µg/L x 0.2112

MTBE ppmv = µg/L x 0.2549

GRO ppmv = µg/L x 0.24 **GRO is an estimation

FIGURE 1
GENERAL SITE PLAN
THRIFTWAY REFINERY
626 ROAD 5500
BLOOMFIELD, NEW MEXICO

Animas Environmental Services, LLC

DRAWN BY: N. Willis	**DATE DRAWN:** February 2, 2009
REVISIONS BY: N. Willis	**DATE REVISED:** March 8, 2010
CHECKED BY: D. Watson	**DATE CHECKED:** March 12, 2010
APPROVED BY: R. Kennemer	**DATE APPROVED:** April 23, 2010

LEGEND

⌖ MONITOR WELL LOCATIONS

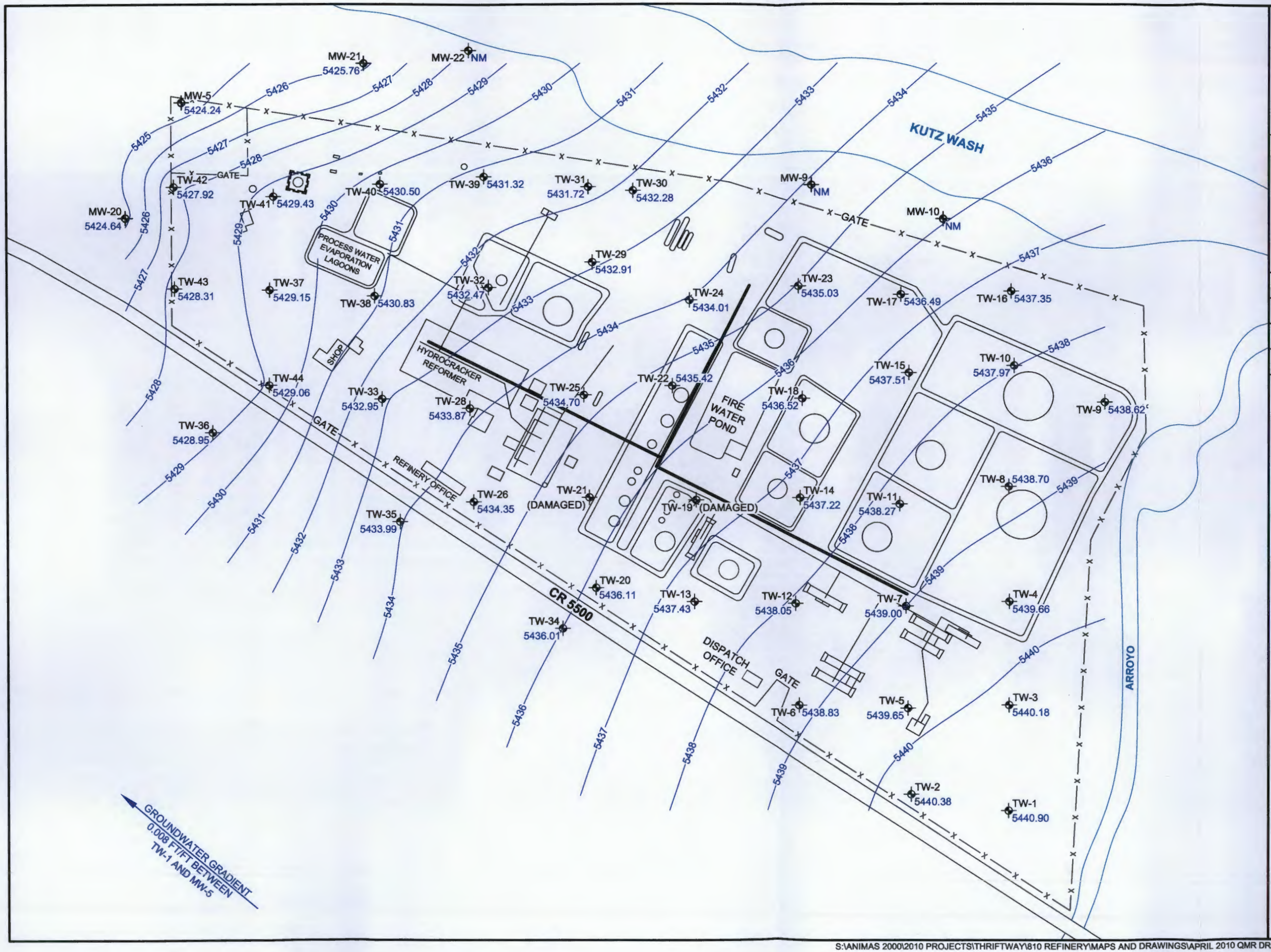
SCALE
200 100 0 200
50
(1 INCH = 200 FEET)

N

S:\ANIMAS 2000\2010 PROJECTS\THRIFTWAY\810 REFINERY\MAPS AND DRAWINGS\APRIL 2010 QMR DRAWINGS\FIGURE 1 GENERAL SITE PLAN

FIGURE 2
GROUNDWATER ELEVATION CONTOURS
FEBRUARY 2010

THRIFTWAY REFINERY
626 ROAD 5500
BLOOMFIELD, NEW MEXICO



Animas Environmental Services, LLC

DRAWN BY:	DATE DRAWN:
N. Willis	February 2, 2009
REVISIONS BY:	**DATE REVISED:**
N. Willis	March 8, 2010
CHECKED BY:	**DATE CHECKED:**
D. Watson	March 12, 2010
APPROVED BY:	**DATE APPROVED:**
R. Kennemer	April 23, 2010

LEGEND

- MONITOR WELL LOCATIONS
- 5438.70 GROUNDWATER ELEVATION IN FEET (AMSL)
- —5439— GROUNDWATER ELEVATION CONTOUR IN FEET (AMSL)

NOTE: GROUNDWATER MEASUREMENTS WERE MADE ON FEBRUARY 15 - 19, 2010.

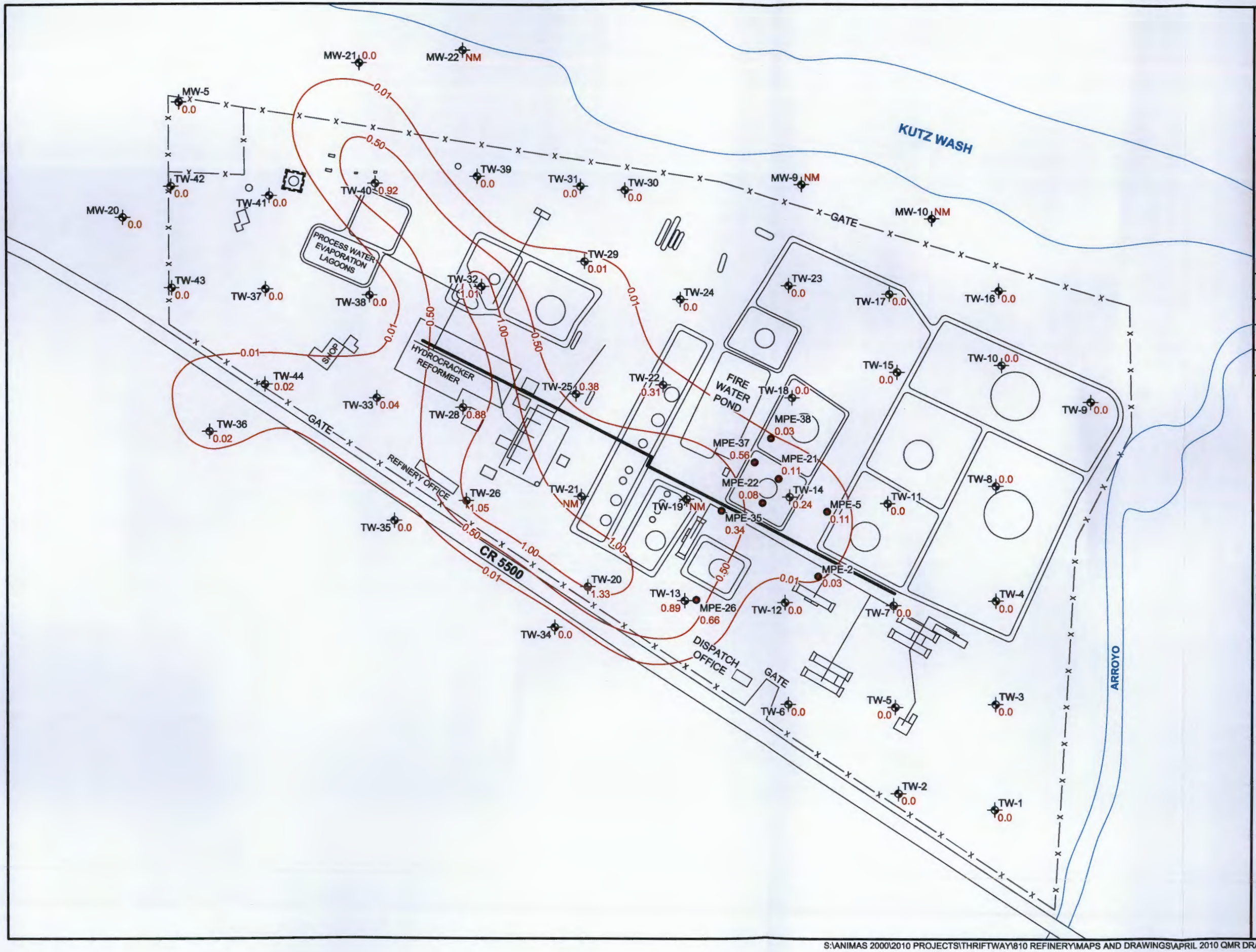
SCALE
200 100 0 200
50
(1 INCH = 200 FEET)

N

S:\ANIMAS 2000\2010 PROJECTS\THRIFTWAY\810 REFINERY\MAPS AND DRAWINGS\APRIL 2010 QMR DRAWINGS\FIGURE 2 GROUNDWATER ELEVATION CONTOURS

FIGURE 3
FREE PRODUCT THICKNESS CONTOURS
FEBRUARY 2010

THRIFTWAY REFINERY
626 ROAD 5500
BLOOMFIELD, NEW MEXICO



Animas Environmental Services, LLC

DRAWN BY:	DATE DRAWN:
N. Willis	February 2, 2009
REVISIONS BY:	**DATE REVISED:**
C. Lameman	March 8, 2010
CHECKED BY:	**DATE CHECKED:**
D. Watson	March 12, 2010
APPROVED BY:	**DATE APPROVED:**
R. Kennemer	April 23, 2010

LEGEND

- MONITOR WELL LOCATIONS
- MPE WELL LOCATIONS
- 0.89 FREE PRODUCT THICKNESS IN FEET
- 0.75 FREE PRODUCT THICKNESS CONTOUR IN FEET

NOTE: ALL MEASUREMENTS WERE MADE ON FEBRUARY 15 - 19, 2010. MPE WELLS WERE MEASURED ON MARCH 3, 2010. (MPE WELLS WITH FREE PRODUCT ARE SHOWN).

SCALE
200 100 0 200
50
(1 INCH = 200 FEET)

N

S:\ANIMAS 2000\2010 PROJECTS\THRIFTWAY\810 REFINERY\MAPS AND DRAWINGS\APRIL 2010 QMR DRAWINGS\FIGURE 3 FREE PRODUCT THICKNESS CONTOURS

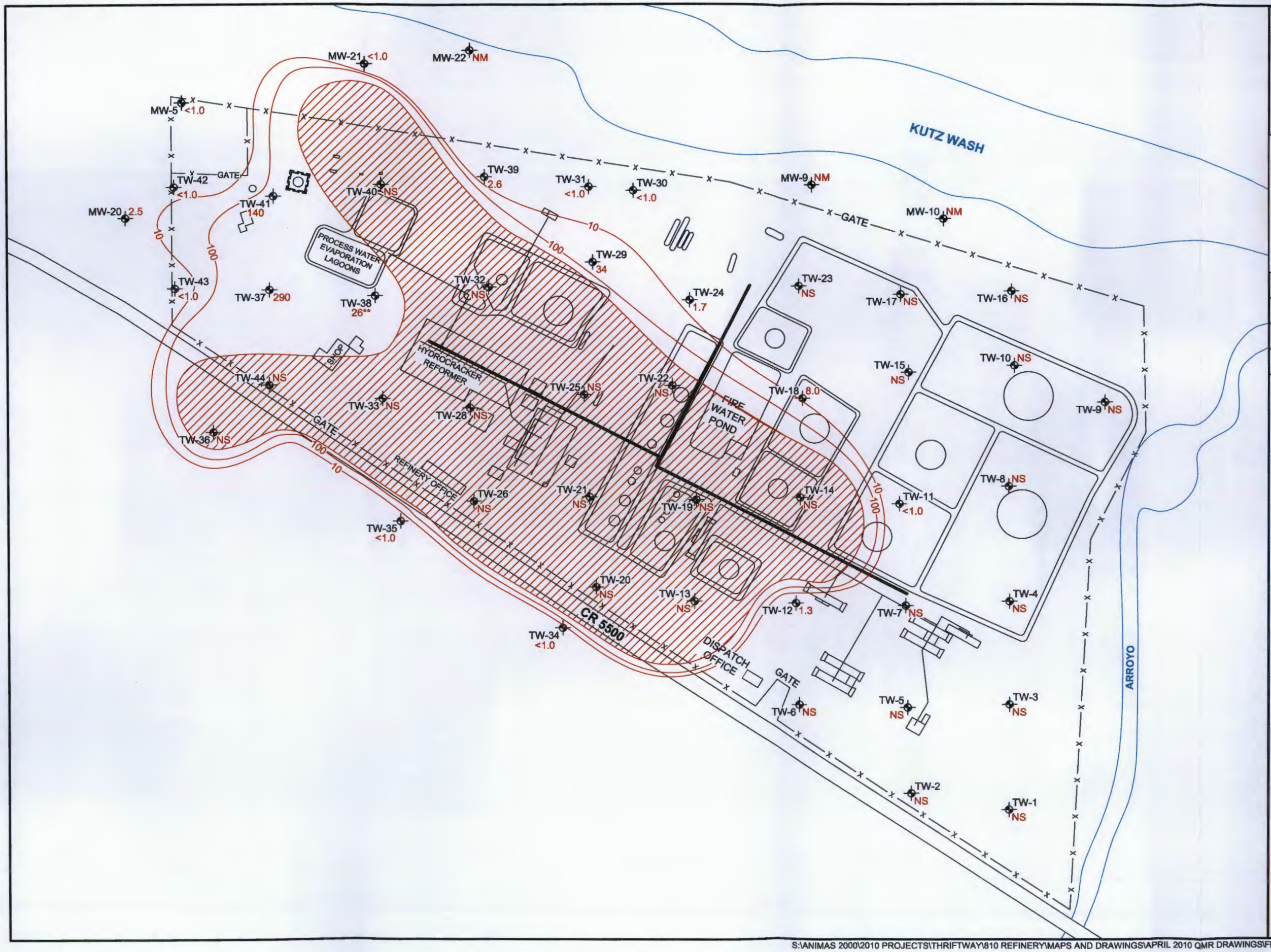


FIGURE 4
DISSOLVED BENZENE CONCENTRATION CONTOURS FEBRUARY 2010
THRIFTWAY REFINERY
626 ROAD 5500
BLOOMFIELD, NEW MEXICO

Animas Environmental Services, LLC

DRAWN BY: N. Willis	**DATE DRAWN:** February 2, 2009
REVISIONS BY: N. Willis	**DATE REVISED:** March 8, 2010
CHECKED BY: D. Watson	**DATE CHECKED:** March 12, 2010
APPROVED BY: R. Kennemer	**DATE APPROVED:** April 23, 2010

LEGEND

- MONITOR WELL LOCATIONS
- FREE PRODUCT PLUME
- 34 BENZENE CONCENTRATIONS IN µg/L
- 200 BENZENE CONCENTRATION CONTOUR IN µg/L
- NS NOT SAMPLED

NOTE: ALL SAMPLES WERE COLLECTED ON FEBRUARY 15 - 19, 2010.

SCALE
200 100 0 200
50
(1 INCH = 200 FEET)

N

S:\ANIMAS 2000\2010 PROJECTS\THRIFTWAY\810 REFINERY\MAPS AND DRAWINGS\APRIL 2010 QMR DRAWINGS\FIGURE 4 DISSOLVED BEZENE CONCENTRATION CONTOURS

FIGURE 5
DISSOLVED MTBE CONCENTRATION CONTOURS FEBRUARY 2010

THRIFTWAY REFINERY
626 ROAD 5500
BLOOMFIELD, NEW MEXICO

Animas Environmental Services, LLC

DRAWN BY: N. Willis	**DATE DRAWN:** February 2, 2009
REVISIONS BY: N. Willis	**DATE REVISED:** March 11, 2010
CHECKED BY: D. Watson	**DATE CHECKED:** March 12, 2010
APPROVED BY: R. Kennemer	**DATE APPROVED:** April 23, 2010

LEGEND

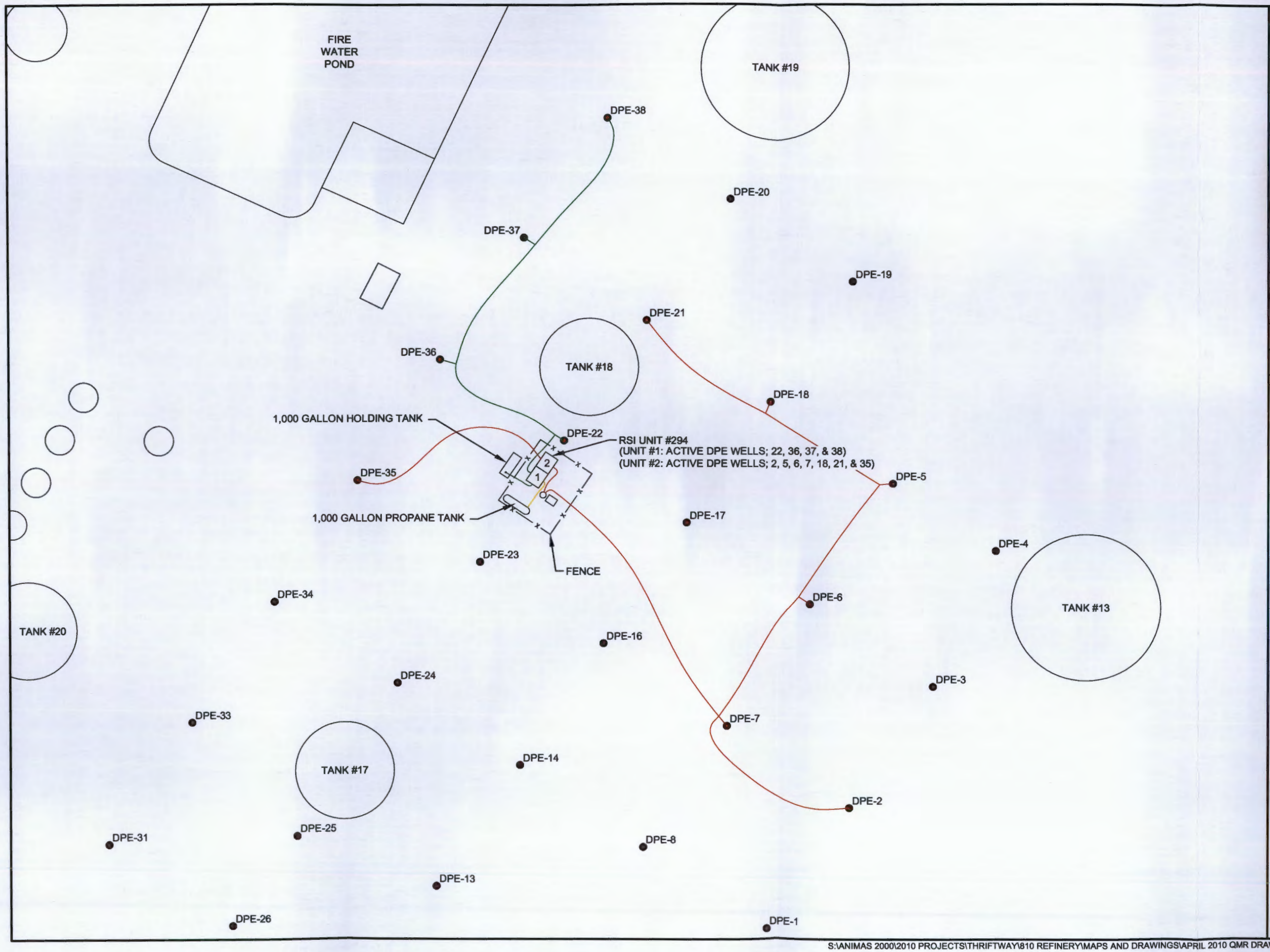
- MONITOR WELL LOCATIONS
- FREE PRODUCT PLUME
- 88 — MTBE CONCENTRATIONS IN µg/L
- 100 — MTBE CONCENTRATION CONTOUR IN µg/L
- NS — NOT SAMPLED

NOTE: ALL SAMPLES WERE MADE ON FEBRUARY 15 - 19, 2010.

SCALE
200 100 0 200
50
(1 INCH = 200 FEET)

S:\ANIMAS 2000\2010 PROJECTS\THRIFTWAY\810 REFINERY\MAPS AND DRAWINGS\APRIL 2010 QMR DRAWINGS\FIGURE 5 DISSOLVED MTBE CONCENTRATION CONTOURS

FIGURE 6
REMEDIATION SYSTEM LAYOUT
THRIFTWAY REFINERY
626 ROAD 5500
BLOOMFIELD, NEW MEXICO



Animas Environmental Services, LLC

DRAWN BY: N. Willis	**DATE DRAWN:** April 27, 2010
REVISIONS BY: N. Willis	**DATE REVISED:** April 27, 2010
CHECKED BY: R. Kennemer	**DATE CHECKED:** April 27, 2010
APPROVED BY: R. Kennemer	**DATE APPROVED:** April 27, 2010

LEGEND

- —x— FENCE
- PROPANE LINE
- UNIT #1 DPE EXTRACTION LINE
- UNIT #2 DPE EXTRACTION LINE
- ● DPE WELL LOCATIONS

SCALE
40 20 0 40
10
(1 INCH = 40 FEET)

N

S:\ANIMAS 2000\2010 PROJECTS\THRIFTWAY\810 REFINERY\MAPS AND DRAWINGS\APRIL 2010 QMR DRAWINGS\FIGURE 6 CURRENT REMEDIATION SYSTEM LAYOUT

1146		20.9	0	0	0	0	mpe #4	5'
1151		20.9	0	0	0	0		10'
1203		20.9	0	0	0	0		15'
1247		20.9	0	0	270	0		18'
1256	60°+	20.9	0	0	60	0		23' TD
1915		20.9	0	0	0	0	mpe #5	5'
1924		20.9	0	0	0	0		10'
1934		20.9	0	0	85	0		15'
1951		20.9	0	0	300	0		20'
1957		20.9	0	0	1782	0		22' TD
11-5-09								
0920	60°F	20.9	0	0	0	0	mpe-6	10'
0935	"	20.9	0	0	0	0	"	15
0944		20.9	0	0	63,000	0		17'
0959		20.9	0	0	200	0		22' TD
1001	60°+	20.9	0	0	59	0	mpe #7	10'
1009	"	20.9	0	0	318	0		15
1118	"	20.9	0	0	3674	0		20'
1124	"	20.9	0	0	3000	0	"	23' TD

List Equipment Used and Date of Last Calibration:

Ambient Air Monitoring Form

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564 2281 Fax (505) 324-2022

Project:	Remediation Well Installation	Project No.:	~~[illegible]~~ 80
Site:	Former Thriftway Refinery	Date:	11-5-09 ~~[illegible]~~
Location:	626 CR 5500, Bloomfield, NM	Time:	
Proj. Mgr.		Form:	

Time	Air Temp. (°F)	Oxygen (%)	LEL (%)	Carbon Monoxide (ppm)	OVM-PID (ppm)	H_2S	Sample Location/Notes / Observations
1249	70°+	20.9	0	0	0	0	DPE#8 10'
1258		20.9	0	0	0	0	15'
1305	"	20.9	0	0	1150	0	20'
1314	"	20.9	0	0	1785	0	25' TD
1424	70°+	20.9	0	0	0	0	DPE#9 10'
1432	"	20.9	0	0	0	0	15'
1440	"	20.9	0	0	0	0	20'
1454	"	20.9	0	0	0	0	25'
1507	"	20.9	0	0	0	0	30' TD
11-6-09	60°+						
1030	"	20.9	0	0	0	0	DPE#10 10'
1037	"	20.9	0	0	0	0	15'
1047	"	20.9	0	0	0	0	20'
1053	"	20.9	0	0	159	0	25' TD
1156	"	20.9	0	0	0	0	DPE-11 10'
1207	"	20.9	0	0	0	0	15'
1214	"	20.9	0	0	0	0	20'
1226	"	20.9	0	0	0	0	25' TD
1323	"	20.9	0	0	0	0	DPE-12 10'
1331	"	20.9	0	0	0	0	15'
1338	"	20.9	0	0	0	0	20'
1344	"	20.9	0	0	0	0	25' TD
11-9-09 1043	60°+	20.9	0	0	0	0	DPE#13 10'
1052	"	20.9	0	0	0	0	" 15'
1100	"	20.9	0	0	0	0	20' H^2S
1105	"	20.0	0	0	4300	0	20.5'
1108	"	20.9	0	0	150	0	25' TD
1249	"	20.9	0	0	0	0	DPE#14 10'
1255	"	20.9	0	0	0	0	15'
1300	"	20.9	0	0	2800	0	20' H^2S
1306	"	20.9	0	0	1000	0	25' TD
1428	"	20.9	0	0	0	0	DPE#16 10'
1434	"	20.9	0	0	0	0	15'
1450	"	20.9	0	0	1700	0	20' WET
1455	"	20.9	0	0	1000	0	25' TD

List Equipment Used and Date of Last Calibration:

Ambient Air Monitoring Form

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Project: Remediation Well Installation
Site: Former Thriftway Refinery
Location: 626 CR 5500, Bloomfield, NM
Proj. Mgr.

Project No.: 810 - Thriftway Refinery
Date: 11-10-09
Time: 0900
Form: ~~1040~~

Time	Air Temp. (°F)	Oxygen (%)	LEL (%)	Carbon Monoxide (ppm)	OVM-PID (ppm)	H2S	Sample Location/Notes / Observations
0945	50°F/H	20.9	0	0	<10	0	DPE #16 (Deep) 18
1003	50°F/H	20.9	0	0	0	0	25 TD
1109	60°	20.9	0	0	0	0	DPE #17 10'
1115	60°	20.9	0	0	20	0	15'
1126	"	20.9	0	0	840	0	20'
1130	"	20.9	0	0	500	0	21' TD
1259	"	20.9	0	0	0	0	DPE #18 10'
1300	"	20.9	0	0	0	0	15'
1303	"	20.9	0	0	3200	0	~~20'~~ 16' H2O
1305	"	20.9	0	0	500	0	21' TD
1401	"	20.9	0	0	0	0	DPE #19 10'
1408	"	20.9	0	0	<5	0	15'
1412	"	20.9	0	0	608	0	16' H2O

List Equipment Used and Date of Last Calibration:

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, March 23, 2010

Ross Kennemer
Animas Environmental Services
624 East Comanche
Farmington, NM 87401

TEL: (505) 564-2281
FAX (505) 324-2022

RE: TW Refinery

Order No.: 1003418

Dear Ross Kennemer:

Hall Environmental Analysis Laboratory, Inc. received 6 sample(s) on 3/17/2010 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology.

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

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

Hall Environmental Analysis Laboratory, Inc. **Date:** *23-Mar-10*

CLIENT: Animas Environmental Services
Project: TW Refinery
Lab Order: 1003418

CASE NARRATIVE

Analytical Comments for METHOD 8015GRO_A, SAMPLE 1003418-04A: Elevated surrogate due to matrix interference.

Hall Environmental Analysis Laboratory, Inc.

Date: *23-Mar-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	Unit #1 Pre Engine Well Gas
Lab Order:	1003418	**Collection Date:**	3/16/2010 1:15:00 PM
Project:	TW Refinery	**Date Received:**	3/17/2010
Lab ID:	1003418-01	**Matrix:**	AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	59000	1000		µg/L	200	3/18/2010 2:30:48 PM
Surr: BFB	137	76.8-150		%REC	200	3/18/2010 2:30:48 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	200	3/18/2010 2:30:48 PM
Benzene	380	20		µg/L	200	3/18/2010 2:30:48 PM
Toluene	250	20		µg/L	200	3/18/2010 2:30:48 PM
Ethylbenzene	75	20		µg/L	200	3/18/2010 2:30:48 PM
Xylenes, Total	500	60		µg/L	200	3/18/2010 2:30:48 PM
Surr: 4-Bromofluorobenzene	120	70.2-105	S	%REC	200	3/18/2010 2:30:48 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *23-Mar-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	Unit #1 Pre Cat
Lab Order:	1003418	**Collection Date:**	3/16/2010 1:20:00 PM
Project:	TW Refinery	**Date Received:**	3/17/2010
Lab ID:	1003418-02	**Matrix:**	AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	46	5.0		µg/L	1	3/18/2010 2:59:53 PM
Surr: BFB	130	76.8-150		%REC	1	3/18/2010 2:59:53 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	0.25		µg/L	1	3/18/2010 2:59:53 PM
Benzene	0.32	0.10		µg/L	1	3/18/2010 2:59:53 PM
Toluene	0.29	0.10		µg/L	1	3/18/2010 2:59:53 PM
Ethylbenzene	0.46	0.10		µg/L	1	3/18/2010 2:59:53 PM
Xylenes, Total	3.7	0.30		µg/L	1	3/18/2010 2:59:53 PM
Surr: 4-Bromofluorobenzene	99.2	70.2-105		%REC	1	3/18/2010 2:59:53 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *23-Mar-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	Unit #1 Post Cat
Lab Order:	1003418	**Collection Date:**	3/16/2010 1:30:00 PM
Project:	TW Refinery	**Date Received:**	3/17/2010
Lab ID:	1003418-03	**Matrix:**	AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	25	5.0		µg/L	1	3/18/2010 3:28:53 PM
Surr: BFB	105	76.8-150		%REC	1	3/18/2010 3:28:53 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	0.25		µg/L	1	3/18/2010 3:28:53 PM
Benzene	0.20	0.10		µg/L	1	3/18/2010 3:28:53 PM
Toluene	0.13	0.10		µg/L	1	3/18/2010 3:28:53 PM
Ethylbenzene	0.18	0.10		µg/L	1	3/18/2010 3:28:53 PM
Xylenes, Total	1.5	0.30		µg/L	1	3/18/2010 3:28:53 PM
Surr: 4-Bromofluorobenzene	94.1	70.2-105		%REC	1	3/18/2010 3:28:53 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *23-Mar-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	Unit #2 Pre Engine Well Gas
Lab Order:	1003418	**Collection Date:**	3/16/2010 1:37:00 PM
Project:	TW Refinery	**Date Received:**	3/17/2010
Lab ID:	1003418-04	**Matrix:**	AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	2500	100		µg/L	20	3/19/2010 1:17:21 PM
Surr: BFB	181	76.8-150	S	%REC	20	3/19/2010 1:17:21 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	5.0		µg/L	20	3/19/2010 1:17:21 PM
Benzene	7.5	2.0		µg/L	20	3/19/2010 1:17:21 PM
Toluene	23	2.0		µg/L	20	3/19/2010 1:17:21 PM
Ethylbenzene	4.2	2.0		µg/L	20	3/19/2010 1:17:21 PM
Xylenes, Total	40	6.0		µg/L	20	3/19/2010 1:17:21 PM
Surr: 4-Bromofluorobenzene	102	70.2-105		%REC	20	3/19/2010 1:17:21 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *23-Mar-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	Unit #2 Pre Cat
Lab Order:	1003418	**Collection Date:**	3/16/2010 1:45:00 PM
Project:	TW Refinery	**Date Received:**	3/17/2010
Lab ID:	1003418-05	**Matrix:**	AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	63	5.0		µg/L	1	3/18/2010 4:26:59 PM
Surr: BFB	156	76.8-150	S	%REC	1	3/18/2010 4:26:59 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	0.25		µg/L	1	3/18/2010 4:26:59 PM
Benzene	0.98	0.10		µg/L	1	3/18/2010 4:26:59 PM
Toluene	0.68	0.10		µg/L	1	3/18/2010 4:26:59 PM
Ethylbenzene	0.38	0.10		µg/L	1	3/18/2010 4:26:59 PM
Xylenes, Total	3.3	0.30		µg/L	1	3/18/2010 4:26:59 PM
Surr: 4-Bromofluorobenzene	108	70.2-105	S	%REC	1	3/18/2010 4:26:59 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *23-Mar-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	Unit #2 Post Cat
Lab Order:	1003418	**Collection Date:**	3/16/2010 1:50:00 PM
Project:	TW Refinery	**Date Received:**	3/17/2010
Lab ID:	1003418-06	**Matrix:**	AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	12	5.0		µg/L	1	3/19/2010 12:16:03 PM
Surr: BFB	113	76.8-150		%REC	1	3/19/2010 12:16:03 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	0.25		µg/L	1	3/19/2010 12:16:03 PM
Benzene	ND	0.10		µg/L	1	3/19/2010 12:16:03 PM
Toluene	ND	0.10		µg/L	1	3/19/2010 12:16:03 PM
Ethylbenzene	ND	0.10		µg/L	1	3/19/2010 12:16:03 PM
Xylenes, Total	0.66	0.30		µg/L	1	3/19/2010 12:16:03 PM
Surr: 4-Bromofluorobenzene	105	70.2-105		%REC	1	3/19/2010 12:16:03 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Animas Environmental Services
Project: TW Refinery **Work Order:** 1003418

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Gasoline Range											
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R37823**	Analysis Date:		3/18/2010 9:37:32 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Sample ID: 2.5UG GRO LCS		*LCS*				Batch ID:	**R37823**	Analysis Date:		3/18/2010 5:57:57 PM	
Gasoline Range Organics (GRO)	0.4568	mg/L	0.050	0.5	0	91.4	80	115			
Sample ID: 2.5UG GRO LCSD		*LCSD*				Batch ID:	**R37823**	Analysis Date:		3/18/2010 6:28:14 PM	
Gasoline Range Organics (GRO)	0.4576	mg/L	0.050	0.5	0	91.5	80	115	0.175	8.39	
Method: EPA Method 8021B: Volatiles											
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R37823**	Analysis Date:		3/18/2010 9:37:32 AM	
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5								
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	2.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
Sample ID: 100NG BTEX LCS		*LCS*				Batch ID:	**R37823**	Analysis Date:		3/18/2010 6:58:22 PM	
Methyl tert-butyl ether (MTBE)	18.83	µg/L	2.5	20	0	94.1	51.2	138			
Benzene	18.74	µg/L	1.0	20	0	93.7	85.9	113			
Toluene	17.88	µg/L	1.0	20	0	89.4	86.4	113			
Ethylbenzene	17.81	µg/L	1.0	20	0	89.1	83.5	118			
Xylenes, Total	54.37	µg/L	2.0	60	0	90.6	83.4	122			
1,2,4-Trimethylbenzene	17.83	µg/L	1.0	20	0	89.1	83.5	115			
1,3,5-Trimethylbenzene	18.79	µg/L	1.0	20	0	94.0	85.2	113			
Sample ID: 100NG BTEX LCSD		*LCSD*				Batch ID:	**R37823**	Analysis Date:		3/18/2010 7:28:45 PM	
Methyl tert-butyl ether (MTBE)	19.87	µg/L	2.5	20	0	99.3	51.2	138	5.38	28	
Benzene	19.64	µg/L	1.0	20	0	98.2	85.9	113	4.68	27	
Toluene	19.04	µg/L	1.0	20	0	95.2	86.4	113	6.28	19	
Ethylbenzene	18.90	µg/L	1.0	20	0	94.5	83.5	118	5.95	10	
Xylenes, Total	56.65	µg/L	2.0	60	0	94.4	83.4	122	4.10	13	
1,2,4-Trimethylbenzene	17.53	µg/L	1.0	20	0	87.6	83.5	115	1.70	21	
1,3,5-Trimethylbenzene	18.88	µg/L	1.0	20	0	94.4	85.2	113	0.467	10	

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Animas Environmental Services
Project: TW Refinery **Work Order:** 1003418

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Gasoline Range											
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R37851**	Analysis Date:		3/19/2010 9:42:34 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Sample ID: 2.5UG GRO LCS		*LCS*				Batch ID:	**R37851**	Analysis Date:		3/19/2010 6:47:17 PM	
Gasoline Range Organics (GRO)	0.4428	mg/L	0.050	0.5	0	88.6	80	115			
Sample ID: 2.5UG GRO LCSD		*LCSD*				Batch ID:	**R37851**	Analysis Date:		3/19/2010 7:17:32 PM	
Gasoline Range Organics (GRO)	0.4660	mg/L	0.050	0.5	0	93.2	80	115	5.11	8.39	
Method: EPA Method 8021B: Volatiles											
Sample ID: b 41		*MBLK*				Batch ID:	**R37851**	Analysis Date:		3/20/2010 5:56:54 AM	
Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.10								
Benzene	ND	mg/Kg	0.050								
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								
Sample ID: 100NG BTEX LCS		*LCS*				Batch ID:	**R37851**	Analysis Date:		3/19/2010 7:47:51 PM	
Methyl tert-butyl ether (MTBE)	0.9531	mg/Kg	0.10	1	0	95.3	67.9	135			
Benzene	0.9629	mg/Kg	0.050	1	0	96.3	78.8	132			
Toluene	0.9404	mg/Kg	0.050	1	0	94.0	78.9	112			
Ethylbenzene	0.9216	mg/Kg	0.050	1	0	92.2	69.3	125			
Xylenes, Total	2.827	mg/Kg	0.10	3	0	94.2	73	128			
Sample ID: 100NG BTEX LCSD		*LCSD*				Batch ID:	**R37851**	Analysis Date:		3/19/2010 8:18:03 PM	
Methyl tert-butyl ether (MTBE)	1.017	mg/Kg	0.10	1	0	102	67.9	135	6.53	28	
Benzene	1.052	mg/Kg	0.050	1	0	105	78.8	132	8.88	27	
Toluene	1.044	mg/Kg	0.050	1	0	104	78.9	112	10.5	19	
Ethylbenzene	1.015	mg/Kg	0.050	1	0	102	69.3	125	9.86	10	
Xylenes, Total	3.042	mg/Kg	0.10	3	0	101	73	128	7.32	13	
Method: EPA Method 8021B: Volatiles											
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R37851**	Analysis Date:		3/19/2010 9:42:34 AM	
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5								
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	2.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
Sample ID: b 41		*MBLK*				Batch ID:	**R37851**	Analysis Date:		3/20/2010 5:56:54 AM	
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5								
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	2.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Animas Environmental Services
Project: TW Refinery **Work Order:** 1003418

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles											
Sample ID: 100NG BTEX LCS		*LCS*				Batch ID:	**R37851**	Analysis Date:		3/19/2010 7:47:51 PM	
Methyl tert-butyl ether (MTBE)	19.06	µg/L	2.5	20	0	95.3	51.2	138			
Benzene	19.26	µg/L	1.0	20	0	96.3	85.9	113			
Toluene	18.81	µg/L	1.0	20	0	94.0	86.4	113			
Ethylbenzene	18.43	µg/L	1.0	20	0.094	91.7	83.5	118			
Xylenes, Total	56.54	µg/L	2.0	60	0	94.2	83.4	122			
1,2,4-Trimethylbenzene	17.97	µg/L	1.0	20	0	89.9	83.5	115			
1,3,5-Trimethylbenzene	19.16	µg/L	1.0	20	0	95.8	85.2	113			
Sample ID: 100NG BTEX LCSD		*LCSD*				Batch ID:	**R37851**	Analysis Date:		3/19/2010 8:18:03 PM	
Methyl tert-butyl ether (MTBE)	20.35	µg/L	2.5	20	0	102	51.2	138	6.53	28	
Benzene	21.05	µg/L	1.0	20	0	105	85.9	113	8.88	27	
Toluene	20.89	µg/L	1.0	20	0	104	86.4	113	10.5	19	
Ethylbenzene	20.30	µg/L	1.0	20	0.094	101	83.5	118	9.66	10	
Xylenes, Total	60.84	µg/L	2.0	60	0	101	83.4	122	7.32	13	
1,2,4-Trimethylbenzene	17.94	µg/L	1.0	20	0	89.7	83.5	115	0.178	21	
1,3,5-Trimethylbenzene	19.46	µg/L	1.0	20	0	97.3	85.2	113	1.55	10	

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **ANIMAS ENVIRONMENTAL** Date Received: **3/17/2010**

Work Order Number **1003418** Received by: **TLS**

Checklist completed by: _____ 3/17/10 Sample ID labels checked by: _____
Signature Date Initials

Matrix: Carrier name: Greyhound

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace? No VOA vials submitted	☑	Yes ☐	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	

Number of preserved bottles checked for pH: _____

<2 >12 unless noted below.

Container/Temp Blank temperature? *<6° C Acceptable* If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Animas Environmental Services, LLC

Mailing Address: 624 E. Comanche St

Farmington NM 87401

Phone #: 505-564-2281

email or Fax#: 505-324-2022

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:

☒ Standard ☐ Rush _____

Project Name: Thriftway Refinery

Project #: 810

Project Manager: Ross Kennemer

Sampler: Mike B.

On Ice: ☐ Yes ☐ No

Sample Temperature:

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1003	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (Y or N)
3-16-10	1315	Air	UNIT #1 Pre Engine WELL GAS	2-Bags	—	1		X	X												
	1320		UNIT #1 Pre Cat.		—	2		X	X												
	1330		UNIT #1 Post Cat		—	3		X	X												
	1337		UNIT #2 Pre Engine WELL GAS		—	4		X	X												
	1345		UNIT #2 Pre Cat.		—	5		X	X												
	1350		UNIT #2 Post Cat.		—	6		X	X												

Date	Time	Relinquished by:	Received by:	Date	Time
3-16-10	1500			3/16/10	1500
3-16-10	1600			3/17/10	835

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Wednesday, March 17, 2010

Blaine Watson
Animas Environmental Services
624 East Comanche
Farmington, NM 87401

TEL: (505) 564-2281
FAX (505) 324-2022

RE: TW 810 Refinery

Order No.: 1003170

Dear Blaine Watson:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 3/8/2010 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology.

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

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Mar-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	Water Well
Lab Order:	1003170	**Collection Date:**	3/5/2010 11:00:00 AM
Project:	TW 810 Refinery	**Date Received:**	3/8/2010
Lab ID:	1003170-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Fluoride	0.85	0.10		mg/L	1	3/9/2010 5:49:49 PM
Chloride	13	0.50		mg/L	1	3/9/2010 5:49:49 PM
Bromide	ND	0.10		mg/L	1	3/9/2010 5:49:49 PM
Nitrate (As N)+Nitrite (As N)	ND	1.0		mg/L	5	3/9/2010 9:18:46 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	3/9/2010 5:49:49 PM
Sulfate	2000	50		mg/L	100	3/16/2010 10:27:41 AM
EPA METHOD 7470: MERCURY						Analyst: **RAGS**
Mercury	ND	0.00020		mg/L	1	3/16/2010 4:20:29 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Arsenic	ND	0.020		mg/L	1	3/15/2010 1:51:15 PM
Barium	ND	0.020		mg/L	1	3/15/2010 1:51:15 PM
Cadmium	ND	0.0020		mg/L	1	3/15/2010 1:51:15 PM
Calcium	320	5.0		mg/L	5	3/15/2010 3:28:03 PM
Chromium	ND	0.0060		mg/L	1	3/15/2010 1:51:15 PM
Lead	ND	0.0050		mg/L	1	3/15/2010 1:51:15 PM
Magnesium	11	1.0		mg/L	1	3/15/2010 1:51:15 PM
Potassium	5.8	1.0		mg/L	1	3/15/2010 1:51:15 PM
Selenium	ND	0.050		mg/L	1	3/15/2010 1:51:15 PM
Silver	ND	0.0050		mg/L	1	3/15/2010 1:51:15 PM
Sodium	500	5.0		mg/L	5	3/15/2010 3:28:03 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **LBJ**
Acenaphthene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Acenaphthylene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Aniline	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Anthracene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Azobenzene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Benz(a)anthracene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Benzo(a)pyrene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Benzoic acid	ND	20		µg/L	1	3/10/2010 1:45:29 PM
Benzyl alcohol	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	3/10/2010 1:45:29 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	3/10/2010 1:45:29 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Estimated value
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Mar-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	Water Well
Lab Order:	1003170	**Collection Date:**	3/5/2010 11:00:00 AM
Project:	TW 810 Refinery	**Date Received:**	3/8/2010
Lab ID:	1003170-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **LBJ**
Butyl benzyl phthalate	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Carbazole	ND	10		µg/L	1	3/10/2010 1:45:29 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	3/10/2010 1:45:29 PM
4-Chloroaniline	ND	10		µg/L	1	3/10/2010 1:45:29 PM
2-Chloronaphthalene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
2-Chlorophenol	ND	10		µg/L	1	3/10/2010 1:45:29 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Chrysene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Di-n-butyl phthalate	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Di-n-octyl phthalate	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Dibenzofuran	ND	10		µg/L	1	3/10/2010 1:45:29 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Diethyl phthalate	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Dimethyl phthalate	ND	10		µg/L	1	3/10/2010 1:45:29 PM
2,4-Dichlorophenol	ND	20		µg/L	1	3/10/2010 1:45:29 PM
2,4-Dimethylphenol	ND	10		µg/L	1	3/10/2010 1:45:29 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	3/10/2010 1:45:29 PM
2,4-Dinitrophenol	ND	20		µg/L	1	3/10/2010 1:45:29 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Fluoranthene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Fluorene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Hexachlorobenzene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Hexachlorobutadiene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Hexachloroethane	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Isophorone	ND	10		µg/L	1	3/10/2010 1:45:29 PM
2-Methylnaphthalene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
2-Methylphenol	ND	10		µg/L	1	3/10/2010 1:45:29 PM
3+4-Methylphenol	ND	10		µg/L	1	3/10/2010 1:45:29 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	3/10/2010 1:45:29 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	3/10/2010 1:45:29 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Naphthalene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
2-Nitroaniline	ND	10		µg/L	1	3/10/2010 1:45:29 PM
3-Nitroaniline	ND	10		µg/L	1	3/10/2010 1:45:29 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Mar-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	Water Well
Lab Order:	1003170	**Collection Date:**	3/5/2010 11:00:00 AM
Project:	TW 810 Refinery	**Date Received:**	3/8/2010
Lab ID:	1003170-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **LBJ**
4-Nitroaniline	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Nitrobenzene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
2-Nitrophenol	ND	10		µg/L	1	3/10/2010 1:45:29 PM
4-Nitrophenol	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Pentachlorophenol	ND	20		µg/L	1	3/10/2010 1:45:29 PM
Phenanthrene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Phenol	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Pyrene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Pyridine	ND	10		µg/L	1	3/10/2010 1:45:29 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	3/10/2010 1:45:29 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	3/10/2010 1:45:29 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	3/10/2010 1:45:29 PM
Surr: 2,4,6-Tribromophenol	34.8	16.6-150		%REC	1	3/10/2010 1:45:29 PM
Surr: 2-Fluorobiphenyl	60.2	19.6-134		%REC	1	3/10/2010 1:45:29 PM
Surr: 2-Fluorophenol	26.0	9.54-113		%REC	1	3/10/2010 1:45:29 PM
Surr: 4-Terphenyl-d14	75.4	22.7-145		%REC	1	3/10/2010 1:45:29 PM
Surr: Nitrobenzene-d5	57.3	14.6-134		%REC	1	3/10/2010 1:45:29 PM
Surr: Phenol-d5	26.3	10.7-80.3		%REC	1	3/10/2010 1:45:29 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
Toluene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
Ethylbenzene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
Naphthalene	ND	2.0		µg/L	1	3/9/2010 5:10:37 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/9/2010 5:10:37 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	3/9/2010 5:10:37 AM
Acetone	ND	10		µg/L	1	3/9/2010 5:10:37 AM
Bromobenzene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
Bromodichloromethane	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
Bromoform	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
Bromomethane	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
2-Butanone	ND	10		µg/L	1	3/9/2010 5:10:37 AM
Carbon disulfide	ND	10		µg/L	1	3/9/2010 5:10:37 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
Chlorobenzene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
Chloroethane	ND	2.0		µg/L	1	3/9/2010 5:10:37 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Estimated value
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Mar-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	Water Well
Lab Order:	1003170	**Collection Date:**	3/5/2010 11:00:00 AM
Project:	TW 810 Refinery	**Date Received:**	3/8/2010
Lab ID:	1003170-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Chloroform	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
Chloromethane	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
2-Chlorotoluene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
4-Chlorotoluene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
cis-1,2-DCE	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/9/2010 5:10:37 AM
Dibromochloromethane	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
Dibromomethane	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	3/9/2010 5:10:37 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
2-Hexanone	ND	10		µg/L	1	3/9/2010 5:10:37 AM
Isopropylbenzene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	3/9/2010 5:10:37 AM
Methylene Chloride	ND	3.0		µg/L	1	3/9/2010 5:10:37 AM
n-Butylbenzene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
n-Propylbenzene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
sec-Butylbenzene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
Styrene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
tert-Butylbenzene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/9/2010 5:10:37 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
trans-1,2-DCE	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Mar-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	Water Well
Lab Order:	1003170	**Collection Date:**	3/5/2010 11:00:00 AM
Project:	TW 810 Refinery	**Date Received:**	3/8/2010
Lab ID:	1003170-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DAM**
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/9/2010 5:10:37 AM
Vinyl chloride	ND	1.0		µg/L	1	3/9/2010 5:10:37 AM
Xylenes, Total	ND	1.5		µg/L	1	3/9/2010 5:10:37 AM
Surr: 1,2-Dichloroethane-d4	84.3	54.6-141		%REC	1	3/9/2010 5:10:37 AM
Surr: 4-Bromofluorobenzene	95.4	60.1-133		%REC	1	3/9/2010 5:10:37 AM
Surr: Dibromofluoromethane	90.6	78.5-130		%REC	1	3/9/2010 5:10:37 AM
Surr: Toluene-d8	87.8	79.5-126		%REC	1	3/9/2010 5:10:37 AM
SM 4500 NH3: AMMONIA						Analyst: **TAF**
Ammonia	ND	1.0		mg/L	1	3/10/2010 7:05:00 AM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	2740	20.0		mg/L	1	3/9/2010 5:33:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Animas Environmental Services
Project: TW 810 Refinery **Work Order:** 1003170

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: MB		*MBLK*				Batch ID:	**R37699**	Analysis Date:	3/9/2010 4:57:35 PM		
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
Bromide	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	**R37787**	Analysis Date:	3/15/2010 8:32:04 PM		
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
Bromide	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		*LCS*				Batch ID:	**R37699**	Analysis Date:	3/9/2010 5:15:00 PM		
Fluoride	0.5123	mg/L	0.10	0.5	0	102	90	110			
Chloride	4.740	mg/L	0.50	5	0	94.8	90	110			
Bromide	2.433	mg/L	0.10	2.5	0	97.3	90	110			
Nitrate (As N)+Nitrite (As N)	3.352	mg/L	0.20	3.5	0	95.8	90	110			
Phosphorus, Orthophosphate (As P)	4.750	mg/L	0.50	5	0	95.0	90	110			
Sulfate	9.921	mg/L	0.50	10	0	99.2	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R37787**	Analysis Date:	3/15/2010 8:49:29 PM		
Fluoride	0.5468	mg/L	0.10	0.5	0	109	90	110			
Chloride	5.028	mg/L	0.50	5	0	101	90	110			
Bromide	2.553	mg/L	0.10	2.5	0	102	90	110			
Nitrate (As N)+Nitrite (As N)	3.602	mg/L	0.20	3.5	0	103	90	110			
Phosphorus, Orthophosphate (As P)	5.101	mg/L	0.50	5	0	102	90	110			
Sulfate	10.31	mg/L	0.50	10	0	103	90	110			

Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- H Holding times for preparation or analysis exceeded
- NC Non-Chlorinated
- R RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Animas Environmental Services
Project: TW 810 Refinery **Work Order:** 1003170

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 1003170-01A MSD		*MSD*				Batch ID: **R37675**		Analysis Date:		3/8/2010 7:47:50 PM	
Benzene	17.68	µg/L	1.0	20	0	88.4	75.7	118	6.33	15	
Toluene	20.11	µg/L	1.0	20	0	101	80.1	114	0.863	15	
Chlorobenzene	19.71	µg/L	1.0	20	0	98.5	81.5	112	1.17	15	
1,1-Dichloroethene	20.26	µg/L	1.0	20	0	101	77.4	132	7.15	17.8	
Trichloroethene (TCE)	19.08	µg/L	1.0	20	0	95.4	61.1	121	6.48	19.8	
Sample ID: 5ml rb		*MBLK*				Batch ID: **R37675**		Analysis Date:		3/8/2010 9:56:16 AM	
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
1,2-Dichloroethane (EDC)	ND	µg/L	1.0								
1,2-Dibromoethane (EDB)	ND	µg/L	1.0								
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	4.0								
2-Methylnaphthalene	ND	µg/L	4.0								
Acetone	ND	µg/L	10								
Bromobenzene	ND	µg/L	1.0								
Bromodichloromethane	ND	µg/L	1.0								
Bromoform	ND	µg/L	1.0								
Bromomethane	ND	µg/L	1.0								
2-Butanone	ND	µg/L	10								
Carbon disulfide	ND	µg/L	10								
Carbon Tetrachloride	ND	µg/L	1.0								
Chlorobenzene	ND	µg/L	1.0								
Chloroethane	ND	µg/L	2.0								
Chloroform	ND	µg/L	1.0								
Chloromethane	ND	µg/L	1.0								
2-Chlorotoluene	ND	µg/L	1.0								
4-Chlorotoluene	ND	µg/L	1.0								
cis-1,2-DCE	ND	µg/L	1.0								
cis-1,3-Dichloropropene	ND	µg/L	1.0								
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0								
Dibromochloromethane	ND	µg/L	1.0								
Dibromomethane	ND	µg/L	1.0								
1,2-Dichlorobenzene	ND	µg/L	1.0								
1,3-Dichlorobenzene	ND	µg/L	1.0								
1,4-Dichlorobenzene	ND	µg/L	1.0								
Dichlorodifluoromethane	ND	µg/L	1.0								
1,1-Dichloroethane	ND	µg/L	1.0								
1,1-Dichloroethene	ND	µg/L	1.0								
1,2-Dichloropropane	ND	µg/L	1.0								
1,3-Dichloropropane	ND	µg/L	1.0								

Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- H Holding times for preparation or analysis exceeded
- NC Non-Chlorinated
- R RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Animas Environmental Services
Project: TW 810 Refinery **Work Order:** 1003170

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 5ml rb		*MBLK*				Batch ID:	**R37675**	Analysis Date:		3/8/2010 9:56:16 AM	
2,2-Dichloropropane	ND	µg/L	2.0								
1,1-Dichloropropene	ND	µg/L	1.0								
Hexachlorobutadiene	ND	µg/L	1.0								
2-Hexanone	ND	µg/L	10								
Isopropylbenzene	ND	µg/L	1.0								
4-Isopropyltoluene	ND	µg/L	1.0								
4-Methyl-2-pentanone	ND	µg/L	10								
Methylene Chloride	ND	µg/L	3.0								
n-Butylbenzene	ND	µg/L	1.0								
n-Propylbenzene	ND	µg/L	1.0								
sec-Butylbenzene	ND	µg/L	1.0								
Styrene	ND	µg/L	1.0								
tert-Butylbenzene	ND	µg/L	1.0								
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0								
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0								
Tetrachloroethene (PCE)	ND	µg/L	1.0								
trans-1,2-DCE	ND	µg/L	1.0								
trans-1,3-Dichloropropene	ND	µg/L	1.0								
1,2,3-Trichlorobenzene	ND	µg/L	1.0								
1,2,4-Trichlorobenzene	ND	µg/L	1.0								
1,1,1-Trichloroethane	ND	µg/L	1.0								
1,1,2-Trichloroethane	ND	µg/L	1.0								
Trichloroethene (TCE)	ND	µg/L	1.0								
Trichlorofluoromethane	ND	µg/L	1.0								
1,2,3-Trichloropropane	ND	µg/L	2.0								
Vinyl chloride	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	1.5								
Sample ID: 100ng lcs		*LCS*				Batch ID:	**R37675**	Analysis Date:		3/8/2010 10:51:57 AM	
Benzene	20.69	µg/L	1.0	20	0	103	76.7	114			
Toluene	21.36	µg/L	1.0	20	0	107	78.4	117			
Chlorobenzene	21.79	µg/L	1.0	20	0	109	80.7	127			
1,1-Dichloroethene	24.20	µg/L	1.0	20	0	121	80.2	128			
Trichloroethene (TCE)	20.33	µg/L	1.0	20	0	102	77.4	115			
Sample ID: 1003170-01A MS		*MS*				Batch ID:	**R37675**	Analysis Date:		3/8/2010 7:19:47 PM	
Benzene	18.84	µg/L	1.0	20	0	94.2	75.7	118			
Toluene	20.28	µg/L	1.0	20	0	101	80.1	114			
Chlorobenzene	19.94	µg/L	1.0	20	0	99.7	81.5	112			
1,1-Dichloroethene	21.77	µg/L	1.0	20	0	109	77.4	132			
Trichloroethene (TCE)	17.89	µg/L	1.0	20	0	89.4	61.1	121			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Animas Environmental Services
Project: TW 810 Refinery **Work Order:** 1003170

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles											
Sample ID: mb-21575		*MBLK*				Batch ID: **21575**		Analysis Date:	3/8/2010 1:43:25 PM		
Acenaphthene	ND	µg/L	10								
Acenaphthylene	ND	µg/L	10								
Aniline	ND	µg/L	10								
Anthracene	ND	µg/L	10								
Azobenzene	ND	µg/L	10								
Benz(a)anthracene	ND	µg/L	10								
Benzo(a)pyrene	ND	µg/L	10								
Benzo(b)fluoranthene	ND	µg/L	10								
Benzo(g,h,i)perylene	ND	µg/L	10								
Benzo(k)fluoranthene	ND	µg/L	10								
Benzoic acid	ND	µg/L	20								
Benzyl alcohol	ND	µg/L	10								
Bis(2-chloroethoxy)methane	ND	µg/L	10								
Bis(2-chloroethyl)ether	ND	µg/L	10								
Bis(2-chloroisopropyl)ether	ND	µg/L	10								
Bis(2-ethylhexyl)phthalate	ND	µg/L	10								
4-Bromophenyl phenyl ether	ND	µg/L	10								
Butyl benzyl phthalate	ND	µg/L	10								
Carbazole	ND	µg/L	10								
4-Chloro-3-methylphenol	ND	µg/L	10								
4-Chloroaniline	ND	µg/L	10								
2-Chloronaphthalene	ND	µg/L	10								
2-Chlorophenol	ND	µg/L	10								
4-Chlorophenyl phenyl ether	ND	µg/L	10								
Chrysene	ND	µg/L	10								
Di-n-butyl phthalate	ND	µg/L	10								
Di-n-octyl phthalate	ND	µg/L	10								
Dibenz(a,h)anthracene	ND	µg/L	10								
Dibenzofuran	ND	µg/L	10								
1,2-Dichlorobenzene	ND	µg/L	5.0								
1,3-Dichlorobenzene	ND	µg/L	10								
1,4-Dichlorobenzene	ND	µg/L	5.0								
3,3'-Dichlorobenzidine	ND	µg/L	10								
Diethyl phthalate	ND	µg/L	10								
Dimethyl phthalate	ND	µg/L	10								
2,4-Dichlorophenol	ND	µg/L	20								
2,4-Dimethylphenol	ND	µg/L	10								
4,6-Dinitro-2-methylphenol	ND	µg/L	20								
2,4-Dinitrophenol	ND	µg/L	5.0								
2,4-Dinitrotoluene	ND	µg/L	5.0								
2,6-Dinitrotoluene	ND	µg/L	10								
Fluoranthene	ND	µg/L	10								
Fluorene	ND	µg/L	10								
Hexachlorobenzene	ND	µg/L	5.0								

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Animas Environmental Services
Project: TW 810 Refinery **Work Order:** 1003170

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles											
Sample ID: mb-21575		*MBLK*				Batch ID:	**21575**	Analysis Date:	3/8/2010 1:43:25 PM		
Hexachlorobutadiene	ND	µg/L	10								
Hexachlorocyclopentadiene	ND	µg/L	10								
Hexachloroethane	ND	µg/L	5.0								
Indeno(1,2,3-cd)pyrene	ND	µg/L	10								
Isophorone	ND	µg/L	10								
2-Methylnaphthalene	ND	µg/L	10								
2-Methylphenol	ND	µg/L	5.0								
3+4-Methylphenol	ND	µg/L	5.0								
N-Nitrosodi-n-propylamine	ND	µg/L	10								
N-Nitrosodimethylamine	ND	µg/L	10								
N-Nitrosodiphenylamine	ND	µg/L	10								
Naphthalene	ND	µg/L	10								
2-Nitroaniline	ND	µg/L	10								
3-Nitroaniline	ND	µg/L	10								
4-Nitroaniline	ND	µg/L	10								
Nitrobenzene	ND	µg/L	5.0								
2-Nitrophenol	ND	µg/L	10								
4-Nitrophenol	ND	µg/L	10								
Pentachlorophenol	ND	µg/L	5.0								
Phenanthrene	ND	µg/L	10								
Phenol	ND	µg/L	10								
Pyrene	ND	µg/L	10								
Pyridine	ND	µg/L	5.0								
1,2,4-Trichlorobenzene	ND	µg/L	10								
2,4,5-Trichlorophenol	ND	µg/L	10								
2,4,6-Trichlorophenol	ND	µg/L	10								
Method: EPA Method 7470: Mercury											
Sample ID: MB-21661		*MBLK*				Batch ID:	**21661**	Analysis Date:	3/16/2010 4:15:02 PM		
Mercury	ND	mg/L	0.00020								
Sample ID: LCS-21661		*LCS*				Batch ID:	**21661**	Analysis Date:	3/16/2010 4:16:51 PM		
Mercury	0.004713	mg/L	0.00020	0.005	0	94.3	80	120			
Sample ID: LCS-21661		*LCS*				Batch ID:	**21661**	Analysis Date:	3/16/2010 4:18:40 PM		
Mercury	0.004713	mg/L	0.00020	0.005	0	94.3	80	120	0.0131	0	

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Animas Environmental Services
Project: TW 810 Refinery **Work Order:** 1003170

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals											
Sample ID: MB-21599		*MBLK*				Batch ID:	**21599**	Analysis Date:	3/15/2010 12:36:24 PM		
Arsenic	ND	mg/L	0.020								
Barium	ND	mg/L	0.020								
Cadmium	ND	mg/L	0.0020								
Calcium	ND	mg/L	1.0								
Chromium	ND	mg/L	0.0060								
Lead	ND	mg/L	0.0050								
Magnesium	ND	mg/L	1.0								
Potassium	ND	mg/L	1.0								
Selenium	ND	mg/L	0.050								
Silver	ND	mg/L	0.0050								
Sodium	ND	mg/L	1.0								
Sample ID: LCS-21599		*LCS*				Batch ID:	**21599**	Analysis Date:	3/15/2010 12:39:22 PM		
Arsenic	0.5245	mg/L	0.020	0.5	0	105	80	120			
Barium	0.5077	mg/L	0.020	0.5	0	102	80	120			
Cadmium	0.5179	mg/L	0.0020	0.5	0	104	80	120			
Calcium	51.87	mg/L	1.0	50	0	104	80	120			
Chromium	0.5159	mg/L	0.0060	0.5	0	103	80	120			
Lead	0.5187	mg/L	0.0050	0.5	0	104	80	120			
Magnesium	53.25	mg/L	1.0	50	0	106	80	120			
Potassium	55.90	mg/L	1.0	50	0	112	80	120			
Selenium	0.4950	mg/L	0.050	0.5	0	99.0	80	120			
Silver	0.5332	mg/L	0.0050	0.5	0	107	80	120			
Sodium	56.44	mg/L	1.0	50	0	113	80	120			
Sample ID: LCS-21599		*LCS*				Batch ID:	**21599**	Analysis Date:	3/15/2010 12:42:29 PM		
Arsenic	0.5289	mg/L	0.020	0.5	0	106	80	120			
Barium	0.5096	mg/L	0.020	0.5	0	102	80	120			
Cadmium	0.5204	mg/L	0.0020	0.5	0	104	80	120			
Calcium	51.65	mg/L	1.0	50	0	103	80	120			
Chromium	0.5164	mg/L	0.0060	0.5	0	103	80	120			
Lead	0.5193	mg/L	0.0050	0.5	0	104	80	120			
Magnesium	53.09	mg/L	1.0	50	0	106	80	120			
Potassium	55.72	mg/L	1.0	50	0	111	80	120			
Selenium	0.4976	mg/L	0.050	0.5	0	99.5	80	120			
Silver	0.5312	mg/L	0.0050	0.5	0	106	80	120			
Sodium	56.38	mg/L	1.0	50	0	113	80	120			
Method: SM 4500 NH3: Ammonia											
Sample ID: MB		*MBLK*				Batch ID:	**R37700**	Analysis Date:	3/10/2010 7:05:00 AM		
Ammonia	ND	mg/L	1.0								
Sample ID: LCS		*LCS*				Batch ID:	**R37700**	Analysis Date:	3/10/2010 7:05:00 AM		
Ammonia	9.660	mg/L	1.0	10	0	96.6	80	120			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Animas Environmental Services
Project: TW 810 Refinery **Work Order:** 1003170

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SM2540C MOD: Total Dissolved Solids											
Sample ID: MB-21580		*MBLK*				Batch ID:	**21580**	Analysis Date:	3/9/2010 5:33:00 PM		
Total Dissolved Solids	ND	mg/L	20.0								
Sample ID: LCS-21580		*LCS*				Batch ID:	**21580**	Analysis Date:	3/9/2010 5:33:00 PM		
Total Dissolved Solids	1012	mg/L	20.0	1000	0	101	80	120			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **ANIMAS ENVIRONMENTAL** Date Received: **3/8/2010**

Work Order Number **1003170** Received by: **AMF**

Checklist completed by: _____ 3/8/10 Sample ID labels checked by: _____
Signature Date Initials

Matrix: Carrier name: Greyhound

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	

Number of preserved bottles checked for pH: 3

(<2 >12 unless noted below)

Container/Temp Blank temperature? **3.9°** *<6° C Acceptable* If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Animas Environmental Services LLC

Mailing Address: 624 E Comanche Farmington NM 87401

Phone #: 505 564 2281

email or Fax#: bwatson@animasenvironmental.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☑ Standard ☐ Rush _____

Project Name: TW 810 Refinery

Project #: 050204

Project Manager: Blaine Watson

Sampler: B Watson

On Ice: ☑ Yes ☐ No

Sample Temperature: 2 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1003170
3/5/10	1100	H_2O	Water well	(2) 500 mL plastic	HNO_3	1
				(3) 500 mL plastic	—	1
				(2) 125 mL plastic	H_2SO_4	1
				(6) 40 mL glass	HCl	1
				(3) 1 Liter amber	—	1

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Major Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	TDS	Major Cations 6010	4500 NH_3 Ammonia		Air Bubbles (Y or N)
						X	X		X	X	X	X	X		

Date	Time	Relinquished by:	Received by:	Date	Time
3/5/10	1200	Blaine Watson	Deborah Watson	3/5/10	1200
3/5/10	1630	Deborah Watson		3/6/10	10:00

Remarks:
Please call with questions.
Bill to BioTech

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Friday, February 26, 2010

Ross Kennemer
Animas Environmental Services
624 East Comanche
Farmington, NM 87401

TEL: (505) 486-1776
FAX (505) 324-2022

RE: TW 810 Refinery

Order No.: 1002422

Dear Ross Kennemer:

Hall Environmental Analysis Laboratory, Inc. received 19 sample(s) on 2/20/2010 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology.

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

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

Date: *26-Feb-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	TW#11
Lab Order:	1002422	**Collection Date:**	2/17/2010 10:10:00 AM
Project:	TW 810 Refinery	**Date Received:**	2/20/2010
Lab ID:	1002422-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JB**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	2/23/2010 11:51:16 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	2/23/2010 11:51:16 PM
Surr: DNOP	110	58-140		%REC	1	2/23/2010 11:51:16 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	2/23/2010 4:22:53 AM
Surr: BFB	87.7	55.2-107		%REC	1	2/23/2010 4:22:53 AM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	2/23/2010 12:57:58 AM
Toluene	ND	1.0		µg/L	1	2/23/2010 12:57:58 AM
Ethylbenzene	ND	1.0		µg/L	1	2/23/2010 12:57:58 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/23/2010 12:57:58 AM
Naphthalene	ND	2.0		µg/L	1	2/23/2010 12:57:58 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 12:57:58 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 12:57:58 AM
Xylenes, Total	ND	2.0		µg/L	1	2/23/2010 12:57:58 AM
Surr: 1,2-Dichloroethane-d4	88.7	54.6-141		%REC	1	2/23/2010 12:57:58 AM
Surr: 4-Bromofluorobenzene	93.4	60.1-133		%REC	1	2/23/2010 12:57:58 AM
Surr: Dibromofluoromethane	90.8	78.5-130		%REC	1	2/23/2010 12:57:58 AM
Surr: Toluene-d8	86.6	79.5-126		%REC	1	2/23/2010 12:57:58 AM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	6260	40.0		mg/L	1	2/23/2010 5:44:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *26-Feb-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	TW#12
Lab Order:	1002422	**Collection Date:**	2/17/2010 10:41:00 AM
Project:	TW 810 Refinery	**Date Received:**	2/20/2010
Lab ID:	1002422-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JB**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	2/24/2010 12:26:26 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	2/24/2010 12:26:26 AM
Surr: DNOP	111	58-140		%REC	1	2/24/2010 12:26:26 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.43	0.050		mg/L	1	2/23/2010 3:23:28 PM
Surr: BFB	110	55.2-107	S	%REC	1	2/23/2010 3:23:28 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DAM**
Benzene	1.3	1.0		µg/L	1	2/23/2010 1:08:45 PM
Toluene	ND	1.0		µg/L	1	2/23/2010 1:08:45 PM
Ethylbenzene	35	1.0		µg/L	1	2/23/2010 1:08:45 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/23/2010 1:08:45 PM
Naphthalene	2.4	2.0		µg/L	1	2/23/2010 1:08:45 PM
1-Methylnaphthalene	7.6	4.0		µg/L	1	2/23/2010 1:08:45 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 1:08:45 PM
Xylenes, Total	48	2.0		µg/L	1	2/23/2010 1:08:45 PM
Surr: 1,2-Dichloroethane-d4	90.4	54.6-141		%REC	1	2/23/2010 1:08:45 PM
Surr: 4-Bromofluorobenzene	106	60.1-133		%REC	1	2/23/2010 1:08:45 PM
Surr: Dibromofluoromethane	101	78.5-130		%REC	1	2/23/2010 1:08:45 PM
Surr: Toluene-d8	105	79.5-126		%REC	1	2/23/2010 1:08:45 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	3470	20.0		mg/L	1	2/23/2010 5:44:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *26-Feb-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	TW#18
Lab Order:	1002422	**Collection Date:**	2/17/2010 11:31:00 AM
Project:	TW 810 Refinery	**Date Received:**	2/20/2010
Lab ID:	1002422-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JB**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	2/24/2010 1:01:37 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	2/24/2010 1:01:37 AM
Surr: DNOP	105	58-140		%REC	1	2/24/2010 1:01:37 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.37	0.050		mg/L	1	2/23/2010 4:24:01 PM
Surr: BFB	97.1	55.2-107		%REC	1	2/23/2010 4:24:01 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DAM**
Benzene	8.0	1.0		µg/L	1	2/23/2010 2:51:15 AM
Toluene	ND	1.0		µg/L	1	2/23/2010 2:51:15 AM
Ethylbenzene	38	1.0		µg/L	1	2/23/2010 2:51:15 AM
Methyl tert-butyl ether (MTBE)	1.2	1.0		µg/L	1	2/23/2010 2:51:15 AM
Naphthalene	ND	2.0		µg/L	1	2/23/2010 2:51:15 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 2:51:15 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 2:51:15 AM
Xylenes, Total	12	2.0		µg/L	1	2/23/2010 2:51:15 AM
Surr: 1,2-Dichloroethane-d4	90.4	54.6-141		%REC	1	2/23/2010 2:51:15 AM
Surr: 4-Bromofluorobenzene	99.7	60.1-133		%REC	1	2/23/2010 2:51:15 AM
Surr: Dibromofluoromethane	95.5	78.5-130		%REC	1	2/23/2010 2:51:15 AM
Surr: Toluene-d8	88.4	79.5-126		%REC	1	2/23/2010 2:51:15 AM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	4440	100		mg/L	1	2/23/2010 5:44:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *26-Feb-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	TW#24
Lab Order:	1002422	**Collection Date:**	2/17/2010 1:10:00 PM
Project:	TW 810 Refinery	**Date Received:**	2/20/2010
Lab ID:	1002422-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JB**
Diesel Range Organics (DRO)	2.4	1.0		mg/L	1	2/24/2010 1:36:49 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	2/24/2010 1:36:49 AM
Surr: DNOP	111	58-140		%REC	1	2/24/2010 1:36:49 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.62	0.050		mg/L	1	2/23/2010 4:54:16 PM
Surr: BFB	128	55.2-107	S	%REC	1	2/23/2010 4:54:16 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DAM**
Benzene	1.7	1.0		µg/L	1	2/23/2010 1:37:04 PM
Toluene	ND	1.0		µg/L	1	2/23/2010 1:37:04 PM
Ethylbenzene	7.0	1.0		µg/L	1	2/23/2010 1:37:04 PM
Methyl tert-butyl ether (MTBE)	4.3	1.0		µg/L	1	2/23/2010 1:37:04 PM
Naphthalene	ND	2.0		µg/L	1	2/23/2010 1:37:04 PM
1-Methylnaphthalene	12	4.0		µg/L	1	2/23/2010 1:37:04 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 1:37:04 PM
Xylenes, Total	ND	2.0		µg/L	1	2/23/2010 1:37:04 PM
Surr: 1,2-Dichloroethane-d4	85.5	54.6-141		%REC	1	2/23/2010 1:37:04 PM
Surr: 4-Bromofluorobenzene	103	60.1-133		%REC	1	2/23/2010 1:37:04 PM
Surr: Dibromofluoromethane	88.8	78.5-130		%REC	1	2/23/2010 1:37:04 PM
Surr: Toluene-d8	90.5	79.5-126		%REC	1	2/23/2010 1:37:04 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	4170	20.0		mg/L	1	2/23/2010 5:44:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *26-Feb-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	TW#29
Lab Order:	1002422	**Collection Date:**	2/17/2010 1:54:00 PM
Project:	TW 810 Refinery	**Date Received:**	2/20/2010
Lab ID:	1002422-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JB**
Diesel Range Organics (DRO)	13	1.0		mg/L	1	2/24/2010 2:47:42 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	2/24/2010 2:47:42 AM
Surr: DNOP	110	58-140		%REC	1	2/24/2010 2:47:42 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	2.7	0.10		mg/L	2	2/23/2010 5:27:09 PM
Surr: BFB	143	55.2-107	S	%REC	2	2/23/2010 5:27:09 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DAM**
Benzene	34	1.0		µg/L	1	2/23/2010 2:05:21 PM
Toluene	ND	1.0		µg/L	1	2/23/2010 2:05:21 PM
Ethylbenzene	16	1.0		µg/L	1	2/23/2010 2:05:21 PM
Methyl tert-butyl ether (MTBE)	7.9	1.0		µg/L	1	2/23/2010 2:05:21 PM
Naphthalene	40	2.0		µg/L	1	2/23/2010 2:05:21 PM
1-Methylnaphthalene	39	4.0		µg/L	1	2/23/2010 2:05:21 PM
2-Methylnaphthalene	53	4.0		µg/L	1	2/23/2010 2:05:21 PM
Xylenes, Total	260	20		µg/L	10	2/23/2010 4:15:52 AM
Surr: 1,2-Dichloroethane-d4	85.7	54.6-141		%REC	1	2/23/2010 2:05:21 PM
Surr: 4-Bromofluorobenzene	112	60.1-133		%REC	1	2/23/2010 2:05:21 PM
Surr: Dibromofluoromethane	95.8	78.5-130		%REC	1	2/23/2010 2:05:21 PM
Surr: Toluene-d8	98.7	79.5-126		%REC	1	2/23/2010 2:05:21 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	3250	100		mg/L	1	2/23/2010 5:44:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *26-Feb-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	TW#30
Lab Order:	1002422	**Collection Date:**	2/17/2010 2:26:00 PM
Project:	TW 810 Refinery	**Date Received:**	2/20/2010
Lab ID:	1002422-06	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JB**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	2/24/2010 3:23:24 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	2/24/2010 3:23:24 AM
Surr: DNOP	110	58-140		%REC	1	2/24/2010 3:23:24 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.056	0.050		mg/L	1	2/24/2010 3:36:00 PM
Surr: BFB	91.9	55.2-107		%REC	1	2/24/2010 3:36:00 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	2/23/2010 3:02:09 PM
Toluene	ND	1.0		µg/L	1	2/23/2010 3:02:09 PM
Ethylbenzene	ND	1.0		µg/L	1	2/23/2010 3:02:09 PM
Methyl tert-butyl ether (MTBE)	21	1.0		µg/L	1	2/23/2010 3:02:09 PM
Naphthalene	ND	2.0		µg/L	1	2/23/2010 3:02:09 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 3:02:09 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 3:02:09 PM
Xylenes, Total	ND	2.0		µg/L	1	2/23/2010 3:02:09 PM
Surr: 1,2-Dichloroethane-d4	95.4	54.6-141		%REC	1	2/23/2010 3:02:09 PM
Surr: 4-Bromofluorobenzene	104	60.1-133		%REC	1	2/23/2010 3:02:09 PM
Surr: Dibromofluoromethane	102	78.5-130		%REC	1	2/23/2010 3:02:09 PM
Surr: Toluene-d8	97.9	79.5-126		%REC	1	2/23/2010 3:02:09 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	4290	40.0		mg/L	1	2/23/2010 5:37:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *26-Feb-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	TW#31
Lab Order:	1002422	**Collection Date:**	2/17/2010 2:50:00 PM
Project:	TW 810 Refinery	**Date Received:**	2/20/2010
Lab ID:	1002422-07	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JB**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	2/24/2010 3:59:37 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	2/24/2010 3:59:37 AM
Surr: DNOP	104	58-140		%REC	1	2/24/2010 3:59:37 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	2/23/2010 6:57:57 PM
Surr: BFB	91.0	55.2-107		%REC	1	2/23/2010 6:57:57 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	2/23/2010 3:30:36 PM
Toluene	ND	1.0		µg/L	1	2/23/2010 3:30:36 PM
Ethylbenzene	ND	1.0		µg/L	1	2/23/2010 3:30:36 PM
Methyl tert-butyl ether (MTBE)	10	1.0		µg/L	1	2/23/2010 3:30:36 PM
Naphthalene	ND	2.0		µg/L	1	2/23/2010 3:30:36 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 3:30:36 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 3:30:36 PM
Xylenes, Total	ND	2.0		µg/L	1	2/23/2010 3:30:36 PM
Surr: 1,2-Dichloroethane-d4	96.8	54.6-141		%REC	1	2/23/2010 3:30:36 PM
Surr: 4-Bromofluorobenzene	113	60.1-133		%REC	1	2/23/2010 3:30:36 PM
Surr: Dibromofluoromethane	96.2	78.5-130		%REC	1	2/23/2010 3:30:36 PM
Surr: Toluene-d8	92.5	79.5-126		%REC	1	2/23/2010 3:30:36 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	4690	20.0		mg/L	1	2/23/2010 5:37:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Estimated value	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *26-Feb-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	TW#34
Lab Order:	1002422	**Collection Date:**	2/18/2010 10:41:00 AM
Project:	TW 810 Refinery	**Date Received:**	2/20/2010
Lab ID:	1002422-08	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JB**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	2/24/2010 4:35:36 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	2/24/2010 4:35:36 AM
Surr: DNOP	102	58-140		%REC	1	2/24/2010 4:35:36 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	2/23/2010 7:28:18 PM
Surr: BFB	96.0	55.2-107		%REC	1	2/23/2010 7:28:18 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	2/23/2010 3:58:46 PM
Toluene	ND	1.0		µg/L	1	2/23/2010 3:58:46 PM
Ethylbenzene	ND	1.0		µg/L	1	2/23/2010 3:58:46 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/23/2010 3:58:46 PM
Naphthalene	ND	2.0		µg/L	1	2/23/2010 3:58:46 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 3:58:46 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 3:58:46 PM
Xylenes, Total	ND	2.0		µg/L	1	2/23/2010 3:58:46 PM
Surr: 1,2-Dichloroethane-d4	87.6	54.6-141		%REC	1	2/23/2010 3:58:46 PM
Surr: 4-Bromofluorobenzene	105	60.1-133		%REC	1	2/23/2010 3:58:46 PM
Surr: Dibromofluoromethane	91.5	78.5-130		%REC	1	2/23/2010 3:58:46 PM
Surr: Toluene-d8	100	79.5-126		%REC	1	2/23/2010 3:58:46 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	5520	20.0		mg/L	1	2/23/2010 5:37:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *26-Feb-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	TW#35
Lab Order:	1002422	**Collection Date:**	2/18/2010 9:55:00 AM
Project:	TW 810 Refinery	**Date Received:**	2/20/2010
Lab ID:	1002422-09	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JB**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	2/24/2010 5:11:36 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	2/24/2010 5:11:36 AM
Surr: DNOP	104	58-140		%REC	1	2/24/2010 5:11:36 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	2/24/2010 4:06:30 PM
Surr: BFB	94.0	55.2-107		%REC	1	2/24/2010 4:06:30 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	2/23/2010 4:26:53 PM
Toluene	ND	1.0		µg/L	1	2/23/2010 4:26:53 PM
Ethylbenzene	ND	1.0		µg/L	1	2/23/2010 4:26:53 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/23/2010 4:26:53 PM
Naphthalene	ND	2.0		µg/L	1	2/23/2010 4:26:53 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 4:26:53 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 4:26:53 PM
Xylenes, Total	ND	2.0		µg/L	1	2/23/2010 4:26:53 PM
Surr: 1,2-Dichloroethane-d4	98.9	54.6-141		%REC	1	2/23/2010 4:26:53 PM
Surr: 4-Bromofluorobenzene	97.3	60.1-133		%REC	1	2/23/2010 4:26:53 PM
Surr: Dibromofluoromethane	97.1	78.5-130		%REC	1	2/23/2010 4:26:53 PM
Surr: Toluene-d8	95.5	79.5-126		%REC	1	2/23/2010 4:26:53 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	6870	20.0		mg/L	1	2/23/2010 5:37:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Estimated value	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *26-Feb-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	TW#37
Lab Order:	1002422	**Collection Date:**	2/18/2010 11:33:00 AM
Project:	TW 810 Refinery	**Date Received:**	2/20/2010
Lab ID:	1002422-10	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JB**
Diesel Range Organics (DRO)	1.4	1.0		mg/L	1	2/24/2010 5:47:18 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	2/24/2010 5:47:18 AM
Surr: DNOP	102	58-140		%REC	1	2/24/2010 5:47:18 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	2.0	0.25		mg/L	5	2/24/2010 5:06:58 PM
Surr: BFB	98.3	55.2-107		%REC	5	2/24/2010 5:06:58 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DAM**
Benzene	290	5.0		µg/L	5	2/24/2010 11:19:02 AM
Toluene	ND	5.0		µg/L	5	2/24/2010 11:19:02 AM
Ethylbenzene	53	5.0		µg/L	5	2/24/2010 11:19:02 AM
Methyl tert-butyl ether (MTBE)	130	5.0		µg/L	5	2/24/2010 11:19:02 AM
Naphthalene	ND	10		µg/L	5	2/24/2010 11:19:02 AM
1-Methylnaphthalene	ND	20		µg/L	5	2/24/2010 11:19:02 AM
2-Methylnaphthalene	ND	20		µg/L	5	2/24/2010 11:19:02 AM
Xylenes, Total	61	10		µg/L	5	2/24/2010 11:19:02 AM
Surr: 1,2-Dichloroethane-d4	88.4	54.6-141		%REC	5	2/24/2010 11:19:02 AM
Surr: 4-Bromofluorobenzene	102	60.1-133		%REC	5	2/24/2010 11:19:02 AM
Surr: Dibromofluoromethane	96.1	78.5-130		%REC	5	2/24/2010 11:19:02 AM
Surr: Toluene-d8	93.4	79.5-126		%REC	5	2/24/2010 11:19:02 AM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	3400	20.0		mg/L	1	2/23/2010 5:37:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *26-Feb-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	TW#38
Lab Order:	1002422	**Collection Date:**	2/18/2010 12:11:00 PM
Project:	TW 810 Refinery	**Date Received:**	2/20/2010
Lab ID:	1002422-11	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JB**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	2/24/2010 6:23:00 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	2/24/2010 6:23:00 AM
Surr: DNOP	109	58-140		%REC	1	2/24/2010 6:23:00 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.50	0.050		mg/L	1	2/24/2010 5:37:19 PM
Surr: BFB	99.6	55.2-107		%REC	1	2/24/2010 5:37:19 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DAM**
Benzene	26	1.0		µg/L	1	2/24/2010 11:47:06 AM
Toluene	ND	1.0		µg/L	1	2/24/2010 11:47:06 AM
Ethylbenzene	6.3	1.0		µg/L	1	2/24/2010 11:47:06 AM
Methyl tert-butyl ether (MTBE)	88	1.0		µg/L	1	2/24/2010 11:47:06 AM
Naphthalene	ND	2.0		µg/L	1	2/24/2010 11:47:06 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/24/2010 11:47:06 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/24/2010 11:47:06 AM
Xylenes, Total	18	2.0		µg/L	1	2/24/2010 11:47:06 AM
Surr: 1,2-Dichloroethane-d4	90.5	54.6-141		%REC	1	2/24/2010 11:47:06 AM
Surr: 4-Bromofluorobenzene	110	60.1-133		%REC	1	2/24/2010 11:47:06 AM
Surr: Dibromofluoromethane	95.4	78.5-130		%REC	1	2/24/2010 11:47:06 AM
Surr: Toluene-d8	101	79.5-126		%REC	1	2/24/2010 11:47:06 AM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	4070	20.0		mg/L	1	2/23/2010 5:37:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Estimated value	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *26-Feb-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	TW#39
Lab Order:	1002422	**Collection Date:**	2/17/2010 3:25:00 PM
Project:	TW 810 Refinery	**Date Received:**	2/20/2010
Lab ID:	1002422-12	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JB**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	2/24/2010 6:58:26 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	2/24/2010 6:58:26 AM
Surr: DNOP	99.9	58-140		%REC	1	2/24/2010 6:58:26 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.45	0.050		mg/L	1	2/24/2010 6:07:31 PM
Surr: BFB	121	55.2-107	S	%REC	1	2/24/2010 6:07:31 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DAM**
Benzene	2.6	1.0		µg/L	1	2/24/2010 12:15:11 PM
Toluene	ND	1.0		µg/L	1	2/24/2010 12:15:11 PM
Ethylbenzene	2.5	1.0		µg/L	1	2/24/2010 12:15:11 PM
Methyl tert-butyl ether (MTBE)	9.8	1.0		µg/L	1	2/24/2010 12:15:11 PM
Naphthalene	ND	2.0		µg/L	1	2/24/2010 12:15:11 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/24/2010 12:15:11 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/24/2010 12:15:11 PM
Xylenes, Total	3.5	2.0		µg/L	1	2/24/2010 12:15:11 PM
Surr: 1,2-Dichloroethane-d4	95.0	54.6-141		%REC	1	2/24/2010 12:15:11 PM
Surr: 4-Bromofluorobenzene	124	60.1-133		%REC	1	2/24/2010 12:15:11 PM
Surr: Dibromofluoromethane	106	78.5-130		%REC	1	2/24/2010 12:15:11 PM
Surr: Toluene-d8	87.2	79.5-126		%REC	1	2/24/2010 12:15:11 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	3580	20.0		mg/L	1	2/23/2010 5:37:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *26-Feb-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	TW#41
Lab Order:	1002422	**Collection Date:**	2/18/2010 1:06:00 PM
Project:	TW 810 Refinery	**Date Received:**	2/20/2010
Lab ID:	1002422-13	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JB**
Diesel Range Organics (DRO)	1.5	1.0		mg/L	1	2/24/2010 7:34:10 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	2/24/2010 7:34:10 AM
Surr: DNOP	103	58-140		%REC	1	2/24/2010 7:34:10 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	7.7	1.0		mg/L	20	2/25/2010 1:52:34 PM
Surr: BFB	95.9	55.2-107		%REC	20	2/25/2010 1:52:34 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DAM**
Benzene	140	10		µg/L	10	2/24/2010 12:43:19 PM
Toluene	ND	10		µg/L	10	2/24/2010 12:43:19 PM
Ethylbenzene	400	10		µg/L	10	2/24/2010 12:43:19 PM
Methyl tert-butyl ether (MTBE)	24	10		µg/L	10	2/24/2010 12:43:19 PM
Naphthalene	49	20		µg/L	10	2/24/2010 12:43:19 PM
1-Methylnaphthalene	ND	40		µg/L	10	2/24/2010 12:43:19 PM
2-Methylnaphthalene	ND	40		µg/L	10	2/24/2010 12:43:19 PM
Xylenes, Total	2500	100		µg/L	50	2/23/2010 6:19:26 PM
Surr: 1,2-Dichloroethane-d4	81.7	54.6-141		%REC	10	2/24/2010 12:43:19 PM
Surr: 4-Bromofluorobenzene	108	60.1-133		%REC	10	2/24/2010 12:43:19 PM
Surr: Dibromofluoromethane	89.5	78.5-130		%REC	10	2/24/2010 12:43:19 PM
Surr: Toluene-d8	96.0	79.5-126		%REC	10	2/24/2010 12:43:19 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	4230	100		mg/L	1	2/23/2010 5:37:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Estimated value	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *26-Feb-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	TW#42
Lab Order:	1002422	**Collection Date:**	2/18/2010 1:35:00 PM
Project:	TW 810 Refinery	**Date Received:**	2/20/2010
Lab ID:	1002422-14	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JB**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	2/24/2010 8:10:08 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	2/24/2010 8:10:08 AM
Surr: DNOP	103	58-140		%REC	1	2/24/2010 8:10:08 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.15	0.050		mg/L	1	2/24/2010 7:08:20 PM
Surr: BFB	95.8	55.2-107		%REC	1	2/24/2010 7:08:20 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	2/23/2010 6:47:44 PM
Toluene	ND	1.0		µg/L	1	2/23/2010 6:47:44 PM
Ethylbenzene	ND	1.0		µg/L	1	2/23/2010 6:47:44 PM
Methyl tert-butyl ether (MTBE)	75	1.0		µg/L	1	2/23/2010 6:47:44 PM
Naphthalene	ND	2.0		µg/L	1	2/23/2010 6:47:44 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 6:47:44 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 6:47:44 PM
Xylenes, Total	ND	2.0		µg/L	1	2/23/2010 6:47:44 PM
Surr: 1,2-Dichloroethane-d4	92.4	54.6-141		%REC	1	2/23/2010 6:47:44 PM
Surr: 4-Bromofluorobenzene	96.7	60.1-133		%REC	1	2/23/2010 6:47:44 PM
Surr: Dibromofluoromethane	103	78.5-130		%REC	1	2/23/2010 6:47:44 PM
Surr: Toluene-d8	96.4	79.5-126		%REC	1	2/23/2010 6:47:44 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	4070	20.0		mg/L	1	2/23/2010 5:37:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *26-Feb-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	TW#43
Lab Order:	1002422	**Collection Date:**	2/18/2010 2:02:00 PM
Project:	TW 810 Refinery	**Date Received:**	2/20/2010
Lab ID:	1002422-15	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JB**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	2/24/2010 9:22:08 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	2/24/2010 9:22:08 AM
Surr: DNOP	96.4	58-140		%REC	1	2/24/2010 9:22:08 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.37	0.050		mg/L	1	2/24/2010 7:38:39 PM
Surr: BFB	97.7	55.2-107		%REC	1	2/24/2010 7:38:39 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	2/23/2010 9:35:52 PM
Toluene	ND	1.0		µg/L	1	2/23/2010 9:35:52 PM
Ethylbenzene	ND	1.0		µg/L	1	2/23/2010 9:35:52 PM
Methyl tert-butyl ether (MTBE)	430	20		µg/L	20	2/23/2010 9:07:44 PM
Naphthalene	ND	2.0		µg/L	1	2/23/2010 9:35:52 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 9:35:52 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 9:35:52 PM
Xylenes, Total	ND	2.0		µg/L	1	2/23/2010 9:35:52 PM
Surr: 1,2-Dichloroethane-d4	89.1	54.6-141		%REC	1	2/23/2010 9:35:52 PM
Surr: 4-Bromofluorobenzene	99.3	60.1-133		%REC	1	2/23/2010 9:35:52 PM
Surr: Dibromofluoromethane	91.9	78.5-130		%REC	1	2/23/2010 9:35:52 PM
Surr: Toluene-d8	95.5	79.5-126		%REC	1	2/23/2010 9:35:52 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	4390	20.0		mg/L	1	2/23/2010 5:37:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *26-Feb-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	MW#5
Lab Order:	1002422	**Collection Date:**	2/18/2010 2:49:00 PM
Project:	TW 810 Refinery	**Date Received:**	2/20/2010
Lab ID:	1002422-16	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JB**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	2/24/2010 9:58:06 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	2/24/2010 9:58:06 AM
Surr: DNOP	98.0	58-140		%REC	1	2/24/2010 9:58:06 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.12	0.050		mg/L	1	2/24/2010 11:11:03 PM
Surr: BFB	109	55.2-107	S	%REC	1	2/24/2010 11:11:03 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	2/23/2010 10:32:08 PM
Toluene	ND	1.0		µg/L	1	2/23/2010 10:32:08 PM
Ethylbenzene	ND	1.0		µg/L	1	2/23/2010 10:32:08 PM
Methyl tert-butyl ether (MTBE)	49	1.0		µg/L	1	2/23/2010 10:32:08 PM
Naphthalene	ND	2.0		µg/L	1	2/23/2010 10:32:08 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 10:32:08 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 10:32:08 PM
Xylenes, Total	ND	2.0		µg/L	1	2/23/2010 10:32:08 PM
Surr: 1,2-Dichloroethane-d4	85.5	54.6-141		%REC	1	2/23/2010 10:32:08 PM
Surr: 4-Bromofluorobenzene	103	60.1-133		%REC	1	2/23/2010 10:32:08 PM
Surr: Dibromofluoromethane	88.5	78.5-130		%REC	1	2/23/2010 10:32:08 PM
Surr: Toluene-d8	98.7	79.5-126		%REC	1	2/23/2010 10:32:08 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	4350	100		mg/L	1	2/23/2010 5:37:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *26-Feb-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	MW#20
Lab Order:	1002422	**Collection Date:**	2/18/2010 3:26:00 PM
Project:	TW 810 Refinery	**Date Received:**	2/20/2010
Lab ID:	1002422-17	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JB**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	2/24/2010 10:34:00 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	2/24/2010 10:34:00 AM
Surr: DNOP	105	58-140		%REC	1	2/24/2010 10:34:00 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.32	0.050		mg/L	1	2/24/2010 11:41:23 PM
Surr: BFB	97.9	55.2-107		%REC	1	2/24/2010 11:41:23 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DAM**
Benzene	2.5	1.0		µg/L	1	2/23/2010 11:00:22 PM
Toluene	ND	1.0		µg/L	1	2/23/2010 11:00:22 PM
Ethylbenzene	ND	1.0		µg/L	1	2/23/2010 11:00:22 PM
Methyl tert-butyl ether (MTBE)	190	10		µg/L	10	2/24/2010 1:39:39 PM
Naphthalene	ND	2.0		µg/L	1	2/23/2010 11:00:22 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 11:00:22 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 11:00:22 PM
Xylenes, Total	ND	2.0		µg/L	1	2/23/2010 11:00:22 PM
Surr: 1,2-Dichloroethane-d4	97.3	54.6-141		%REC	1	2/23/2010 11:00:22 PM
Surr: 4-Bromofluorobenzene	106	60.1-133		%REC	1	2/23/2010 11:00:22 PM
Surr: Dibromofluoromethane	99.8	78.5-130		%REC	1	2/23/2010 11:00:22 PM
Surr: Toluene-d8	92.2	79.5-126		%REC	1	2/23/2010 11:00:22 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	4420	20.0		mg/L	1	2/24/2010 4:42:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *26-Feb-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	MW#21
Lab Order:	1002422	**Collection Date:**	2/18/2010 3:49:00 PM
Project:	TW 810 Refinery	**Date Received:**	2/20/2010
Lab ID:	1002422-18	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JB**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	2/24/2010 11:10:16 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	2/24/2010 11:10:16 AM
Surr: DNOP	103	58-140		%REC	1	2/24/2010 11:10:16 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.11	0.050		mg/L	1	2/25/2010 12:11:35 AM
Surr: BFB	92.2	55.2-107		%REC	1	2/25/2010 12:11:35 AM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	2/23/2010 11:28:39 PM
Toluene	ND	1.0		µg/L	1	2/23/2010 11:28:39 PM
Ethylbenzene	ND	1.0		µg/L	1	2/23/2010 11:28:39 PM
Methyl tert-butyl ether (MTBE)	85	1.0		µg/L	1	2/23/2010 11:28:39 PM
Naphthalene	ND	2.0		µg/L	1	2/23/2010 11:28:39 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 11:28:39 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 11:28:39 PM
Xylenes, Total	ND	2.0		µg/L	1	2/23/2010 11:28:39 PM
Surr: 1,2-Dichloroethane-d4	89.6	54.6-141		%REC	1	2/23/2010 11:28:39 PM
Surr: 4-Bromofluorobenzene	97.2	60.1-133		%REC	1	2/23/2010 11:28:39 PM
Surr: Dibromofluoromethane	92.8	78.5-130		%REC	1	2/23/2010 11:28:39 PM
Surr: Toluene-d8	99.9	79.5-126		%REC	1	2/23/2010 11:28:39 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **MMS**
Total Dissolved Solids	5220	20.0		mg/L	1	2/24/2010 4:42:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Estimated value
J	Analyte detected below quantitation limits
NC	Non-Chlorinated
PQL	Practical Quantitation Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit
S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *26-Feb-10*

CLIENT:	Animas Environmental Services	**Client Sample ID:**	Trip Blank
Lab Order:	1002422	**Collection Date:**	
Project:	TW 810 Refinery	**Date Received:**	2/20/2010
Lab ID:	1002422-19	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	2/25/2010 12:41:54 AM
Surr: BFB	95.8	55.2-107		%REC	1	2/25/2010 12:41:54 AM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	2/23/2010 11:56:55 PM
Toluene	ND	1.0		µg/L	1	2/23/2010 11:56:55 PM
Ethylbenzene	ND	1.0		µg/L	1	2/23/2010 11:56:55 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/23/2010 11:56:55 PM
Naphthalene	ND	2.0		µg/L	1	2/23/2010 11:56:55 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 11:56:55 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/23/2010 11:56:55 PM
Xylenes, Total	ND	2.0		µg/L	1	2/23/2010 11:56:55 PM
Surr: 1,2-Dichloroethane-d4	90.8	54.6-141		%REC	1	2/23/2010 11:56:55 PM
Surr: 4-Bromofluorobenzene	96.9	60.1-133		%REC	1	2/23/2010 11:56:55 PM
Surr: Dibromofluoromethane	92.2	78.5-130		%REC	1	2/23/2010 11:56:55 PM
Surr: Toluene-d8	93.2	79.5-126		%REC	1	2/23/2010 11:56:55 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Animas Environmental Services
Project: TW 810 Refinery **Work Order:** 1002422

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range											
Sample ID: MB-21463		*MBLK*				Batch ID:	**21463**	Analysis Date:		2/23/2010 10:05:45 PM	
Diesel Range Organics (DRO)	ND	mg/L	1.0								
Motor Oil Range Organics (MRO)	ND	mg/L	5.0								
Sample ID: LCS-21463		*LCS*				Batch ID:	**21463**	Analysis Date:		2/23/2010 10:40:55 PM	
Diesel Range Organics (DRO)	4.768	mg/L	1.0	5	0	95.4	74	157			
Sample ID: LCSD-21463		*LCSD*				Batch ID:	**21463**	Analysis Date:		2/23/2010 11:16:07 PM	
Diesel Range Organics (DRO)	5.068	mg/L	1.0	5	0	101	74	157	6.11	23	
Method: EPA Method 8015B: Gasoline Range											
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R37470**	Analysis Date:		2/22/2010 9:11:08 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R37491**	Analysis Date:		2/23/2010 9:14:25 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R37507**	Analysis Date:		2/24/2010 9:08:01 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Sample ID: 2.5UG GRO LCS		*LCS*				Batch ID:	**R37470**	Analysis Date:		2/23/2010 4:53:16 AM	
Gasoline Range Organics (GRO)	0.4862	mg/L	0.050	0.5	0	97.2	80	115			
Sample ID: 2.5UG GRO LCS		*LCS*				Batch ID:	**R37491**	Analysis Date:		2/23/2010 8:28:53 PM	
Gasoline Range Organics (GRO)	0.5306	mg/L	0.050	0.5	0	106	80	115			
Sample ID: 2.5UG GRO LCS		*LCS*				Batch ID:	**R37507**	Analysis Date:		2/24/2010 8:39:07 PM	
Gasoline Range Organics (GRO)	0.5094	mg/L	0.050	0.5	0	102	80	115			
Sample ID: 2.5UG GRO LCSD		*LCSD*				Batch ID:	**R37470**	Analysis Date:		2/23/2010 5:23:46 AM	
Gasoline Range Organics (GRO)	0.4748	mg/L	0.050	0.5	0	95.0	80	115	2.37	8.39	
Sample ID: 2.5UG GRO LCSD		*LCSD*				Batch ID:	**R37491**	Analysis Date:		2/23/2010 8:59:10 PM	
Gasoline Range Organics (GRO)	0.4652	mg/L	0.050	0.5	0	93.0	80	115	13.1	8.39	R
Sample ID: 2.5UG GRO LCSD		*LCSD*				Batch ID:	**R37507**	Analysis Date:		2/24/2010 9:09:33 PM	
Gasoline Range Organics (GRO)	0.5140	mg/L	0.050	0.5	0	103	80	115	0.899	8.39	

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Animas Environmental Services
Project: TW 810 Refinery **Work Order:** 1002422

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260: Volatiles Short List											
Sample ID: 1002422-18a msd		*MSD*				Batch ID:	**R37486**	Analysis Date:		2/24/2010 12:53:17 AM	
Benzene	18.48	µg/L	1.0	20	0	92.4	72.4	126	3.85	20	
Toluene	22.80	µg/L	1.0	20	0	114	79.2	115	3.33	20	
Sample ID: 5ml rb		*MBLK*				Batch ID:	**R37486**	Analysis Date:		2/22/2010 9:28:37 AM	
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	4.0								
2-Methylnaphthalene	ND	µg/L	4.0								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 5ml rb		*MBLK*				Batch ID:	**R37486**	Analysis Date:		2/23/2010 9:50:56 AM	
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	4.0								
2-Methylnaphthalene	ND	µg/L	4.0								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 5ml rb		*MBLK*				Batch ID:	**R37505**	Analysis Date:		2/24/2010 9:26:25 AM	
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	4.0								
2-Methylnaphthalene	ND	µg/L	4.0								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 100ng lcs		*LCS*				Batch ID:	**R37486**	Analysis Date:		2/22/2010 10:25:01 AM	
Benzene	22.06	µg/L	1.0	20	0	110	86.8	120			
Toluene	22.34	µg/L	1.0	20	0	112	64.1	127			
Sample ID: 100ng lcs2		*LCS*				Batch ID:	**R37486**	Analysis Date:		2/24/2010 1:21:33 AM	
Benzene	20.52	µg/L	1.0	20	0	103	86.8	120			
Toluene	20.82	µg/L	1.0	20	0	104	64.1	127			
Sample ID: 1002422-18a ms		*MS*				Batch ID:	**R37486**	Analysis Date:		2/24/2010 12:25:09 AM	
Benzene	19.21	µg/L	1.0	20	0	96.0	72.4	126			
Toluene	23.57	µg/L	1.0	20	0	118	79.2	115			S

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Animas Environmental Services
Project: TW 810 Refinery **Work Order:** 1002422

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SM2540C MOD: Total Dissolved Solids											
Sample ID: MB-21456		*MBLK*				Batch ID:	**21456**	Analysis Date:	2/23/2010 5:44:00 PM		
Total Dissolved Solids	ND	mg/L	20.0								
Sample ID: MB-21460		*MBLK*				Batch ID:	**21460**	Analysis Date:	2/23/2010 5:37:00 PM		
Total Dissolved Solids	ND	mg/L	20.0								
Sample ID: MB-21471		*MBLK*				Batch ID:	**21471**	Analysis Date:	2/24/2010 4:42:00 PM		
Total Dissolved Solids	ND	mg/L	20.0								
Sample ID: LCS-21456		*LCS*				Batch ID:	**21456**	Analysis Date:	2/23/2010 5:44:00 PM		
Total Dissolved Solids	1023	mg/L	20.0	1000	0	102	80	120			
Sample ID: LCS-21460		*LCS*				Batch ID:	**21460**	Analysis Date:	2/23/2010 5:37:00 PM		
Total Dissolved Solids	1010	mg/L	20.0	1000	0	101	80	120			
Sample ID: LCS-21471		*LCS*				Batch ID:	**21471**	Analysis Date:	2/24/2010 4:42:00 PM		
Total Dissolved Solids	1025	mg/L	20.0	1000	0	103	80	120			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name ANIMAS ENVIRONMENTAL Date Received: 2/20/2010

Work Order Number 1002422 Received by: AMF

Sample ID labels checked by: AT (Initials)

Checklist completed by: _____ 2/20/10 (Signature / Date)

Matrix: Carrier name: Courier

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace? No VOA vials submitted ☐		Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	**5.6°**	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: Rec'd 1 cooler 2/20/10 @ 5.6°C AT

Rec'd 1 cooler 2/22/10 @ 5.7°C AT 2/22/10

Corrective Action _____

Chain-of-Custody Record

Client: Animas Environmental Services LLC

Mailing Address: 624 E Comanche Farmington, NM 87401

Phone #: 505-564-2281

email or Fax#: 505-324-2022

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other ______

☐ EDD (Type) ______

Turn-Around Time:

☑ Standard ☐ Rush ______

Project Name: TW 810 Refinery

Project #: 050204

Project Manager: Ross Kennemer

Sampler: Mike Beauparlant

[illegible]

Sample Temperature: [illegible]

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (~~Gas/Diesel~~ GRO DRO)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (~~VOA~~) BTEX/MTBE/Total Naphthalene	8270 (Semi-VOA)	2540C TDS				Air Bubbles (Y or N)
2-17-10	1010	H_2O	TW #11	6-40mL VOAs, 1-250mL Plas.	HCl/non, HCl	1			X							X		X				
↓	1041	↓	TW #12	↓	↓	2			X							X		X				
	1131		TW #18			3			X							X		X				
	1310		TW #24			4			X							X		X				
	1354		TW #29			5			X							X		X				
	1426		TW #30			6			X							X		X				
	1450		TW #31			7			X							X		X				
2-18-10	1041		TW #34			8			X							X		X				
↓	0955		TW #35			9			X							X		X				
	1133		TW #37			10			X							X		X				
	1211		TW #38			11			X							X		X				
2-17-10	1525		TW #39			12			X							X		X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
2-19-10	1100	[signature]	Debrah Water	2-19-10	1100
2-19-10	1600	Debrah Water	[signature]	2/22/10	0922

Remarks: Bill to BioTech

Per Andy: 8260 BTEX/MTBE/Total Naph $70

8015 DRO & GRO $60

discounted price for TDS

Chain-of-Custody Record

Client: Animas Environmental Services LLC

Mailing Address: 624 E. Comanche Farmington, NM 8740

Phone #: 505-564-2281

email or Fax#: 505-324-2022

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: TW 810 Refinery

Project #: 050204

Project Manager: Ross Kennemer

Sampler: Mike Beauparlant

On Ice: Yes

Sample Temperature: 5.7

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
2-18-10	1306	H2O	TW#41	6-40mL GLS. 1-250mL PLAS	HCL/NON HCL	13
	1335		TW#42			14
	1402		TW#43			15
	1449		MW#5			16
	1526		MW#20			17
	1549		MW#21			18
			TMP Blank	2-40mL glass	HCl	19

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel) GRO DRO	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (~~VOA~~) BTEX/MTBE/total Naphthalene	8270 (Semi-VOA)	2540 C TDS				Air Bubbles (Y or N)
		+							X		X				
		X							X		X				
		X							X		X				
		X							X		X				
		X							X		X				
		X							X		X				
		X							X		X				
									X						

Date:	Time:	Relinquished by:	Received by:	Date	Time
2-19-10	1100		Deborah Watson	2-19-10	1100
2-19-10	1600	Deborah Watson		2/22/10	0922

Remarks: Bill to BioTech
per Andy: 8260 BTEX/MTBE/Total Naphthalene $70
8015 GRO & DRO $60
discounted price for TDS

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

TW-15	1355		12.75		
TW-16	1343	~~13~~	11.10		
TW-17	1429		9.75		
TW-18	1104		16.21'		
TW-19			—		NO MEASUREMENT / SURFACE CASING DAMAGED
TW-20	1319	17.40	18.73	1.33'	
TW-21		—	—		NO MEASUREMENT / SURFACE CASING DAMAGED
TW-22	1334	14.72	15.03	0.31'	
TW-23	1426	[redacted]	8.61		
TW-24	1257		10.78		
TW-25	1349	14.03'	14.41	0.38'	
TW-26	1359	15.81'	16.86'	1.05'	
TW-27*					NO TW-27 EXIST
TW-28	1407	15.22'	16.10'	0.88'	
TW-29	1327		8.96'		
TW-30	1411		5.65'		
TW-31	1435		6.82'		
TW-32	1146	8.97'	9.98'	1.01'	
TW-33		12.89'	12.93'	0.04'	
TW-34	2071		19.79'		

Wells measured with KECK water level or KECK interface tape, decontaminated between each well measurement.

* Free Product Present or Sheen

DEPTH TO GROUNDWATER MEASUREMENT FORM

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Project: Groundwater Monitoring
Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Tech:

Project No.: AES 050204
Date: 8-17-18-19-2010
Time:
Form: 2 of 2

Well I.D.	Time	Depth to NAPL (ft.)	Depth to Water (ft.)	NAPL Thickness (ft.)	Notes / Observations
TW-35	0936		15.15		
TW-36	1226	12.96	12.98	0.02'	
TW-37	1059	~~15.~~	10.99		
TW-38	1156		11.28'		
TW-39	1500		7.11'		
TW-40	1307	6.84'	7.76'	0.92'	
TW-41	1248		5.34'		
TW-42	1318		5.84'		
TW-43	1346		12.11'		
TW-44		15.02	15.04	0.02'	
TW-45					NOT O.10
MW-5	1933		4.73'		
MW-20	1515		5.81'		
MW-21	1549		2.86		

Wells measured with KECK water level or KECK interface tape, decontaminated between each well measurement.

MONITORING WELL SAMPLING RECORD

Monitor Well No: MW-5

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in):
Initial D.T.W. (ft): 4.75 **Time:** 1337 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 4.73 **Time:** 1433 - 2-18 *(taken prior to purging well)*
Final D.T.W. (ft): 4.79 **Time:** 1453 *(taken after sample collection)*
If NAPL Present: **D.T.P.:** **D.T.W.:** **Thickness:** **Time:**

Project No.: AES 050204
Date: 2-16-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5428.97
Total Well Depth (ft): 11'

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1438	10.12	8.530	5.50	7.34	442.9	1	
1440	9.88	8.531	4.23	7.29	392.3	2	
1449	9.93	8.422	3.30	7.39	403.1	3	

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments: 11 - 4.73' = 6.27 x .1632 = 1 x 3 = 3 Gal

revised: 08/10/09

MONITORING WELL SAMPLING RECORD

Monitor Well No: MW-20

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in):
Initial D.T.W. (ft): 5.81' **Time:** 1349 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 5.81 **Time:** 1515 2-18 *(taken prior to purging well)*
Final D.T.W. (ft): 5.89' **Time:** 1530 *(taken after sample collection)*
If NAPL Present: **D.T.P.:** **D.T.W.:** **Thickness:** **Time:**

Project No.: AES 050204
Date: 2-16-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5430.45
Total Well Depth (ft): 11'

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1518	8.00	6.860	7.50	6.87	383.6	1	
1520	8.05	7.106	6.45	6.88	373.5	2	
1526	8.20	7.249	3.67	6.67	395.0	2.5	

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

11 - 5.81 = 5.19 x .1632 = 0.8 x 3 = 2.5

revised: 08/10/09

MONITORING WELL SAMPLING RECORD	Animas Environmental Services
Monitor Well No: **MW-21**	624 E. Comanche, Farmington NM 87401 Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery **Project No.:** AES 050204
Location: Bloomfield, New Mexico **Date:** 2-16-10
Project: Groundwater Monitoring and Sampling **Arrival Time:**
Sampling Technician: **Air Temp:**
Purge / No Purge: Purge **T.O.C. Elev. (ft):** 5428.62
Well Diameter (in): **Total Well Depth (ft):** 91
Initial D.T.W. (ft): 2.90' **Time:** 1354 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 2.86' 2-18 **Time:** 1537 *(taken prior to purging well)*
Final D.T.W. (ft): 2.90 **Time:** 1554 *(taken after sample collection)*
If NAPL Present: D.T.P.: **D.T.W.:** **Thickness:** **Time:**

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1541	7.92	9.433	3.65	6.76	347.7	1	
1543	7.87	9.083	5.90	6.77	348.2	2	
1549	7.91	9.049	8.21	6.80	367.2	3	

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

9 - 2.86' = 6.14 x .1632 = 1 x 3 = 3

revised: 08/10/09

MONITORING WELL SAMPLING RECORD

Monitor Well No: TW-11

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2
Initial D.T.W. (ft): 18.04' **Time:** 1225 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 18.09 **Time:** 0949 (2-17) *(taken prior to purging well)*
Final D.T.W. (ft): 18.10 **Time:** 1016 *(taken after sample collection)*
If NAPL Present: D.T.P.:_____ D.T.W.:_____ Thickness:_____ Time:_____

Project No.: AES 050204
Date: 2-15-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5456.31
Total Well Depth (ft): 26.44

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
0956	12.50	9.618	5.00	6.96	-127.8	1	
1000	12.89	10.24	4.08	7.08	-208.0	2	
1010	12.88	10.42	3.98	7.14	49.7	4.2	

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments: 26.44 - 18.04 = 8.4 x .1632 x 1.4 x 3 = 4.26gal

revised: 08/10/09

MONITORING WELL SAMPLING RECORD

Monitor Well No: TW-12

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2
Initial D.T.W. (ft): 22.39' **Time:** 1232 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 22.39 **Time:** 2-17 / 1025 *(taken prior to purging well)*
Final D.T.W. (ft): 22.41 **Time:** 1047 *(taken after sample collection)*
If NAPL Present: D.T.P.: D.T.W.: Thickness: Time:

Project No.: AES 050204
Date: 12-15-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5460.44
Total Well Depth (ft): 27.91

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1030	15.47	6.110	2.80	6.90	157.0	1	
1032	16.15	5.965	1.99	6.91	170.0	2	
1041	15.59	5.727	1.46	6.94	206.2	3	

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

27.91 - 22.39 = 5.52 x .1632 = 0.9 x 3 = 2.7

revised: 08/10/09

MONITORING WELL SAMPLING RECORD	Animas Environmental Services
Monitor Well No: TW-13 *	624 E. Comanche, Farmington NM 87401 Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2
Initial D.T.W. (ft): Time: *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): Time: *(taken prior to purging well)*
Final D.T.W. (ft): Time: *(taken after sample collection)*
If NAPL Present: D.T.P.: 20.59 D.T.W.: 21.48 Thickness: 0.89' Time: 1242

Project No.: AES 050204
Date: 2-15-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5458.17
Total Well Depth (ft):

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
							NS
							NAPL

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

revised: 08/10/09

MONITORING WELL SAMPLING RECORD

Monitor Well No: TW-14 *

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2
Initial D.T.W. (ft): Time: *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): Time: *(taken prior to purging well)*
Final D.T.W. (ft): Time: *(taken after sample collection)*
If NAPL Present: D.T.P.: 16.98' D.T.W.: 17.22 Thickness: 0.24' Time: 1252

Project No.: AES 050204
Date: 2-15-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5454.24
Total Well Depth (ft):

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
							NS / NAPL

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

revised: 08/10/09

MONITORING WELL SAMPLING RECORD

Monitor Well No: TW-18

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2

Project No.: AES 050204
Date: 2-15-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5452.73
Total Well Depth (ft): 23'

Initial D.T.W. (ft): 16.22 **Time:** 13.04 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 16.21 **Time:** 2-17- / 1104 *(taken prior to purging well)*
Final D.T.W. (ft): 16.21 **Time:** 1227 *(taken after sample collection)*
If NAPL Present: **D.T.P.:** **D.T.W.:** **Thickness:** **Time:**

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1118	15.43	8.164	1.86	6.89	213	1	
1123	15.49	8.177	1.52	6.7	207	2	
1131	15.58	7.990	2.04	6.8	210	3.3	

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

23' - 16.21 = 6.8 x .1632 = 1.1 x 3 = 3.36 gal

revised: 08/10/09

MONITORING WELL SAMPLING RECORD

Monitor Well No: TW-19

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2
Initial D.T.W. (ft): 22.60 **Time:** 1310 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): **Time:** *(taken prior to purging well)*
Final D.T.W. (ft): **Time:** *(taken after sample collection)*
If NAPL Present: D.T.P.: D.T.W.: Thickness: Time:

Project No.: AES 050204
Date: 2-15-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5458.49
Total Well Depth (ft):

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
						2-	NS-Surface
							Completion Damage

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments: Surface Completion Pushed over (3S) During Product Line Removal (NS)

revised: 08/10/09

MONITORING WELL SAMPLING RECORD	Animas Environmental Services
Monitor Well No: TW-20 *	624 E. Comanche, Farmington NM 87401 Tel. (505) 564-2281 Fax (505) 324-2022

Site:	Thriftway #810 Refinery	**Project No.:**	AES 050204
Location:	Bloomfield, New Mexico	**Date:**	2-15-10
Project:	Groundwater Monitoring and Sampling	**Arrival Time:**	
Sampling Technician:		**Air Temp:**	
Purge / No Purge:	Purge	**T.O.C. Elev. (ft):**	5453.74
Well Diameter (in):	2	**Total Well Depth (ft):**	
Initial D.T.W. (ft):		**Time:**	*(taken at initial gauging of all wells)*
Confirm D.T.W. (ft):		**Time:**	*(taken prior to purging well)*
Final D.T.W. (ft):		**Time:**	*(taken after sample collection)*
If NAPL Present:	**D.T.P.:** 17.40	**D.T.W.:** 18.73'	**Thickness:** 1.33' **Time:** 1319

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
							NS / NAPL

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:

Collected Samples Stored on Ice in Cooler:

Chain of Custody Record Complete:

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

revised: 08/10/09

MONITORING WELL SAMPLING RECORD	Animas Environmental Services
Monitor Well No: TW-21 *	624 E. Comanche, Farmington NM 87401 Tel. (505) 564-2281 Fax (505) 324-2022

Site:	Thriftway #810 Refinery	**Project No.:**	AES 050204
Location:	Bloomfield, New Mexico	**Date:**	2-15-10
Project:	Groundwater Monitoring and Sampling	**Arrival Time:**	
Sampling Technician:		**Air Temp:**	
Purge / No Purge:	Purge	**T.O.C. Elev. (ft):**	5451.85
Well Diameter (in):	2	**Total Well Depth (ft):**	

Initial D.T.W. (ft): _____ **Time:** _____ *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): _____ **Time:** _____ *(taken prior to purging well)*
Final D.T.W. (ft): _____ **Time:** _____ *(taken after sample collection)*
If NAPL Present: **D.T.P.:** _____ **D.T.W.:** _____ **Thickness:** _____ **Time:** _____

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
							* No Measurement
							· Surface Casing
							Damaged in
							Piping Demo - OPS

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water: _____
Collected Samples Stored on Ice in Cooler: _____
Chain of Custody Record Complete: _____
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

revised: 08/10/09

MONITORING WELL SAMPLING RECORD

Monitor Well No: TW-22 ✓

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2
Initial D.T.W. (ft): Time: (taken at initial gauging of all wells)
Confirm D.T.W. (ft): Time: (taken prior to purging well)
Final D.T.W. (ft): Time: (taken after sample collection)
If NAPL Present: D.T.P.: 14.72 D.T.W.: 15.03' Thickness: 0.31' Time: 1334

Project No.: AES 050204
Date: 2-15-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5450.19
Total Well Depth (ft):

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

revised: 08/10/09

MONITORING WELL SAMPLING RECORD

Monitor Well No: TW-24

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2

Project No.: AES 050204
Date: 2-15-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5444.79
Total Well Depth (ft): 17.45

Initial D.T.W. (ft): 10.78 **Time:** 1343 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 10.78 **Time:** 2-17 1057 *(taken prior to purging well)*
Final D.T.W. (ft): 10.80 **Time:** 1316 *(taken after sample collection)*
If NAPL Present: **D.T.P.:** _____ **D.T.W.:** 1325 **Thickness:** _____ **Time:** _____

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1300	13.58	7.799	2.60	6.60	453.9	1	
1303	13.77	7.841	2.49	6.59	434.6	2	
1310	13.77	7.857	0.74	6.62	436.8	3	SHEEN

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

1345 - 10.78 = 6.7 x .1630 = 1 x 3 = 3 Gal

revised: 08/10/09

MONITORING WELL SAMPLING RECORD	Animas Environmental Services
Monitor Well No: TW-25 *	624 E. Comanche, Farmington NM 87401 Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2
Initial D.T.W. (ft): Time: *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): Time: *(taken prior to purging well)*
Final D.T.W. (ft): Time: *(taken after sample collection)*
If NAPL Present: D.T.P.: 14.03' D.T.W.: 14.41' Thickness: 0.38' Time: 1349

Project No.: AES 050204
Date: 2-15-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5448.8
Total Well Depth (ft):

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
							NS / NAPL

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

revised: 08/10/09

MONITORING WELL SAMPLING RECORD

Monitor Well No: TW-26 *

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2
Initial D.T.W. (ft): Time: *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): Time: *(taken prior to purging well)*
Final D.T.W. (ft): Time: *(taken after sample collection)*
If NAPL Present: D.T.P.: 16.81 D.T.W.: 16.86' Thickness: 1.05 Time: 1359

Project No.: AES 050204
Date: 2-15-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5450.34
Total Well Depth (ft):

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
							NS / NAPL

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

revised: 08/10/09

MONITORING WELL SAMPLING RECORD	Animas Environmental Services
Monitor Well No: TW-28	624 E. Comanche, Farmington NM 87401 Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2
Initial D.T.W. (ft): Time: *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): Time: *(taken prior to purging well)*
Final D.T.W. (ft): Time: *(taken after sample collection)*
If NAPL Present: D.T.P.: 15.22 D.T.W.: 16.10' Thickness: 0.88' Time: 1407

Project No.: AES 050204
Date: 2-15-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5449.24
Total Well Depth (ft):

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
							ns / NAPL

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

revised: 08/10/09

MONITORING WELL SAMPLING RECORD

Monitor Well No: TW-29 *

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2
Initial D.T.W. (ft): 8.96' **Time:** 14.20'
Confirm D.T.W. (ft): 8.96' **Time:** 2/17/13.27
Final D.T.W. (ft): 8.96 **Time:** 13.58
If NAPL Present: D.T.P.:_____ D.T.W.:_____ Thickness:_____ Time:_____

Project No.: AES 050204
Date: 2-15-17
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5441.87
Total Well Depth (ft): ~~17.5~~ 16.5'

(taken at initial gauging of all wells)
(taken prior to purging well)
(taken after sample collection)

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1330	13.47	8.599	0.97	6.49	482.9	1	
1345	15.24	8.914	1.38	6.57	469.4	2	
1354	13.79	8.583	0.60	6.	457.9	3.6	

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments: 16.5 − 1 / 17.5 − 8.96 · 7.5 × .1632 = 1.2 × 3 = 3.6 Gal

revised: 08/10/09

MONITORING WELL SAMPLING RECORD	Animas Environmental Services
Monitor Well No: TW-30	624 E. Comanche, Farmington NM 87401 Tel. (505) 564-2281 Fax (505) 324-2022

Site:	Thriftway #810 Refinery	**Project No.:**	AES 050204
Location:	Bloomfield, New Mexico	**Date:**	2-16-10
Project:	Groundwater Monitoring and Sampling	**Arrival Time:**	
Sampling Technician:		**Air Temp:**	
Purge / No Purge:	Purge	**T.O.C. Elev. (ft):**	5437.93
Well Diameter (in):	2	**Total Well Depth (ft):**	17.14
Initial D.T.W. (ft):	~~6.82~~ 5.646	**Time:**	~~1409~~ 1133 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft):	5.65'	**Time:** (2-17)	1411 *(taken prior to purging well)*
Final D.T.W. (ft):	5.68	**Time:**	1431 *(taken after sample collection)*
If NAPL Present:	**D.T.P.:**	**D.T.W.:**	**Thickness:** **Time:**

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1416	10.21	7.899	4.00	6.27	461.9	1	
1420	10.666	8.043	1.81	6.29	470.9	3	
1426	11.21	8.169	1.97	6.26	476.9	5.6	

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:	
Collected Samples Stored on Ice in Cooler:	
Chain of Custody Record Complete:	
Analytical Laboratory:	Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling:	Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments: 17.14' - 5.65' = 11.5' x .1632 = 1.8 x 3 = 5.4 Gal

revised: 08/10/09

MONITORING WELL SAMPLING RECORD

Monitor Well No: TW-31

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2
Initial D.T.W. (ft): 6.87 **Time:** 1100 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 6.82' **Time:** 1435 (2-17) *(taken prior to purging well)*
Final D.T.W. (ft): 6.90' **Time:** 1455 *(taken after sample collection)*
If NAPL Present: **D.T.P.:** **D.T.W.:** **Thickness:** **Time:**

Project No.: AES 050204
Date: 2-16-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5438.54
Total Well Depth (ft): 12.96

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1441	9.87	10.35	5.80	6.49	385.4	1	
1444	9.62	10.02	6.79	6.50	380.8	2	
1450	9.75	9.906	3.95	6.63	358.8	3	

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments: 13' - 6.82' = 6.18 x .1632 = 1 x 3 = 3 Gal.

revised: 08/10/09

MONITORING WELL SAMPLING RECORD

Monitor Well No: TW-32 *

Animas Environmental Services

624 E. Comanche, Farmington NM 87401

Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2
Initial D.T.W. (ft): 6.87 **Time:** [illegible] *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): **Time:** *(taken prior to purging well)*
Final D.T.W. (ft): **Time:** *(taken after sample collection)*
If NAPL Present: **D.T.P.:** 8.97' **D.T.W.:** 9.98 **Thickness:** 1.01' **Time:** 1146

Project No.: AES 050204
Date: 2-16-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5441.61
Total Well Depth (ft):

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
							DS / NAPL

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

revised: 08/10/09

MONITORING WELL SAMPLING RECORD	Animas Environmental Services
Monitor Well No: TW-33 *	624 E. Comanche, Farmington NM 87401 Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2
Initial D.T.W. (ft): Time:
Confirm D.T.W. (ft): Time:
Final D.T.W. (ft): Time:
If NAPL Present: D.T.P.: 12.89' D.T.W.: 12.93 Thickness: 0.04' Time:

Project No.: AES 050204
Date: 2-16-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5445.85
Total Well Depth (ft):
(taken at initial gauging of all wells)
(taken prior to purging well)
(taken after sample collection)

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
							NS / Napl

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

revised: 08/10/09

MONITORING WELL SAMPLING RECORD	Animas Environmental Services
Monitor Well No: TW-34	624 E. Comanche, Farmington NM 87401 Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery — Project No.: AES 050204
Location: Bloomfield, New Mexico — Date: 2-16-10
Project: Groundwater Monitoring and Sampling — Arrival Time:
Sampling Technician: — Air Temp:
Purge / No Purge: Purge — T.O.C. Elev. (ft): 5455.8
Well Diameter (in): 2 — Total Well Depth (ft): 26.78
Initial D.T.W. (ft): 19.81 Time: 1214 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 19.79' Time: 1011 2/18 *(taken prior to purging well)*
Final D.T.W. (ft): 19.87' Time: 1047 *(taken after sample collection)*
If NAPL Present: D.T.P.: D.T.W.: Thickness: Time:

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1018	13.91	9.733	2.35	7.04	-172.4	1	
1032	13.03	9.508	2.45	7.06	-53.1	2	
1041	12.35	9.266	2.40	7.06	-55.0	3	

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments: 26.78' - 19.79' = 7.0 x .1439 = 1 x 3 = 3 Gal

revised: 08/10/09

MONITORING WELL SAMPLING RECORD

Monitor Well No: TW-35

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2

Project No.: AES 050204
Date: 2-16-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5449.14
Total Well Depth (ft): 22.34

Initial D.T.W. (ft): 15.16' **Time:** 1218 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 15.15 **Time:** 0936 2/18 *(taken prior to purging well)*
Final D.T.W. (ft): 15.16 **Time:** 1002 *(taken after sample collection)*
If NAPL Present: D.T.P.: **D.T.W.:** **Thickness:** **Time:**

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
0943	12.39	12.08	4.50	7.18	262.1	1	
0946	13.20	12.34	3.20	7.22	-362.6	2	
0955	12.99	11.52	2.91	7.20	-283.0	3.6	

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

22.34 - 15.15 = 7.2 x .1632 = 1.2 x 3 = 3.6601

revised: 08/10/09

MONITORING WELL SAMPLING RECORD

Monitor Well No: TW-36

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2
Initial D.T.W. (ft): Time: *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): Time: *(taken prior to purging well)*
Final D.T.W. (ft): Time: *(taken after sample collection)*
If NAPL Present: D.T.P.: 12.94' D.T.W.: 12.98 Thickness: 0.02' Time: 1226

Project No.: AES 050204
Date: 2-16-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5441.91
Total Well Depth (ft): 20.35

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

revised: 08/10/09

MONITORING WELL SAMPLING RECORD	Animas Environmental Services
Monitor Well No: TW-37	624 E. Comanche, Farmington NM 87401 Tel. (505) 564-2281 Fax (505) 324-2022

Site:	Thriftway #810 Refinery	**Project No.:**	AES 050204
Location:	Bloomfield, New Mexico	**Date:**	2-16-10
Project:	Groundwater Monitoring and Sampling	**Arrival Time:**	
Sampling Technician:		**Air Temp:**	
Purge / No Purge:	Purge	**T.O.C. Elev. (ft):**	5439.59
Well Diameter (in):	2	**Total Well Depth (ft):**	16.5
Initial D.T.W. (ft):	10.45	**Time:**	1245 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft):	10.44	**Time:**	1059 2/18 *(taken prior to purging well)*
Final D.T.W. (ft):	10.47	**Time:**	1139 *(taken after sample collection)*
If NAPL Present:	**D.T.P.:**	**D.T.W.:**	**Thickness:** **Time:**

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1123	12.09	6.184	2.50	6.77	423.0	1	
1126	12.10	6.235	2.00	6.77	420.0	2	
1133	12.18	6.700	1.11	6.77	430.5	3	

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:

Collected Samples Stored on Ice in Cooler:

Chain of Custody Record Complete:

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

16.5 - 10.44 = 6' x .1632 = 1 x 3 = 3 Gal.

revised: 08/10/09

MONITORING WELL SAMPLING RECORD

Monitor Well No: TW-38 *

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2

Project No.: AES 050204
Date: 2-16-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5442.11
Total Well Depth (ft): 15.5

Initial D.T.W. (ft): 11.29' **Time:** 1253 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 11.28 **Time:** 1156 2/18 *(taken prior to purging well)*
Final D.T.W. (ft): 11.30' **Time:** 1218 *(taken after sample collection)*
If NAPL Present: **D.T.P.:** _____ **D.T.W.:** _____ **Thickness:** _____ **Time:** _____

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1201	12.36	7.385	4.00	6.73	567.5	.5	
1203	12.48	7.397	2.01	6.75	559.2	1.0	
1211	12.54	7.314	0.57	6.73	549.0	2.1	

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments: 15.5 - 11.28' = 4.2 x .1632 x 0.7 x 3 = 2.1

revised: 08/10/09

MONITORING WELL SAMPLING RECORD

Monitor Well No: TW-39

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2

Project No.: AES 050204
Date: 2-16-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5438.43
Total Well Depth (ft): 11.5

Initial D.T.W. (ft): 7.12' **Time:** 1259 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 7.11' **Time:** 1500 (2-17) *(taken prior to purging well)*
Final D.T.W. (ft): 7.16' **Time:** 1531 *(taken after sample collection)*
If NAPL Present: **D.T.P.:** **D.T.W.:** **Thickness:** **Time:**

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1515	8.19	5.607	8.00	6.58	320.3	0.5	
1518	8.08	5.806	4.80	6.60	290.6	1.0	
1525	8.11	6.092	1.22	6.49	244.4	2.1	

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments: 7.11 - 11.5 = 4.4 x .1632 = 0.7 x 3 = 2.16 L

revised: 08/10/09

MONITORING WELL SAMPLING RECORD

Monitor Well No: TW-40 *

Animas Environmental Services

624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2
Initial D.T.W. (ft): Time: *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): Time: *(taken prior to purging well)*
Final D.T.W. (ft): Time: *(taken after sample collection)*

Project No.: AES 050204
Date: 3-18-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5437.5
Total Well Depth (ft):

If NAPL Present: D.T.P.: 6.84' D.T.W.: 7.76' **Thickness:** 0.92' **Time:** 1307

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
							NS / NAPL

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

revised: 08/10/09

MONITORING WELL SAMPLING RECORD

Monitor Well No: TW-41

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2

Project No.: AES 050204
Date: 2-16-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5434.77
Total Well Depth (ft): 11.0

Initial D.T.W. (ft): 5.34' **Time:** 1315 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 5.34 **Time:** 1248 2/18 *(taken prior to purging well)*
Final D.T.W. (ft): 5.40' **Time:** 1312 *(taken after sample collection)*
If NAPL Present: **D.T.P.:** **D.T.W.:** **Thickness:** **Time:**

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1255	8.71	8.300	3.60	6.20	442.0	1	
1258	7.95	8.147	2.31	6.17	441.9	2	
1306	8.01	8.192	0.96	6.06	461.9	3	

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments: 11 - 5.34' = 5.66 x .1632 = 1 GAL x 3 = 3 GAL

revised: 08/10/09

MONITORING WELL SAMPLING RECORD

Monitor Well No: TW-42

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2
Initial D.T.W. (ft): 5.84' **Time:** 1319 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 5.84' **Time:** 1328 2/18 *(taken prior to purging well)*
Final D.T.W. (ft): 5.89 **Time:** 1339 *(taken after sample collection)*
If NAPL Present: D.T.P.: D.T.W.: Thickness: Time:

Project No.: AES 050204
Date: 2-16-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5433.76
Total Well Depth (ft): 11.82

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1324	8.23	7.658	3.50	6.36	448.8	1	
1327	7.77	7.567	3.99	6.32	450.6	2	
1335	7.78	7.885	2.50	6.43	456.9	3	

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments: 11.82' - 5.84 = 6 x .1632 = 1 Gal x 3 = 3 Gal

revised: 08/10/09

MONITORING WELL SAMPLING RECORD	Animas Environmental Services
Monitor Well No: TW-43	624 E. Comanche, Farmington NM 87401 Tel. (505) 564-2281 Fax (505) 324-2022

Site:	Thriftway #810 Refinery	**Project No.:**	AES 050204
Location:	Bloomfield, New Mexico	**Date:**	2-16-10
Project:	Groundwater Monitoring and Sampling	**Arrival Time:**	
Sampling Technician:		**Air Temp:**	
Purge / No Purge:	Purge	**T.O.C. Elev. (ft):**	5440.42
Well Diameter (in):	2	**Total Well Depth (ft):**	18.86
Initial D.T.W. (ft):	12.13' **Time:** 1323	*(taken at initial gauging of all wells)*	
Confirm D.T.W. (ft):	12.11' **Time:** 1346 2/18	*(taken prior to purging well)*	
Final D.T.W. (ft):	12.13' **Time:** 1406	*(taken after sample collection)*	
If NAPL Present:	**D.T.P.:**	**D.T.W.:**	**Thickness:** **Time:**

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1352	12.15	7.768	3.80	6.54	403.9	1	
1355	12.12	7.761	3.00	6.61	441.7	2	
1402	12.46	7.655	3.56	6.79	431.3	3	

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

18.86 - 12.11 = 6.75 x .1632 = 1Gal x 3 = 3Gal

revised: 08/10/09

MONITORING WELL SAMPLING RECORD

Monitor Well No: TW-44 *

Animas Environmental Services

624 E. Comanche, Farmington NM 87401

Tel. (505) 564-2281 Fax (505) 324-2022

Site: Thriftway #810 Refinery
Location: Bloomfield, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician:
Purge / No Purge: Purge
Well Diameter (in): 2

Project No.: AES 050204
Date: 2-18-10
Arrival Time:
Air Temp:
T.O.C. Elev. (ft): 5444.08
Total Well Depth (ft): 20.45

Initial D.T.W. (ft): 15.04' **Time:** 1327 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 15.02' **Time:** 1415 2/18 *(taken prior to purging well)*
Final D.T.W. (ft): **Time:** *(taken after sample collection)*
If NAPL Present: **D.T.P.:** 15.02 **D.T.W.:** 15.04 **Thickness:** 0.02' **Time:** 1421 (2-18)

Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
						1	NS - NAPL
						2	
						3	

Analytical Parameters (include analysis method and number and type of sample containers)

BTEX, MTBE, Total Naph., GRO, and DRO per EPA Methods 8260/8015 (6-40 mL Vials; 5 w/ HCl preserve and 1 w/ no preserve)
TDS per EPA Method 2540C (1-250 mL plastic w/ no preserve)

Disposal of Purged Water:
Collected Samples Stored on Ice in Cooler:
Chain of Custody Record Complete:
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

20.45 - 15.02 = 5.43 x .1632 = 0.8 x 3 = 2.661

revised: 08/10/09

DEPTH TO GROUNDWATER MEASUREMENT FORM

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Project: | Project No.:
Site: 810 | Date: 3-3-10
Location: T-WAY REFINERY / BLOOMFIELD, NM. | Time: 1200
Tech: MB | Form:

Well I.D.	Depth to NAPL (ft.)	Depth to Water (ft.)	NAPL Thickness (ft.)	Notes / Observations Top of Casing above Ground (FT)
mpe 1		23.63	-	3'-2.5"
mpe-2	21.51'	21.54'	0.03'	3'-7"
mpe-3		20.79	-	3'-5.5"
mpe-4		19.95	-	3'-2.5"
mpe-5	19.30	19.41'	0.11'	3'-6"
mpe 6		19.66'	-	3'-3.5"
mpe-7		20.46'		3'-3.5"
mpe-8		21.74'		3'
mpe 9		23.44'		3'-2.5"
mpe 10		23.28'		3'-2"
mpe-11		21.83'		3' 1.5"
mpe-12		22.34'		3' 1.5"
mpe-13		22.70		3'
mpe-14		21.80'		3'
mpe 15/16		19.97		2' 11"
mpe 17		20.11'		3' 10"
mpe-18		19.23'		3' 5.5"
mpe-19		19.02'		3' 6.5"
mpe-20		18.72'		3' 9"
mpe-21	19.88	19.99'	0.11'	4'
mpe-22	20.73	20.81'	0.08'	3' 10.5"
mpe-23	~~21.10~~	21.10'		4'
mpe 24		22.69'		3' 4"
mpe-25		23.02'		3' 8"
mpe-26	22.75	23.41'	0.66'	3' 7.5"
mpe-27		21.92'		3' 8"
mpe-28		21.54'		3' 4"
mpe-29		20.54'		3' 8.5"
mpe-30		21.19'		3' 7"
mpe 31		22.46'		3' 10.5"
mpe 33		22.34'		3' 7"
mpe-34		22.16'		3' 10"
mpe-35	20.64	20.98	0.34	4'
mpe-36		19.91'		3' 4"

Wells measured with KECK water level or KECK interface tape, decontaminated between each well measurement.

DEPTH TO GROUNDWATER MEASUREMENT FORM

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Project:
Site: 810
Location: T-Way Refinery
Tech:

Project No.:
Date: 3.3.10
Time:
Form:

Well I.D.	Depth to NAPL (ft.)	Depth to Water (ft.)	NAPL Thickness (ft.)	Notes / Observations Top of Casing above Ground Surface
mpe37	20.11	20.67	0.56'	3' 8"
mpe38	19.80	19.83	0.03'	4'

Wells measured with KECK water level or KECK interface tape, decontaminated between each well measurement.

Remediation Service Int'l
4835 Colt Unit D
Ventura CA 93003
805.644.8382
805.644.8378 FAX
www.rsi-save.com

134738.6

Report Generator Version 1.4

Date of Report:	4/12/2010
Project Name:	Thriftway Refinery March 2009 Eng. #1
Unit ID:	0
Controller S/N:	170
Software version:	844

Date Range From:	3/15/2010 5:28
Date Range To :	3/31/2010 23:20
Lbs. Removed/Period:	1902.2
Gal Removed/Period:	306.7
SCF Processed/Period	1011859

There are no express or implied warranties for fitness of use or any other purpose of the data
See report footnotes for disclaimer details and other technical information relating to calculatic

Footnotes:

RSIs Innovative Approach to Estimating Btu/Hr:
1. Measure alternate fuel usage of engine prior to introduction of process flow
2. Multiply the SCFM flow rate of the alternate fuel (propane or natural gas) by the Btu value tc
3. The controller records a "snapshot" of the energy demand at a given RPM and engine mani
4. The controller adjusts the initial baseline based on engine load or oxygen deficiency as nec
5. Any drop in energy demand is assumed to be caused by the introduction of the process flov

RSIs Innovative Approach to Estimating PPMV:
1. The controller completes the Btu/hr calculation as explained above
2. The controller looks at the well flow rate (estimated or measured in SCFM)
3. The controller then computes the average PPMV using the mass transfer equation to solve
4. If the flow rate is estimated then PPMV is subject to accuracy of estimated flow and accurac
5. If the flow rate is measured then this PPMV estimate will be relative to actual lab data assur

There are many advantages to using RSIs innovative approach in calculating how much mass
Our method eliminates human calculation error and prevents incorrect or non-calibrated use o
periodic measurement over time which when used properly will reduces costly laboratory anal

Our estimates of VOC removal have proven to be reasonable when compared to independent
and the alternate fuel flow rate measurements are dependent upon proper system operation th
of fitness of use for any purpose when using this report or the data contained herein.

Please do not hesitate to contact RSI 1-800-368-8685 if you should have any questions or req

Assumptions:

20000	Btu/lb
6.2	lb/gallon of gasoline
120	Mole Weight of Extracted VOC
2520	Btu/Cubic Foot of Propane
1000	Btu/Cubic Foot of Natural Gas

Parts/Million by Volume (PPMV) Conversion to Micrograms/Liter (ug/L)
(PPMV/24.055)*AVG. Mole Weight=ug/L

Mass Transfer Equation to Convert to Pounds/Hour:
(ug/L)*(Flow SCFM)*28.3 L/SCF*60 Minutes/Hour*2.2 lbs/Kg*(1/10^9)

contained herein.
›n procedures.

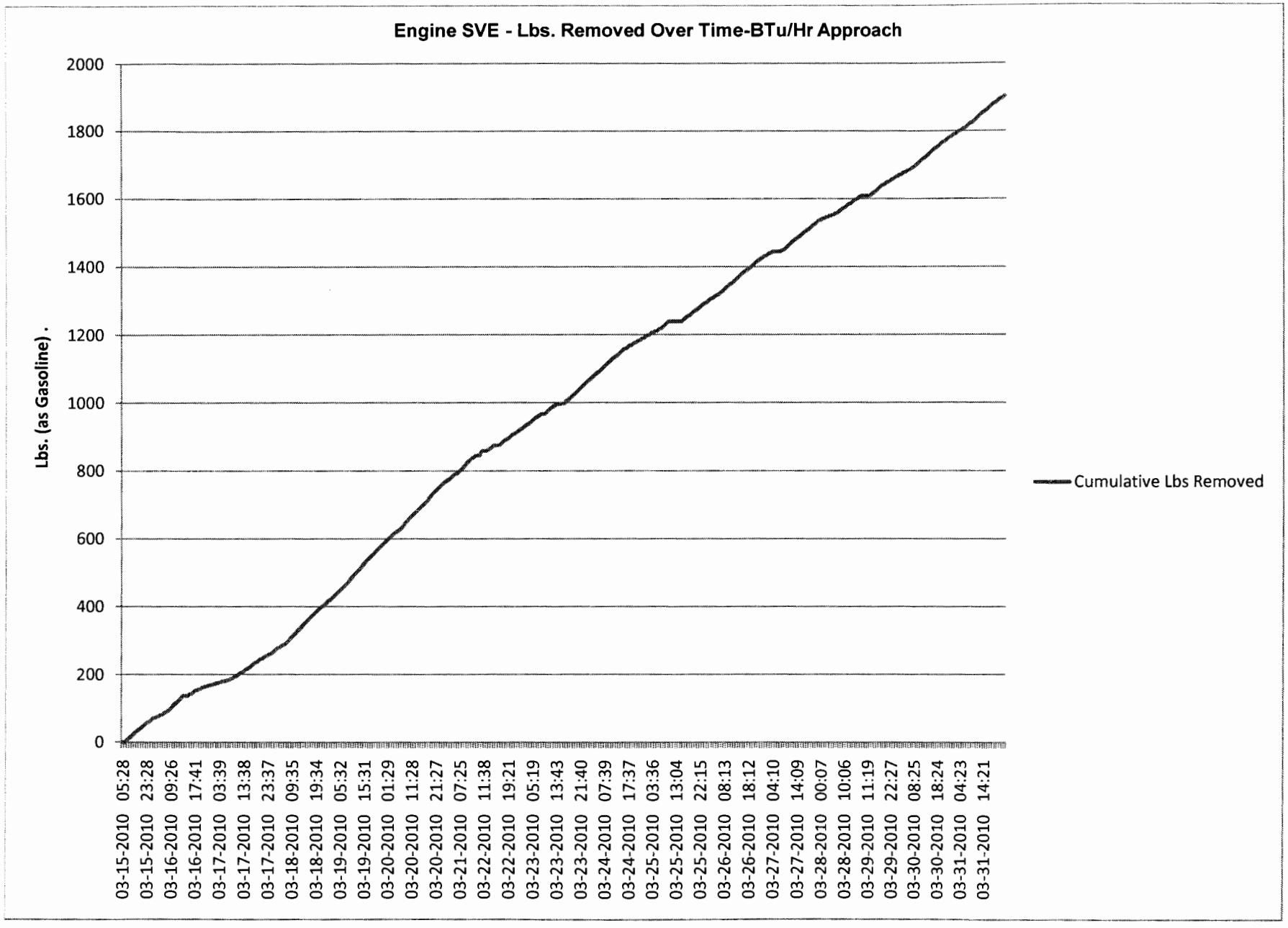
› determine energy demand on the engine at static conditions
fold vacuum just prior to allowing the process flow to begin
essary
v and is displayed as Estimated Btu/hr and recorded accordingly

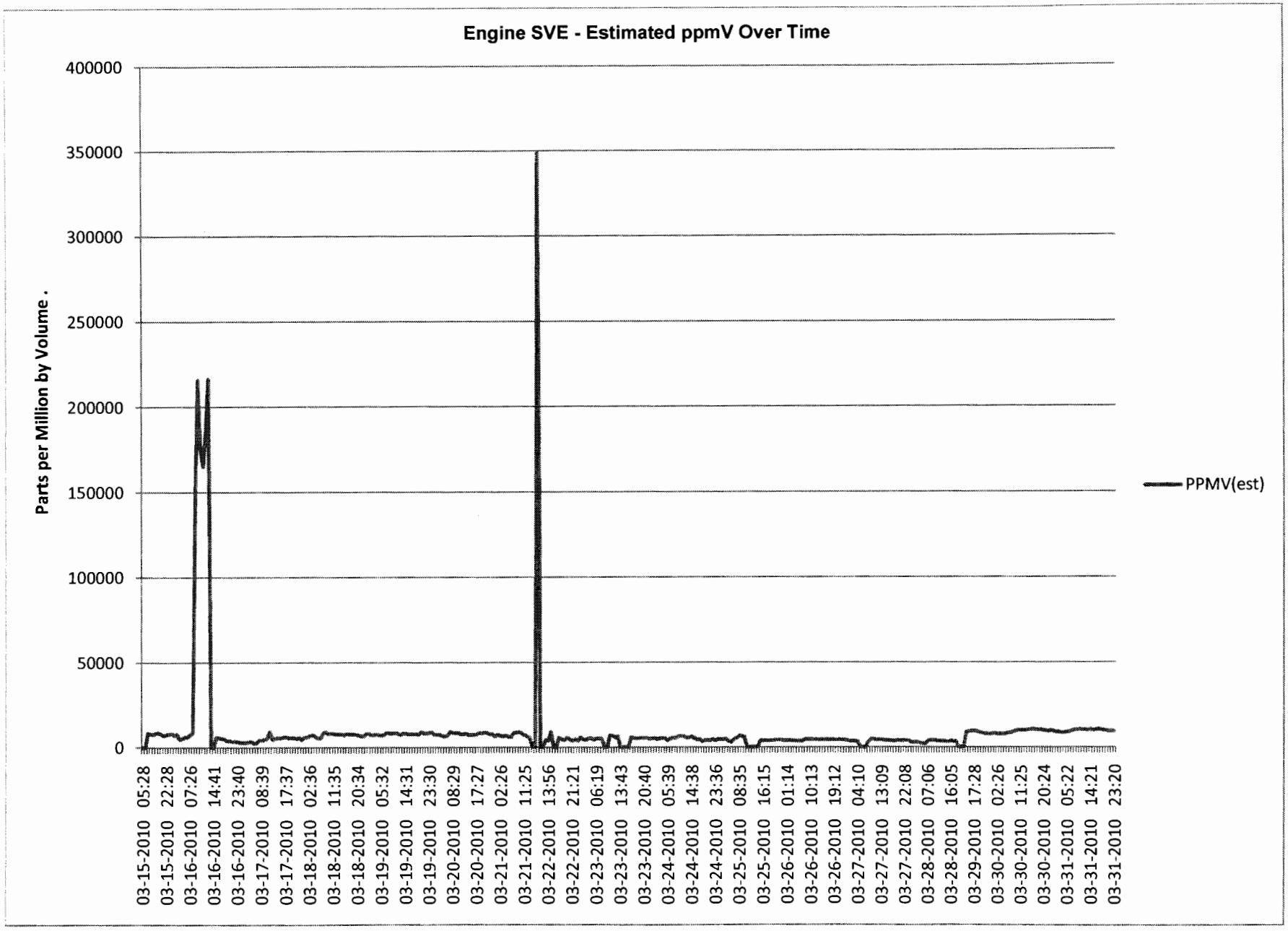
for PPMV
cy of the Btu/hr calculation
ning the flow measurement and the Btu calculations are correct

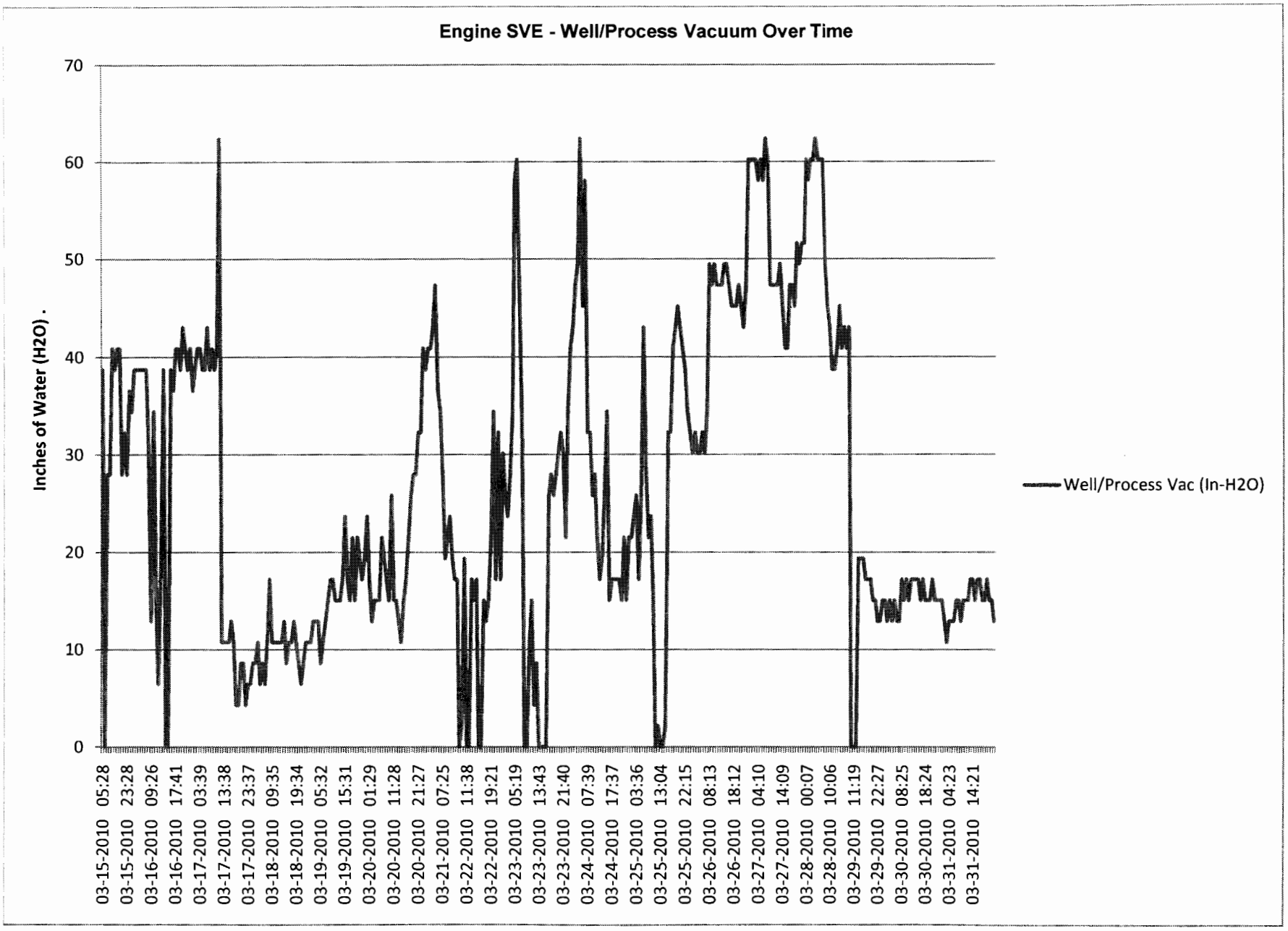
; was removed from a project in a given time period.
ıf field instrumentation and it is a consistent
ysis.

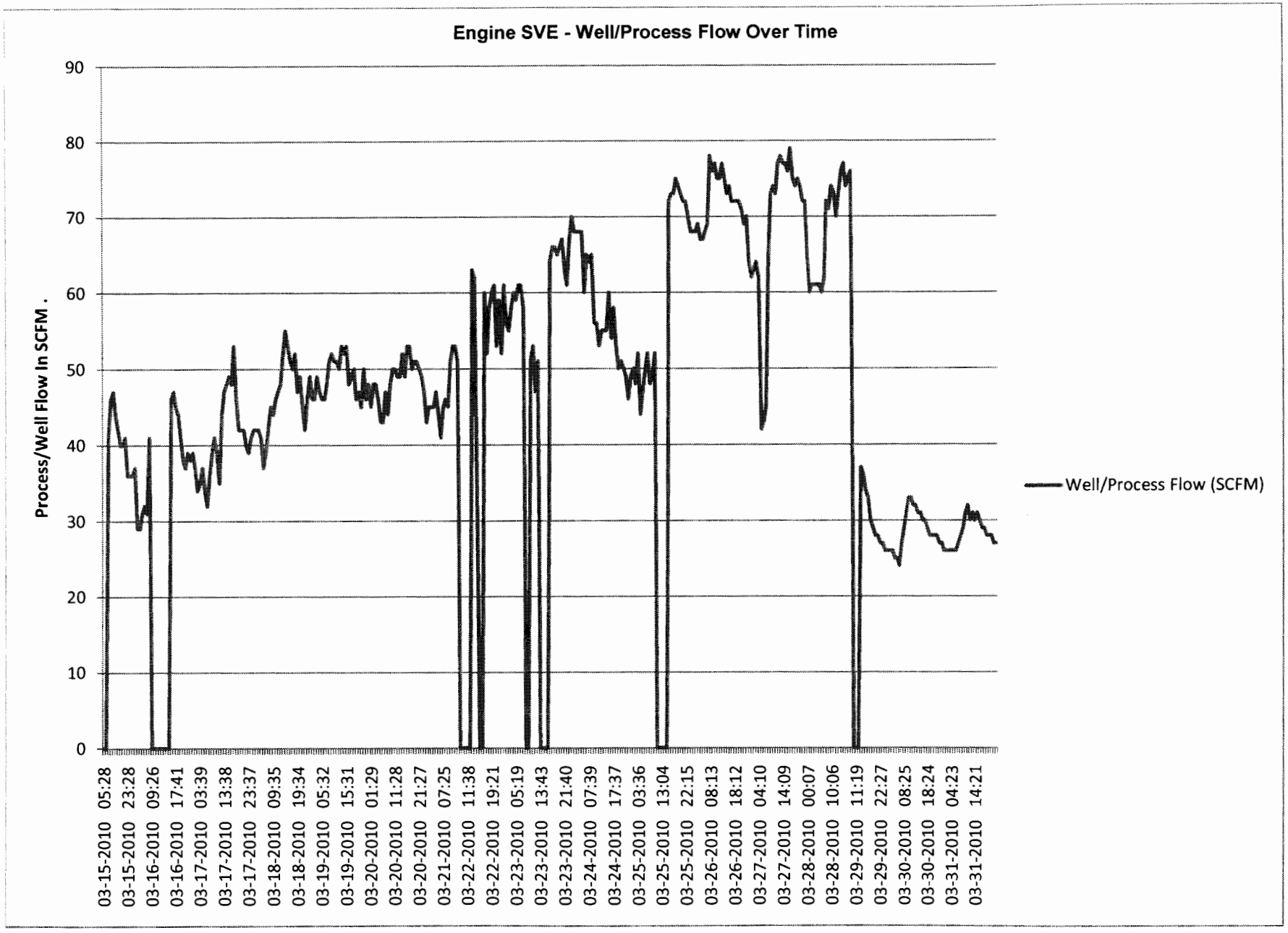
lab data. Because the process flow rate
ıere are no expressed or implied warrantees

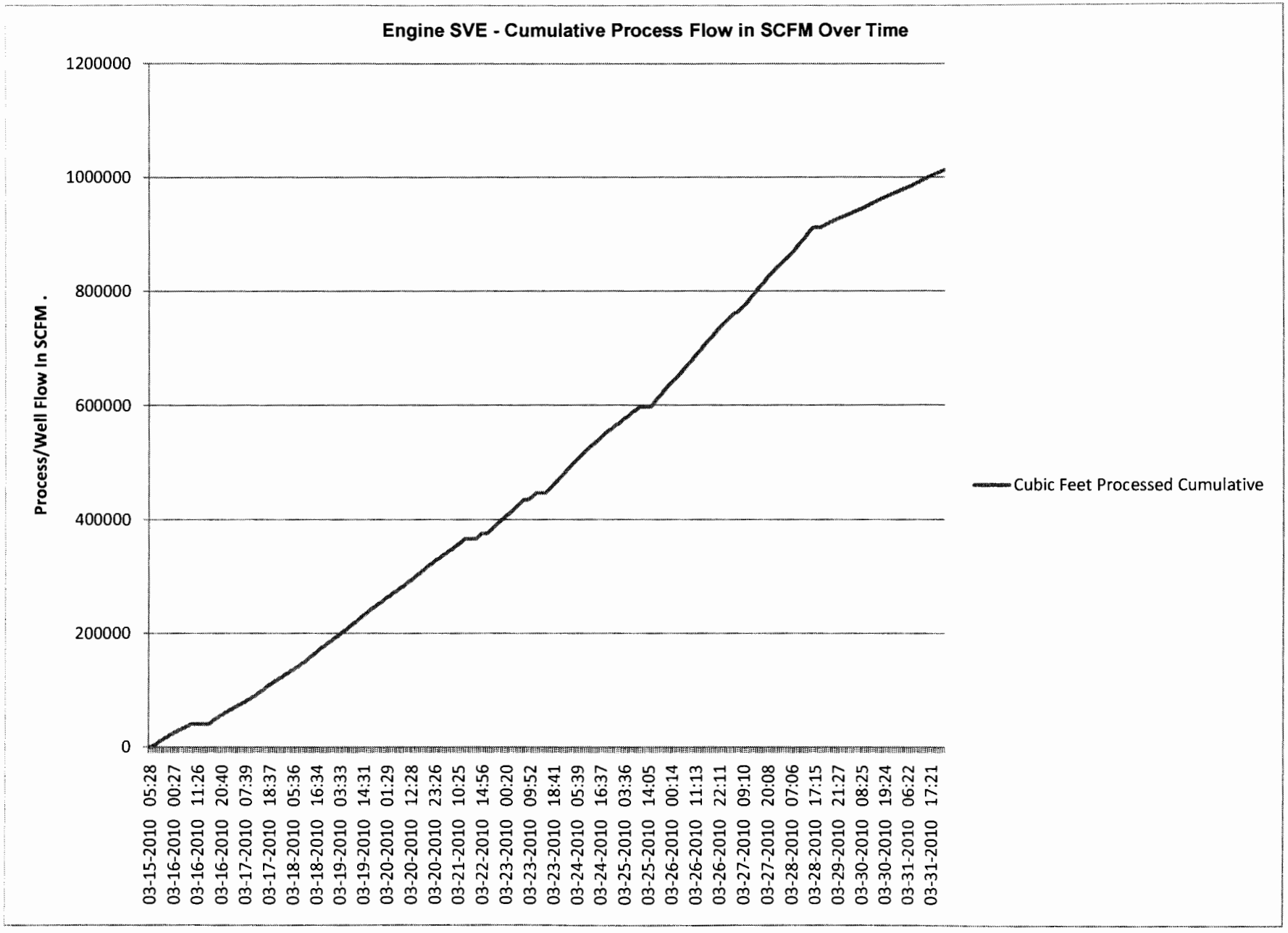
uire further information

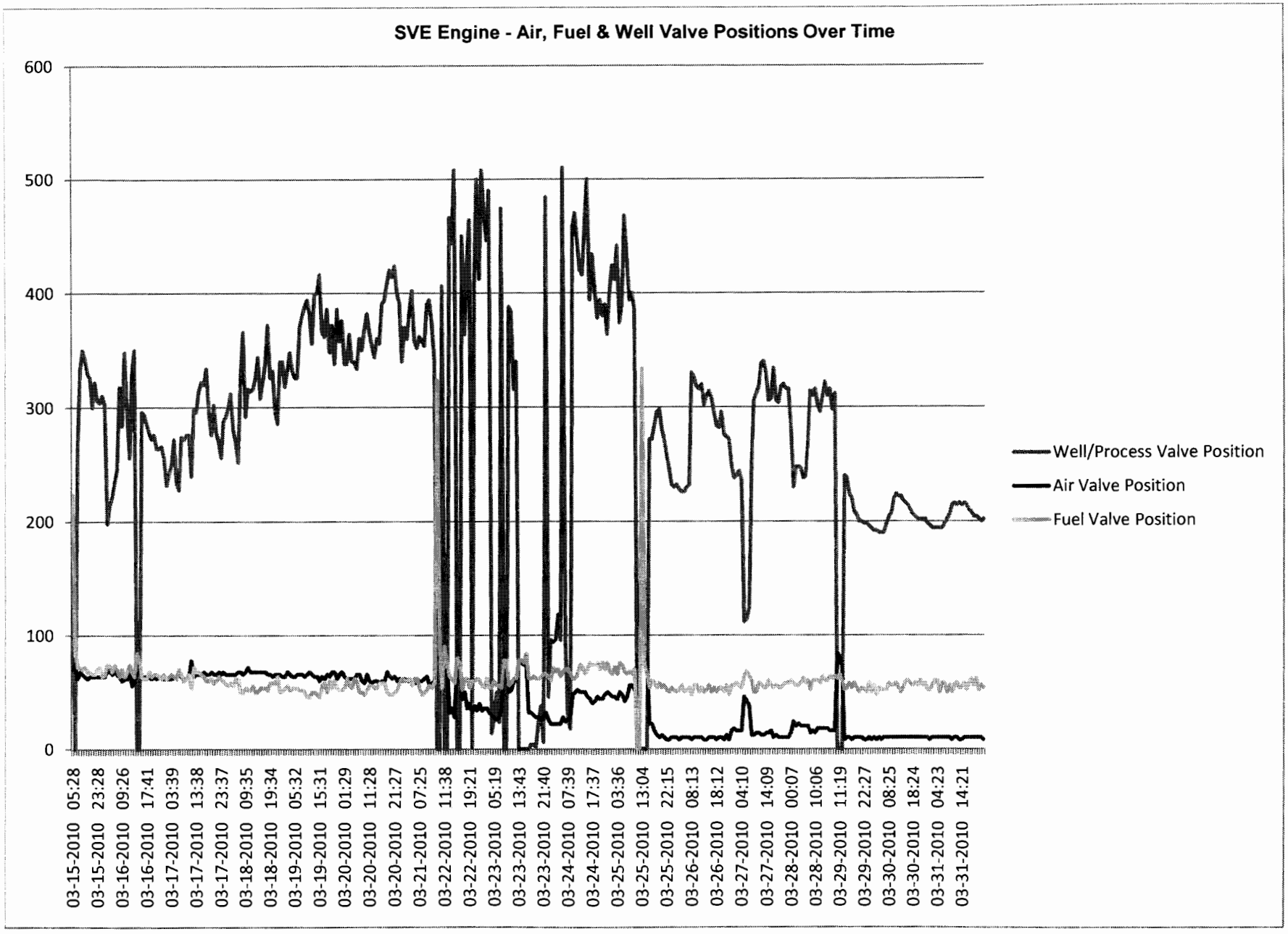

Engine SVE - Lbs. Removed Over Time-BTu/Hr Approach
Lbs. (as Gasoline) .
2000
1800
1600
1400
1200
1000
800
600
400
200
0
03-15-2010 05:28
03-15-2010 23:28
03-16-2010 09:26
03-16-2010 17:41
03-17-2010 03:39
03-17-2010 13:38
03-17-2010 23:37
03-18-2010 09:35
03-18-2010 19:34
03-19-2010 05:32
03-19-2010 15:31
03-20-2010 01:29
03-20-2010 11:28
03-20-2010 21:27
03-21-2010 07:25
03-22-2010 11:38
03-22-2010 19:21
03-23-2010 05:19
03-23-2010 13:43
03-23-2010 21:40
03-24-2010 07:39
03-24-2010 17:37
03-25-2010 03:36
03-25-2010 13:04
03-25-2010 22:15
03-26-2010 08:13
03-26-2010 18:12
03-27-2010 04:10
03-27-2010 14:09
03-28-2010 00:07
03-28-2010 10:06
03-29-2010 11:19
03-29-2010 22:27
03-30-2010 08:25
03-30-2010 18:24
03-31-2010 04:23
03-31-2010 14:21
Cumulative Lbs Removed

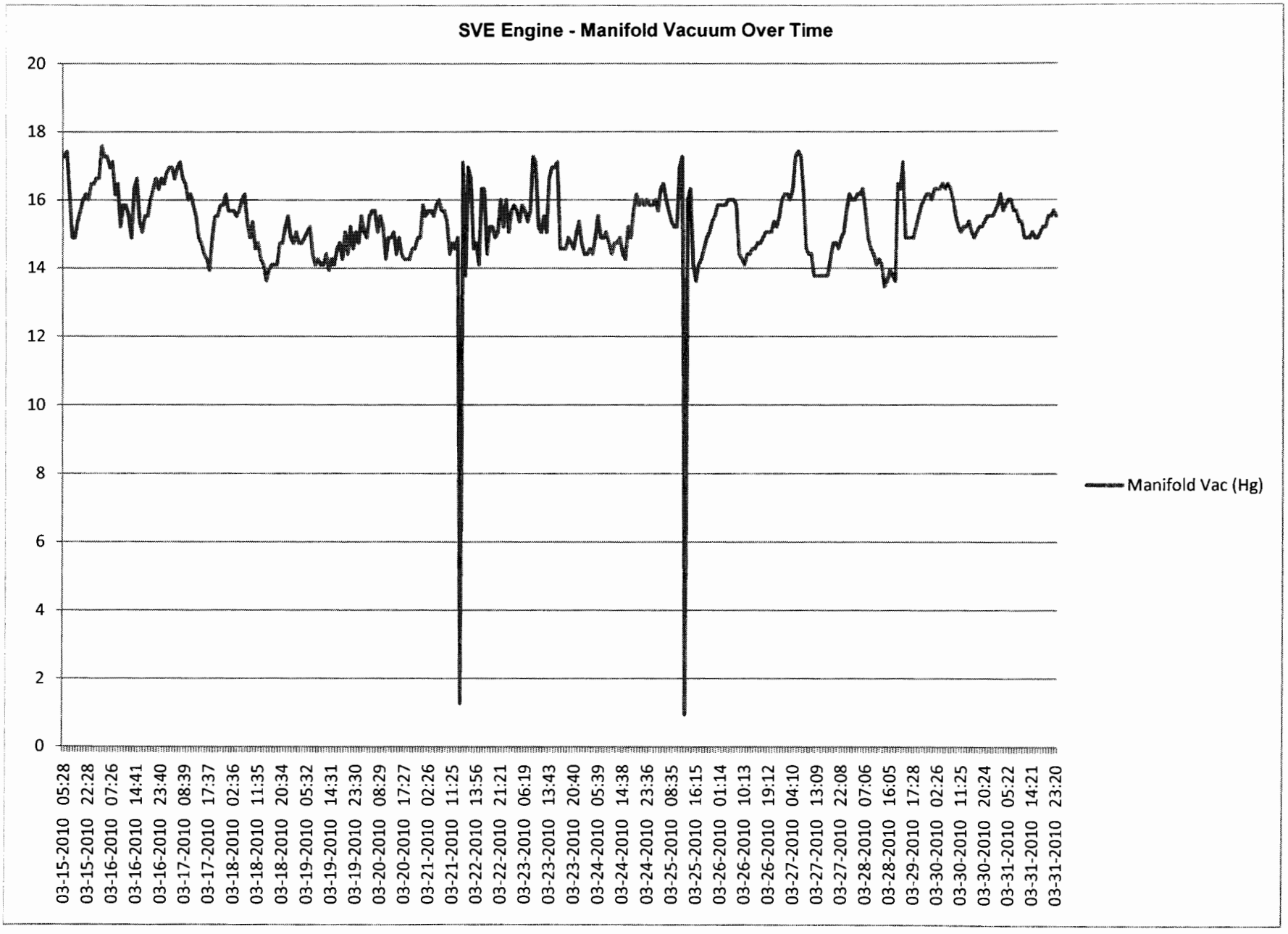

Engine SVE - Estimated ppmV Over Time
Parts per Million by Volume .
400000
350000
300000
250000
200000
150000
100000
50000
0
PPMV(est)
03-15-2010 05:28
03-15-2010 22:28
03-16-2010 07:26
03-16-2010 14:41
03-16-2010 23:40
03-17-2010 08:39
03-17-2010 17:37
03-18-2010 02:36
03-18-2010 11:35
03-18-2010 20:34
03-19-2010 05:32
03-19-2010 14:31
03-19-2010 23:30
03-20-2010 08:29
03-20-2010 17:27
03-21-2010 02:26
03-21-2010 11:25
03-22-2010 13:56
03-22-2010 21:21
03-23-2010 06:19
03-23-2010 13:43
03-23-2010 20:40
03-24-2010 05:39
03-24-2010 14:38
03-24-2010 23:36
03-25-2010 08:35
03-25-2010 16:15
03-26-2010 01:14
03-26-2010 10:13
03-26-2010 19:12
03-27-2010 04:10
03-27-2010 13:09
03-27-2010 22:08
03-28-2010 07:06
03-28-2010 16:05
03-29-2010 17:28
03-30-2010 02:26
03-30-2010 11:25
03-30-2010 20:24
03-31-2010 05:22
03-31-2010 14:21
03-31-2010 23:20

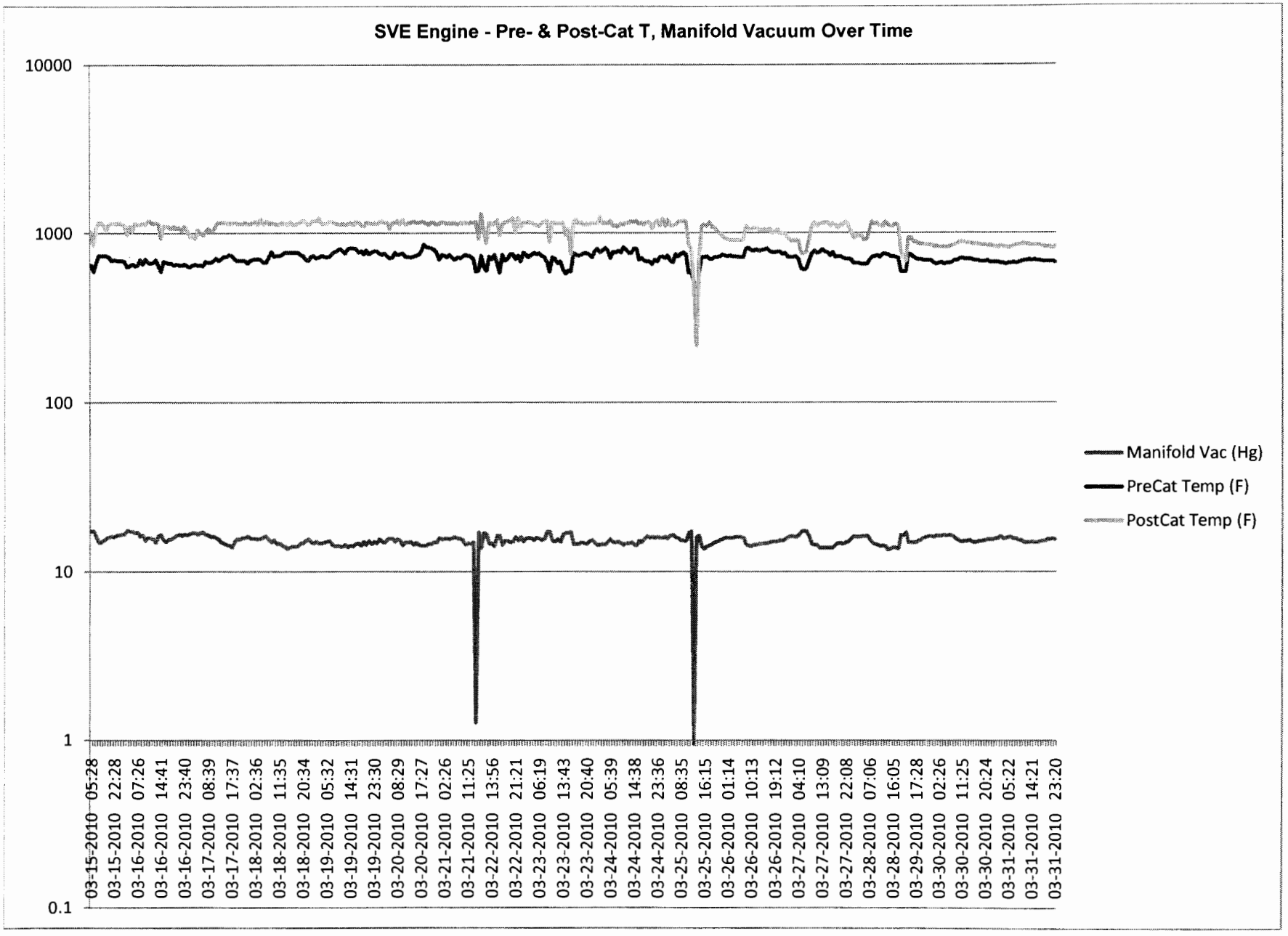

Engine SVE - Well/Process Vacuum Over Time
Inches of Water (H2O) .
70
60
50
40
30
20
10
0
03-15-2010 05:28
03-15-2010 23:28
03-16-2010 09:26
03-16-2010 17:41
03-17-2010 03:39
03-17-2010 13:38
03-17-2010 23:37
03-18-2010 09:35
03-18-2010 19:34
03-19-2010 05:32
03-19-2010 15:31
03-20-2010 01:29
03-20-2010 11:28
03-20-2010 21:27
03-21-2010 07:25
03-22-2010 11:38
03-22-2010 19:21
03-23-2010 05:19
03-23-2010 13:43
03-23-2010 21:40
03-24-2010 07:39
03-24-2010 17:37
03-25-2010 03:36
03-25-2010 13:04
03-25-2010 22:15
03-26-2010 08:13
03-26-2010 18:12
03-27-2010 04:10
03-27-2010 14:09
03-28-2010 00:07
03-28-2010 10:06
03-29-2010 11:19
03-29-2010 22:27
03-30-2010 08:25
03-30-2010 18:24
03-31-2010 04:23
03-31-2010 14:21
Well/Process Vac (In-H2O)

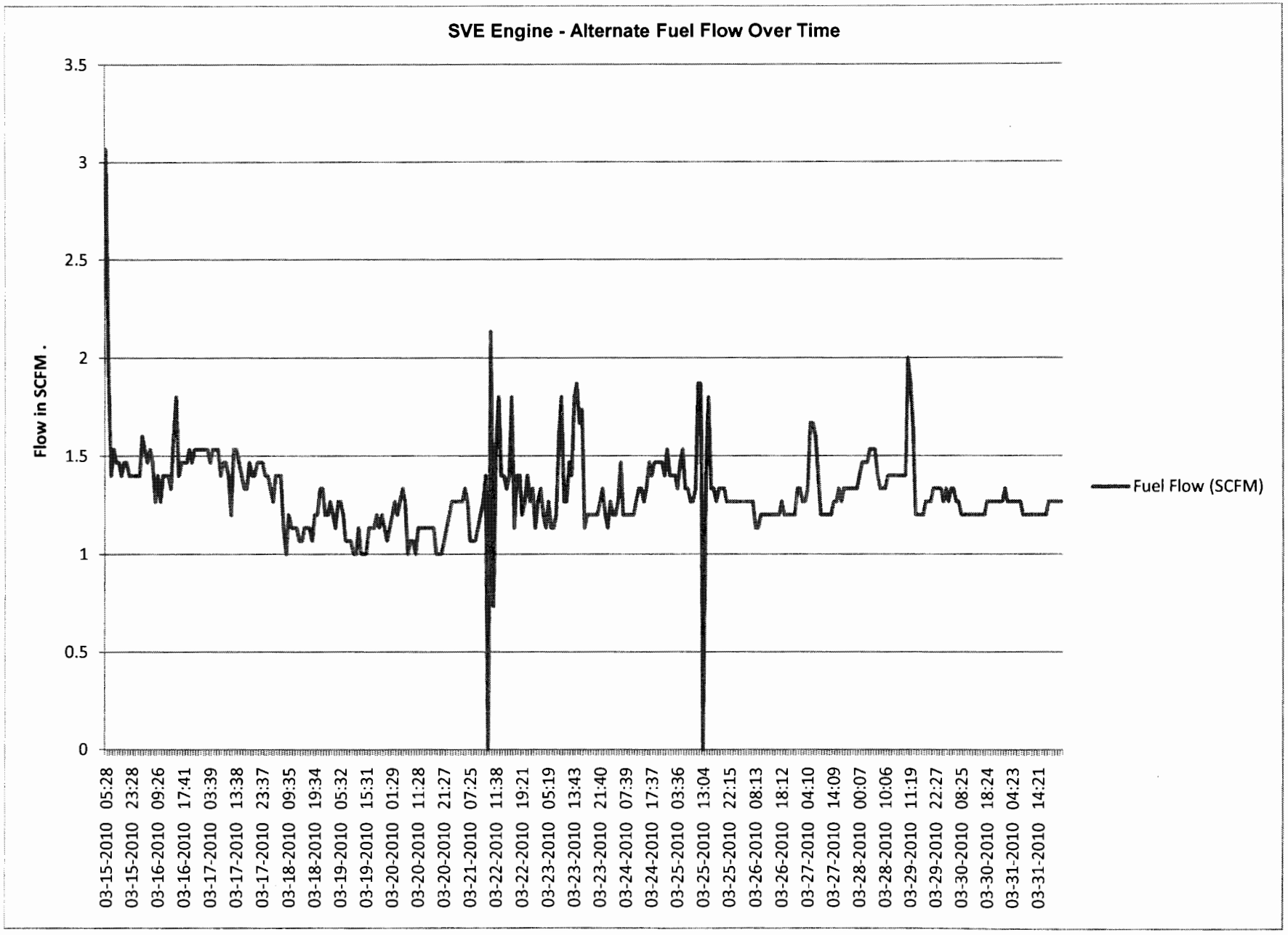

Engine SVE - Well/Process Flow Over Time
Process/Well Flow In SCFM .
90
80
70
60
50
40
30
20
10
0
03-15-2010 05:28
03-15-2010 23:28
03-16-2010 09:26
03-16-2010 17:41
03-17-2010 03:39
03-17-2010 13:38
03-17-2010 23:37
03-18-2010 09:35
03-18-2010 19:34
03-19-2010 05:32
03-19-2010 15:31
03-20-2010 01:29
03-20-2010 11:28
03-20-2010 21:27
03-21-2010 07:25
03-22-2010 11:38
03-22-2010 19:21
03-23-2010 05:19
03-23-2010 13:43
03-23-2010 21:40
03-24-2010 07:39
03-24-2010 17:37
03-25-2010 03:36
03-25-2010 13:04
03-25-2010 22:15
03-26-2010 08:13
03-26-2010 18:12
03-27-2010 04:10
03-27-2010 14:09
03-28-2010 00:07
03-28-2010 10:06
03-29-2010 11:19
03-29-2010 22:27
03-30-2010 08:25
03-30-2010 18:24
03-31-2010 04:23
03-31-2010 14:21
Well/Process Flow (SCFM)

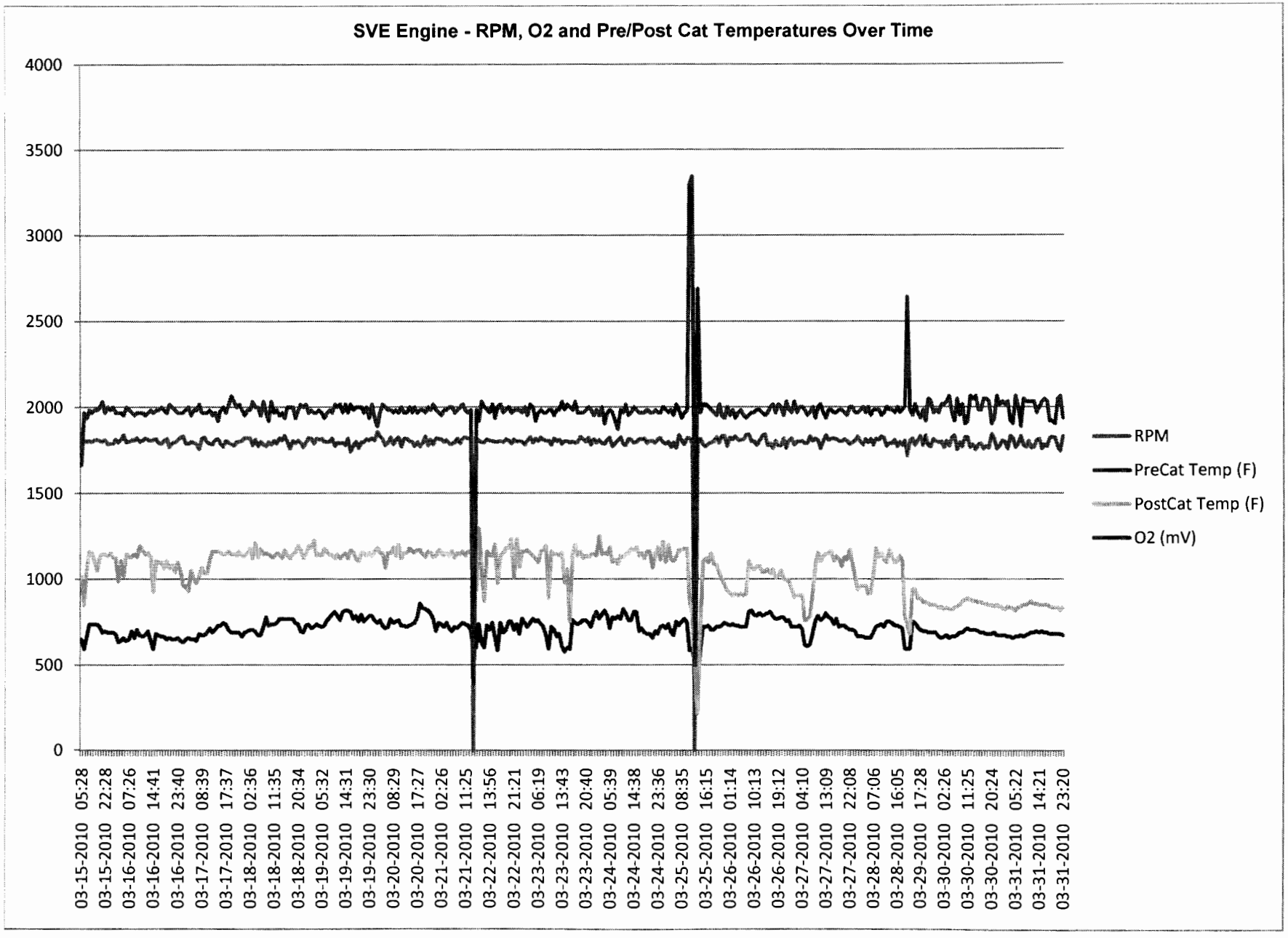

Engine SVE - Cumulative Process Flow in SCFM Over Time
Process/Well Flow In SCFM .
1200000
1000000
800000
600000
400000
200000
0
03-15-2010 05:28
03-16-2010 00:27
03-16-2010 11:26
03-16-2010 20:40
03-17-2010 07:39
03-17-2010 18:37
03-18-2010 05:36
03-18-2010 16:34
03-19-2010 03:33
03-19-2010 14:31
03-20-2010 01:29
03-20-2010 12:28
03-20-2010 23:26
03-21-2010 10:25
03-22-2010 14:56
03-23-2010 00:20
03-23-2010 09:52
03-23-2010 18:41
03-24-2010 05:39
03-24-2010 16:37
03-25-2010 03:36
03-25-2010 14:05
03-26-2010 00:14
03-26-2010 11:13
03-26-2010 22:11
03-27-2010 09:10
03-27-2010 20:08
03-28-2010 07:06
03-28-2010 17:15
03-29-2010 21:27
03-30-2010 08:25
03-30-2010 19:24
03-31-2010 06:22
03-31-2010 17:21
Cubic Feet Processed Cumulative


SVE Engine - Air, Fuel & Well Valve Positions Over Time
600
500
400
300
200
100
0
03-15-2010 05:28
03-15-2010 23:28
03-16-2010 09:26
03-16-2010 17:41
03-17-2010 03:39
03-17-2010 13:38
03-17-2010 23:37
03-18-2010 09:35
03-18-2010 19:34
03-19-2010 05:32
03-19-2010 15:31
03-20-2010 01:29
03-20-2010 11:28
03-20-2010 21:27
03-21-2010 07:25
03-22-2010 11:38
03-22-2010 19:21
03-23-2010 05:19
03-23-2010 13:43
03-23-2010 21:40
03-24-2010 07:39
03-24-2010 17:37
03-25-2010 03:36
03-25-2010 13:04
03-25-2010 22:15
03-26-2010 08:13
03-26-2010 18:12
03-27-2010 04:10
03-27-2010 14:09
03-28-2010 00:07
03-28-2010 10:06
03-29-2010 11:19
03-29-2010 22:27
03-30-2010 08:25
03-30-2010 18:24
03-31-2010 04:23
03-31-2010 14:21
Well/Process Valve Position
Air Valve Position
Fuel Valve Position


SVE Engine - Manifold Vacuum Over Time
20
18
16
14
12
10
8
6
4
2
0
03-15-2010 05:28
03-15-2010 22:28
03-16-2010 07:26
03-16-2010 14:41
03-16-2010 23:40
03-17-2010 08:39
03-17-2010 17:37
03-18-2010 02:36
03-18-2010 11:35
03-18-2010 20:34
03-19-2010 05:32
03-19-2010 14:31
03-19-2010 23:30
03-20-2010 08:29
03-20-2010 17:27
03-21-2010 02:26
03-21-2010 11:25
03-22-2010 13:56
03-22-2010 21:21
03-23-2010 06:19
03-23-2010 13:43
03-23-2010 20:40
03-24-2010 05:39
03-24-2010 14:38
03-24-2010 23:36
03-25-2010 08:35
03-25-2010 16:15
03-26-2010 01:14
03-26-2010 10:13
03-26-2010 19:12
03-27-2010 04:10
03-27-2010 13:09
03-27-2010 22:08
03-28-2010 07:06
03-28-2010 16:05
03-29-2010 17:28
03-30-2010 02:26
03-30-2010 11:25
03-30-2010 20:24
03-31-2010 05:22
03-31-2010 14:21
03-31-2010 23:20
Manifold Vac (Hg)


SVE Engine - Pre- & Post-Cat T, Manifold Vacuum Over Time
10000
1000
100
10
1
0.1
03-15-2010 05:28
03-15-2010 22:28
03-16-2010 07:26
03-16-2010 14:41
03-16-2010 23:40
03-17-2010 08:39
03-17-2010 17:37
03-18-2010 02:36
03-18-2010 11:35
03-18-2010 20:34
03-19-2010 05:32
03-19-2010 14:31
03-19-2010 23:30
03-20-2010 08:29
03-20-2010 17:27
03-21-2010 02:26
03-21-2010 11:25
03-22-2010 13:56
03-22-2010 21:21
03-23-2010 06:19
03-23-2010 13:43
03-23-2010 20:40
03-24-2010 05:39
03-24-2010 14:38
03-24-2010 23:36
03-25-2010 08:35
03-25-2010 16:15
03-26-2010 01:14
03-26-2010 10:13
03-26-2010 19:12
03-27-2010 04:10
03-27-2010 13:09
03-27-2010 22:08
03-28-2010 07:06
03-28-2010 16:05
03-29-2010 17:28
03-30-2010 02:26
03-30-2010 11:25
03-30-2010 20:24
03-31-2010 05:22
03-31-2010 14:21
03-31-2010 23:20
Manifold Vac (Hg)
PreCat Temp (F)
PostCat Temp (F)


SVE Engine - Alternate Fuel Flow Over Time
Flow in SCFM .
3.5
3
2.5
2
1.5
1
0.5
0
03-15-2010 05:28
03-15-2010 23:28
03-16-2010 09:26
03-16-2010 17:41
03-17-2010 03:39
03-17-2010 13:38
03-17-2010 23:37
03-18-2010 09:35
03-18-2010 19:34
03-19-2010 05:32
03-19-2010 15:31
03-20-2010 01:29
03-20-2010 11:28
03-20-2010 21:27
03-21-2010 07:25
03-22-2010 11:38
03-22-2010 19:21
03-23-2010 05:19
03-23-2010 13:43
03-23-2010 21:40
03-24-2010 07:39
03-24-2010 17:37
03-25-2010 03:36
03-25-2010 13:04
03-25-2010 22:15
03-26-2010 08:13
03-26-2010 18:12
03-27-2010 04:10
03-27-2010 14:09
03-28-2010 00:07
03-28-2010 10:06
03-29-2010 11:19
03-29-2010 22:27
03-30-2010 08:25
03-30-2010 18:24
03-31-2010 04:23
03-31-2010 14:21
Fuel Flow (SCFM)


SVE Engine - RPM, O2 and Pre/Post Cat Temperatures Over Time
4000
3500
3000
2500
2000
1500
1000
500
0
03-15-2010 05:28
03-15-2010 22:28
03-16-2010 07:26
03-16-2010 14:41
03-16-2010 23:40
03-17-2010 08:39
03-17-2010 17:37
03-18-2010 02:36
03-18-2010 11:35
03-18-2010 20:34
03-19-2010 05:32
03-19-2010 14:31
03-19-2010 23:30
03-20-2010 08:29
03-20-2010 17:27
03-21-2010 02:26
03-21-2010 11:25
03-22-2010 13:56
03-22-2010 21:21
03-23-2010 06:19
03-23-2010 13:43
03-23-2010 20:40
03-24-2010 05:39
03-24-2010 14:38
03-24-2010 23:36
03-25-2010 08:35
03-25-2010 16:15
03-26-2010 01:14
03-26-2010 10:13
03-26-2010 19:12
03-27-2010 04:10
03-27-2010 13:09
03-27-2010 22:08
03-28-2010 07:06
03-28-2010 16:05
03-29-2010 17:28
03-30-2010 02:26
03-30-2010 11:25
03-30-2010 20:24
03-31-2010 05:22
03-31-2010 14:21
03-31-2010 23:20
RPM
PreCat Temp (F)
PostCat Temp (F)
O2 (mV)

Remediation Service Int'l
4835 Colt Unit D
Ventura CA 93003
805.644.8382
805.644.8378 FAX
www.rsi-save.com

71831.93

Report Generator Version 1.4

Date of Report:	4/12/2010
Project Name:	Thriftway Refinery March 2009 Eng. #2
Unit ID:	0
Controller S/N:	182
Software version:	844

Date Range From:	3/10/2010 9:33
Date Range To :	3/31/2010 23:40
Lbs. Removed/Period:	1060.27
Gal Removed/Period:	171.03
SCF Processed/Period	631149

Assumptions:

20000	Btu/lb
6.2	lb/gallon of gasoline
120	Mole Weight of Extracted VOC
2520	Btu/Cubic Foot of Propane
1000	Btu/Cubic Foot of Natural Gas

Parts/Million by Volume (PPMV) Conversion to Micrograms/Liter (ug/L)
(PPMV/24.055)*AVG. Mole Weight=ug/L

Mass Transfer Equation to Convert to Pounds/Hour:
(ug/L)*(Flow SCFM)*28.3 L/SCF*60 Minutes/Hour*2.2 lbs/Kg*(1/10^9)

There are no express or implied warranties for fitness of use or any other purpose of the data contained herein.
See report footnotes for disclaimer details and other technical information relating to calculation procedures.

Footnotes:

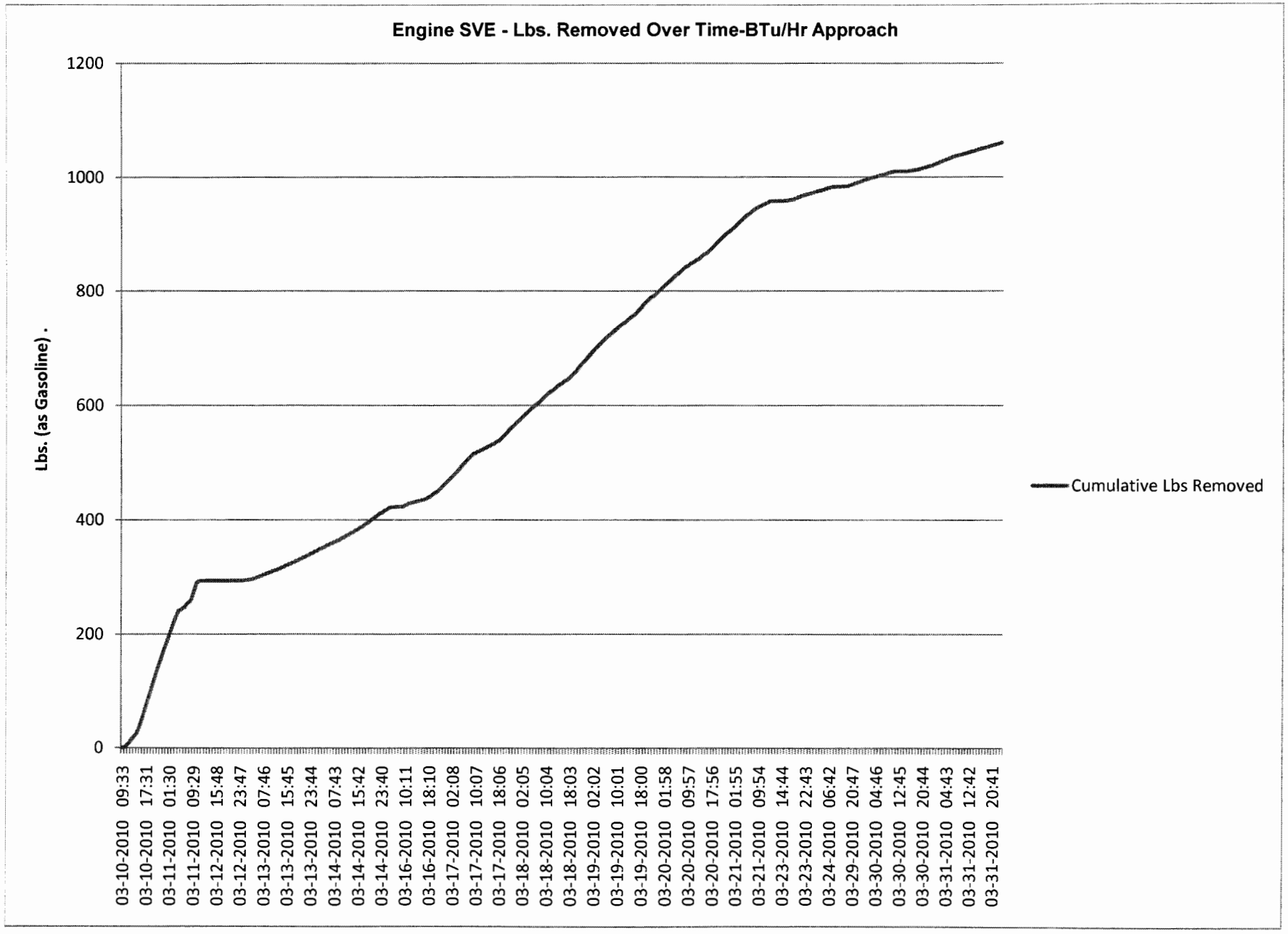
RSIs Innovative Approach to Estimating Btu/Hr:
1. Measure alternate fuel usage of engine prior to introduction of process flow
2. Multiply the SCFM flow rate of the alternate fuel (propane or natural gas) by the Btu value to determine energy demand on the engine at static conditions
3. The controller records a "snapshot" of the energy demand at a given RPM and engine manifold vacuum just prior to allowing the process flow to begin
4. The controller adjusts the initial baseline based on engine load or oxygen deficiency as necessary
5. Any drop in energy demand is assumed to be caused by the introduction of the process flow and is displayed as Estimated Btu/hr and recorded accordingly

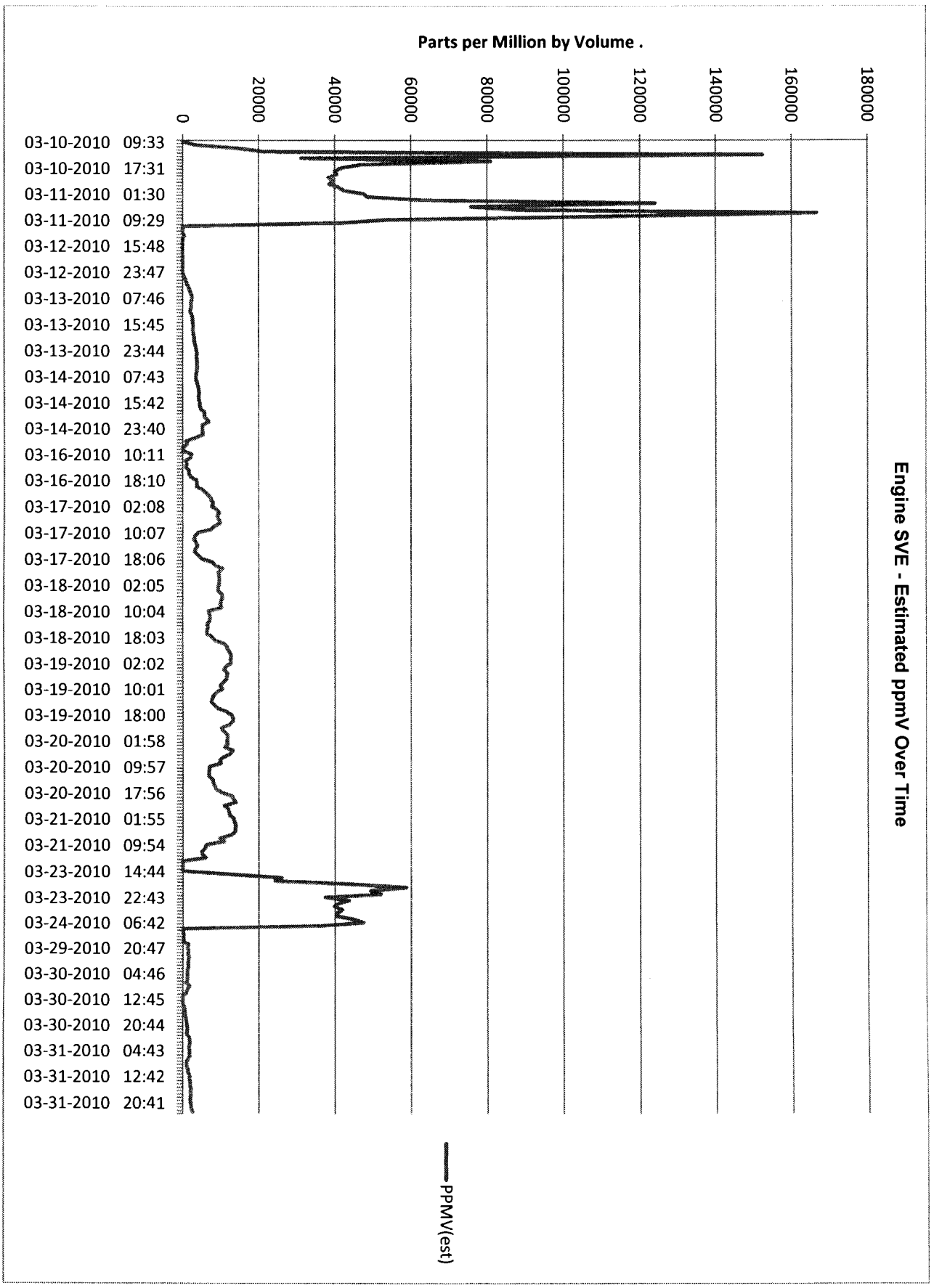
RSIs Innovative Approach to Estimating PPMV:
1. The controller completes the Btu/hr calculation as explained above
2. The controller looks at the well flow rate (estimated or measured in SCFM)
3. The controller then computes the average PPMV using the mass transfer equation to solve for PPMV
4. If the flow rate is estimated then PPMV is subject to accuracy of estimated flow and accuracy of the Btu/hr calculation
5. If the flow rate is measured then this PPMV estimate will be relative to actual lab data assuming the flow measurement and the Btu calculations are correct

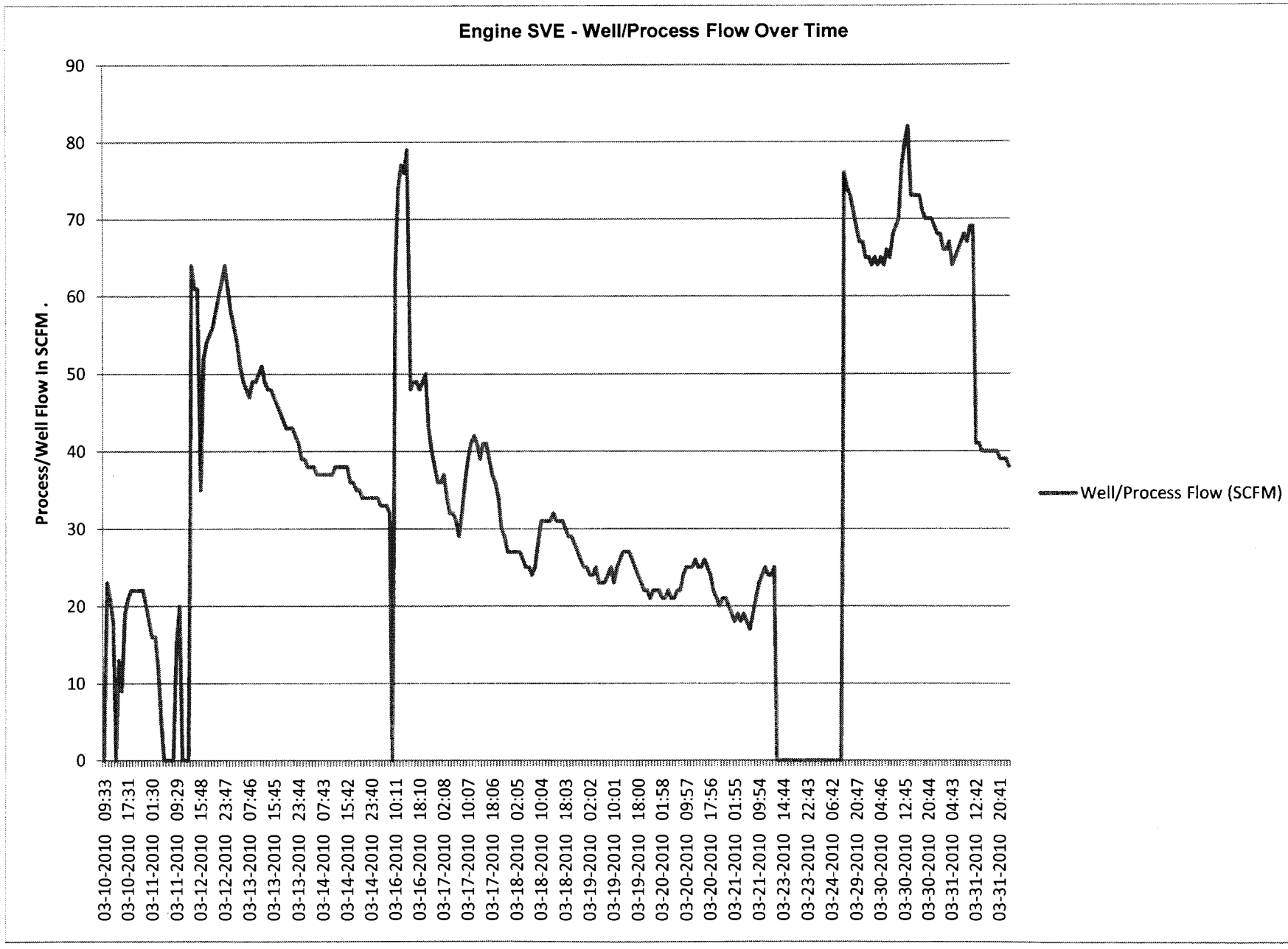
There are many advantages to using RSIs innovative approach in calculating how much mass was removed from a project in a given time period. Our method eliminates human calculation error and prevents incorrect or non-calibrated use of field instrumentation and it is a consistent periodic measurement over time which when used properly will reduces costly laboratory analysis.

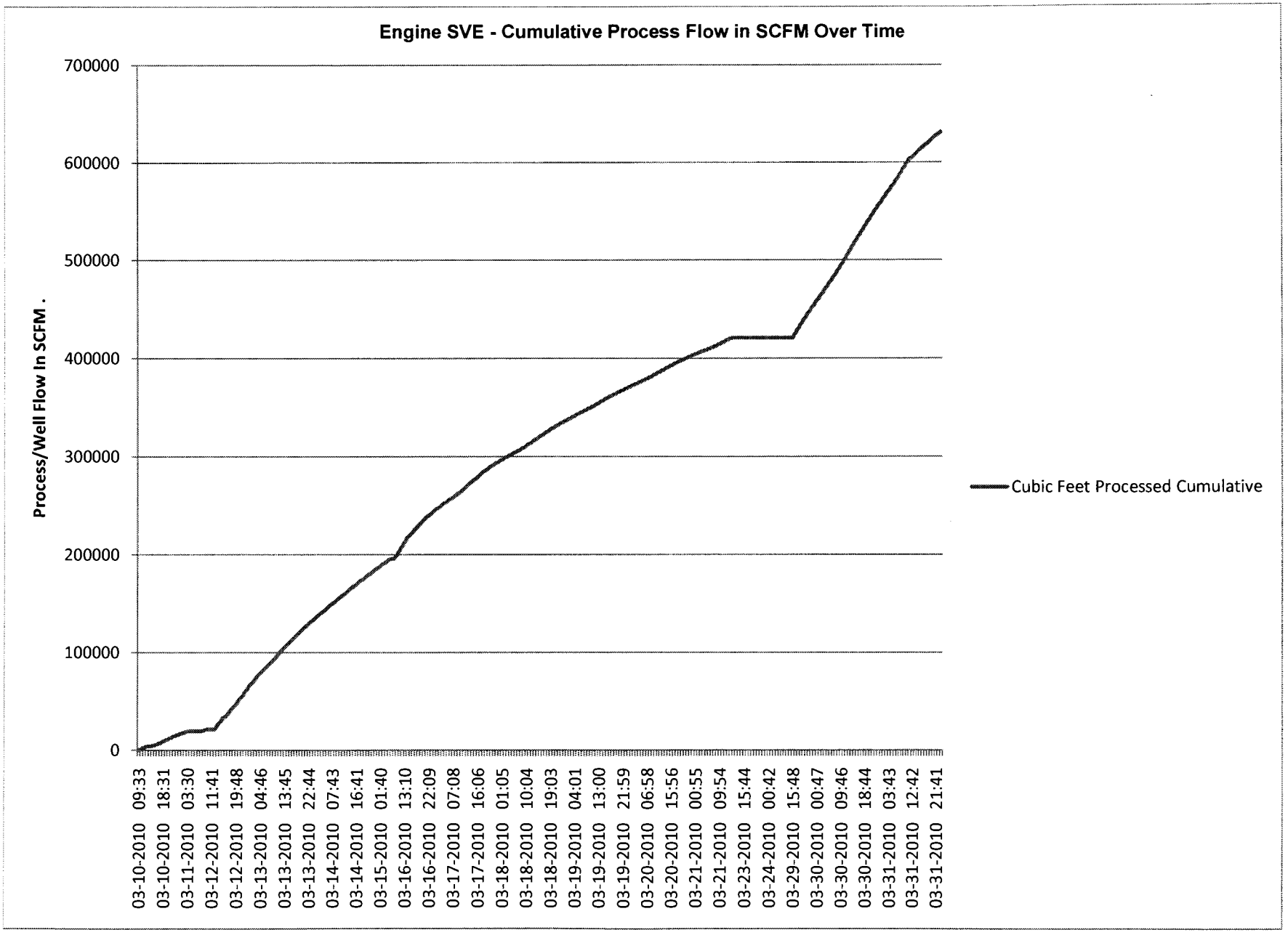
Our estimates of VOC removal have proven to be reasonable when compared to independent lab data. Because the process flow rate and the alternate fuel flow rate measurements are dependent upon proper system operation there are no expressed or implied warrantees of fitness of use for any purpose when using this report or the data contained herein.

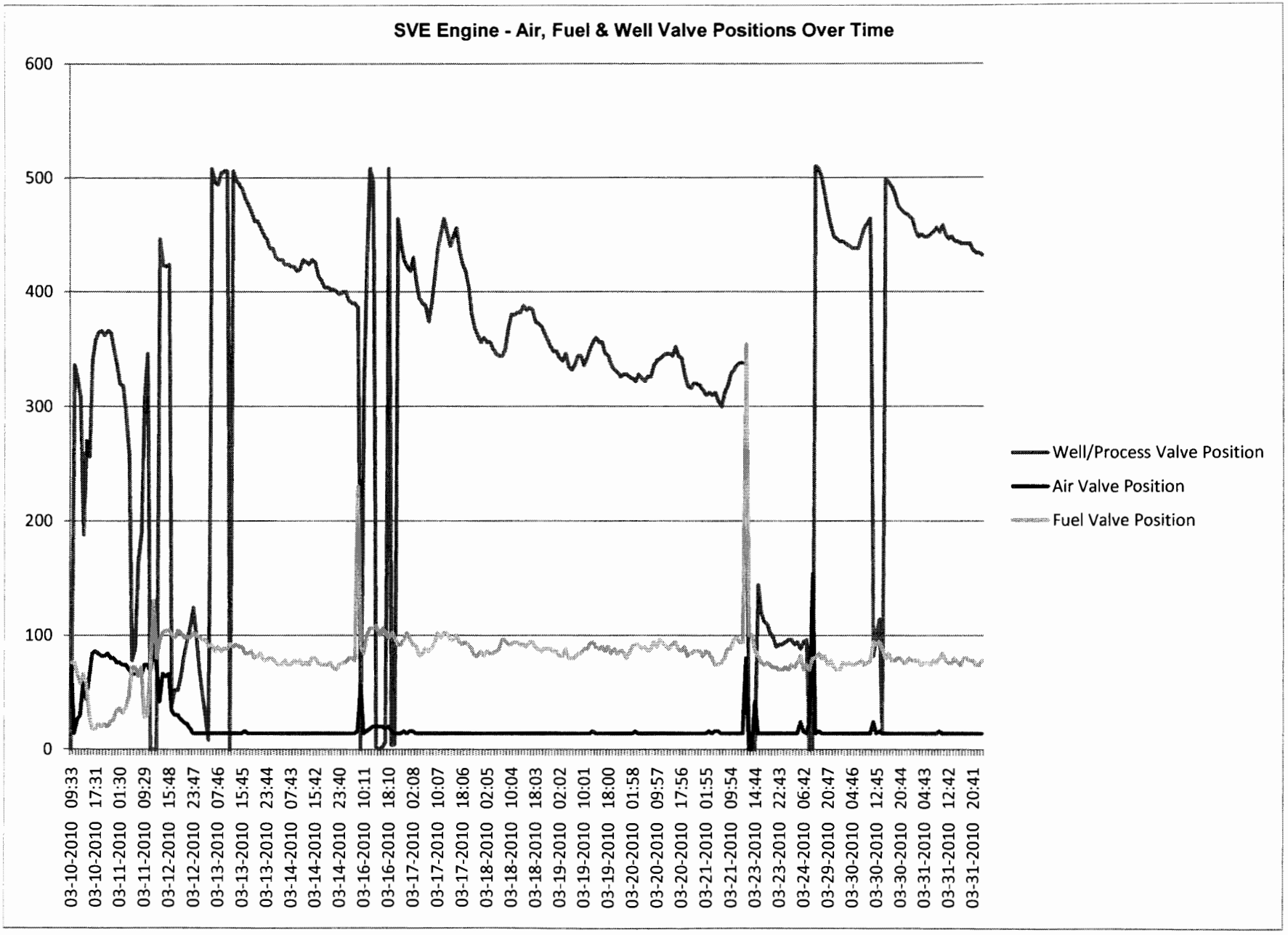
Please do not hesitate to contact RSI 1-800-368-8685 if you should have any questions or require further information

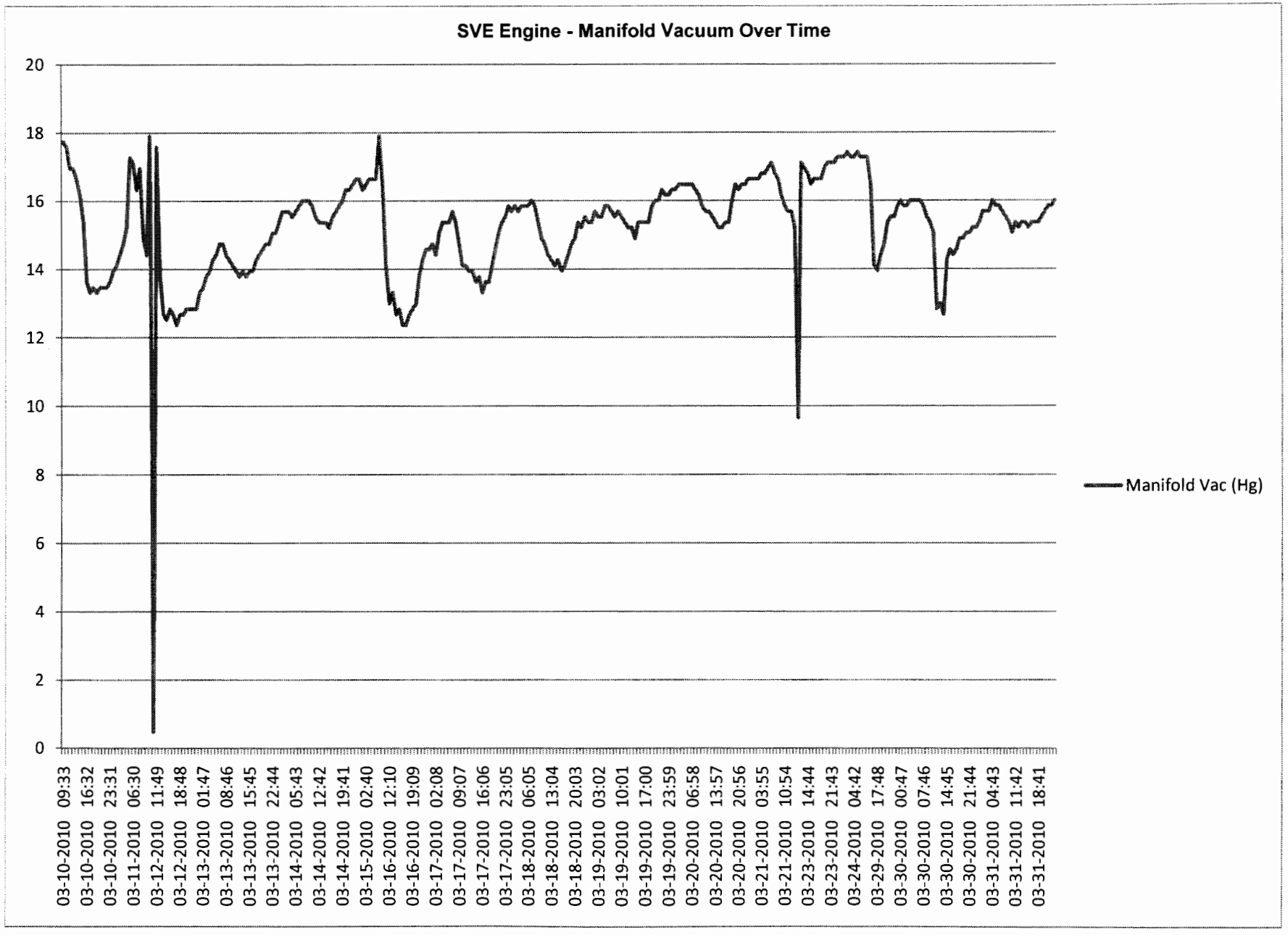

Engine SVE - Lbs. Removed Over Time-BTu/Hr Approach
Lbs. (as Gasoline) .
1200
1000
800
600
400
200
0
03-10-2010 09:33
03-10-2010 17:31
03-11-2010 01:30
03-11-2010 09:29
03-12-2010 15:48
03-12-2010 23:47
03-13-2010 07:46
03-13-2010 15:45
03-13-2010 23:44
03-14-2010 07:43
03-14-2010 15:42
03-14-2010 23:40
03-16-2010 10:11
03-16-2010 18:10
03-17-2010 02:08
03-17-2010 10:07
03-17-2010 18:06
03-18-2010 02:05
03-18-2010 10:04
03-18-2010 18:03
03-19-2010 02:02
03-19-2010 10:01
03-19-2010 18:00
03-20-2010 01:58
03-20-2010 09:57
03-20-2010 17:56
03-21-2010 01:55
03-21-2010 09:54
03-23-2010 14:44
03-23-2010 22:43
03-24-2010 06:42
03-29-2010 20:47
03-30-2010 04:46
03-30-2010 12:45
03-30-2010 20:44
03-31-2010 04:43
03-31-2010 12:42
03-31-2010 20:41
Cumulative Lbs Removed

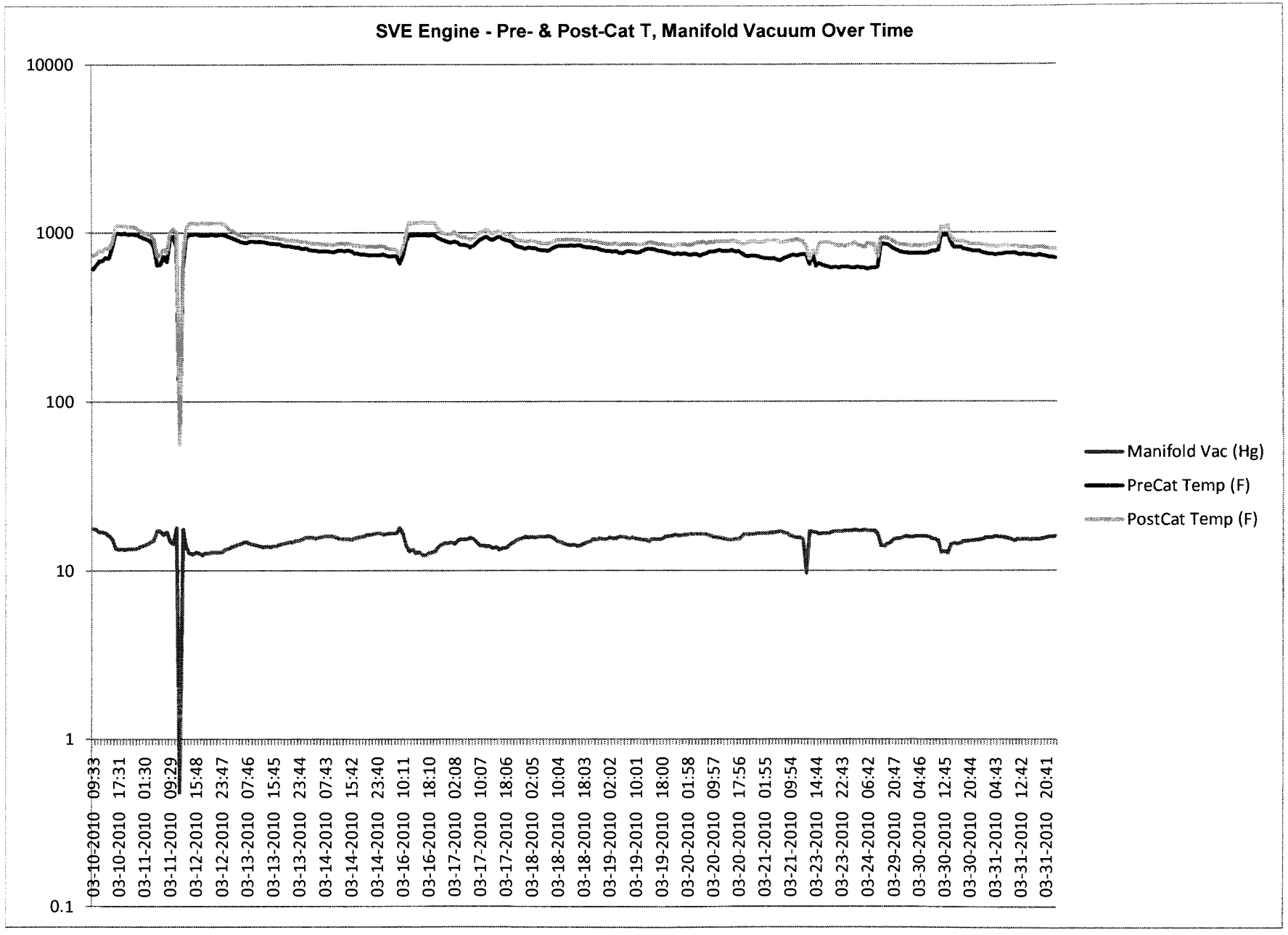

Parts per Million by Volume .
0
20000
40000
60000
80000
100000
120000
140000
160000
180000
03-10-2010 09:33
03-10-2010 17:31
03-11-2010 01:30
03-11-2010 09:29
03-12-2010 15:48
03-12-2010 23:47
03-13-2010 07:46
03-13-2010 15:45
03-13-2010 23:44
03-14-2010 07:43
03-14-2010 15:42
03-14-2010 23:40
03-16-2010 10:11
03-16-2010 18:10
03-17-2010 02:08
03-17-2010 10:07
03-17-2010 18:06
03-18-2010 02:05
03-18-2010 10:04
03-18-2010 18:03
03-19-2010 02:02
03-19-2010 10:01
03-19-2010 18:00
03-20-2010 01:58
03-20-2010 09:57
03-20-2010 17:56
03-21-2010 01:55
03-21-2010 09:54
03-23-2010 14:44
03-23-2010 22:43
03-24-2010 06:42
03-29-2010 20:47
03-30-2010 04:46
03-30-2010 12:45
03-30-2010 20:44
03-31-2010 04:43
03-31-2010 12:42
03-31-2010 20:41
PPMV(est)
Engine SVE - Estimated ppmV Over Time

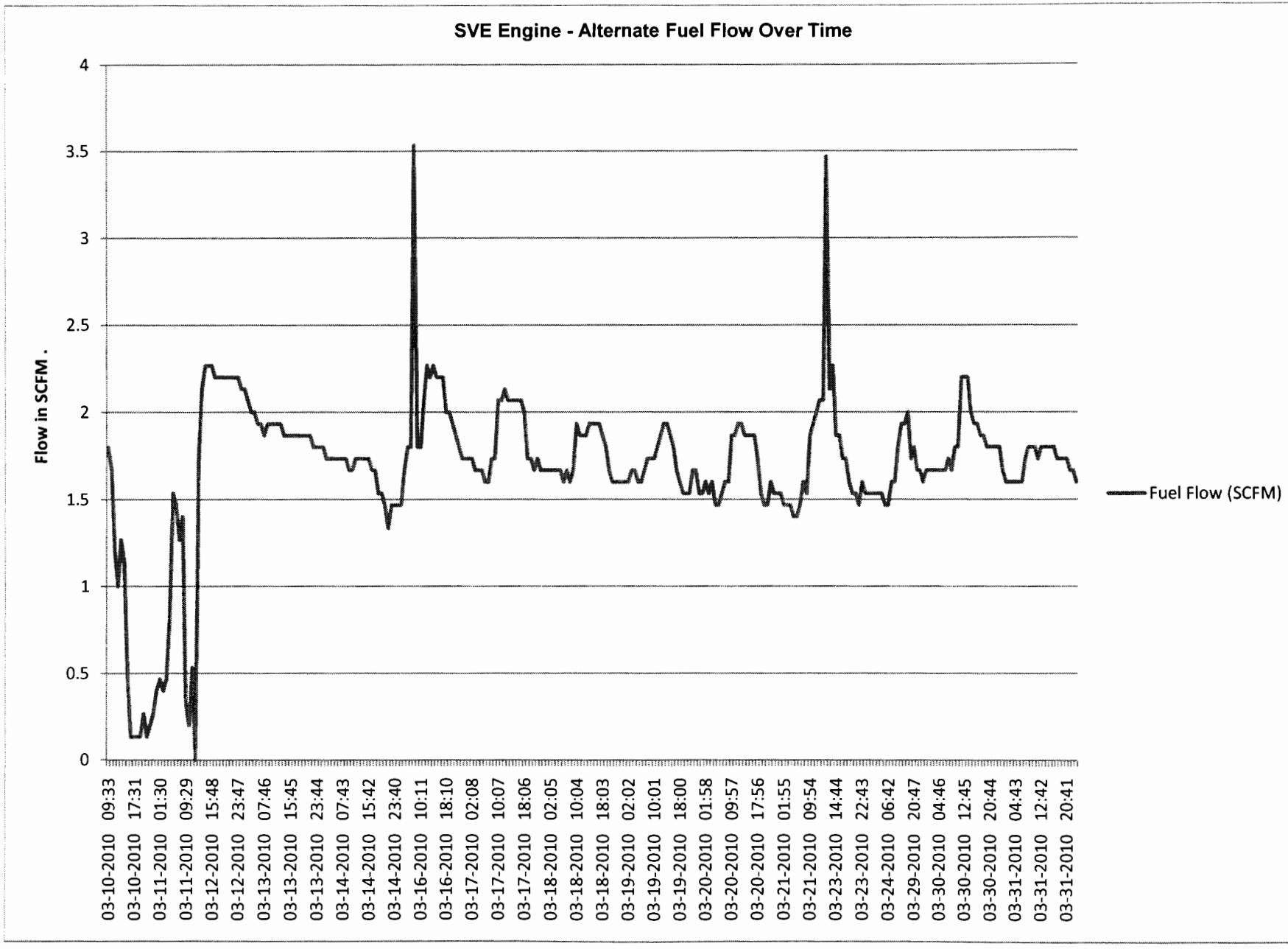

Engine SVE - Well/Process Flow Over Time
Process/Well Flow In SCFM .
90
80
70
60
50
40
30
20
10
0
03-10-2010 09:33
03-10-2010 17:31
03-11-2010 01:30
03-11-2010 09:29
03-12-2010 15:48
03-12-2010 23:47
03-13-2010 07:46
03-13-2010 15:45
03-13-2010 23:44
03-14-2010 07:43
03-14-2010 15:42
03-14-2010 23:40
03-16-2010 10:11
03-16-2010 18:10
03-17-2010 02:08
03-17-2010 10:07
03-17-2010 18:06
03-18-2010 02:05
03-18-2010 10:04
03-18-2010 18:03
03-19-2010 02:02
03-19-2010 10:01
03-19-2010 18:00
03-20-2010 01:58
03-20-2010 09:57
03-20-2010 17:56
03-21-2010 01:55
03-21-2010 09:54
03-23-2010 14:44
03-23-2010 22:43
03-24-2010 06:42
03-29-2010 20:47
03-30-2010 04:46
03-30-2010 12:45
03-30-2010 20:44
03-31-2010 04:43
03-31-2010 12:42
03-31-2010 20:41
Well/Process Flow (SCFM)

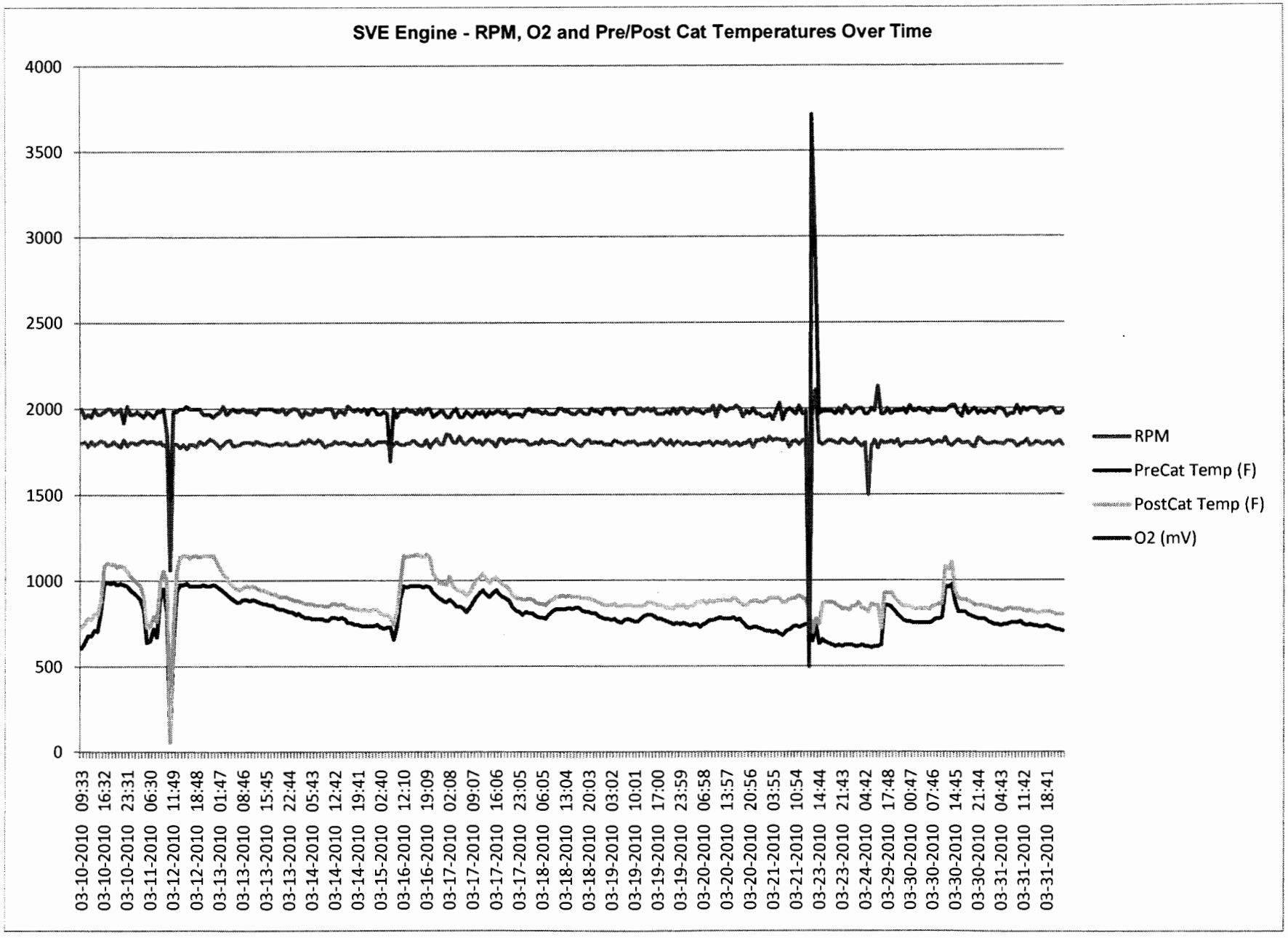

Engine SVE - Cumulative Process Flow in SCFM Over Time
Process/Well Flow In SCFM .
700000
600000
500000
400000
300000
200000
100000
0
03-10-2010 09:33
03-10-2010 18:31
03-11-2010 03:30
03-12-2010 11:41
03-12-2010 19:48
03-13-2010 04:46
03-13-2010 13:45
03-13-2010 22:44
03-14-2010 07:43
03-14-2010 16:41
03-15-2010 01:40
03-16-2010 13:10
03-16-2010 22:09
03-17-2010 07:08
03-17-2010 16:06
03-18-2010 01:05
03-18-2010 10:04
03-18-2010 19:03
03-19-2010 04:01
03-19-2010 13:00
03-19-2010 21:59
03-20-2010 06:58
03-20-2010 15:56
03-21-2010 00:55
03-21-2010 09:54
03-23-2010 15:44
03-24-2010 00:42
03-29-2010 15:48
03-30-2010 00:47
03-30-2010 09:46
03-30-2010 18:44
03-31-2010 03:43
03-31-2010 12:42
03-31-2010 21:41
Cubic Feet Processed Cumulative


SVE Engine - Air, Fuel & Well Valve Positions Over Time
600
500
400
300
200
100
0
03-10-2010 09:33
03-10-2010 17:31
03-11-2010 01:30
03-11-2010 09:29
03-12-2010 15:48
03-12-2010 23:47
03-13-2010 07:46
03-13-2010 15:45
03-13-2010 23:44
03-14-2010 07:43
03-14-2010 15:42
03-14-2010 23:40
03-16-2010 10:11
03-16-2010 18:10
03-17-2010 02:08
03-17-2010 10:07
03-17-2010 18:06
03-18-2010 02:05
03-18-2010 10:04
03-18-2010 18:03
03-19-2010 02:02
03-19-2010 10:01
03-19-2010 18:00
03-20-2010 01:58
03-20-2010 09:57
03-20-2010 17:56
03-21-2010 01:55
03-21-2010 09:54
03-23-2010 14:44
03-23-2010 22:43
03-24-2010 06:42
03-29-2010 20:47
03-30-2010 04:46
03-30-2010 12:45
03-30-2010 20:44
03-31-2010 04:43
03-31-2010 12:42
03-31-2010 20:41
Well/Process Valve Position
Air Valve Position
Fuel Valve Position


SVE Engine - Manifold Vacuum Over Time
20
18
16
14
12
10
8
6
4
2
0
03-10-2010 09:33
03-10-2010 16:32
03-10-2010 23:31
03-11-2010 06:30
03-12-2010 11:49
03-12-2010 18:48
03-13-2010 01:47
03-13-2010 08:46
03-13-2010 15:45
03-13-2010 22:44
03-14-2010 05:43
03-14-2010 12:42
03-14-2010 19:41
03-15-2010 02:40
03-16-2010 12:10
03-16-2010 19:09
03-17-2010 02:08
03-17-2010 09:07
03-17-2010 16:06
03-17-2010 23:05
03-18-2010 06:05
03-18-2010 13:04
03-18-2010 20:03
03-19-2010 03:02
03-19-2010 10:01
03-19-2010 17:00
03-19-2010 23:59
03-20-2010 06:58
03-20-2010 13:57
03-20-2010 20:56
03-21-2010 03:55
03-21-2010 10:54
03-23-2010 14:44
03-23-2010 21:43
03-24-2010 04:42
03-29-2010 17:48
03-30-2010 00:47
03-30-2010 07:46
03-30-2010 14:45
03-30-2010 21:44
03-31-2010 04:43
03-31-2010 11:42
03-31-2010 18:41
Manifold Vac (Hg)


SVE Engine - Pre- & Post-Cat T, Manifold Vacuum Over Time
10000
1000
100
10
1
0.1
03-10-2010 09:33
03-10-2010 17:31
03-11-2010 01:30
03-11-2010 09:29
03-12-2010 15:48
03-12-2010 23:47
03-13-2010 07:46
03-13-2010 15:45
03-13-2010 23:44
03-14-2010 07:43
03-14-2010 15:42
03-14-2010 23:40
03-16-2010 10:11
03-16-2010 18:10
03-17-2010 02:08
03-17-2010 10:07
03-17-2010 18:06
03-18-2010 02:05
03-18-2010 10:04
03-18-2010 18:03
03-19-2010 02:02
03-19-2010 10:01
03-19-2010 18:00
03-20-2010 01:58
03-20-2010 09:57
03-20-2010 17:56
03-21-2010 01:55
03-21-2010 09:54
03-23-2010 14:44
03-23-2010 22:43
03-24-2010 06:42
03-29-2010 20:47
03-30-2010 04:46
03-30-2010 12:45
03-30-2010 20:44
03-31-2010 04:43
03-31-2010 12:42
03-31-2010 20:41
Manifold Vac (Hg)
PreCat Temp (F)
PostCat Temp (F)


SVE Engine - Alternate Fuel Flow Over Time
Flow in SCFM .
4
3.5
3
2.5
2
1.5
1
0.5
0
03-10-2010 09:33
03-10-2010 17:31
03-11-2010 01:30
03-11-2010 09:29
03-12-2010 15:48
03-12-2010 23:47
03-13-2010 07:46
03-13-2010 15:45
03-13-2010 23:44
03-14-2010 07:43
03-14-2010 15:42
03-14-2010 23:40
03-16-2010 10:11
03-16-2010 18:10
03-17-2010 02:08
03-17-2010 10:07
03-17-2010 18:06
03-18-2010 02:05
03-18-2010 10:04
03-18-2010 18:03
03-19-2010 02:02
03-19-2010 10:01
03-19-2010 18:00
03-20-2010 01:58
03-20-2010 09:57
03-20-2010 17:56
03-21-2010 01:55
03-21-2010 09:54
03-23-2010 14:44
03-23-2010 22:43
03-24-2010 06:42
03-29-2010 20:47
03-30-2010 04:46
03-30-2010 12:45
03-30-2010 20:44
03-31-2010 04:43
03-31-2010 12:42
03-31-2010 20:41
Fuel Flow (SCFM)


SVE Engine - RPM, O2 and Pre/Post Cat Temperatures Over Time
4000
3500
3000
2500
2000
1500
1000
500
0
03-10-2010 09:33
03-10-2010 16:32
03-10-2010 23:31
03-11-2010 06:30
03-12-2010 11:49
03-12-2010 18:48
03-13-2010 01:47
03-13-2010 08:46
03-13-2010 15:45
03-13-2010 22:44
03-14-2010 05:43
03-14-2010 12:42
03-14-2010 19:41
03-15-2010 02:40
03-16-2010 12:10
03-16-2010 19:09
03-17-2010 02:08
03-17-2010 09:07
03-17-2010 16:06
03-17-2010 23:05
03-18-2010 06:05
03-18-2010 13:04
03-18-2010 20:03
03-19-2010 03:02
03-19-2010 10:01
03-19-2010 17:00
03-19-2010 23:59
03-20-2010 06:58
03-20-2010 13:57
03-20-2010 20:56
03-21-2010 03:55
03-21-2010 10:54
03-23-2010 14:44
03-23-2010 21:43
03-24-2010 04:42
03-29-2010 17:48
03-30-2010 00:47
03-30-2010 07:46
03-30-2010 14:45
03-30-2010 21:44
03-31-2010 04:43
03-31-2010 11:42
03-31-2010 18:41
RPM
PreCat Temp (F)
PostCat Temp (F)
O2 (mV)

mpe #4	—	20.35	15	
Well ID	**Depth to NAPL (ft.)**	**Depth to Water (ft.)**	**Purged Volume (gal.)**	**Method / Notes / Observations**
mpe #5	19.61'	19.70'	20	
Well ID	**Depth to NAPL (ft.)**	**Depth to Water (ft.)**	**Purged Volume (gal.)**	**Method / Notes / Observations**
11-12-09 mpe #6	—	20.07'	10	
Well ID	**Depth to NAPL (ft.)**	**Depth to Water (ft.)**	**Purged Volume (gal.)**	**Method / Notes / Observations**
mpe #7	—	20.74'	20*	

Puged Water Storage, Transport, and Disposal Information:

GROUNDWATER MONITORING WELL DEVELOPMENT FORM

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Project: Project No.:
Site: Bio. Town Refinery Date: 11-12-09
Location: Time:
Tech: MB Form:

Well ID	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations
mpe-8	—	22.02'	20	
Well ID	**Depth to NAPL (ft.)**	**Depth to Water (ft.)**	**Purged Volume (gal.)**	**Method / Notes / Observations**
mpe.9	—	23.70	20	
Well ID	**Depth to NAPL (ft.)**	**Depth to Water (ft.)**	**Purged Volume (gal.)**	**Method / Notes / Observations**
mpe-10	—	23.54'	15	
Well ID	**Depth to NAPL (ft.)**	**Depth to Water (ft.)**	**Purged Volume (gal.)**	**Method / Notes / Observations**
mpe#11	-	22.08'	15	
Well ID	**Depth to NAPL (ft.)**	**Depth to Water (ft.)**	**Purged Volume (gal.)**	**Method / Notes / Observations**
mpe 12	—	22.61	15	
Well ID	**Depth to NAPL (ft.)**	**Depth to Water (ft.)**	**Purged Volume (gal.)**	**Method / Notes / Observations**
mpe-13	—	22.98'	15	
Well ID	**Depth to NAPL (ft.)**	**Depth to Water (ft.)**	**Purged Volume (gal.)**	**Method / Notes / Observations**
mpe 14	—	22.06'	15	

Puged Water Storage, Transport, and Disposal Information:

GROUNDWATER MONITORING WELL DEVELOPMENT FORM

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Project: _____ Project No.: _____
Site: _____ Date: 11-13-09
Location: BIO - T-way Refinery Time: _____
Tech: _____ Form: _____

Well ID	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations
MPE #16	-	20.20'	15	
Well ID	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations
MPE #17	-	20.40'	15	
Well ID	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations
MPE 18	-	19.51'	15	
Well ID	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations
MPE 19	-	19.31'	15	
Well ID	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations
Well ID	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations
Well ID	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations

Puged Water Storage, Transport, and Disposal Information:

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Project: Project No.:
Site: 810 Three Way Refinery Date: 2-12-10
Location: Time:
Tech: Form:

Well ID	Total Well Depth (ft.)	Screen Length (ft.)	Top of Casing Above Ground Surface (ft.)	Notes
MPE-20	20'	10'	3.9"	Purge. 15 Gal
Well ID	**Total Well Depth (ft.)**	**Screen Length (ft.)**	**Top of Casing Above Ground Surface (ft.)**	**Notes**
MPE-21	21'	10'	4'	Purge. 15 Gal. - Product in Purged Water
Well ID	**Total Well Depth (ft.)**	**Screen Length (ft.)**	**Top of Casing Above Ground Surface (ft.)**	**Notes**
MPE 22	20'	10'	3' 10.5"	Purge. 10 Gal.
Well ID	**Total Well Depth (ft.)**	**Screen Length (ft.)**	**Top of Casing Above Ground Surface (ft.)**	**Notes**
MPE 23	22'	10'	4'	Purge 15 Gal.
Well ID	**Total Well Depth (ft.)**	**Screen Length (ft.)**	**Top of Casing Above Ground Surface (ft.)**	**Notes**
MPE-24	25'	10'	3'-4"	Purge 15 Gal.
Well ID	**Total Well Depth (ft.)**	**Screen Length (ft.)**	**Top of Casing Above Ground Surface (ft.)**	**Notes**
MPE-25'	25'	10	3'-8"	Purge 15 Gal.

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Project:
Site: 810 T-Way Refinery
Location:
Tech:

Project No.:
Date: 2-12-10
Time:
Form:

Well ID	Total Well Depth (ft.)	Screen Length (ft.)	Top of Casing Above Ground Surface (ft.)	Notes
mpe 26	25'	10'	3' 7.5"	Purge - 15Gal.
Well ID	**Total Well Depth (ft.)**	**Screen Length (ft.)**	**Top of Casing Above Ground Surface (ft.)**	**Notes**
mpe 27	24'	10'	3', 8"	(2-23-10) Purge - 15Gal.
Well ID	**Total Well Depth (ft.)**	**Screen Length (ft.)**	**Top of Casing Above Ground Surface (ft.)**	**Notes**
mpe #28	25'	10'	3'-4"	Purge 15Gal.
Well ID	**Total Well Depth (ft.)**	**Screen Length (ft.)**	**Top of Casing Above Ground Surface (ft.)**	**Notes**
mpe #29	25'	10'	3'-8.5"	Purge 15Gal.
Well ID	**Total Well Depth (ft.)**	**Screen Length (ft.)**	**Top of Casing Above Ground Surface (ft.)**	**Notes**
mpe 30	25'	10'	3'-7"	Purge 15Gal.
Well ID	**Total Well Depth (ft.)**	**Screen Length (ft.)**	**Top of Casing Above Ground Surface (ft.)**	**Notes**
mpe 31	25'	10'	3'10.5"	Purge 15Gal

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Project: T-Way Refinery
Site: 810
Location:
Tech: mB

Project No.:
Date: 2-23-10
Time:
Form:

Well ID	Total Well Depth (ft.)	Screen Length (ft.)	Top of Casing Above Ground Surface (ft.)	Notes
mpe33	25'	10'	3' 7"	Purge 15 Gal
mpe34	25'	10'	3' 10"	Purge 15 Gal
mpe35	24'	10'	4'	Purge 15 Gal Napl in well / Lots
mpe-36	23'	10'	3'-4"	Purge 15 Gal
mpe37	23'	10'	3' 8"	Purge 15 Gal / Napl in well
mpe-38	22'	10'	4'	Purge 15 Gal. / Napl in well

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Project: | Project No.:
Site: 810 - T-Way Roswell | Date: 11-11-09
Location: | Time:
Tech: | Form:

Well ID	Total Well Depth (ft.)	Screen Length (ft.)	Top of Casing Above Ground Surface (ft.)	Notes
mpe #1	24' TOG	10'	38.5" (3'2.5")	
Well ID	Total Well Depth (ft.)	Screen Length (ft.)	Top of Casing Above Ground Surface (ft.)	Notes
mpe #2	25.2'	10'	43" 3'7"	
Well ID	Total Well Depth (ft.)	Screen Length (ft.)	Top of Casing Above Ground Surface (ft.)	Notes
mpe #3	25.5'	10'	41.5" 3'5"	
Well ID	Total Well Depth (ft.)	Screen Length (ft.)	Top of Casing Above Ground Surface (ft.)	Notes
mpe #4	22.8'	10'	38.5" 3'2.5"	
Well ID	Total Well Depth (ft.)	Screen Length (ft.)	Top of Casing Above Ground Surface (ft.)	Notes
mpe #5	23'	10	42.0" 3'6"	
Well ID	Total Well Depth (ft.)	Screen Length (ft.)	Top of Casing Above Ground Surface (ft.)	Notes
mpe #6	23'	10'	3' 3½"	

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Project: | Project No.: 1
Site: | Date: 11-12-09
Location: 810 T-Ward Refinery | Time:
Tech: MB | Form:

Well ID	Total Well Depth (ft.) TOG	Screen Length (ft.)	Top of Casing Above Ground Surface (ft.)	Notes
MPE-7	25	10' 25-15'	3' 3½"	
Well ID	**Total Well Depth (ft.)**	**Screen Length (ft.)**	**Top of Casing Above Ground Surface (ft.)**	**Notes**
MPE 8	25	10' 25'→15'	3'	
Well ID	**Total Well Depth (ft.)**	**Screen Length (ft.)**	**Top of Casing Above Ground Surface (ft.)**	**Notes**
MPE 9	30'	10 30→20	3'-2½"	-.49' of Screen above water
Well ID	**Total Well Depth (ft.)**	**Screen Length (ft.)**	**Top of Casing Above Ground Surface (ft.)**	**Notes**
MPE 10	25'	10' 25→15'	3'-2"	
Well ID	**Total Well Depth (ft.)**	**Screen Length (ft.)**	**Top of Casing Above Ground Surface (ft.)**	**Notes**
MPE #11	25'	10' 25'→15'	3'-1½"	
Well ID	**Total Well Depth (ft.)**	**Screen Length (ft.)**	**Top of Casing Above Ground Surface (ft.)**	**Notes**
MPE 12	25'	10' 25→15	3'-1½"	

Animas Environmental Services
624 E. Comanche, Farmington NM 87401
Tel. (505) 564-2281 Fax (505) 324-2022

Project:
Site: BID T-Way Refinery
Location:
Tech:

Project No.:
Date: 11-12-09
Time:
Form:

Well ID	Total Well Depth (ft.) TOG	Screen Length (ft.)	Top of Casing Above Ground Surface (ft.)	Notes
mpe-13	25'	10' 25'→15'	3'	
Well ID	**Total Well Depth (ft.)**	**Screen Length (ft.)**	**Top of Casing Above Ground Surface (ft.)**	**Notes**
mpe 14	25'	10' 25'→15	3'	
Well ID	**Total Well Depth (ft.)**	**Screen Length (ft.)**	**Top of Casing Above Ground Surface (ft.)**	**Notes**
mpe #16	24.5'	10' 24.5→14.5	2'-11"	
Well ID	**Total Well Depth (ft.)**	**Screen Length (ft.)**	**Top of Casing Above Ground Surface (ft.)**	**Notes**
mpe #17	21'	10'	3'-10"	
Well ID	**Total Well Depth (ft.)**	**Screen Length (ft.)**	**Top of Casing Above Ground Surface (ft.)**	**Notes**
mpe 18'	22.5'	10'	3'-5½"	
Well ID	**Total Well Depth (ft.)**	**Screen Length (ft.)**	**Top of Casing Above Ground Surface (ft.)**	**Notes**
mpe 19	22'	10'	3'-6½"	

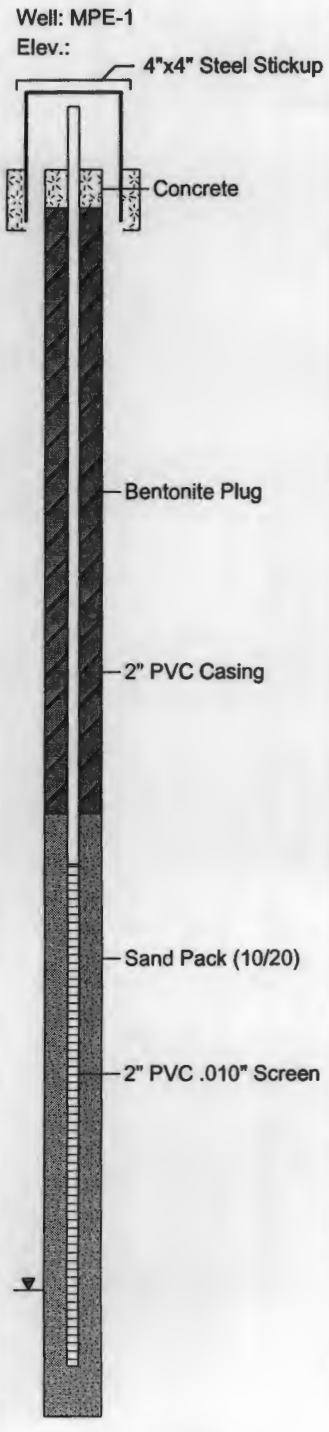
LOG OF: MPE-1

Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 11/03/09	Northing Coord.	: TBD
Date Completed	: 11/03/09	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		CG		Gravel Fill		0
2		SP		Sand, Brown, Medium to Coarse Grain, Soft, Loose, Dry, Silt/ Clay.		
4						
6						
8		CL		Clay Lens		
		SP		Sand, Brown, Medium to Coarse Grain, Soft, Loose, Dry.		0
10						0
12						
14		SP		Sand, Brown, Medium to Coarse Grain, Soft, Loose, Moist, with Silty Clay.		
16						
18						
		SP		Sand, Light Grey, Loose, Medium to Coarse Grain, Moist.		4.2
20		SP		Sand, Light Grey, Loose, Medium to Coarse Grain, Moist, with Cobbles (2").		
22		SP		Sand, Grey, Loose, Coarse Grain, WATER, Strong Odor.		
24						3,000
26				Total Depth - 25 feet, Sand, Light Grey, Loose, Wet, Medium to Coarse Grain.		



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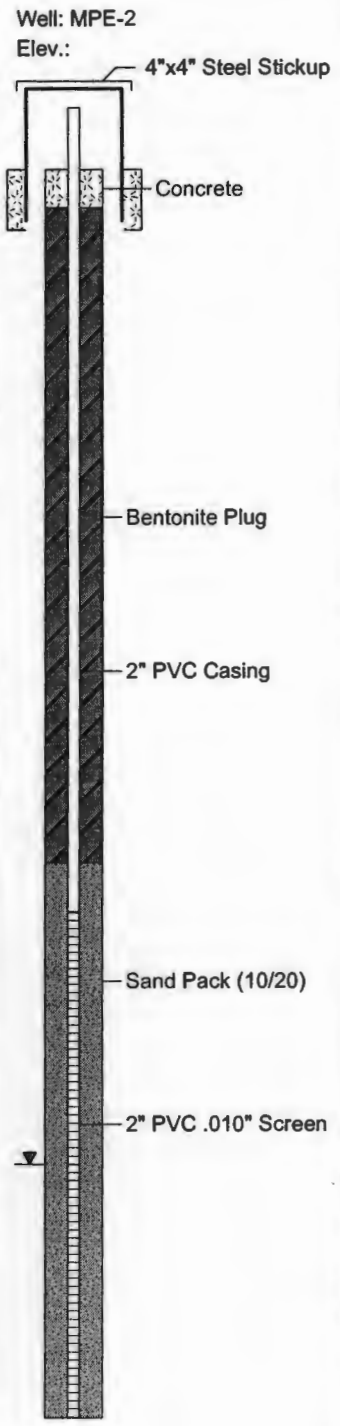
LOG OF: MPE-2

Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 11/03/09	Northing Coord.	: TBD
Date Completed	: 11/03/09	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0						
2		SP		Sand, Brown, Medium to Coarse Grain, Soft, Loose and Dry.		
4						
6		CL		Clay Lens		0
8		SP		Sand, Brown, Medium to Coarse Grain, Soft, Loose and Dry.		
10						0
12		SP		Sand, Brown, Medium to Coarse Grain, Tight, and Moist.		
14						
16		SP		Sand, Grey, Loose, Coarse Grain, and Strong Odor.		250
18						
20		SM		Silty Clay Sand, Grey, WET and Strong Odor.		2,480
22						
24						
26				Total Depth - 25 ft, Sand, Silty Sand, Grey, and Strong Odor.		



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LOG OF: MPE-3

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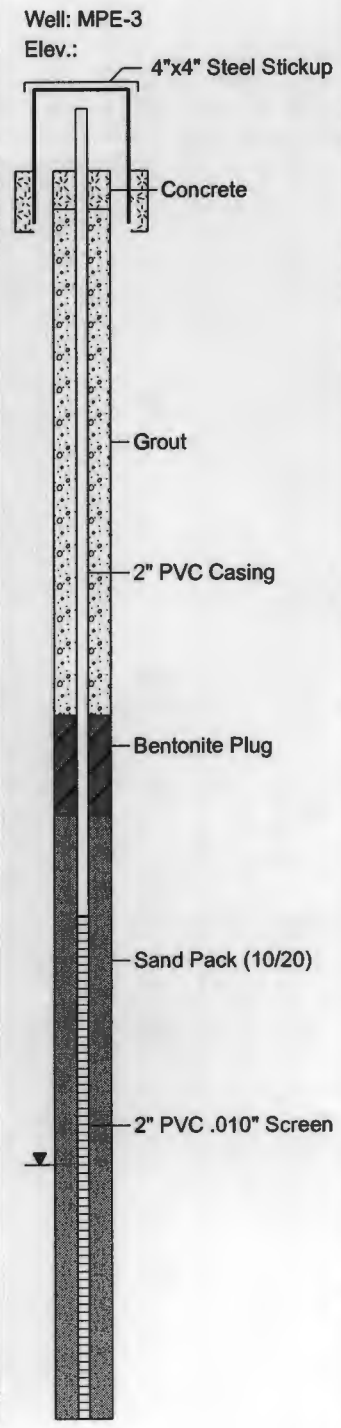
FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 11/04/09	Northing Coord.	: TBD
Date Completed	: 11/04/09	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0						
2		SP		Sand, Brown, Medium to Coarse Grain, Soft, Loose, and Dry.		
4						
6		SM		Sand with Silty Clay, Soft, Loose, and Dry.		
8						
10						
12						
14						
16		SM		Sand with Silty Clay, Soft, Loose, and Moist.		
18						
20		SM		Sand, Medium to Coarse Grain, with Silty Clay, Grey, Strong Odor and WET.		780
22						
24						
26				Total Depth - 25 feet, Sand with Silty Clay, Light Grey, Medium to Coarse Grain, Strong Odor and WET.		



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LOG OF: MPE-4

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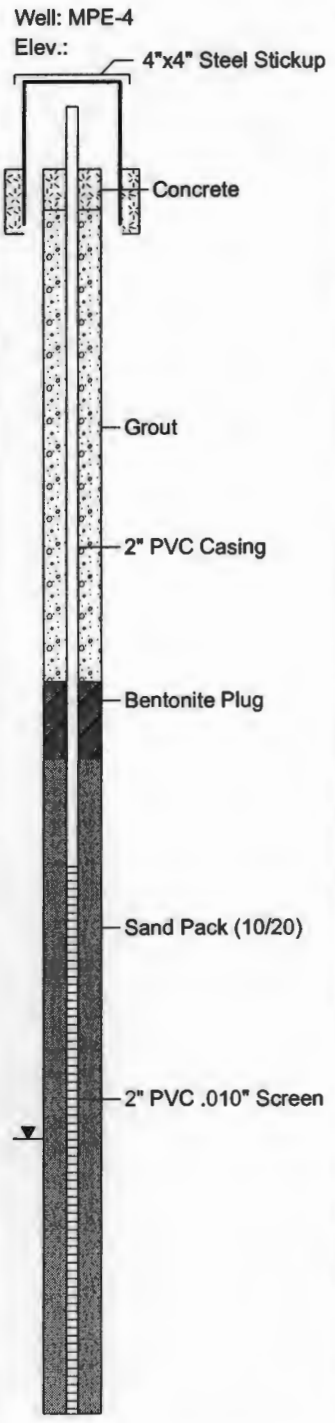
Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 11/04/09	Northing Coord.	: TBD
Date Completed	: 11/04/09	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		SP		Sand, Brown, Medium to Coarse Grain, and Dry.		
10		SM		Sand, Silty Clay, Brown, Medium to Coarse Grain, and Dry.		
10		SP		Sand, Brown, Medium to Coarse Grain, and Dry.		
14		SM		Silty Sand, Brown, Medium to Coarse Grain, and Moist.		
14		SP		Sand, Brown, Medium to Coarse Grain, and Moist.		
18		SP		Sand, Grey, Medium to Coarse Grain, Traces of Silty Clay, WET, and Strong Odor.		360
24				Total Depth - 23 Feet, Sand, Grey, Silt, WET, and Strong Odor.		



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LOG OF: MPE-5

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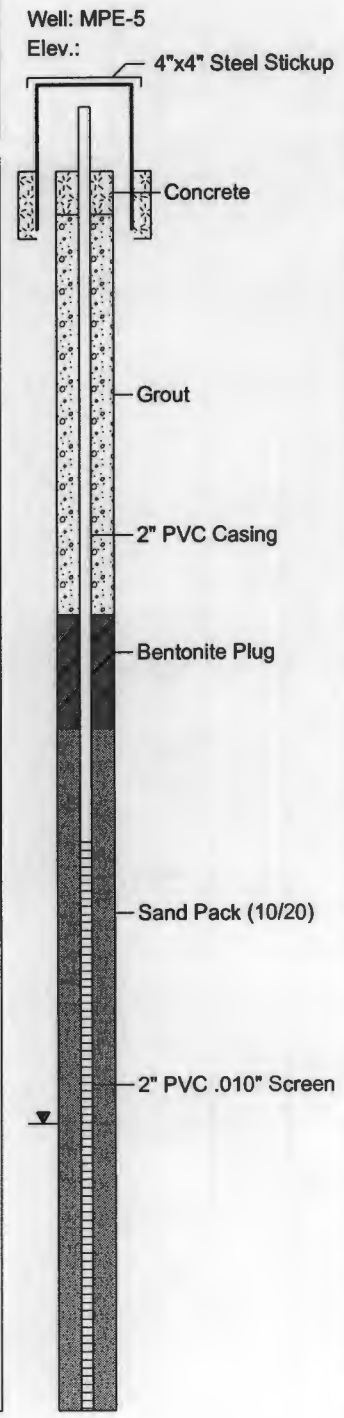
Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 11/04/09	Northing Coord.	: TBD
Date Completed	: 11/04/09	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		SP		Sand, Brown, Medium to Coarse Grain, Soft, Loose, and Dry.		
14		SC		Silty Clay Lens, and Soft.		
		SP		Sand, Brown, Medium to Coarse Grain, Soft, and Moist.		1,540
16		SP		Sand, Grey, Medium to Coarse Grain, Soft, Moist, and Strong Odor.		
		SP		Sand, Grey, Medium Coarse Grain, Soft, WATER, and Strong Odor.		2,051
22				Total Depth - 22 Feet, Sand, Grey, Silty Clay, and Strong Odor.		



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LOG OF: MPE-6

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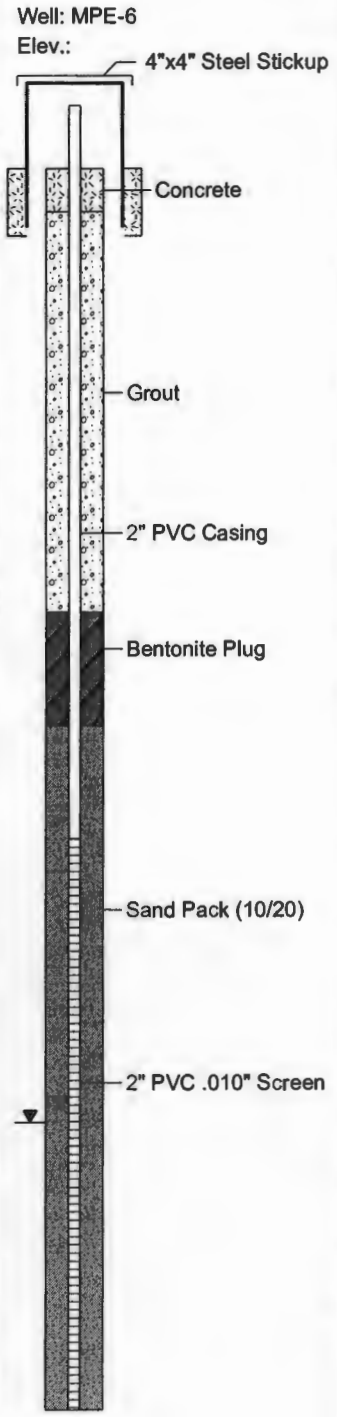
Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 11/05/09	Northing Coord.	: TBD
Date Completed	: 11/05/09	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		SP		Sand, Brown, Medium to Coarse Grain, Soft, Silty Clay, and Dry.		
8		SM		Sand, Brown, Medium to Coarse Grain, with Tighter Silty Clay.		
10		SP		Sand, Brown, Medium to Coarse Grain, Soft, Dry, Traces of Silty Clay		
12		SC		Silty Clay Lens, Tighter, Dry.		
14		SP		Sand, Brown, Medium to Coarse Grain, Loose, and Dry.		
16		SP		Sand, Grey, Medium to Coarse Grain, Loose, WET, and Strong Odor.		2,828
18		SP				
20						
22				Total Depth - 22 feet, Sand, Grey, Medium Coarse Grain, Loose and Wet.		



LOG OF: MPE-7

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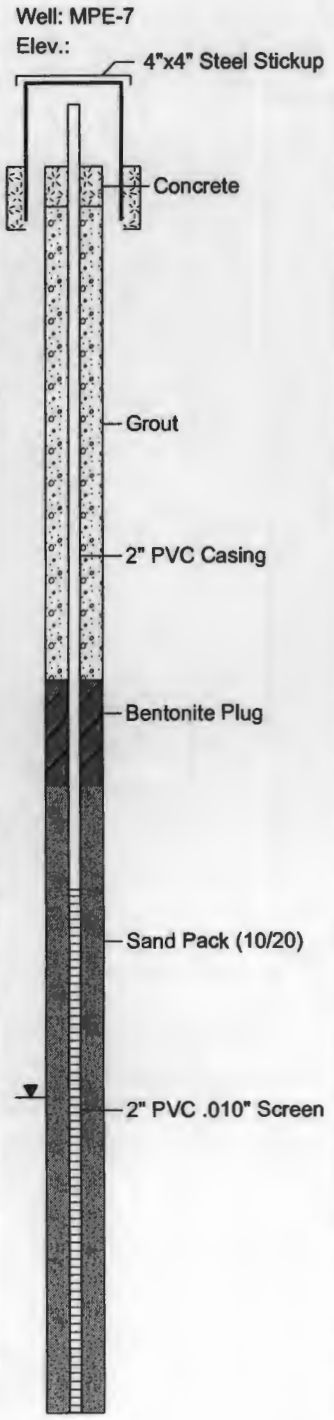
Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 11/05/09	Northing Coord.	: TBD
Date Completed	: 11/05/09	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		CG		Gravel, Fill Material		
4		SC		Silty Clay, Brown, Soft, and Semi-Moist		
6		SP		Sand, Brown, Medium to Coarse Grain, Soft, Loose, Dry and Silty Clay.		
8		SC		Silty Clay, Brown, Soft and Moist.		
10		SP		Sand, Brown, Medium to Coarse Grain, Soft, Loose, and Dry.		51
12		SP		Sand, Turning Grey, Medium to Coarse Grain, Soft, Loose, Dry, and Strong Odor.		
14						936
16						
18		SP		Sand, Dark Grey, Medium to Coarse Grain with Gravel (1"-2"), Strong Odor, and WET.		3,887
20						
22						
24				Total Depth - 24 feet, Sand, Dark Grey, Medium Coarse Grain, with Gravel (1"-2"), and Strong Odor.		



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LOG OF: MPE-8

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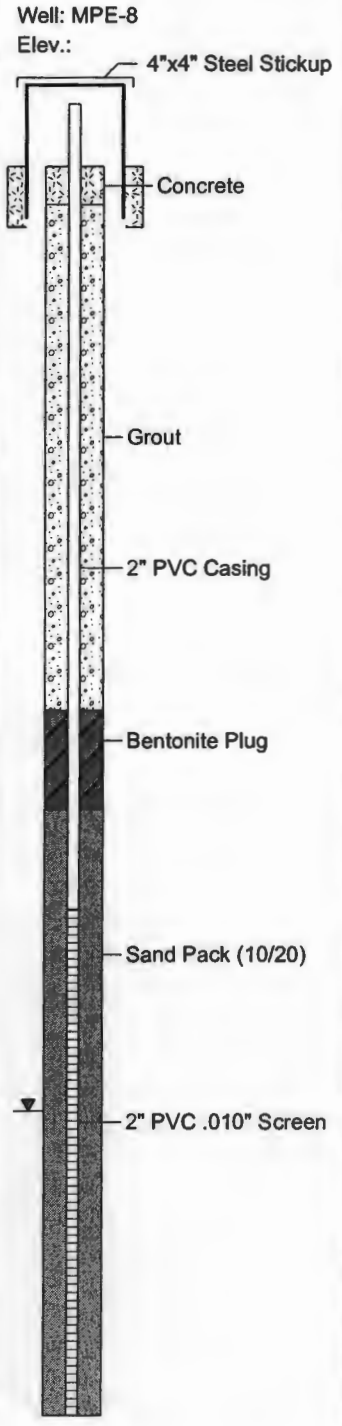
Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 11/05/09	Northing Coord.	: TBD
Date Completed	: 11/05/09	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		CG		2" x 3" Cobbles		
2		SP		Sand, Brown, Medium to Coarse Grain, Soft, Loose, Silty Clay, and Moist.		
4		SM		Silty Clay with Sand, Brown, Semi-Stiff and Moist.		
6		SP		Sand, Brown, Medium to Coarse Grain, Soft, Loose, and Dry.		
8						
10						
12		CL		Clay Lens, Tight and Moist.		
14		SP		Sand, Brown, Medium to Coarse Grain, Loose and Dry.		
16						
18						495
20		SP		Sand, Grey, Medium to Coarse Grain, and Strong Odor.		
22						
24						
26				Total Depth - 25 feet, Sand, Grey, Medium to Coarse Grain, and Strong Odor.		



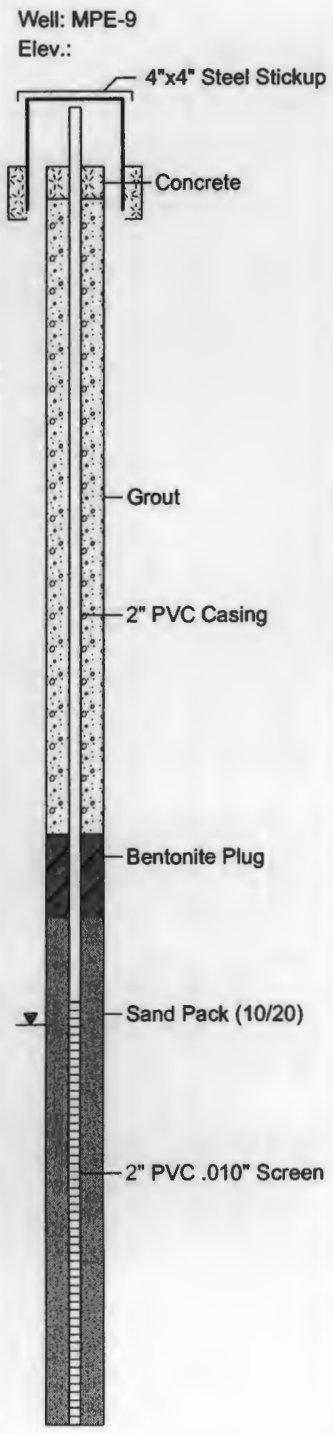
AES Animas Environmental Services, LLC

LOG OF: MPE-9

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 11/05/09	Northing Coord.	: TBD
Date Completed	: 11/05/09	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		CG		1" - 2" Cobble Fill		
2		SP		Sand, Brown, Medium to Coarse Grain, Soft, Loose, and Dry.		
4						
6		SC		Clay, with Sand Silt, Brown, Soft, Loose, and Dry.		
8						
10		SM		Sand, with Sand Silt, Brown, Medium to Coarse Grain, Loose, and Dry.		
12						
14						
16		SC		Clay, with Sand Silt, Brown, Soft, and Moist.		
18		SP		Sand, Brown, Medium to Coarse Grain, Loose, and Moist.		
20						
22						
24						
26						
28						
30				Total Depth - 30 feet, Sand, Brown, Medium to Coarse Grain.		



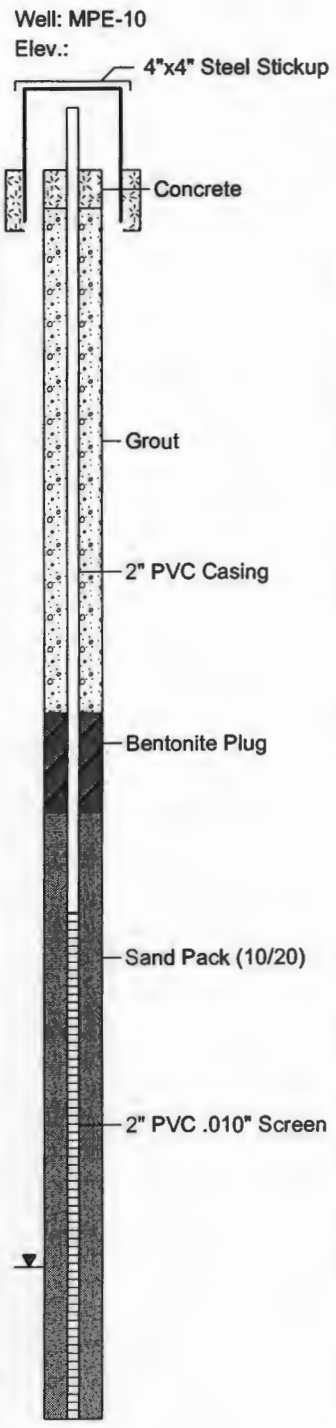
LOG OF: MPE-10

Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 11/06/09	Northing Coord.	: TBD
Date Completed	: 11/06/09	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		CG		4" Cobbles.		
2		SP		Sand, Brown, Coarse Grain, Soft, Loose, with Silty Clay, and Dry.		
4		SC		Clay, Brown, with Sand Silt, and Dry.		
		SP		Sand, Brown, Medium to Coarse Grain, and Dry.		
6		SC		Clay, Brown, with Sandy Silt, Dry, with Lens of Sand Brown, Coarse Grain and Dry.		
8						
10		SP		Sand, Brown, Coarse Grain, Sandy Silt, Dry, and Loose.		
12						
14						
16						
18						
20						
22		SP		Sand, Grey, Coarse Grain, WET, and Loose.		>5,000
24						
26				Total Depth - 25 feet.		



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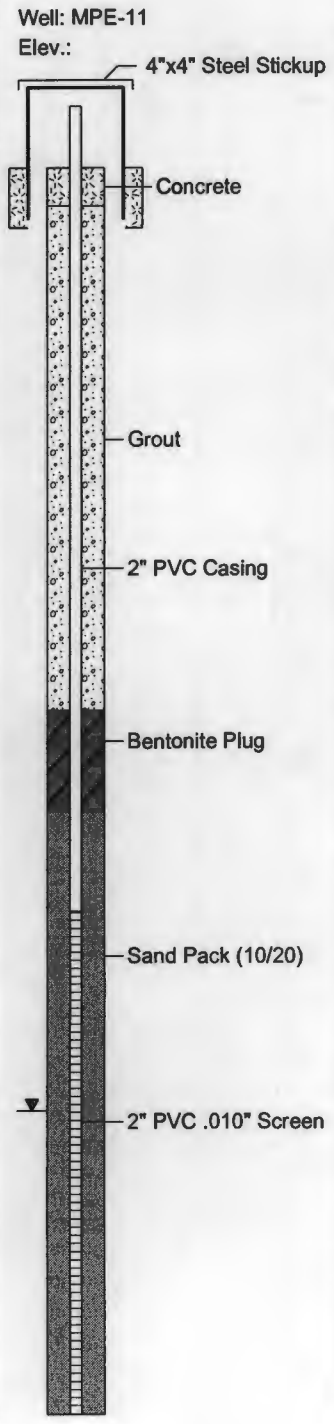
LOG OF: MPE-11

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 11/06/09	Northing Coord.	: TBD
Date Completed	: 11/06/09	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		SP		Sand, Brown, Medium to Coarse Grain, Soft, Loose, and Dry.		
10		SP		Sand, Brown, Medium to Coarse Grain, Soft, Loose, with Silty Sand Clay Lens.		
18		SC		Clay, Brown, with Sand Silt, Loose, and Moist.		
20		SC		Clay, Brown, Sand Silt, Loose, and WET.		
22		SP		Sand, Brown, Coarse Grain, Soft, Loose, and WET.		
26				Total Depth - 25 feet.		



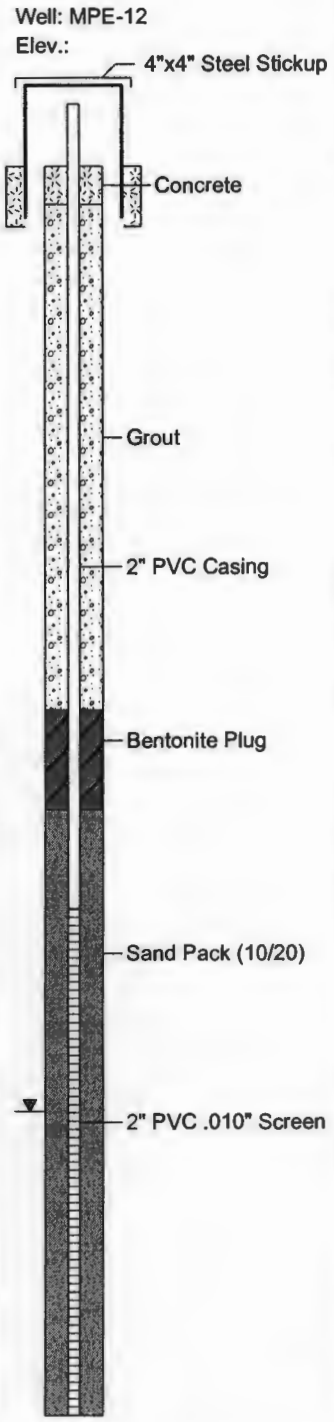
LOG OF: MPE-12

Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 11/06/09	Northing Coord.	: TBD
Date Completed	: 11/06/09	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		SP		Sand, Brown, Medium to Coarse Grain, Soft, Loose, and Dry.		
6		SC		Clay, Brown, with Sand Silt, Dry, and Stiff.		
8		SP		Sand, Brown, Coarse Grain, Soft, Loose, and Dry.		
12		SC		Clay, Brown, with Sand Silt, Dry, and Soft.		
14		SP		Sand, Brown, Coarse Grain, Soft, Loose, and Dry.		
20		SP		Sand, Brown, Coarse Grain, Soft, Loose, and WET.		
26				Total Depth - 25 feet, Sand, Brown, Coarse Grain, Silty Clay, Soft, Loose, and WET.		



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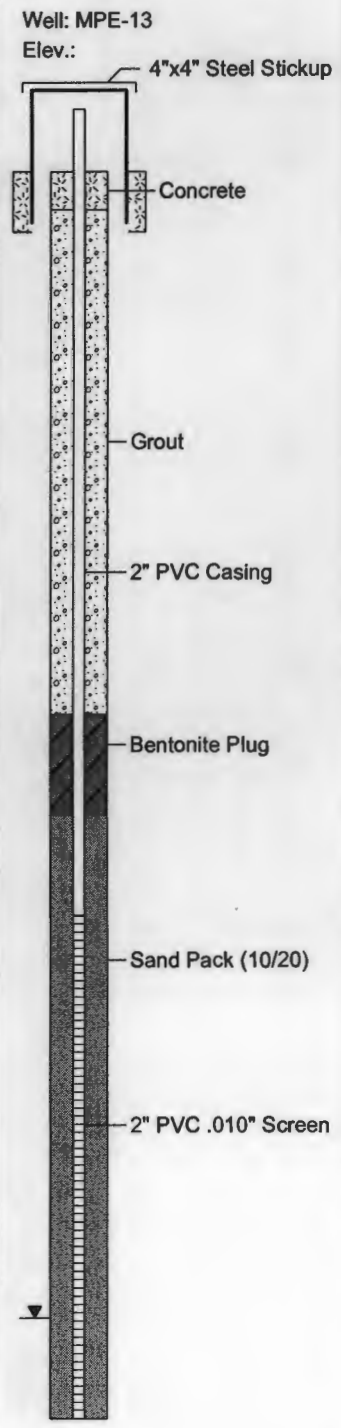
LOG OF: MPE-13

Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 11/09/09	Northing Coord.	: TBD
Date Completed	: 11/09/09	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		SM		Sand, Brown, Medium to Coarse Grain, Soft, Loose, with Silty Clay		
8		SC		Clay Lens with Silty Sand, Brown, Medium to Coarse Grain, Soft, and Loose.		
10		SP		Sand, Brown, Medium to Coarse Grain, Soft, and Loose.		
12		SP		Sand, Brown, Coarse Grain, Soft, and Loose.		
20		SP		Sand, Dark Grey, Coarse Grain, Soft, Loose, and Strong Odor, Moist.		4,800
26				Total Depth - 25 feet.		



LOG OF: MPE-14

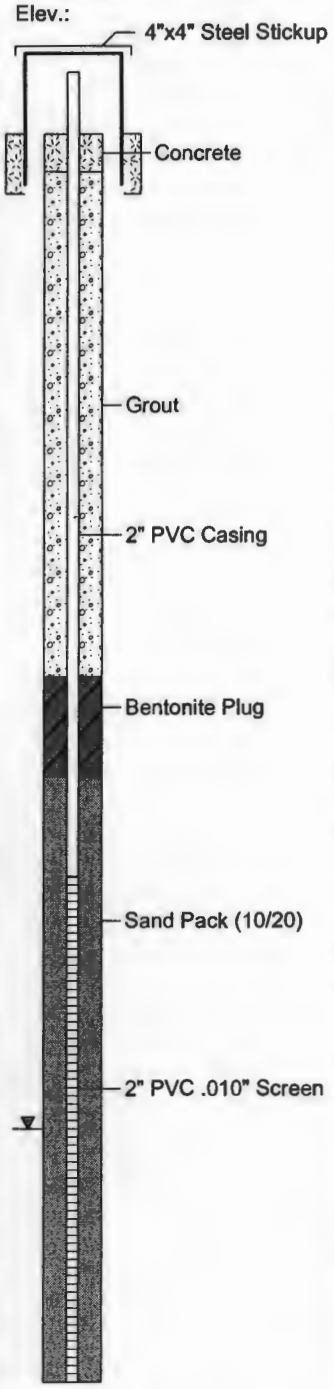
Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 11/09/09	Northing Coord.	: TBD
Date Completed	: 11/09/09	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		SP		Sand, Brown, Medium to Coarse Grain, Soft, Loose, with Silty Clay.		
20		SP		WET, Sand, Dark Grey, Coarse Grain, Soft, and Loose.		3,490
26				Total Depth - 25 feet.		

Well: MPE-14
Elev.:



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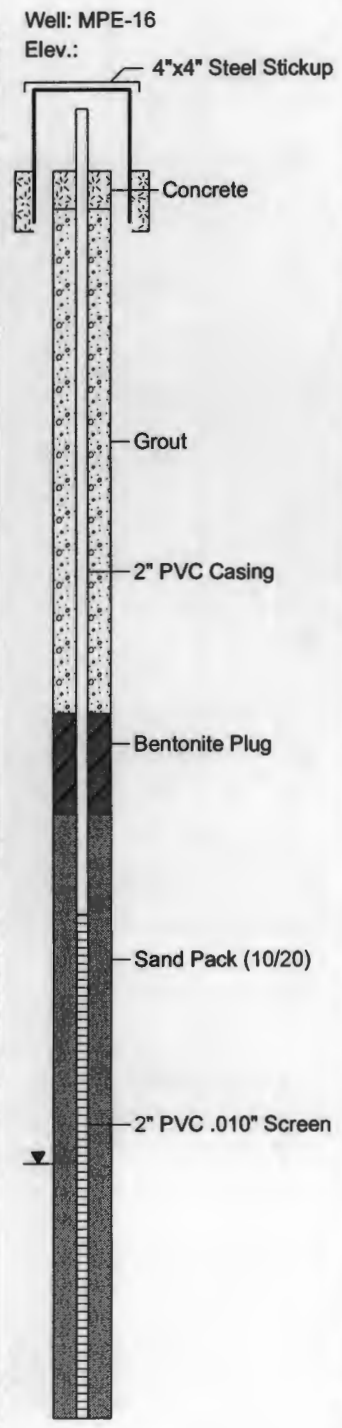
LOG OF: MPE-16

Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 11/10/09	Northing Coord.	: TBD
Date Completed	: 11/10/09	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		SM		Sand, Brown, Medium Coarse Grain, Dry, Loose with Silty Clay.		
14		CL		Clay Lens, Brown, Moist, and Soft.		
16		SP		Sand, Brown, Coarse Grain, Soft, and Moist.		
18		SP		Sand, Dark Grey, Coarse Grain, and WET.		1,000
20		SP		Water		
26				Total Depth - 25 feet.		



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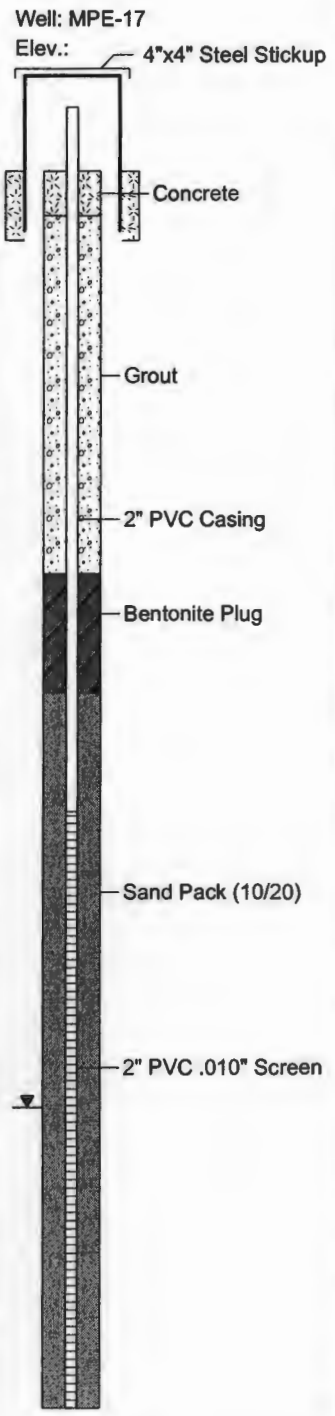
LOG OF: MPE-17

Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 11/10/09	Northing Coord.	: TBD
Date Completed	: 11/10/09	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		SM		Sand, Brown, Medium to Coarse Grain, Soft, Loose, and Dry.		
4		SP		Sand, Brown, Medium to Coarse Grain, Soft, Loose with Sand, Silt, and Clay.		
6		SP		Sand, Brown, Coarse Grain, Soft, Loose, and Dry.		
14		SP		Sand, Light Grey, Coarse Grain, Soft, Loose, and Dry.		52
16		SP		Sand, Dark Grey, Coarse Grain - WET.		
20						4,539
22				Total Depth - 21 feet.		



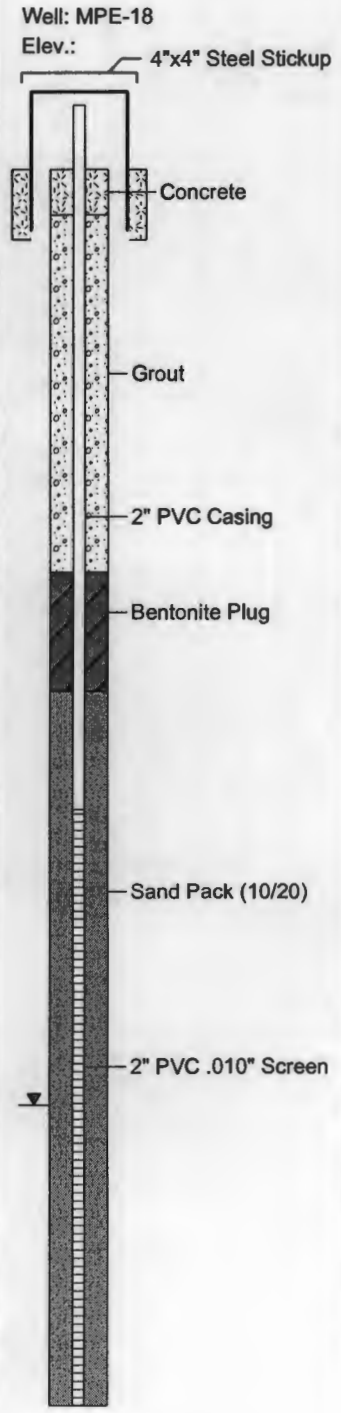
LOG OF: MPE-18

AES Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 11/10/09	Northing Coord.	: TBD
Date Completed	: 11/10/09	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		SP		Sand, Brown, Medium to Coarse Grain, Soft, Loose, and Dry.		
2						
4		SP		Clay, Silt, Dry, Medium Grain, and Stiff.		
6		SM		Sand, Brown, with Silty Sand, Loose, Dry, Soft, and Medium to Coarse Grain.		
8						
10						
12						
14						
16		SP		Sand, Grey to Black, Coarse Grain, Soft, Loose, WET, and Strong Odor.		3,900
18						
20						
22				Total Depth - 21 feet, Sand, Grey, Coarse Grain, Clay Silt, Soft, Loose, WET and Strong Odor.		



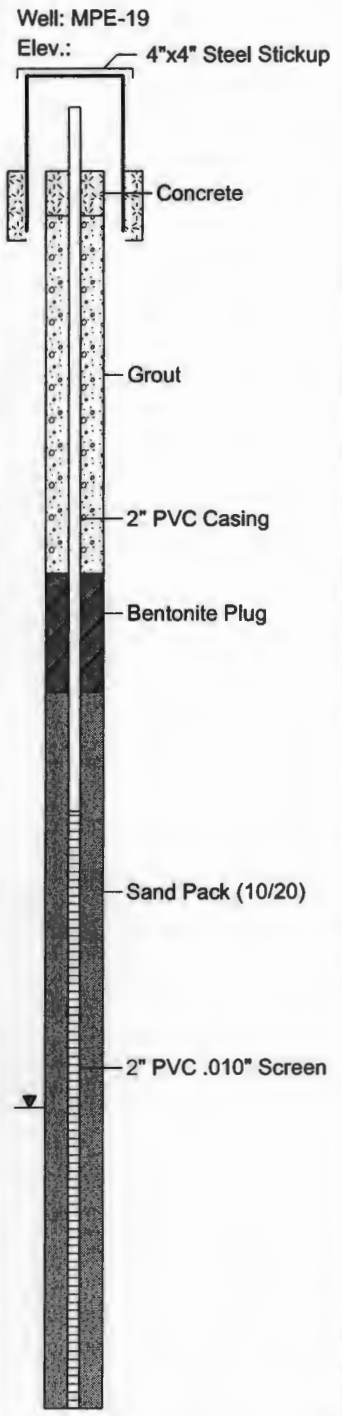
Animas Environmental Services, LLC

LOG OF: MPE-19

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 11/10/09	Northing Coord.	: TBD
Date Completed	: 11/10/09	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		SP		Sand, Brown, Medium to Coarse Grain, Soft, Loose, and Dry.		
2						
		SP		Silty Clay, Brown, Soft, Dry, and Loose.		
4		SM		Sand Silt, Brown, Medium to Coarse Grain, Soft, Loose, and Dry.		
6						
8						
10						
12						
14						
16		SM		Sand, Silt, and Clay, Grey, Coarse Grain, Soft, Loose, WET, and Strong Odor.		400
18						
20						
22				Total Depth - 21 feet, Sand, Silt, and Clay, Coarse Grain, Soft, Loose, and Strong Odor.		



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LOG OF: MPE-20

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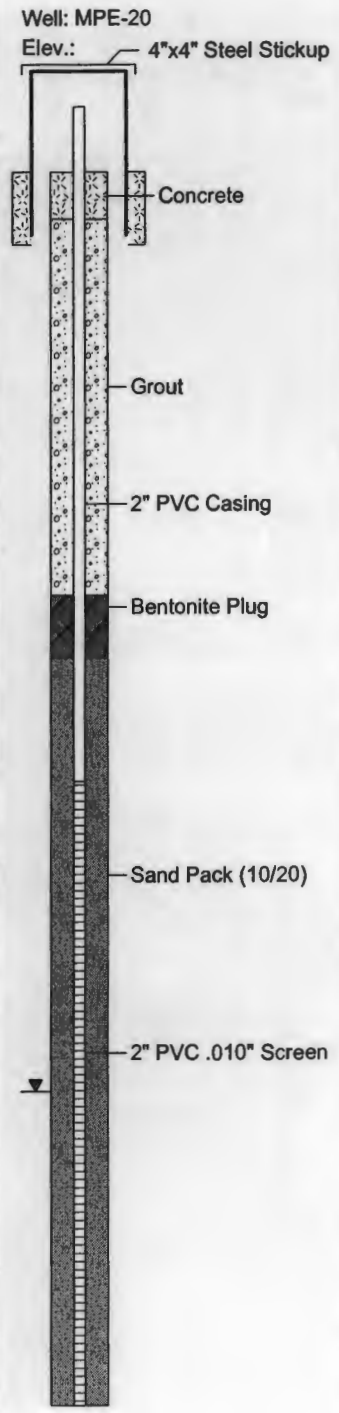
Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 12/01/09	Northing Coord.	: TBD
Date Completed	: 12/01/09	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		SM		Sand, Brown, Dry, Soft, Silty, Medium to Coarse Grain.		
12		SP		Sand, Brown, Dry, Soft, and Coarse Grain.		
14		SP		Sand, Grey, WET, Soft, and Coarse Grain.		407
20				Total Depth - 20 feet, Sand, Grey, WET, Soft, and Silty Clay.		



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LOG OF: MPE-21

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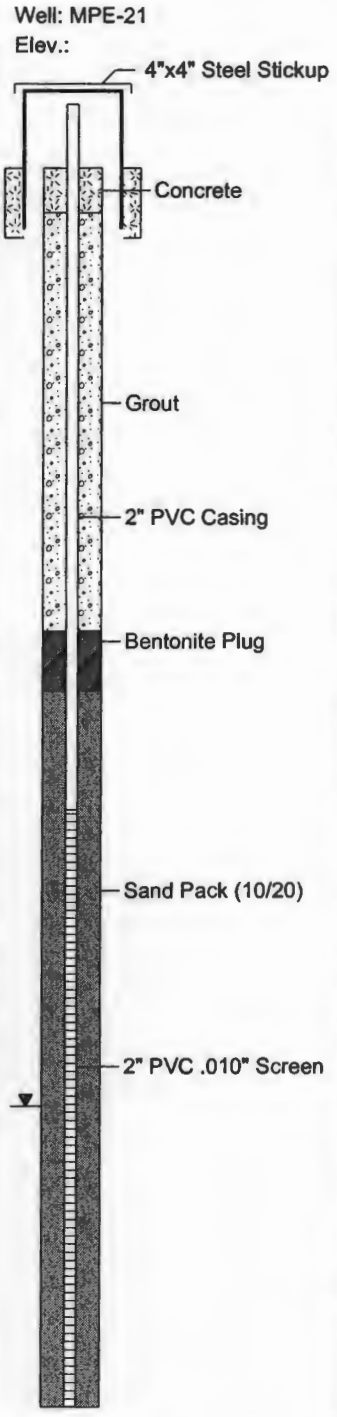
Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 12/01/09	Northing Coord.	: TBD
Date Completed	: 12/01/09	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		SP		Sand, Brown, Fine Grain, Soft, and Dry.		
2						
4		SP		Silty Clay, Brown, Soft, and Dry.		
6		SP		Sand, Brown, Medium to Coarse Grain, Soft, and Dry.		
8						
10		SC		Silty Clay, Brown, and Moist.		
12		SP		Sand, Brown, Medium to Coarse Grain, Soft, and Moist.		
14		SC		Silty Clay, Brown, Moist, and Soft.		
16		SP		Sand, Black, Strong Odor, Soft, and WET.		3,700
18						
20						
22				Total Depth - 21 feet, Sand, Black, Strong Odor, Soft, and WET.		



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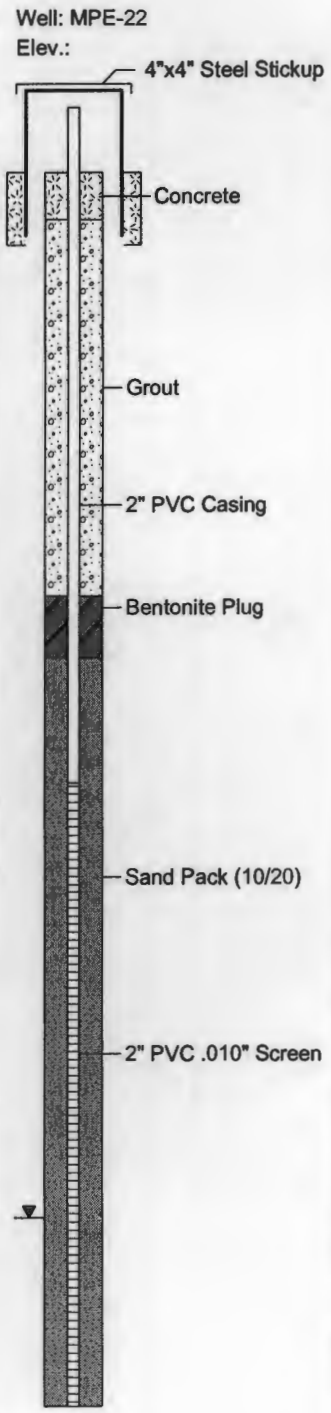
AES Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 02/02/10	Northing Coord.	: TBD
Date Completed	: 02/02/10	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		SP		Sand, Brown, Fine Grain, Soft, and Dry.		
8		SP		Silty Clay, Brown, Soft, and Dry.		
8		SP		Sand, Brown, Coarse Grain, Soft, and Dry.		
12		SP		Sand, Grey, Coarse Grain, Soft, and Moist.		
16		SP		Sand, Grey, Coarse Grain, Soft, and Very Moist.		400
18		SP		Sand, Dark Grey, Strong Odor, Coarse Grain, and WET.		
20				Total Depth - 20 Feet.		



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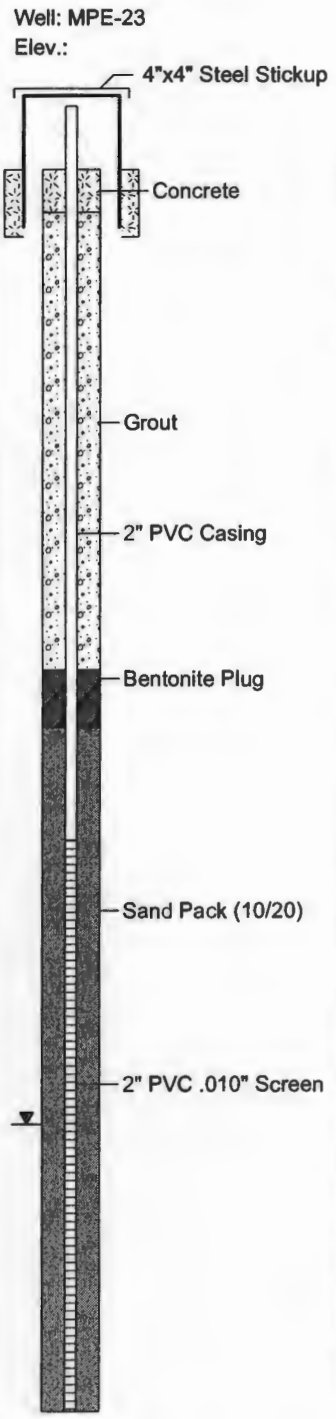
LOG OF: MPE-23

Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 02/02/10	Northing Coord.	: TBD
Date Completed	: 02/02/10	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		SP		Sand, Brown, Fine Grain, Soft, and Dry.		
4		SC		Sandy Clay, Brown, Soft, and Dry.		
6		SP		Sand, Brown, Coarse Grain, Soft, and Dry.		
8		SC		Sandy Clay, Brown, Soft, and Dry.		
10		SP		Sand, Brown, Coarse Grain, Soft, and Dry.		
16		SP		Sand, Grey, Coarse Grain, Soft, and Moist.		12
18		SP		Sand, Dark Grey, Coarse Grain, Soft, and WET.		
22				Total Depth - 22 Feet.		



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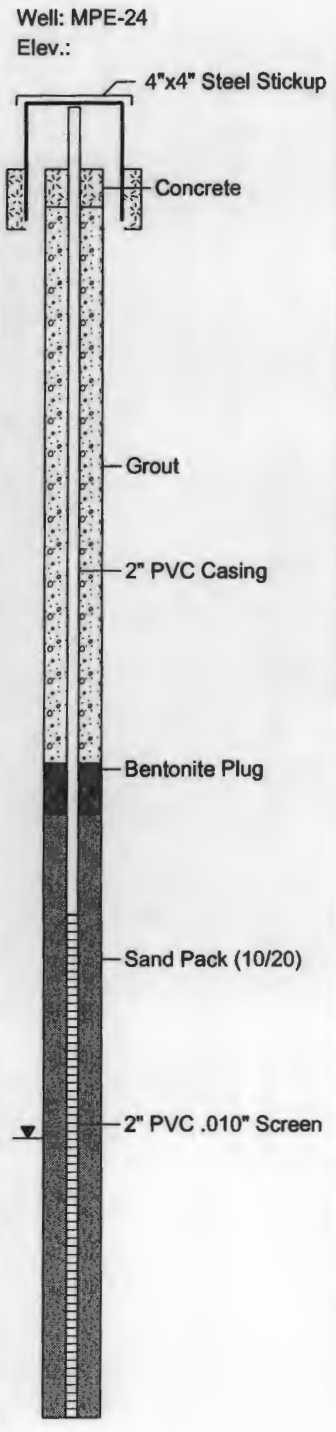
LOG OF: MPE-24

Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 02/02/10	Northing Coord.	: TBD
Date Completed	: 02/02/10	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		SP		Sand, Brown, Soft, and Dry.		
6		SC		Silty Clay, Brown, Tight, and Dry.		
8		SP		Sand, Brown, Coarse Grain, Soft, and Dry.		
20		SM		Sand Silty Clay, Dark Grey, Strong Odor, Moist, and Soft.		1,300
20		SP		Sand, Grey, and WET.		
26				Total Depth - 25 Feet.		



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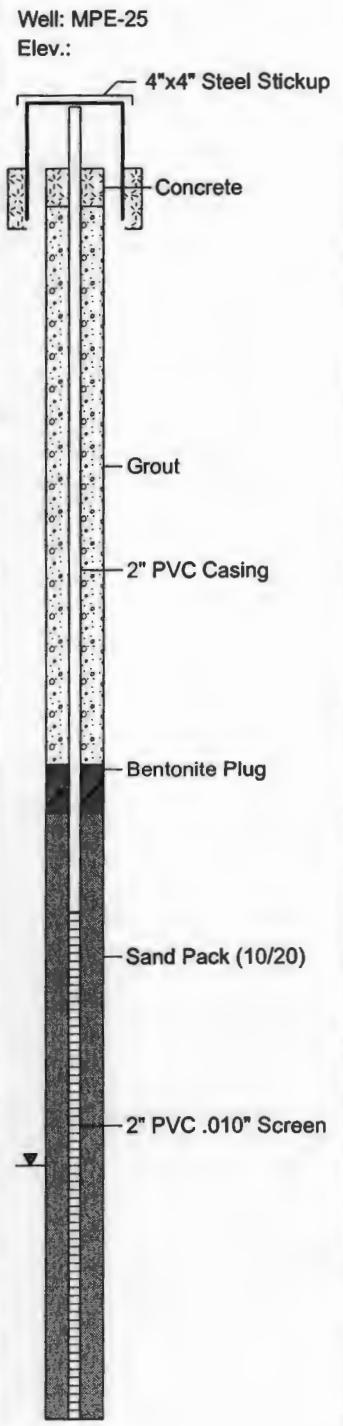
LOG OF: MPE-25

Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 02/03/10	Northing Coord.	: TBD
Date Completed	: 02/03/10	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		BR		Gravel Fill		
2		SP		Sand, Brown, Fine Grain, Soft, and Dry.		
4						
6		SC		Silty Clay, Brown, Tight, and Dry.		
8		SM		Silty Sand, Brown, Soft, and Dry.		
10						
12		SC		Silty Clay, Brown, Fairly Tight, and Dry.		
14		SP		Sand, Brown, Soft, and Dry.		
16						
18		SP		Sand, Grey, Soft, Moist, and Strong Odor.		
20		SP		Sand, Dark Grey, Coarse Grain, and WET.		30
22						
24						
26				Total Depth - 25 Feet.		



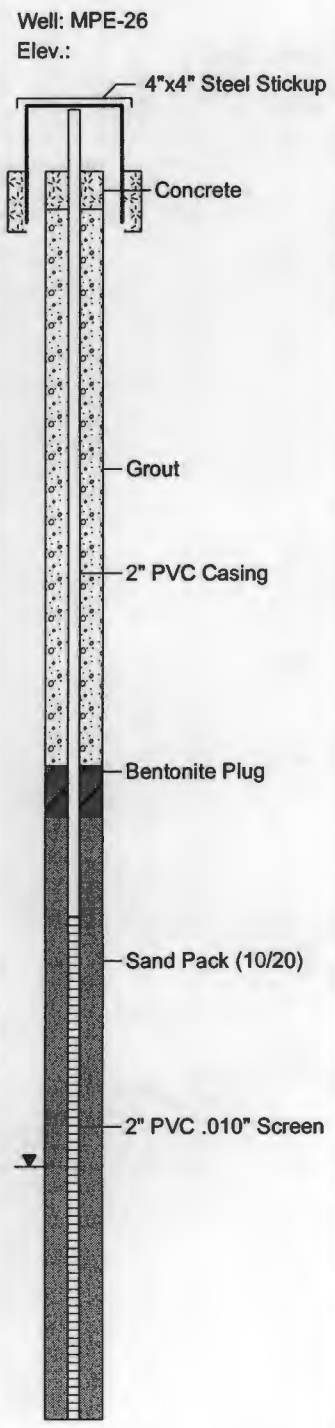
LOG OF: MPE-26

Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 02/03/10	Northing Coord.	: TBD
Date Completed	: 02/03/10	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		BR		Gravel Fill - 1" Silty Sand, Odor, Surface Spill.		
2						
4		SP		Sand, Brown, Coarse Grain, Soft, and Dry.		
6		CL		Clay, Brown, Tight, and Moist.		
8		SP		Sand, Brown, Coarse Grain, Soft, and Dry.		
10						
12						
14						
16		SP		Sand, Grey, Coarse Grain, Soft, Strong Odor, and Moist.		9,999
18						
20		SP		Sand, Grey, Coarse Grain, Soft, and WET.		
22						
24						
26				Total Depth - 25 Feet.		



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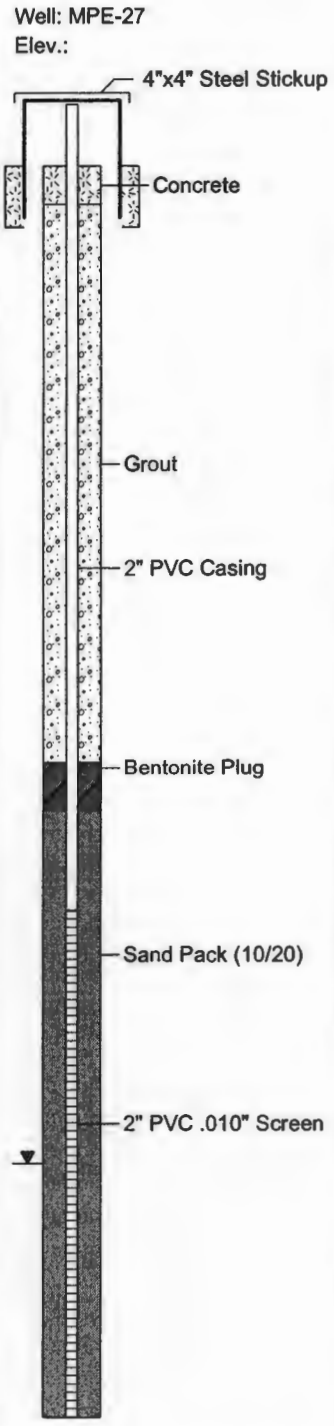
LOG OF: MPE-27

Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 02/03/10	Northing Coord.	: TBD
Date Completed	: 02/03/10	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		BR		Gravel		
2		SP		Sand, Brown, Fine Grain, Soft, and Dry.		
4						
6						
8		SM		Sand, Silty Clay, Fine Grain, Soft, and Dry.		
10						
12						
14		SP		Sand, Fine Grain, Soft, and Dry.		
16						
18		SM		Sand, Brown, Coarse Grain, Silty Clay, Moist, and Soft.		
20		SP		Sand, Brown, Coarse Grain, Soft, and WET.		<1.0
22						
24						
26				Total Depth - 25 Feet, Sand, Brown, Coarse Grain, and Soft.		



LOG OF: MPE-28

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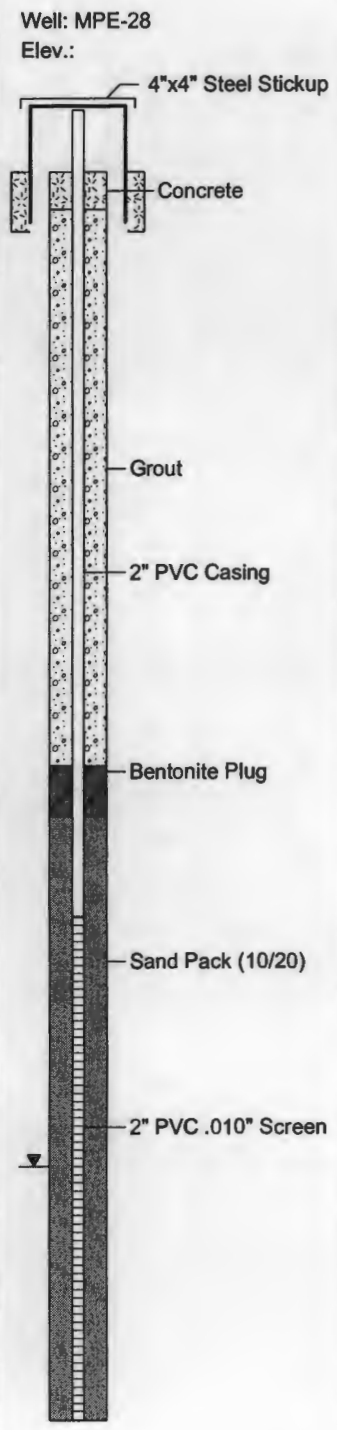
AES Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 02/04/10	Northing Coord.	: TBD
Date Completed	: 02/04/10	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		CG		2" Cobbles.		
2		SP		Sand, Brown, Coarse Grain, Soft, and Dry.		
4						
6						
8		SM		Silty Clay, Fine Silt, Fine Grain, Tight, and Dry.		
10						
12						
14		SP		Sand, Brown, Coarse Grain, Soft, and Dry.		
16						
18						
20		SP		Sand, Brown, Coarse Grain, Soft, and Moist.		
22		SP		Sand, Brown, Coarse Grain, Soft, and WET.		
24						
26				Total Depth - 25 Feet, Sand, Brown, Coarse Grain, and Soft.		



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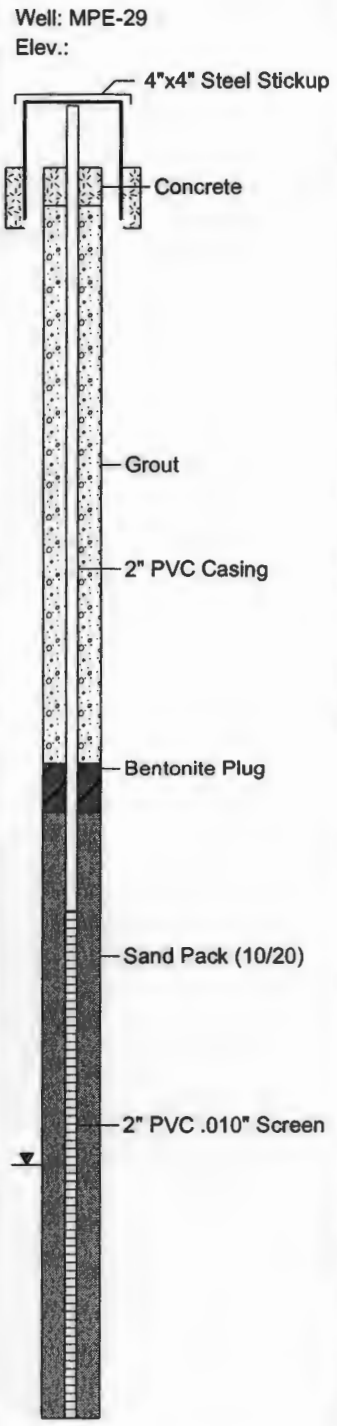
LOG OF: MPE-29

Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 02/04/10	Northing Coord.	: TBD
Date Completed	: 02/04/10	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		CG		2" x 4" Cobbles.		
2		SP		Sand, Brown, Coarse Grain, Soft, and Dry.		
4						
6						
8		SM		Silty Clay, Brown, Tight, and Dry.		
10		SP		Sand, Brown, Coarse Grain, Soft, and Dry.		
12						
14						
16						
18		SP		Sand, Brown, Coarse Grain, Soft, and Moist.		
20		SP		Sand, Brown, Coarse Grain, Soft, and WET.		
22						
24						
26				Total Depth - 25 Feet, Sand, Brown, Coarse Grain, Soft, and WET.		



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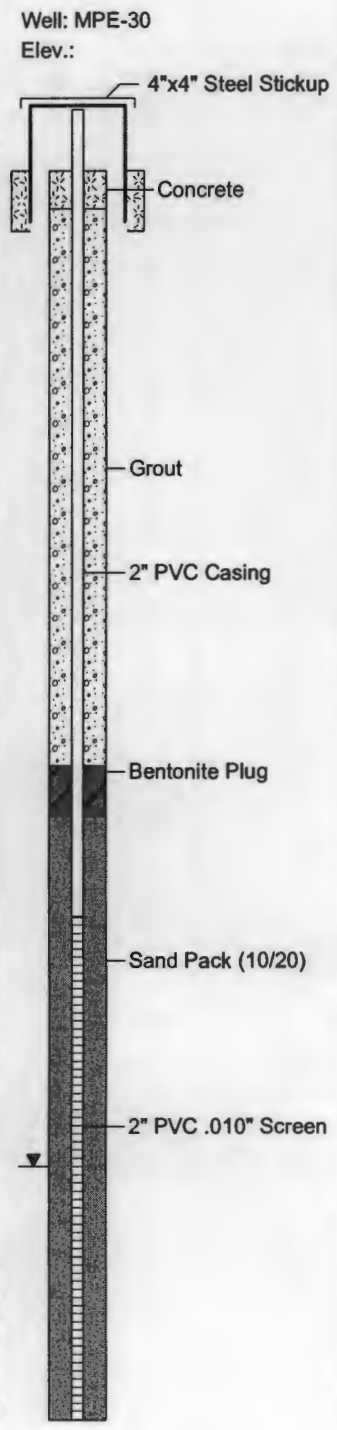
LOG OF: MPE-30

AES Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 02/04/10	Northing Coord.	: TBD
Date Completed	: 02/04/10	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		SP		Sand, Brown, Fine Grain, Soft, and Dry.		
8		SM		Silty Sand, Coarse Grain, Soft, and Dry.		
18		SM		Silty Sand, Coarse Grain, Soft, and Moist.		
20		SM		Silty Sand, Coarse Grain, Soft, and WET.		
26				Total Depth - 25 Feet, Sand, Brown, Coarse Grain, and Soft.		



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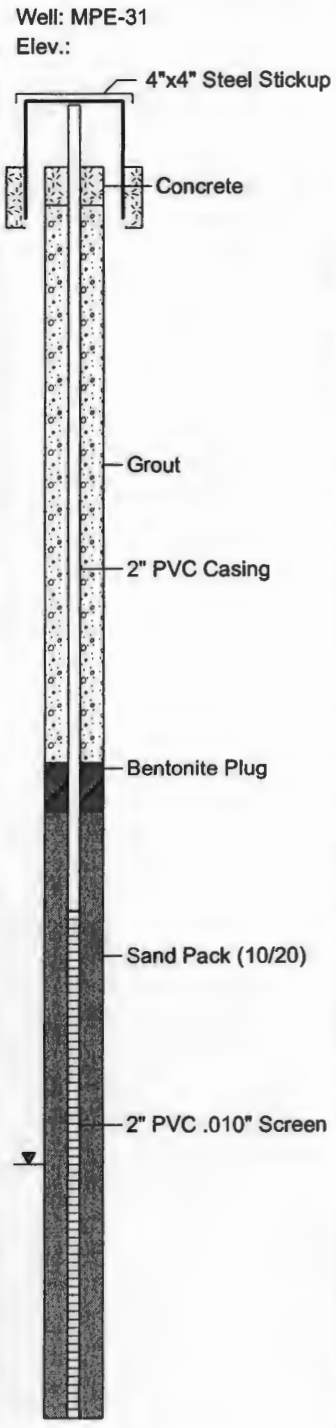
LOG OF: MPE-31

Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 02/05/10	Northing Coord.	: TBD
Date Completed	: 02/05/10	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		CG		Fill - 2" x 4" Cobble		
2		SP		Sand, Brown, Coarse Grain, Soft, and Dry.		
4						
6						
		SC		Lens of Silty Clay.		
8		SP		Sand, Brown, Coarse Grain, Soft, and Dry.		
10		SC		Lens of Silty Clay, Fairly Tight, and Dry.		
12		SP		Sand, Brown, Coarse Grain, Soft, and Dry.		
14						
		SC		Silty Clay, Brown, Soft, and Moist.		
16		SM		Sand Silty Clay, Brown, and Soft.		
18		SM		Sand Silty Clay, Brown, Soft, and Moist.		
20		SM		Sand Silty Clay, Brown, Soft, and WET.		
22						
24						
26				Total Depth - 25 Feet, No Contamination.		



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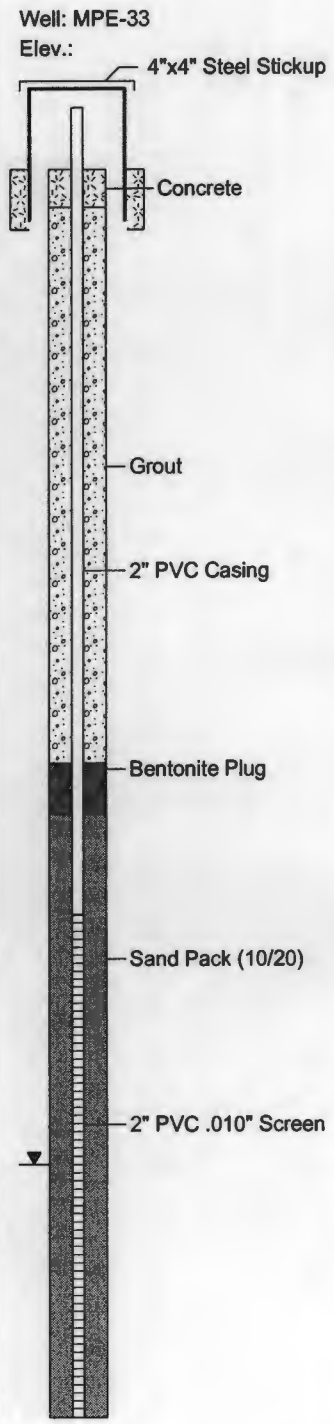
Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 02/05/10	Northing Coord.	: TBD
Date Completed	: 02/05/10	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		CG		Sand Fill with 2" Cobbles.		
2		SP		Sand, Brown, Coarse Grain, Soft, and Dry.		
4						
6						
8		SC		Silty Clay, Brown, Fine Grain, and Soft.		
10		SP		Sand, Brown, Coarse Grain, Soft, and Dry.		
12		SC		Silty Clay Lens.		
14		SP		Sand, Brown, Coarse Grain, Soft, and Dry.		
16						
18		SC		Silty Clay, Dark Grey, Strong Odor, and Moist.		336
20		SP		Sand, Dark Grey, Strong Odor, Coarse Grain, Soft, and WET.		
22						
24						
26				Total Depth - 25 Feet, Sand, Dark Grey, Strong Odor, Coarse Grain, Soft, and WET.		



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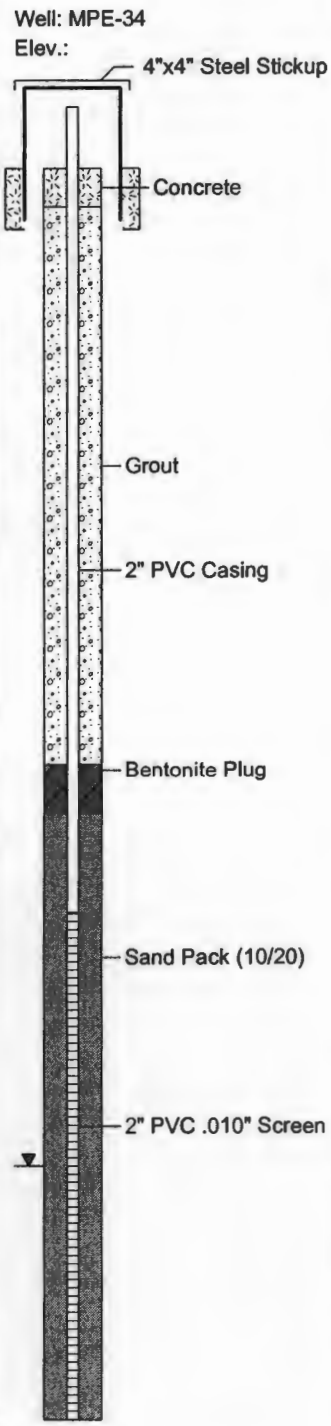
LOG OF: MPE-34

Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 02/09/10	Northing Coord.	: TBD
Date Completed	: 02/09/10	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: B. Watson/M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		SP		Fill - Sand.		
2		SP		Sand, Brown, Coarse Grain, Soft, and Dry.		
4						
6						
		SC		Silty Clay Lens, Brown, Medium Grain, and Dry.		
8		SP		Sand, Brown, Coarse Grain, Soft, and Dry.		
10						
12						
14		SC		Silty Clay Lens, Brown, Medium Grain, and Moist.		
		SP		Sand, Brown, Coarse Grain, Soft, and Moist.		
16		SC		Silty Clay, Grey, Fine Grain, and Strong Odor.		>7,000
18						
20		SP		Sand, Dark Grey, Coarse Grain, Soft, and WET.		
22						
24						
26				Total Depth - 25 Feet.		



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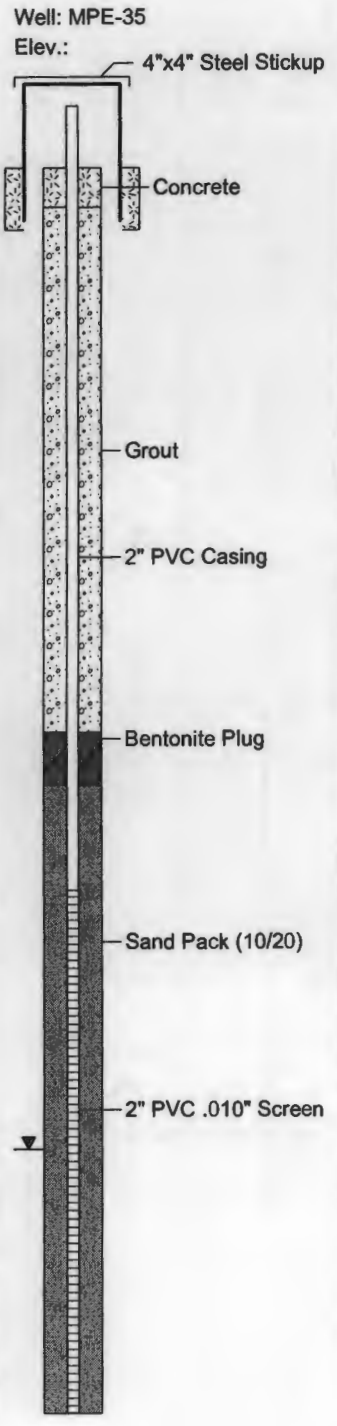
Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 02/09/10	Northing Coord.	: TBD
Date Completed	: 02/09/10	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		SP		Fill - Sand.		
2		SP		Sand, Brown, Fine Grain, Soft, and Dry.		
8		SC		Silty Clay Lens, Fine Grain, Medium Grain, and Dry.		
10		SP		Sand, Brown, Coarse Grain, Soft, and Dry.		
14		SC		Silty Clay, Dark Grey, and Strong Odor.		638
16		SP		Sand, Dark Grey, Coarse Grain, Strong Odor, and Moist.		
18		SP		Sand, Dark Grey, Coarse Grain, Strong Odor, and WET.		
24				Total Depth - 24 Feet, Sand, Dark Grey, Coarse Grain, Strong Odor, and WET.		



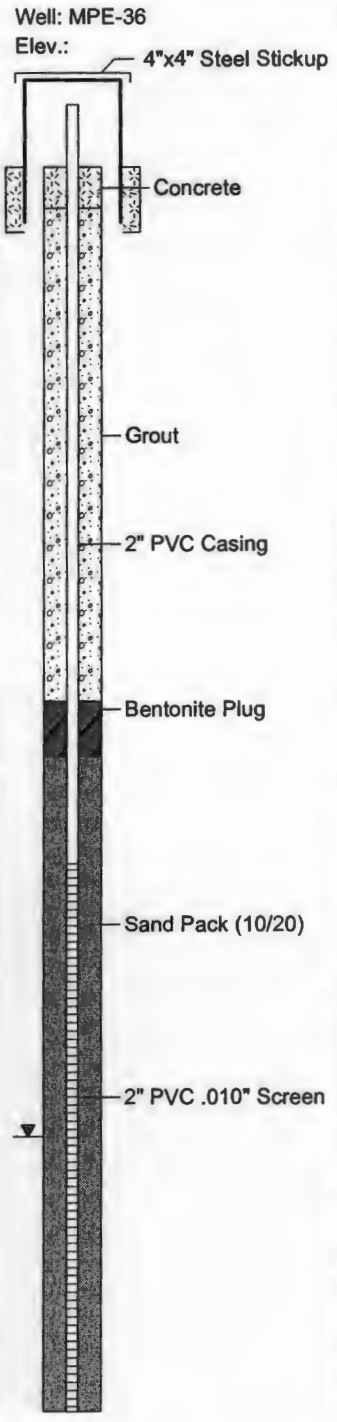
LOG OF: MPE-36

Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 02/09/10	Northing Coord.	: TBD
Date Completed	: 02/09/10	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		SP		Sand, Brown, Fine Grain, Soft, and Dry.		
2						
4						
6		SP		Sand, Brown, Coarse Grain, Soft, and Dry.		
8						
10		SC		Silty Clay, Brown, and Medium Grain.		
12		SP		Sand, Brown, Medium to Coarse Grain, Soft, and Dry.		
14		SC		Silty Clay, Brown, and Soft.		
16		SP		Silty Clay, Brown turning Grey, Soft, and some Odor.		
18						
20		SP		Sand, Dark Grey, Soft, and WET.		
22						
24				Total Depth - 23 Feet, Sand, Dark Grey, Soft, and WET.		



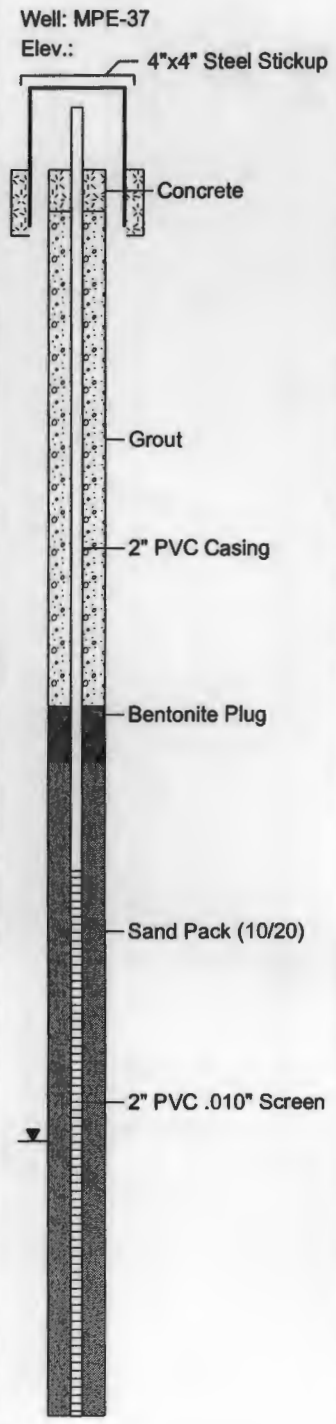
LOG OF: MPE-37

AES Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 02/10/10	Northing Coord.	: TBD
Date Completed	: 02/10/10	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		SP		Sand, Brown, Fine Grain, and Soft.		
4		SM		Silty Sand, Brown, and Fine to Medium Grain.		
6		SP		Sand, Brown, Fine Grain, and Soft.		
12		SP		Sand, Brown, Coarse Grain, and Soft.		
14		SC		Silty Clay, Grey, Mild Odor, Medium Grain, and Moist.		
16		SP		Sand, Dark Grey, Coarse Grain, Soft, Strong Odor, and Moist.		
18		SP		Sand, Dark Grey, Coarse Grain, Soft, Strong Odor, and WET.		
24				Total Depth - 23 Feet, Sand, Dark Grey, Coarse Grain, Soft, Strong Odor, and WET.		



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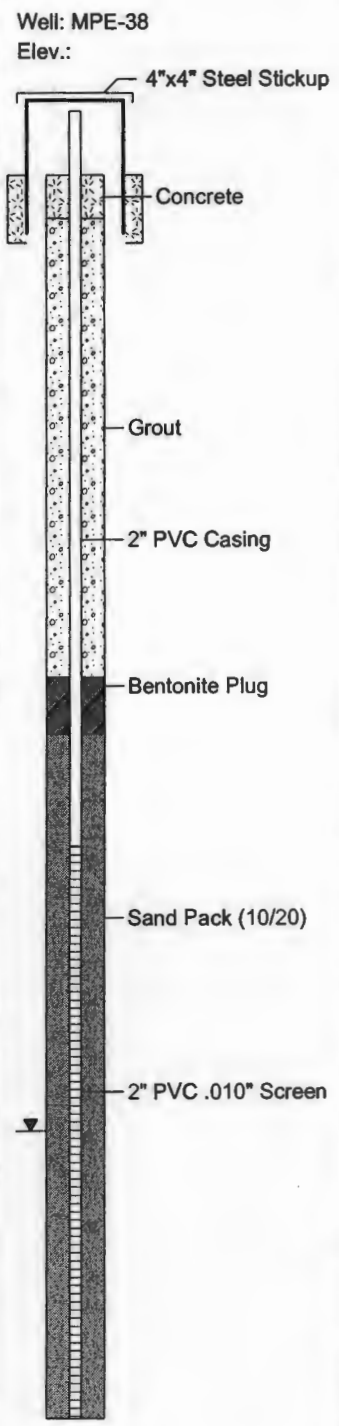
Animas Environmental Services, LLC

FORMER THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

Date Started	: 02/10/10	Northing Coord.	: TBD
Date Completed	: 02/10/10	Easting Coord.	: TBD
Hole Diameter	: 7.25 in.	Survey By	: TBD
Drilling Method	: H.S.A., Mobile B-57	Logged By	: M. Beauparlant
Sampling Method	: None		

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0		SP		Sand, Brown, Fine Grain, and Soft.		
4		SM		Silty Sand, Brown, Fine Grain, and Soft.		
8		SP		Silty Clay, Brown, and Fine to Medium Grain.		
10		SP		Sand, Brown, Fine Grain, and Soft.		
12		CL		Clay, Brown, and Medium Grain.		
14		CL		Clay, Grey, Medium Grain, and Slight Odor.		
18		SP		Sand, Dark Grey, Coarse Grain, Soft, Strong Odor, and WET.		
22				Total Depth - 23 Feet, Sand, Dark Grey, Coarse Grain, Soft, Strong Odor, and WET.		



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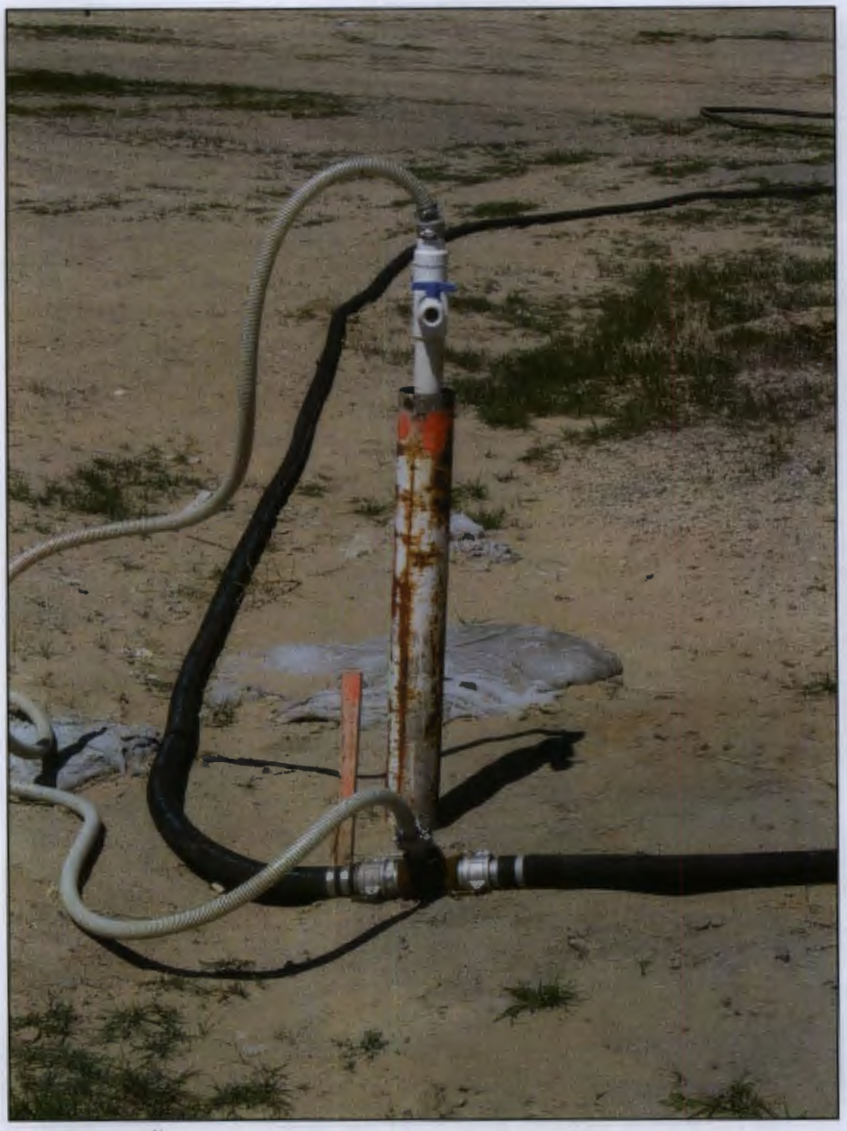
1. High vacuum extraction system located on south side of tank #18

2. RSI high vacuum extraction system

3. RSI system control panels



4. Extraction well

5. 488 hybrid poplar trees planted along north side of refinery as part of phytoremediation project

6. Hybrid poplar tree